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AIR FORCE PROCUREMENT OF AAU-19/A ALTIMETERS

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HEARINGS

BEFORE THE

ARMED SERVICES INVESTIGATING SUBCOMMITTEE

OF THE

COMMITTEE ON ARMED SERVICES

HOUSE OF REPRESENTATIVES

NINETY-THIRD CONGRESS

SECOND SESSION

UNDER AUTHORITY OF

H. Res. 185

HEARINGS HELD JULY 29, 31, AUGUST 1, 2, 5,
SEPTEMBER 12, 13, 1974

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AIR FORCE PROCUREMENT OF AAU-19/A ALTIMETERS

MONDAY, JULY 29, 1974

HOUSE OF REPRESENTATIVES,
COMMITTEE ON ARMED SERVICES,
ARMED SERVICES INVESTIGATING SUBCOMMITTEE,
Washington, D.C.

The subcommittee met, pursuant to notice, at 10 a.m. in room 2337, Rayburn House Office Building, Washington, D.C., Hon. F. Edward Hébert, chairman of the subcommittee, presiding.

Present: Messrs. Hébert, Stratton, Pike, Mollohan, Dan Daniel, Dickinson, and Hunt.

Also present: John F. Lally, acting counsel and David R. Warren, staff investigator.

The CHAIRMAN. The committee will be in order.

The Chair wishes to make an opening statement.

This morning the Investigating Subcommittee begins hearings into Air Force procurement practices and procedures. These hearings will focus on the procurement of altimeters from Aerosonic Corp. of Clearwater, Fla.

On February 15, 1966 a contract was awarded Aerosonic for manufacture of more than 10,000 AAU-19/A altimeters at a total price of $9,374,550. That altimeter, known as a servoed altimeter, was a new product in the Air Force inventory. In addition to the pneumatic mode of the standard altimeter, this instrument contained an electrical unit which received signals from an altitude computer aboard the aircraft which corrects barometric pressure readings and displays the corrected reading on the face of the instrument. The corrected altitude was also reported to ground control stations.

The altimeter was one component in a package of new instruments being procured by the Air Force for most aircraft of the three military departments, under a program called AIMS. The AIMS program is the Department of Defense portion of a Federal Aviation Administration program to improve air traffic control and to establish secure identification of military aircraft.

The AAU-19/A altimeter procurement from Aerosonic is a case history in "How not to procure." The contractor's competence and capability were questioned even before award of the contract. The instruments failed to satisfy prototype and First Article tests, yet the contractor was permitted to begin production and delivery of the altimeters, which had passed testing at the contractor's plant, failed to pass the tests. When Air Force personnel attempted to repair these instruments, they found them not economically repairable. When Government quality control personnel invoked more stringent control, the contractor ordered the Government inspectors from his plant. He

resumed work, however, when the orders for more stringent control were rescinded. A possible explanation for the deviations in the test results was found when contractor personnel were discovered tampering with test facilities and with instruments being tested. Finally, in June 1972, the Air Force terminated the Aerosonic contract. Several months later all Aerosonic AAU–19/A altimeters were condemned by the Air Force and are now awaiting salvage for usable parts.

In 1972 an investigation was conducted by the Air Force Office of Special Investigations to determine whether criminal conduct was involved in the procurement. That investigation was closed in 1973 without prosecution. In April 1974, however, when Mr. Pike, a member of this subcommittee, requested a copy of the investigative report from the Air Force, he was initially refused. Subsequently, he was offered a copy of the report on the condition that he would not make public use of it. In response to another inquiry of Mr. Pike, the subcommittee staff was informed by an Air Force representative that the F–15 aircraft did not contain an Aerosonic AAU–19, or any altimeter manufactured by Aerosonic. We subsequently learned, however, that the F–15 contains an AAU–16A standby altimeter and an AAU–3A primary cabin pressure altitude indicator, both manufactured by Aerosonic.

At the request of the contractor, I have assured him that he will be given an opportunity to present his side of this matter. Accordingly, when the subcommittee staff has completed its presentation, the contractor will have an opportunity to present his side of the matter through Aerosonic employees.

Since our investigation has disclosed many conflicts in the statements of witnesses, it is my intention to place all persons under oath before they testify.

We will now begin our proceedings by calling Maj. Gen. M. L. Boswell, U.S. Air Force.

[Witness sworn.]

TESTIMONY OF MAJ. GEN. MARION L. BOSWELL, DIRECTOR, OFFICE OF LEGISLATIVE LIAISON, U.S. AIR FORCE

The CHAIRMAN. General, you have been notified of this hearing. Do you have a prepared statement?

General BOSWELL. Mr. Chairman, I would like to make a few extemporaneous remarks following an outline I have, but I do not have a prepared statement as such.

First off, I would like to recall the remarks of one of our Assistant Secretaries a couple of years ago as he appeared before one of the committees. He said, "If it weren't for the honor, I would just as soon not be here." I say this because it is obvious that Air Force Legislative Liaison has not been able to fulfill at least part of its charter and that is to serve the Members of Congress.

However, I would say that we in L. & L. believe that we and the rest of the Air Force involved in this matter have tried to be responsive with the committee, and with the Members. Unfortunately, we have been unable to meet the requirements of at least one member of the subcommittee, Mr. Pike, in regard to the OSI raw reports.

If I could, sir, I would like to go back and review the sequence here from our records. It goes back to April 2, 1974, when I believe the committee counsel, Mr. Lally, called my office and requested basic information on the AIMS altimeter, and on April 3, 1974, counsel sent a letter to me with 13 questions pertaining to the AAU–19 procurement. We sent that request to the staff to prepare a response. Then my records show that on April 8, 1974, there was a meeting in Mr. Pike's office as a result of a discussion, I believe, between General Evans and Mr. Pike after R. & D. hearings. Perhaps Mr. Pike would verify this. I think we had the meeting on our initiative.

Subsequent to this meeting, the Air Staff took the initiative to trigger a follow-up OSI investigation based on some of the information that was revealed during this meeting.

On April 18, Mr. Warren of the subcommittee staff read the reports of the 72–73 OSI investigation and then on April 19, I believe, members of my staff brought the OSI reports over to committee counsel, Mr. Lally.

On the 25th of April, at the committee counsel's request, the OSI raw reports were carried to Mr. Pike's office. They were carried by my Lt. Col. Ron Miller who is in our plans shop, along with Colonel Frye, whom all of you know. At that time Mr. Pike indicated that he would like to have the records. He asked Colonel Frye and Colonel Miller, I believe, if they were prepared to leave them. The colonels were not in a position at that time to make such a judgment because of what they understood to be a general policy against release of OSI files without higher level approval. On that same day, April 25, Mr. Pike did send a letter to the Secretary of the Air Force saying that he wanted the reports.

On May 8, I sent a letter to Mr. Pike and transmitted the reports, but I cautioned that they could not be made public. Mr. Pike elected not to keep them and I think he returned them to the office downstairs to Colonel Frye.

During that meeting, it is my recollection that we also provided Mr. Pike a copy of the response to the 3rd of April letter, which Mr. Lally had sent us. The response transmitted a fact sheet which the Air Staff had prepared. I think on that same day, May 8, Mr. Pike again came to the Air Force asking for the OSI reports without any condition attached.

I responded to Mr. Pike's May 8 letter, and with his permission I would like to state some of the facts of that letter. I said, "This is in response to your letter of May 8, 1974, requesting unrestricted use of Air Force investigative reports. As previously indicated, the Air Force is desirous of extending to you the full benefits of our own investigative efforts. It was on this basis that the OSI files have been offered to you in their entirety. However, such files contain allegations, opinions, and other raw data which have not been evaluated and which, under longstanding rules, are made available only for authorized official purposes. Removal of this restriction would, in our judgment, be highly inappropriate, particularly in view of the claim now pending before the Armed Services Board of Contract Appeals. Files such as these are expressly exempted in the Freedom of Information Act, have been protected from pretrial discovery under the Jencks Act (18 United States Code, 3500), and could conceivably prejudice the

institution of criminal proceedings if publicized in their present unevaluated form." I added, "We would be pleased to work with you in developing summaries suitable for open distribution but, for the reasons stated above, are obliged to maintain the conditions of confidence attached to the underlying raw files."

Mr. Chairman, before going any further I would like to comment, sir, about our method of operation in Legislative Liaison. I think that you and the other Members know that we are a focal point for congressional inquiries. It is a good thing in our estimation. It works both ways. We serve Members of Congress and also are able to serve the Secretary and Air Staff. By having this single focal point it provides assurance that the response that comes to a Member of the Congress is, in fact, a coordinated, aproved Air Force position. This could prevent embarrassment at a later time. If we had some individual in the Air Staff speaking from his own shop, he in fact could be stating something other than that which might be the Air Staff's position. It also gives the Members of Congress a single point of contact so they don't have to go about the Air Staff searching for a response to a requirement. As far as the Air Staff is concerned, it is helpful because it provides a channel for the staff to the Members of Congress. I would like to say that we handle about 43,000 constituent inquiries a year. We have about another 2,000 contract award announcements, base realignment announcements, et cetera. We handle a couple of thousand items of legislation within a Congress and, of course, we are working with the committee staff continually. In looking back over my 4 years in L. & L., I estimate that we have processed about 170,000 written communications with the Members of Congress.

Each one to my knowledge has been fully coordinated within Air Staff and the secretariat as appropriate. I might add, in addtion to those written communications, we estimate about three telephone contacts for each one of the written responses. I personally have been involved in a major portion of these cases. I have signed many of the letters to Members of Congress, as has the Secretary, the Chief and other senior officers within the Air Staff, and I certainly was personally involved in processing the communications on the Aerosonic contract here.

Now, with regard to releasing the OSI reports, the issue seems to be one of public releasability of the OSI reports. Sir, the Air Force position has not changed throughout. I believe it has been consistent. I am prepared to offer the names of those within the Air Staff and the secretariat who have established the position of the Air Force. First off, in the office of the General Counsel of the Air Force, Mr. David R. Johnson, who is here in the room today; the Assistant General Counsel for procurement, Mr. Stuart R. Reichart; the Deputy General Counsel, Mr. Bert Goodwin; and the General Counsel, Mr. Jack Stempler. In the office of the Inspector General those with cognizance of this case are the Director of the Fraud Investigations, Procurement Investigation Division, Mr. William R. Richards, and of course, Brig. Gen. William O. Temple, Director of OSI, was responsible for the entire matter. In the office of the Inspector General, Assistant Executive Lt. Col. Thomas L. Simmons and the Inspector General personally reviewed the report prior to the time it was transmitted by me to the Congress. The I.G., of course, is Lt. Gen. Gerald

W. Johnson. The Assistant in Logistics, our contract expert, office of Director of Procurement Policy, Contract Management Division, the Chief Contract Specialist, Mr. M. D. Stearn, who is here in the audience today as well.

I have another thing that I would like to offer to the committee, Mr. Chairman. I provided Mr. Pike a copy of it earlier, prior to the meeting. He had not had the opportunity to read it before he came into the room. It is a summary of legal points which I asked the general counsel's office to compile last week in preparation for coming before the committee. The committee may want to take a look at this summary. I have copies available if the Members would like to look at it. It is not a last minute effort to cover our previous position. It sets forth the reasoning behind the legal opinions that have been expressed to L. & L. during the preparation of correspondence to the committee, and to the Members during April and May. The paper in essence sums up the general counsel's position. If there are any further questions on this particular summary, we would be glad to go back to the general counsel and have further deliberation.

In summary, I would say that the L. & L. position in the matter of public releasability of raw OSI reports is in fact the Air Force's position. We believe it has been consistent with the DOD directive. I regret if there appears to have been any unpleasantness with the Member's office. This certainly is not our desire. As you know we in L. & L. never like to be in a position of opposition to a Member of the House Armed Services Committee. In regard to the information on the F–15 instruments, I will take the rap for a very bad feed. It is unfortunate. It is regrettable. We tried to correct the error with the committee staff after we were aware that the information that had been provided Mr. Pike was in fact in error.

I would just say that fortunately during my tenure of 4 years as Deputy and then Director of L. & L. we have had very few bad feeds like this. For this I am regretful. I would offer this summary of legal points for your consideration, sir, if you would like to have it.

Mr. PIKE. General Boswell, what I think we are all after in this room is to get at the accurate facts in this procurement.

I have no quarrel whatsoever with your summary of legal points, as submitted here, and I would recommend that it be placed in the record at this point.

The CHAIRMAN. Without objection, it will be placed in the record at this point.

SUMMARY OF LEGAL POINTS

Subject: Representative Pike's Request for Public Release of OSI Reports of Investigation concerning AAU–19 Altimeter Contract

THE QUESTION

This case presents a rather limited question of public releasability. The Air Force's dealings with Representative Pike do not represent a case of the withholding of information or documents from a Committee of the Congress. The case does not raise a question of "executive privilege". Nor does it raise a question of Representative Pike's rights under the "speech and debate" clause of the Constitution, or at least a question on which we would desire to take a position. The question is one of public releasability of the OSI reports. It arises in the context of Representative Pike's refusal to accept the OSI reports unless the Air Force was willing to acquiesce in the public release of all or part of the reports by Mr. Pike.

AUTHORITY FOR PUBLIC WITHHOLDING

When Congress passed the Freedom of Information Act in 1967, it specifically exempted from mandatory public release "investigatory files compiled for law enforcement purposes."[1] All three OSI reports on the AAU–19 investigation clearly fall within this exemption. Thus, under the Freedom of Information Act, the Air Force has statutory authority to withhold these reports from members of the public, including the subjects of the investigation. It does not make any difference whether the investigation is active, pending or closed.[2] If the reports are "investigatory" and if they were compiled for "law enforcement purposes," they may be withheld from public release.[3]

The Freedom of Information Act does provide that none of the Act's exemptions can be used to justify withholding information from Congress.[4] But, as noted above, that is *not* the issue in this case. The Reports have been made available to Mr. Pike and the Subcommittee staff; the only question is whether the Air Force would furnish them to Mr. Pike without a condition that their "For Official Use Only" status be honored.[5] This case demonstrates that the Air Force realizes that materials which may be withheld from the public under the Freedom of Information Act may not be withheld from a Committee of the Congress, unless a formal claim of executive privilege is asserted (which we are not doing).[6] Our position accommodates the Congress' broad need for information to accomplish its legislative and investigative duties, with our legitimate interests in not publicly releasing investigative reports.

It is important to recognize the *regularity* of the position the Air Force took on Representative Pike's request. The Air Force position had nothing to do with personalities or the opinions of particular individuals. Instead we not only followed what are customary procedures between Congressional Committees and Executive Branch agencies, but also we followed written provisions of our own regulations. (See the portions of AFR 11–7, attached hereto, that are marked.) If anything, the Air Force was *more* forthcoming to the Congress than is usually the case with respect to law enforcement reports, especially FBI reports.

REASONS FOR EXERCISING OUR AUTHORITY TO WITHHOLD THE REPORTS FROM PUBLIC RELEASE

(1) The proper forum for trying a legal dispute, whether civil or criminal, is before a court or an administrative body such as the Armed Services Board of Contract Appeals (ASBCA)—not through the public release of law enforcement investigative reports. (Such conduct by an attorney for the Government would make him subject to disciplinary action under the American Bar Association's Code of Professional Responsibility.) This is *not* to say that Congress should not investigate a matter merely because a civil case or a criminal investigation on the same matter is pending. It is to say that the Executive Branch must exercise some care in what it publicly releases about details of its law enforcement investigations.

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[1] 5 U.S.C. 552(b)(7).

[2] For a short time during 1973, the Federal Court of Appeals for the District of Columbia took the position that a law enforcement report must be publicly released upon a Freedom of Information Act request after the investigation is closed. However, that decision of a three-judge panel of the Court was rejected by the full Court on rehearing. That position has also been specifically rejected by the Second Circuit Court of Appeals in New York City. *Weisberg* v. *Department of Justice,* 489 F. 2d 1195 (D.C. Cir. 1973) (*en banc,* 9–1 opinion), *rev'g* No. 71–1026 (D.C. Cir. Feb. 28, 1973) (3-judge panel, 2–1 opinion); *Frankel* v. *SEC,* 460 F. 2d 813 (2d Cir.), *cert. denied,* 409 U.S. 889 (1972).

[3] *Aspin* v. *Department of Defense,* 491 F. 2d 24 (D.C. Cir. 1973); *Weisberg* v. *Department of Justice,* note 2 above.

[4] 5 U.S.C. 552(c).

[5] Such a condition is exactly the procedure envisioned by H.R. 12462, a bill reported out of the House Government Operations Committee on April 11 of this year, to strengthen Congress' right to obtain information from Executive Branch agencies. The bill provides, "Any information which is made available under [the bill], but which may be withheld from the public under [exemptions in the Freedom of Information Act], may be provided on a confidential basis, subject to the rules of the body which is receiving the information." The Report accompanying the bill stated that this procedure establishes Congressional access to information "in a way which balances the needs of the executive in carrying out its responsibilities with the needs of the Congress in exercising its legislative and investigative functions." The Report further stated, "because the Congress must legislate for all the people of this country, it must have access to more information than any one of them. The material may be made available on a confidential basis however, and the executive may decide whether confidentiality will be a prerequisite for divulging the material." H.R. Rep. No. 93–990 at 2 and 7.

[6] Under President Nixon's memorandum of March 24, 1969, a claim of executive privilege before the Congress requires prior specific Presidential approval.

(2) If the reopened investigation had disclosed evidence of criminal conduct, pre-trial public release of the details of the Government's investigation could have complicated or even prejudiced the Government's prosecution of the case. Neither of these results would have served the purpose of investigating and developing a legal case: to act upon it in the proper forum. But most importantly, if the Government could not develop such a case, it would be fundamentally unfair to release charges that did not prove to be solid enough to stand up in (or even take to) court. Law enforcement reports often do contain hearsay and allegations that either cannot be substantiated or are affirmatively disproved.

DAVID R. JOHNSON,
Office of the General Counsel.

Mr. PIKE. But the question as you have answered it legally has to do solely with the request for public release of OSI reports by Representative Pike.

Now, you gave us a chronological summary of what has happened with the Air Force in that regard. Did the first request for information come from Representative Pike or did it come from the Counsel of the Investigating Subcommittee of the Armed Services Committee?

General BOSWELL. It goes back to the second of April when Mr. Lally made the first contact with the Office of the Director of L. & L.

Mr. PIKE. So the first request was an oral request from the Counsel of the Investigating Subcommittee?

General BOSWELL. That is true, sir.

Mr. PIKE. What was the second request for information?

General BOSWELL. An April 3, letter, to my knowledge, transmitted by——

Mr. PIKE. Was that from Representative Pike?

General BOSWELL. Absolutely not. That was from Committee counsel addressed to me as Director of L. & L.

Mr. PIKE. So here the first thing you knew was that the Investigating Subcommittee of the Armed Services Committee was trying to get information on this altimeter procurement. It wasn't Congressman Pike?

General BOSWELL. That is true, sir.

Mr. PIKE. Now, the letter to me to which you referred, dated May 29, and which you read almost in its entirety says this:

However, such files contained allegations, opinions, and other raw data which have not been evaluated and which under long-standing rules are made available only for authorized official purposes.

Do you consider this investigation an authorized official purpose?

General BOSWELL. I certainly do and I think that was intended by the terminology, official purposes, on the OSI reports. Certainly it does not mean that they would be denied to the subcommittee. As I understand it, the terminology of counsel simply says that they will not be released to the public.

Mr. PIKE. Are you telling us that these OSI investigations, which the Air Force has made once, then closed, and then made again in 1974, can be made available to this subcommittee, but this subcommittee may not talk about them?

General BOSWELL. Sir, with your permission, the last sentence of the paper before you states that it does not make any difference whether the investigation is active, pending or closed with regard to public releasability of information.

Mr. PIKE. In that case, let's talk about that case. What page are you talking about?

General BOSWELL. The summary, at the bottom of the first——

Mr. PIKE. Which page?

General BOSWELL. It reads, "Under the Freedom of Information Act, the Air Force has statutory authority to withhold these reports from members of the public. * * *"

Mr. PIKE. Do you consider this subcommittee to be a member of the public and to be in the same status as a member of the public?

General BOSWELL. Certainly not, sir.

Mr. PIKE. To get back to my question, are you telling this subcommittee that we may not now make public the contents of these OSI reports?

General BOSWELL. Of course you know I am not a lawyer, but as I interpret the General Counsel's position, the raw OSI reports that were offered to you would be offered to the committee with the caveat, on the part of the General Counsel, that they should not be made public. If the chairman decides that it is in the best interest of the public to make them public, I am sure the General Counsel of the Air Force is going to agree the chairman is doing what he thinks is needed. I think the same thing applied with you, Mr. Pike. That is the reason we gave you the responses with that caveat.

Mr. PIKE. Wait a minute now. You gave me the responses telling me, not asking me to use my judgment, but telling me that I could not make their contents public. Is that correct?

General BOSWELL. That is true.

Mr. PIKE. So you didn't give me any judgment in the matter. Is that correct?

General BOSWELL. I think that the strength of the letter would be as such.

Mr. PIKE. So what essentially you have required this Subcommittee to do, rather than use your OSI reports, is run a duplicate investigation. You made available to me the OSI reports. You made available to Mr. Warren the OSI reports, but we couldn't say anything about what was in them.

General BOSWELL. In public.

Mr. PIKE. In public.

Now, what did you provide me with that I could use publicly?

General BOSWELL. Well, I think that we provided the Committee counsel and you a full summary, is that not correct? I will ask Mr. Lally. This was a summary of the OSI 1973–74 investigation of the procurement of model AAU–19/A aircraft altimeter, Air Force contract such and such.

Mr. PIKE. And that was transmitted with a letter of June 27, was it not?

General BOSWELL. That is true, on the 27th of June.

Mr. PIKE. And the letter referred to this document as "The attached comprehensive summary," and it also said that it "reflects the results of our investigation which is now complete."

General BOSWELL. I would like to make a statement there.

Mr. PIKE. Of course, you may make a statement.

General BOSWELL. I am not so sure that that is exactly accurate. As Mr. Richards from OSI told me yesterday, sir.

Mr. PIKE. Are you saying that I didn't read the letter accurately or are you saying that is not what you said?

General BOSWELL. No, I am not saying that. I am just telling you what the individual from the OSI told me yesterday, sir. It was my understanding that in the followup OSI investigation, that they did make two more contacts on the 25th of June and this was part of that time. In other words, there was one OSI investigation in 72–73, right?

Mr. PIKE. Yes.

General BOSWELL. The investigation was closed, and no attempt at prosecution was made. Other people who will appear before you can speak to that better than I. Then after the meeting in your office, I think, was it May 8—thereabouts, I think there was some information that came out about external influence in this matter, and then an Air Staff representative immediately triggered the followup OSI report. In other words, to take a look at whether external influence or malpractice was involved, another OSI investigation was started.

Mr. PIKE. But this is the final document; is that correct, which you forwarded to us, with your letter of June? No, this letter came from Colonel Howes?

General BOSWELL. Yes. Mr. Pike, I think at that time we thought it was final based on the information Mr. Richards and OSI gave you. Obviously they made contact on June 25.

Mr. PIKE. But this letter is dated June 27. You mean, on June 27, we were forwarded information which alleges that this is a comprehensive summary, even after you knew in the Air Force that you had additional information?

General BOSWELL. No. I got the information about June 25, yesterday. I would have to go back to the OSI to find out if that constitutes a complete analysis of the investigation, or whether in fact, there is additional information.

Mr. PIKE. That is in fact all that you gave us, is it not?

General BOSWELL. I think that is all that was transmitted from the Office of Legislative Liaison, that is true, outside of the raw OSI reports, which were offered and then returned.

Mr. PIKE. Now, one of the critical issues in this procurement is how Aerosonic got the contract in the first place. Would you agree?

General BOSWELL. I think from my knowledge of procurement practice and the procedure used in this procurement, I would agree. General Stewart may want to comment on that more. As you know, I am not familiar with the details of this matter.

Mr. PIKE. If in the course of evaluating proposals the evaluators had at one point in time found the Aerosonic proposal unsatisfactory, would you not deem that to be a very relevant finding?

General BOSWELL. Well, I would have a personal opinion but I really think that such a question might be referred to those who actually are responsible for exercising the procurement for the Air Force.

Mr. PIKE. In the event that the evaluators for the Air Force themselves concluded that Aerosonic's submission was not qualified, that they were not qualified to build that altimeter, don't you think it is relevant that Congress be told about that?

General BOSWELL. I certainly think it is appropriate whenever the Air Force has been involved in a procurement that perhaps was not satisfactory or was especially unique in some other way to advise Congress. I don't believe that there would be any attempt by anybody

in the Air Force to withhold such information from the Members of Congress.

Mr. PIKE. I only wish that were my opinion.

Is it not a fact that the OSI investigations did say that Aerosonic's submission originally was found unsatisfactory, that they were not qualified to build this altimeter?

General BOSWELL. My recall is not that good.

Mr. PIKE. Does the summary which you call the comprehensive summary, or which the Air Force calls—I apologize, you did not sign that letter—the summary which the Air Force calls a comprehensive summary say in it anywhere that at any point in time the Aerosonic Corp. was deemed to be unqualified to build this altimeter?

General BOSWELL. I can't respond to that without going back through the analysis, Mr. Pike.

The CHAIRMAN. May I interrupt to clear this up?

Mr. PIKE. Yes.

The CHAIRMAN. Your line of questioning I understand very well, but I think it should be brought out clearly that you are testifying, General, as to what somebody told you. You didn't prepare that letter you signed?

General BOSWELL. Well, sir——

Mr. STRATTON. He didn't even sign it.

The CHAIRMAN. In other words, Otis, that is what you are trying to find out?

Mr. PIKE. Well, he signed the letter of May 29, but he did not sign the letter of June 27.

The CHAIRMAN. Did you write the letter that you signed?

General BOSWELL. Mr. Chairman, as you know, the replies which I provide to the committee are those which are the result of final coordination.

The CHAIRMAN. I know that.

General BOSWELL. No, sir, I did not write the letter personally.

The CHAIRMAN. You did not write the letter. Who wrote the letter?

General BOSWELL. It was the combined effort of many people, basically within my office, Lt. Col. Ron Miller, who is my action officer, plus people in DCS, Systems and Logistics, Mr. Stearn.

The CHAIRMAN. You mean to tell me a group of people got around and dashed out one letter?

General BOSWELL. As you know in a bureaucracy, you start a letter and it has 10 cuts before final form.

The CHAIRMAN. I think that is what Mr. Pike and all members of the committee are worried about, that kind of reaction.

Mr. PIKE. Mr. Chairman, I am indeed worried about that, but what I am more worried about is the fact that the briefing which we got from our own counsel last week, and which reviewed Mr. Warren's efforts essentially in getting out this information, said this:

> In October 1964, the AIMS System Project Office issued a letter request for technical proposals to 42 prospective contractors to submit equipment designs for a servoed altimeter. Those designs were to satisfy Government developed performance specifications. Four manufacturers submitted technical proposals in response to that request, Bendix, Astek, Kollsman, and Aerosonic. After evaluation, all proposals were found acceptable, except for that of Aerosonic.

The comprehensive summary which the Air Force gave us on this investigation does not tell us that at that point in time the Aerosonic submission was found unacceptable.

Next point: Have you read this summary that the Air Force gave us, General Boswell?

General BOSWELL. Yes, sir.

Mr. PIKE. Have you also read the OSI files?

General BOSWELL. I have, but I am not prepared to cite and recall what is in that summary and what is in those OSI files before this committee right now, because, as I say, I have 2,000 constituent written inquiries under process at times. That is not to say this is not important, don't misunderstand me, but I am not prepared to cite and recall the substance of the matter. I think I would be wasting the committee's time to offer personal opinion when the experts are going to follow me up, if I may offer that statement.

Mr. PIKE. My point, and I will say this after the next example, is that it seems to me that it ought to be the function of Air Force liaison to give to Congress accurate information in a manner in which we can use it. Now, you give us good information but tell us we can't use it, and then the information you tell us we can use, we find is not good information.

The next thing that happened after Aerosonic's proposal was found not suitable was that the Air Force changed the specifications and allowed Aerosonic to rebid, and at this rebidding, Aerosonic's bid was found to be "marginally acceptable."

But there was also a very strong recommendation because of the marginal acceptability of Aerosonic's proposal, that if the contract went to Aerosonic, a duplicate contract should be awarded, a double procurement for backup and safety purposes in the event that Aerosonic fell on its face as some of the evaluators believed that it would.

Don't you think that that recommendation is a major item of consideration in this procurement?

General BOSWELL. You know, I am not in a position to really offer a personal opinion in this regard because I am not involved in the substance of the procurement. I would think that such a question might be appropriately presented——

Mr. PIKE. But we are talking about the materiality of evidence. We are talking about what is important in evidence.

General BOSWELL. Not to be facetious, but if the subcommittee would think such aspects were important, I would agree.

Mr. PIKE. That is all, Mr. Chairman.

Mr. DICKINSON. Mr. Chairman, thank you. I was unaware of the summary, or I don't have a copy of the summary to which Mr. Pike alluded in his general questions but I am surprised, General, that in getting ready to come before the committee and give your testimony, that you wouldn't review the summary well enough to be able to tell us part of what is in it. I couldn't imagine going before a committee to be able to respond to questions without at least reviewing it and answering some fairly simple questions. I haven't read it. I don't know all that is in here.

One thing that I did not get clear in your chronological statement of events was concerning your meeting in Mr. Pike's office. You said it was sometime in April, I think—do you have a more definite date than that? I have the 2d of April was the first contact with Mr. Lally and on the 3d there was a letter, then a meeting with Mr. Pike and then on the 18th of April, OSI information.

General Boswell. That is right. I was not at that meeting. There were other representatives of the Air Staff. That was on the 8th of April. I think Colonel Frye and our Lt. Col. Ron Miller were there.

Mr. Dickinson. That is all I have at this time.

Mr. Stratton. Mr. Dickinson, thank you.

General Boswell, I haven't had a chance to follow this as closely as perhaps I might have to date, but the basic outline sounds very similar to other cases that we have run into where we tried to get information with regard to defense department procurements.

First of all, let me ask you this: Are the two statements that Mr. Pike made acceptable to you? Is this recognized as a generally acknowledged fact, (a) that the Aerosonic proposal was once found not qualified and (b) that on a second occasion, that they were found marginally qualified and that there was a recommendation made that if the contract should be awarded to them that there ought to be a covering contract in case they couldn't perform?

General Boswell. Well, Mr. Stratton, I respectfully defer those questions to General Stewart, the Commander of ASD, who will follow here as a witness.

Mr. Stratton. You don't know whether this is true or not?

General Boswell. It is my understanding that I am before the committee to testify in regard to the transmittal of OSI reports to the subcommitte, and also to individual Members. As to the substance of the contract, that should be, in my estimation, sir, reserved for General Stewart and those who will follow him. I would not like to get into the substance of the procurement.

Mr. Stratton. General Boswell, as I say I am not familiar with the details of this particular item but I have been through a lot of others and I must say that I understand your position as liaison officer. I know all the requests that you get, all the letters you have to sign. But if the liaison office is going to be used as the official channel of transmitting information to Congress on important questions and if, by the nature of the case, the liaison officer and the liaison office doesn't really know anything about the facts of the material that it is sending up, and yet it signs its own name to it, there is something seriously wrong with this particular procedure. I have had this feeling for some time, that when we get a letter signed by the liaison office it doesn't mean a darned thing. The liaison officer doesn't know anything about it; somebody else wrote the letter. He signs his name. You really have not gotten to the facts.

I have tried on a number of occasions to go to the officers involved and not to the liaison office and I think on the basis of Mr. Pike's questions—he asked you two substantive items and you don't know anything about them—then there is something seriously wrong with this particular channel, and I think the Air Force needs to examine its procedures and find out whether there is some other way to transmit the testified evidence.

Mr. Dickinson. If you would yield, he didn't say he didn't know. He declined to answer. There is a difference.

Mr. Stratton. I don't know that it makes a great deal of difference. My impression is that General Boswell is not too familiar with this particular item and that is why he declined to answer.

Mr. DICKINSON. Maybe he doesn't know but that is not what he said.

Mr. STRATTON. Is that right, General? Did you decline to answer on the grounds that this wasn't your——

General BOSWELL. No, I think as Director of Legislative Liaison I should not respond to substantive questions on the procurement.

Mr. STRATTON. If I understand it, you sent the material?

General BOSWELL. Yes, sir.

Mr. STRATTON. I gather Mr. Pike didn't get any material from anybody else except some other letter signed by somebody who, as I understand it, was also in liaison, but not yourself?

General BOSWELL. Could I make another comment, Mr. Stratton?

Mr. STRATTON. Yes; by some colonel who is one of your subordinates?

General BOSWELL. That is right. Colonel Howes, I believe, and he is the same colonel that provides announcements on all contract awards to the Congress. He is the same one that transmits information on all the base realinements to the committee, and all the individual Members. Whenever he transmits a communication to the Congress, he has got a signature from the appropriate secretariat and Air Staff offices. He is a funnel. Now, if I may, sir, I would like to comment on the L. & L. activity. We do do it differently from the other Services. I know of one Service where the inquiry goes straight to the office. It may go to procurement, it may go to personnel, and a Member gets a direct response. It can be done that way. We could do it that way. The problem here is as we have experienced it in years past, and I am sure all of you know more about it than I; we had erroneous information. In the case here, we gave Mr. Pike erroneous information on the F–15. Our people took action to correct that when they suspected it.

Mr. PIKE. Would the gentleman yield?

Mr. STRATTON. Yes.

Mr. PIKE. Your people took the initiative to go correct it after they had given me the bad information.

General BOSWELL. That is right.

Mr. PIKE. When did they give me the right information?

General BOSWELL. They didn't come to you. They came to the committee counsel.

Mr. PIKE. After they gave me the bad information they went out and got the right information, but never told me about it?

General BOSWELL. I think that is right. I think that information came back to one of the subcommittee counsel. Well, at any rate, one of the pitfalls in responding to congressional correspondence throughout the Air Force in my estimation, is that you have situations like this where you will have two different stories coming over here. Now, I happen to support the position that we have, where we may have a funnel, because we may not know the substance of everything we are sending over here but at least we have obtained a coordinating signature. We have obtained coordination from every appropriate office before we sign it out of L. & L. The same thing in this matter.

The CHAIRMAN. Will you yield?

General, I am not, as Chairman, blaming you as an individual. You are just part of the system that you inherited when you came. Now, I can well understand this funneling of information. That is the bed-

bug letter. Probably any one out of 10 letters that come back, you pull Form 16, give them page 20. That is a practice of life. Let's not kid ourselves about it. I know all about that. But our responsibility is here, and in this particular case that Mr. Pike has brought to our attention, is the fact that when the investigating committee asks for something, you don't want the bedbug letter, and we got it.

Of course, you are part of the system. You had to funnel it. You say you are a funnel and you just sign it. The real thing to develop here for the particular case which is involved, which concerns us at the moment, is who, in these areas that Mr. Pike has brought out, made these decisions, to leave out this important information? You didn't even know it was going on, so of course you are not competent to answer, but we want to find out who those people are by name.

General BOSWELL. I gave——

The CHAIRMAN. Who made the decision not to tell Mr. Pike on two different occasions?

Mr. PIKE. The question, Mr. Chairman, if the gentleman would yield——

The CHAIRMAN. Yes.

Mr. PIKE [continuing]. is who prepared the official summary?

The CHAIRMAN. That is right.

Mr. PIKE. Because the official summary is what leaves out the most significant items that are in the OSI report.

The CHAIRMAN. That is the question I first asked, who wrote the letter? Four or more different people didn't sit around and write the letter.

General BOSWELL. I will provide that information, Mr. Chairman.

The CHAIRMAN. You merely signed a letter put in front of you.

General BOSWELL. Top line coordination.

The CHAIRMAN. You are not competent, not using the word "competent," in the position you are in, to answer these questions. It is personal opinion on your part. We want to know the name of the man who wrote that letter. He had to dictate it to somebody. The whole staff didn't dictate it to everybody. That is the witness we want to hear from, to start from there, in orderly procedure and then come on down.

General BOSWELL. I think, Mr. Chairman, we could go back and reconstruct that, in detail.

The CHAIRMAN. Let's get the man who answered. Don't get yourself in deeper than you are in your system. We will do the reconstructing.

General BOSWELL. Right, sir.

The CHAIRMAN. You get the man who dictated that letter and let him come here. That is the man who can answer why he dictated it.

General BOSWELL. Well, I respectfully submit, sir, that there are a number of action officers that work in conjunction with the development of these. One man——

The CHAIRMAN. One man had to dictate the letter.

General BOSWELL. But by the time it moves from staff to staff and goes through the Secretariat, there are a lot of people that are added——

The CHAIRMAN. We want to hear from a lot of people.

General BOSWELL. I will give you the names of those people.

The CHAIRMAN. We want to hear the names of a lot of people. We will do the developing.

General BOSWELL. I will do that, sir.

The CHAIRMAN. Funnel your information to us.

Mr. STRATTON. General, let me come back to the point Mr. Dickinson raised to make sure I understand it. Let me rephrase the question, again: I am asking you about your information; this is not a question whether you want to answer the question or not. I am asking you the question, do you know from your information whether the two points that Mr. Pike cited as factual statements are in fact correct, or are they not correct?

General BOSWELL. I do not know, Mr. Stratton.

The CHAIRMAN. You don't know?

General BOSWELL. No, I would have to go back and explore.

Mr. STRATTON. Okay. Let me ask one other question.

Mr. DICKINSON. You would have to go back and what?

General BOSWELL. I would have to go back and look through the summaries and OSI reports. The OSI reports are that thick, Mr. Dickinson.

Mr. STRATTON. If I understand correctly, what you said earlier in response to Mr. Pike's questioning, with regard to the release of the OSI reports, was that Mr. Pike could not release them, but if they were provided to the committee, the committee, under the direction of its chairman, could release them, if the committee determined that it was proper to release them; is that correct?

General BOSWELL. I didn't mean to say it that way, Mr. Stratton. I think the general counsel's position is pretty much expressed in the summary of legal items which I gave you. I think that the general counsel would always be willing to sit down and deliberate further on that matter—nothing cut and dried. I am sure that if the chairman saw a need to make certain of this information public, a special situation, I presume, regarding the Freedom of Information Act, that the general counsel, in fact, would modify this position. However, that is his position as of this morning, and I reviewed it again right before coming over.

Mr. STRATTON. Your position is that if the general counsel maintains this position, then this committee itself, by committee action or by the action of the chairman, could not properly release the information?

General BOSWELL. I wouldn't say that the chairman of this committee's action is governed by the position of the general counsel of the Air Force. I would think that the chairman of this committee would take into consideration the opinion of the general counsel, but I don't think the general counsel of the Air Force would say to the chairman of this committee you can or cannot do anything. He can only offer his legal opinion.

Mr. STRATTON. That is all I have.

The CHAIRMAN. Mr. Mollohan?

Mr. MOLLOHAN. Mr. Chairman, I only want to join with what I believe was the position taken here by Mr. Stratton, and that is to the effect that I subscribe wholeheartedly to the idea that the L & L is a channeling and a funneling agency. I appreciate very much the effectiveness of this work in this area, and I would feel much more comfortable in my communications to the Air Force, or any other agency, if L & L handled those and forwarded them on to the appropriate branch or division in the Air Force, or any other branch of the Defense

Department, and then in turn gave me nothing more than a letter of transmittal from General Boswell's office, which forwarded to me the official response of that person responding to my inquiry. I would feel much more comfortable with that, because there is always the possibility that we place L & L in the category of possibly being an interpreting agency, interpreting for us the response of the appropriate agency of the Government. If nothing else comes out of these hearings than such a change, I would consider it to be a highly effective and appropriate one.

General BOSWELL. I appreciate your comments. I will speak to General Maglione, or my successor.

The CHAIRMAN. We have found in this committee that the man we are looking for has just left. He has a new assignment.

Mr. Hunt?

Mr. HUNT. I came in late, Mr. Chairman, thank you. I had a little trouble with Amtrak this morning. I am not flying late. I am riding late. I have been curious as to who said that this could not be made public and I now see the response in here, the summary of legal points. But the thing that disturbs me is, in connection with Mr. Pike's requests to make this public, under the Freedom of Information Act, speaking now to the second paragraph on page 1, under the Freedom of Information Act, the Air Force has statutory authority to withhold these subjects from members of the public, whoever that may be, including the subject of the investigation.

That is sort of an ambiguous statement to begin with but I just can't understand why anyone has the authority, or would counsel authorize you not to release information of that nature, which is going to be made a matter of court record eventually and which will eventually leak out anyhow. Somebody had to write the opinions and somebody had to say these things, and whether or not they have been transferred, it makes no difference to me, I don't care where they are, but it is disturbing to me to find out that the information has been withheld. I think Mr. Pike was entirely within his rights to have that information and if necessary, to make it public. I just fail to grasp the logic of this. It is not a question of whether we want to go into the Supreme Court and get a decision on the matter. It is a matter of now saying, let's see who has the clean hands and who doesn't have clean hands. I don't care who wrote that thing. I am with the chairman all the way. I want to talk to the person who dictated the letter and also the secretary that took the letter. Somebody has to know where it originated.

General BOSWELL. Mr. Hunt, if I may, please sir, this is addressing the OSI raw reports, not the summary.

Mr. HUNT. That is right. They are part of the same thing we are talking about this morning. You can't separate them. They are not apples and oranges. It is OSI and we are talking about altimeters. No matter what you want to do to confuse the issue, it doesn't work with me. I want to know who wrote the decision and why this thing can't be made public.

General BOSWELL. The summary can be made public. It is the raw OSI reports that cannot.

Mr. HUNT. We will decide that a little bit later.

The CHAIRMAN. Mr. Lally?

Mr. LALLY. No questions.

Mr. PIKE. Mr. Chairman, may I ask another couple of questions?

General Boswell, you stated that the Air Force, on its own, went out and got the information about the F–15 altimeters and reported them to this committee.

Is it not a fact that this committee, through its staff member, Mr. Warren, advised the Air Force that they were wrong before the Air Force went out on its own and then subsequently confirmed that they were wrong?

General BOSWELL. That may be. I do know this, as related to me by our own officers after they had met with you. On the 25th of April I think you broached that question again at that time. We had previously been contacted by committee counsel. I think the response then was, no, there are no Aerosonic instruments in the aircraft. I think it was later, on the 8th of May when they were in your office, and this matter came up that they could tell, as they tell me, that by your action——

Mr. PIKE. That I didn't believe them.

General BOSWELL. That is right and that they had some bum information and when they came back, it is my understanding they went back out and said you guys better check it. They found not only one but four Aerosonic manufactured instruments installed in the F–15 aircraft.

Mr. PIKE. Don't you think in view of the fact that it was I who indicated to them that I didn't believe them and that they had bum information, that a proper operation of a legislative liaison office might have included telling me about it?

General BOSWELL. You are absolutely correct.

Mr. PIKE. Mr. Chairman, I would like to request that you, as chairman of the committee, now ask for, on behalf of the committee, the OSI investigations made by the Air Force, with copies for each member of the committee, to be used at your descretion.

The CHAIRMAN. All right.

General BOSWELL. We will provide them this afternoon.

The CHAIRMAN. I make the formal request, General.

General BOSWELL. We will provide them this afternoon, Mr. Chairman. [Copies of the OSI Report of Investigation were subsequently furnished for the record].

The CHAIRMAN. Any further questions? Mr. Dickinson?

Mr. DICKINSON. Not at this time.

[The witness was excused.]

Mr. LALLY. General Stewart?

[Witness sworn.]

The CHAIRMAN. Do you have a prepared statement, General Stewart?

General STEWART. I have an informal self-prepared one that I would like to present.

The CHAIRMAN. Will you proceed and then the committee will question you afterwards.

TESTIMONY OF LT. GEN. JAMES T. STEWART, COMMANDER, AERONAUTICAL SYSTEMS DIVISION

General STEWART. I am Lt. Gen. James Stewart. I am Commander of the Aeronautical Systems Division and I have been in that capacity since June, 1970.

The Aeronautical Systems Division is responsible for the development and production of new aircraft, associated equipment and certain air-launched weapons for the Air Force. Now, to focus down on what the subject of your investigation is, the Aeronautical Systems Division was responsible for the AAU–19 Aerosonic altimeter project from its inception until the summer and fall of 1971, when management responsibility for the AIMS programs was transferred from the Aeronautical Systems Division to another division of the Air Force Systems Command, the Electronic Systems Division at Hanscom Air Force Base.

I thought it might be helpful to the committee if I made this brief informal statement at the outset of my appearance, that summarizes my personal involvement in the project, and offer you for whatever it is worth a purely personal appraisal of what went amiss and what we might do to prevent a recurrence.

The CHAIRMAN. Suppose you recite to the committee your personal involvement.

General STEWART. Yes, sir. That is what I am going to do.

The CHAIRMAN. In other words, so we will know exactly the part that you played or did not play.

General STEWART. Yes, sir.

The CHAIRMAN. All right.

General STEWART. That is what I am going to do right now.

Other than having reviewed the overall AIMS program perhaps three times during my first year at the Aeronautical Systems Division, and of which the AAU–19 altimeter was one of several projects in an overall program, I didn't become personally involved in the AAU–19 project with Aerosonic until August 1971. On August 3, 1971, I received a telephone call from a staff assistant to a Member of Congress and he asked me to meet with a Mr. H. J. Frank, the president of Aerosonic Corp., whom I had not met before.

After expressing some surprise that Mr. Frank had not seen fit to call me direct if he wanted to meet with me, I said I would contact Mr. Frank. I did so and I made an appointment to meet with him the following day in my office at Wright-Patterson Air Force Base.

In the interim, from the telephone call to the meeting, I did some inquiring around Aeronautical Systems Division to update me on the AAU–19 project; and I also sought out some background on our experience with Aerosonic and Mr. Frank. I think the gist of the background information that I got is probably of interest. One, of course, Aerosonic was a small corporation, of about 300 or less people, many of whom were in the handicapped veterans and very elderly category. And two, that Aerosonic was a producer of several barometric pressure instruments, altimeters and air speed indicators and the like, and that over the previous 10 years, except for the AAU–19 project, although they required more management attention by the Air Force than other contractors in their capacity, they had delivered acceptable hardware at much lower prices than their com-

petitors normally offered. And the third point I picked up, of course, is that the AAU-19 project, you know, had been in trouble almost from the outset and certainly was in trouble in August 1971. And fourth, that Mr. Frank, personally, over the years had frequently been involved in protests and claims, both formal and informal with the central theme usually being discrimination against his small firm by the Air Force in favor of big business.

This was the background I had prior to my meeting with Mr. Frank, and I and Mr. Wood, Mr. Lyon, both of whom were in the AIMS program office at that time, and both of whom will appear later as witnesses before you, met with Mr. Frank and Mr. Benmayor and Mr. Biales on August 4, in my office. And I recorded my impression of that meeting in a memo for the record (see appendix 1) which I understand has been provided to the committee, so in the interest of brevity I won't read it, but I think I would like to repeat the highlights of that memo. And, of course, Mr. Frank talked at great length about discrimination against his firm, but in very broad generalities and I didn't really identify anything tangible to put my teeth into for possible later action.

But in the more tangible sense, because of his concern about the impending management responsibility transfer between the Aeronautical Systems Division and the Electronic Systems Division and a probable loss of continuity, he did ask for my help in qualifying his instrument, for some contractual adjustments, for schedule changes that had been agreed to. He asked for reimbursement for excess inventory that he asserted he had in anticipation of later production, and he wanted payment for additional acceptance tests directed by the Air Force. He also claimed that Aerosonic had to demonstrate 137 more acceptance points than Kollsman, who were at that time also building an AAU-19 altimeter. And he also asserted that only Aerosonic had to meet every detail of their contract and that Kollsman did not. So I committed myself to a personal review of the acceptance tests and I assured Mr. Frank, and I thought we could do this, that ASD would settle the outstanding items before the program completely transferred to the Electronic Systems Division. The transfer was already in process. I also advised Mr. Frank that if the AAU-19 altimeter manufactured by his company couldn't be qualified at this late stage in the program, that I probably would terminate the rest of the contract.

On the 9th of August then, in furtherance of my commitment to look into and take action, we did issue a contract modification which incorporated the revised delivery schedule that had been agreed to, and it did provide for additional payments for additional acceptance test requirements, which apparently had been previously directed by the Air Force and not yet incorporated in the contract. And I next conducted, which probably took over a couple of days' period, a very detailed review of acceptance test requirements that were laid on the two contractors.

Finally, on August 16 then I wrote Mr. Frank a letter, and I understand a copy of this rather lengthy letter has also been provided the committee, (see appendix 2) and I recounted the contractual changes we had made and advised as far as reimbursements for excess inventory was concerned, he had to first make a proposal and we had to do an audit. That is where that stood. I also advised him that in

the interim, the New York region DCAS, the Contract Administration Service of the Defense Department, had certified to me that the Kollsman Co., was performing all of the acceptance tests exactly as specified in their contract. I also related the results of my acceptance tests review. I nitpicked him a little bit and I said you don't do 137 more, you do 127 more and I went through all of those acceptance tests. The essence of my letter to Mr. Frank was that, with a few exceptions—and I think they are specified in my letter—I thought most of these tests were valid tests because of differences in the way Aerosonic and the Kollsman instruments were designed and built. And I pointed out further that these were within the scope of the contract efforts. And you know that means they are in scope, the Air Force is paying for them.

I also noted that about 4 days before we had received additional qualification and test data from Aerosonic and that if it supported his contention that his article was indeed qualified, that we would give first article approval, which is a specific clause in the contract; and that we would do that promptly. But unfortunately, the data and the information in our judgment wasn't complete, and didn't support first article approval by the Air Force. So finally, on the 30th of August, I wrote Mr. Frank again and I expressed disappointment that we hadn't completely settled the matter and that I would ask General Cody, who was then the ESD commander to follow through, since the program office responsibility was then his rather than mine.

I believe the committee also has a copy of this letter that I referred to. (see appendix 3.)

I haven't been involved directly in the AAU–19 altimeter with Aerosonic from August 1971 until just in the last week in getting ready to appear before you today; and I, of course, was apprised of the termination of the contract in 1972 by the Electronic Systems Division.

I guess, going back to your opening statement, although I have to wince at its bluntness, I can't quarrel with the statement by you, Mr. Chairman, you know, that you sort of said, quote, something to the effect that the AAU altimeter "is a case history in how not to procure." I think that is a reasonably accurate, brutally frank, but pretty good summary of the end result.

At the same time I think the failure should be viewed in kind of a proper context, because the AAU–19 contract or project with Aerosonic was one of about something more than 80 contracts in the AIMS program, you know; and dollars involved something like a half to three quarters of 1 percent of a $500-million program. And overall the AIMS program has not been a failure. The AIMS program has been a successful program. But I think that is probably not too germane to what you are working on here and I am sort of in a pleading for leniency position, or something like that. I think what is important in my judgment is what happened, that is what Mr. Pike is searching for I do believe, why did it happen, what has been done or what can be done or should be done to prevent a recurrence. And operating with the benefit of hindsight, which is always a very comfortable position to be in, I think a what and why aren't too difficult to identify. My view of what happened can be described in two statements about as brutally frank as your statement. First, Aerosonic Corporation failed to produce and deliver acceptable hardware. That clearly was not a

technically impossible task, because other people did, and, two, the Aeronautical Systems Division program management just flat failed, either to recognize the seriousness of the danger signals, almost from the outset, or they failed to take appropriate timely corrective action. That is what happened.

Now why did it happen? I don't think it is quite all that simple. I think it is more complicated. I don't think you really can say why did it happen in one or two oversimplified statements. I sat down last night and listed what I think are five of the more germane reasons why it happened. And first is, contracting strategy, and by that I am talking about the two-step advertised procurement technique. I am sure that either it was wrong for this program, or it wasn't implemented properly, and that was the first step to disaster, right there, a very long time ago.

Second, you know, it seems clear to me that while Aerosonic was competent in the field of pneumatic mechanical instruments of this nature, in hindsight, they clearly weren't as competent in the development and the manufacture of electro-mechanical pneumatic kinds of instruments, as the AAU–19 became.

Third, there was considerable urgency, and again in hindsight, it turned out not to be all that urgent but, nevertheless, there was considerable urgency attached to equipping all DOD aircraft with these new transponders and these new altitude reporting systems, for both peacetime and wartime.

Fourth, the Aeronautical Systems Division was just flat too lenient with Aerosonic in this procurement, I suspect, but I invite you to talk to the people who were there then. I know in August, I was influenced by this image—this small business, the handicapped veteran image—and probably more tangibly than just an image, because I would like to think I am not quite that soft a businessman, but the Aerosonic record of producing acceptable hardware for the Air Force, at lower prices than the aerospace industry average. And finally, even as late as 1971, I think it was honestly believed that the Aerosonic Corporation was then delivering acceptable hardware, and that the hardware already delivered could be made acceptable by retrofit. It is an easy trap that program managers, no matter how conscientious they are, can gradually and unknowingly work themselves into. I think daylight was just over the next rise for too many rises in the AAU–19 project. So much for that.

I also went back and looked at what we have done at the Aeronautical Systems Division in the last 3 years to preclude a recurrence of things like the AAU–19 procurement, and without belaboring the subject, because this is not the subject, I will cite four things that I know we have done since I have been in the Aeronautical Systems Division.

First of all, we use the two-step advertised procurement technique only with very great caution. I will tell you frankly, I think it is a poor way to procure the bulk of the hardware needed by the Defense Department. We have changed our, some of our contracting policies and I think we have improved our source selection process. One item in particular in our contracting policies is a continuing effort to tie milestones, which means, "gates" to going further in the program, to tangible progress and not to dates. This doesn't mean schedule is

not important but the schedule should not be overriding in the great large majority of defense procurements.

I think we have strengthened our engineering wherewithal and perhaps its stature in the Aeronautical Systems Division and we have certainly improved and strengthened our internal "small project" review and status reporting system. So I guess in closing I would repeat my earlier agreement with your statement, for whatever the reason, regardless of any extenuating circumstances that I or anybody else brings up, the AAU–19 project with Aerosonic Corporation can only be described as a gross failure. It failed to deliver acceptable hardware into the Air Force inventory. I have one last point that General Boswell alluded to, before I attempt to respond to your questions. In talking with the Air Force people who are involved in the litigation that is now going on between the Government and Aerosonic—contract termination—I know several times they expressed concern that we not prejudice the case of either the Government or the Aerosonic Corporation, by what we do here. I guess all I can do is hope that I haven't already done so, or started us down that path in these informal discussions.

That concludes my statement.

The CHAIRMAN. Thank you very much General. As I understand, your participation or confrontation with the whole thing came after it had begun. You were not in the initial part of it, I mean when the original contracts were awarded you were not there?

General STEWART. No, sir.

The CHAIRMAN. You just came at a later date when the failure was beginning to show. Is that right?

General STEWART. From 1964 to 1969, I worked space programs, various kinds for the Air Force and from 1969 to 1970 I was in the Systems Command Headquarters. I am responsible for anything that went on in the AAU–19 project, certainly from June, 1970 until the end of August, 1971.

The CHAIRMAN. Mr. Pike.

Mr. PIKE. Thank you, Mr. Chairman.

General, when you first got this phone call requesting that you meet with the president of the Aerosonic Corporation, did you look at the status of the contract?

General STEWART. Yes, sir. And I think I commented that I picked up four things and I refreshed my mind on the status of the AAU–19 project, yes, sir.

Mr. PIKE. So when you met with Mr. Frank you were familiar with the AAU–19 contract, and its status?

General STEWART. Yes, sir, reasonably familiar.

Mr. PIKE. Did you know for example, when the contract had been signed?

General STEWART. I don't recall but I have to assume that I did know it had been ongoing for 5 years or longer. I have to assume that is so.

Mr. PIKE. So you did know that the contract had been executed some 5 years previous to that date?

General STEWART. I am sure I did. I have to say yes.

Mr. PIKE. You do know now?

General STEWART. Yes, sir, of course.

Mr. PIKE. And did you know what the delivery schedule under the contract was?

General STEWART. Probably, I knew what their goal was and knew that they were not delivering to that goal on schedule at that time, were behind in taking deliveries and I am sure I did.

Mr. PIKE. Did you know that 5 years after the execution of the contract, the First Article testing of the contract had still not been completed.

General STEWART. Yes, sir.

Mr. PIKE. Did you know how many altimeters the Air Force had already accepted from Aerosonic?

General STEWART. I am sure I had the number and I think I would have to add though, conditionally accepted, Mr. Pike.

Mr. PIKE. In your letter of August 30, 1971, to Mr. Frank, you said this: "Further, although Aerosonic has delivered some 2,100 units to date, the required sampling has not yet been completed on the first 1,000 block."

So you knew that as of August 30, the Air Force had received 2,100 altimeters, and you knew that the testing had not been completed yet on the first 1,000; is that correct?

General STEWART. Sample testing.

Mr. PIKE. You say that these altimeters were received conditionally What was the condition?

General STEWART. This is where the First Article acceptance approval is an important part of the contract.

Mr. PIKE. I am asking you what was the condition in this case under which these altimeters were accepted?

General STEWART. They were accepted with the condition that First Article acceptance approval had not yet been granted.

Mr. PIKE. All right. So was First Article approval acceptance ever granted?

General STEWART. Not by me or my organization, and it was granted by Electronic Systems Division, I think within the next month after they assumed full responsibility for the program.

Mr. PIKE. So as far as you were concerned, you did nothing to waive the requirement of First Article acceptance; is that correct?

General STEWART. I did not waive it.

Mr. PIKE. You did nothing to waive it. You performed no act, made no communication; is that correct? But the requirement was waived within the next month, according to your testimony, by the Electronic Systems Division; is that right?

General STEWART. Yes, sir.

Mr. PIKE. After it was transferred out of your shop?

General STEWART. Yes, sir.

Mr. DICKINSON. Will you yield?

Mr. PIKE. Yes, sir.

Mr. DICKINSON. First, you said that First Article approval was granted a month after. Now you say it was waived a month after. Now which is correct? Which was it?

General STEWART. I regret my probable bad use of words. It was waived.

Mr. DICKINSON. Okay.

General STEWART. I did not grant it; I did not waive it. That I am clear of.

Mr. PIKE. I wanted to clear the record. Was it passed or waived?

General STEWART. I believe it was waived, sir, and could I add a statement there for you on a point.

Mr. PIKE. Certainly.

General STEWART. You asked me if I had done anything, or taken any action to waive or to approve the First Article. And I answered you "no," but it was the judgment of the legal people who worked for the Electronic Systems Division, and I think you should talk more directly with them but I understand their judgment was that by our acts over a number of years, the Aeronautical Systems Division had in effect waived First Article acceptance, so we had done it.

Mr. PIKE. But your act was in accepting 2,100 of the altimeters wasn't it?

General STEWART. I guess so, yes, sir.

Mr. PIKE. How many of those altimeters were accepted during the period that you were in charge and responsible for this program?

General STEWART. I will supply you the exact figure.

Mr. PIKE. So just by accepting these altimeters while you were in charge of this program, the legal people subsequently said that they had in effect waived the right to test the altimeters, is that right?

General STEWART. To approve a First Article. May I expand on the point just a wee bit?

Mr. PIKE. Certainly.

General STEWART. You know, that was a judgment that was made that I would have at least questioned before it was made. We withheld First Article approval for the very simple reason that any hardware, until you approve a First Article configuration, any hardware built prior to that time, whether it is delivered or not, the contractor has a contractual requirement to modify it or update it, or alter it, to the configuration of this final article above. That is a contractual provision and this is not the only case that has ever occurred in the Defense Department, where hardware has been accepted and First Article approval has not yet been granted, because when you grant that you relieve the contractor of any liability to update any hardware already built. And that is a reason that I am quite sure that the Aeronautical Systems Division withheld approval. That certainly was in my mind.

Mr. PIKE. Would you tell us when you assumed the position, the date at which you assumed the position of being responsible for this procurement? Did you say June 1970?

General STEWART. On paper June 1, 1970. I physically arrived out there perhaps around the 20th of June.

Mr. PIKE. And you left that office when?

General STEWART. I am still there.

Mr. PIKE. You are still there?

But, this procurement was transferred away from you when?

General STEWART. In the summer of 1971.

Mr. PIKE. So all of the altimeters procured between June 1970 and August 1971 would have been under your responsibility; is that correct?

General STEWART. Yes, sir.

Mr. PIKE. Did that represent half of all of the altimeters procured at that time to the time you left that responsibility?

General STEWART. During that time frame?

Mr. PIKE. Yes.

General STEWART. I doubt it. I will give you an exact figure.

Mr. PIKE. Were you aware of the reports from the Defense Contract Administration Service as to the problems they were having with the testing of the altimeters in the year 1971?

General STEWART. I reviewed no DCAS reports on the AAU–19.

Mr. PIKE. You reviewed no DCAS reports?

General STEWART. I did not, sir, to the best of my recollection.

Mr. PIKE. Did you know why there was now a second source of these altimeters, although originally the Air Force had declined to have a second source of these altimeters?

General STEWART. I was aware there was a second contract, a second source, Kollsman, who had been placed on contract some years before, and had been delivering hardware since early spring of 1969, and by the middle of 1971 was delivering at a rather high rate.

Mr. PIKE. Did you ever bother to find out why they went to Kollsman for a second source?

General STEWART. Obviously the program director was concerned whether the Aerosonic Corp., could deliver the quantity and quality at the required times.

Mr. PIKE. Didn't you already know when you first took over, and didn't the Air Force already know when you first took over this job, first, that the altimeter could not pass the test and had not passed the test, and second, that they could not deliver on schedule? This had already been established when you took over hadn't it?

General STEWART. They had not passed the test. They were not delivered on schedule. That was a factor.

Mr. PIKE. That is all, Mr. Chairman.

The CHAIRMAN. Mr. Dickinson.

Mr. DICKINSON. Just so that I can understand it, would you explain the meaning of the First Article approval? What does that mean? What is the requirement, for the First Article approval?

General STEWART. A layman's explanation, and there are contracting people who follow me, who will probably refine it.

Mr. DICKINSON. Give us a layman's explanation. I don't care about that.

General STEWART. The First Article, we buy a piece of hardware. It has to meet certain performance requirements. It should be so reliable and operate, maybe in dust, rain, or another kind of environment. There are tests that it must pass.

When you get the First Article acceptance, that really pins down a configuration: How it is built, what it is built of, how it is put together.

It has passed these tests, and all future production articles are to be built, you know, identical to that, and——

Mr. DICKINSON. It is standardized as of that moment.

General STEWART. It is a standardized term. That is a good way to describe it.

Mr. DICKINSON. As of that moment when it passes it is then standardized or frozen, and from then on you manufacture it?

General STEWART. It is standardized with that contractor.

Mr. DICKINSON. Because it has met contractor requirements of what it is supposed to perform and do, and reliability, et cetera?

General STEWART. That is an acceptable article—meets the terms of our contract, you then produce more of them just like it.

Mr. DICKINSON. The requirement is that it must meet these specifications and get the approval, First Article approval, before they go into production?

General STEWART. Yes, sir. And then I want to add one more point. All of the contracts I can think of also have a clause that says that any hardware built prior to that time must be retrofitted, repaired, modified, altered, to get to that same configuration.

Mr. DICKINSON. I was going to ask you about the word "retrofit" because you left that out when describing it before. That is a condition also?

General STEWART. Yes, sir.

Mr. DICKINSON. Whatever is required you will allow them in special instances, I assume, since that is what you did, to actually go into production with the caveat that they will not be ever accepted or paid for unless they finally meet requirements of the First Article acceptance; is that right?

General STEWART. That is what I referred to, Mr. Pike, as a conditional acceptance.

Mr. DICKINSON. I understand that.

What is so unusual about that, then, that it would be deemed to have been waived by going into that process if you do it as a matter of course, often, in the military procurement?

General STEWART. I think in this particular case, and I am not going to defer, but I ask you to verify this with the people who follow me. The Air Force gave Aerosonic approval, I believe, to build 200, and this was in the hopes that the First Article approval would be given, but in fact, somewhere, and I am hazy on this, we didn't stop at 200. We kept building and got up to 2,100 total.

Mr. DICKINSON. We kept building? What does that mean?

General STEWART. The contractor kept building.

Mr. DICKINSON. With your acquiescence, knowledge and approval?

General STEWART. And if the Air Force did nothing to stop him building, we acquiesced in essence, and it was this series of events—Colonel Stanley, from Electronic Systems Division will pick up the project from there. It is my understanding the legal judgment in September said, by all the diddling around you guys have done for the last five years, you have, in fact either approved or waived it, so we are going to do it.

That is the way we proceeded.

Mr. DICKINSON. Was this so unusual a procedure that it would call for a waiver when in other procurement items they in fact go into production without having the First Article tests?

General STEWART. I don't think you can make a general statement.

Mr. DICKINSON. I am very much concerned, because if it is a matter of practice, we could get into a lot of trouble. I don't understand why they would waive it in the first place.

General STEWART. No, sir, it is not general practice. As a matter of fact, you know, that is a contractual obligation on the part of the contractor, and it is a contractual tool that the Government has. We should be very reluctant, and we are reluctant, to waive First Article acceptance, or shortcut the process, because, just because that is the term of the agreement we enter.

It is a contractual tool for the Air Force, and I was very clear in my statment to Mr. Frank, at the end of the month, I said, I can't approve it with what I have seen, and I made no mention of waiving it. It was a legal contract at that point in time, and he had not received First Article approval, and he had a commitment to, if he ever got it, to improve all the hardware or modify it, or fix it, all the hardware he had built to date.

Mr. DICKINSON. When, in fact, this did not happen.

General STEWART. This did not happen.

Mr. DICKINSON. Let me read you a paragraph of the staff study, and ask you to comment on this, because this seems at variance to what you have told me in the meeting here.

Just for the record, the staff study, page 5, last paragraph:

> The First Article requirement was dormant until August 1971, when Herbert Frank, president of Aerosonic met with Maj. Gen. James Stewart, Commander of Aeronautical Systems Division, in preparation for transfer of management responsibility for the AIMS project from ASD to Electronic Systems Division. One of the topics discussed at that meeting was the First Article approval. General Stewart stated that he would consider First Article testing as having been satisfied if he found that randomly-selected production units had successfully completed testing required by the contract. On September 1, Mr. Frank informed Defense Contract Administration Service that Aerosonic was holding the Air Force in default of the contract since General Stewart had not lived up to his commitments. On September 2, General Stewart decided to waive the First Article requirements and Aerosonic was so informed. As a result of that waiver. Aerosonic withdrew its threat to charge the Government with default.
>
> That waiver was formally adopted in a contract modification on September 23, 1971.

What I have read to you is a conclusion of our staff based on our own investigation, and it does not necessarily mean that this is in fact so. We are led to believe it is so, which is at variance with your statement that you had nothing to do with the waiver.

I would like for you to comment on that. If you feel this is incorrect, state what you feel is incorrect.

General STEWART. All right, sir.

I guess I have to feel that it is not totally accurate, and I have to go back.

During the August 4 meeting, Mr. Frank said that Aerosonic would also provide us additional data and information on testing, and they did indeed provide that on the 12th. And I referred to that in my August 16 letter, back to Mr. Frank, and said—

> We have received the data, and if all data and information now on hand support your contention there were no failures, First Article approval pursuant to contract provisions will be granted promptly, and decision will be made shortly.

I get to the August 30 letter to them, and I said, the data isn't complete, it hasn't been received for about 50 percent.

I also noted that—

> Contrary to my recollection of my discussion with Mr. Frank earlier in the month that he said that his altimeters had experienced no failures during the production sample testing.

And I found a number of failures at test points and called those to his attention.

As far as I can recall, I may well have discussed the subject afterward, perhaps once or twice with Mr. Wood, or Mr. Lyon. I was not involved in the Aerosonic contract again. And, I guarantee you, I per-

sonally did not waive anything in that contract and I didn't initiate the waiving of it. Some of my people will talk to the people.

Mr. Wood was still employed and still is employed at ASD. He and Mr. Lyon, and I suspect Mr. Melnick, may have discussed the AAU–19 considerably from August 1971, probably to date, with people in the Electronic Systems Division.

If I approved any waiving on September 2, I did it unknowingly. That is all I can say. I think that says we have drawn that conclusion from some source—I don't know what.

Mr. DICKINSON. Now, I have to go back to a staff study here to find the dates, but on the two occasions, at least, it was alleged that during the checks, the testing and control of the equipment, that employees of the company were found in the plant test facility after hours working with, if not tampering with the test items. Are you aware of this happening? Did this happen on your watch?

General STEWART. I think, I don't recall it having come up during my watch and I think it really came up in 1972.

Mr. DICKINSON. After it was transferred?

General STEWART. This was after it was transferred and I was not involved.

Mr. DICKINSON. Mr. Chairman, I think there is a lot more that can be developed but I don't have time. I have read it in context of the general's statement. I will yield back the balance of my time.

The CHAIRMAN. Gentlemen, we are going to have to leave in a few minutes. We won't be able to come back until Wednesday morning, at 10 o'clock. We have a full committee meeting tomorrow morning. Mr. Pike will bring up the construction bill, and of course, this afternoon on the floor we have a conference report on procurement. So we are tied up. I hope we don't inconvenience you, General. We would like to have you back here. Mr. Stratton has a list of questions he just informed me he wanted to ask you.

General STEWART. Fortunately by some miracle of coincidence, Mr. Chairman, I have to be back in Washington Wednesday in any event.

The CHAIRMAN. So you can't blame it on us.

General STEWART. I can only partly blame you.

The CHAIRMAN. We will give you the raincheck on the other side.

General STEWART. You would like to start with me Wednesday morning?

The CHAIRMAN. Wednesday morning.

The Chair stands adjourned until Wednesday morning at 10 o'clock.

[Whereupon, at 11:55 a.m. the subcommittee recessed.]

AIR FORCE PROCUREMENT OF AAU-19/A ALTIMETERS

WEDNESDAY, JULY 31, 1974

HOUSE OF REPRESENTATIVES,
COMMITTEE ON ARMED SERVICES,
ARMED SERVICES INVESTIGATING SUBCOMMITTEE,
Washington, D.C.

The subcommittee met, pursuant to adjournment, at 10 a.m., in room 2337, Rayburn House Office Building, Washington, D.C., Hon. F. Edward Hébert, chairman of the subcommittee, presiding.

Present: Messrs. Hébert, Stratton, Pike, Randall, Mollohan, Daniel, Gubser, Dickinson, and Hunt.

Also present: John F. Lally, acting counsel, and David R. Warren, staff investigator.

The CHAIRMAN. The committee will be in order.

When we recessed on last Monday, Mr. Stratton had some questions he wanted to ask the witness.

Thank you, General, for being back here.

Mr. STRATTON. Thank you, Mr. Chairman.

General, I am not quite clear on the relationships between these various commands. You are the commander of the Aeronautical Systems Division. Who would be your immediate superior?

General STEWART. The commander of the Air Force Systems Command. Back in the time period we are talking about when I first went into the division, General Ferguson was the commander and then General Brown became the commander of the Systems Command. When I started General Ferguson was my immediate superior and then General Brown became my immediate superior and now General Phillips is.

Mr. STRATTON. I am interested in the command structure rather than individuals.

The Electronic Systems Division. Is that on the same level as the Aeronautical Systems Division?

General STEWART. Yes, sir. That commander reports directly to the Systems Command the same as I do.

Mr. STRATTON. What was the reason for turning this AAU-19 over to the Electronic Systems Division and taking it away from the Aeronautical Systems Division?

General STEWART. I am chuckling because it is kind of a humorous story. I will relate it briefly for you.

The Aeronautical Systems Division was the heaviest work-loaded of any of the organizations. I talked with General Brown numerous times. I pointed out that I had more projects than I had engineers, et cetera, et cetera, and et cetera.

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General Brown embarked on a thought of "unloading" the Aeronautical Systems Division and transferring some of our workload to other portions of the Systems Command. The kind of work that would be reasonably applicable to one or the other command and I thought this was a great idea because I thought the scheme was we were going to transfer the programs and the people, but that I wouldn't lose the manpower authorizations so that eventually I would indeed have more people for work. Something went amiss in the process. The AIMS program and a program called tactical intelligence processing, base defense, and four or five other programs I had were transferred and the programs management responsibility was transferred. When I say something went amiss, the manpower spaces went with them and I later went back to General Brown and said, "Please don't unload me like that any more because soon I will have no people and I will still have projects left."

It had nothing to do with whether the AIMS program was being managed poorly or well or Electronics Systems Division was more competent than the Aeronautical Systems Division. It was an effort to get a better workload balance in the command and that is really all there is behind it.

Mr. STRATTON. It had nothing to do with the fact that this was a hot potato and they thought it might be better to move it somewhere else. The AAU–19 or AIMS, or whatever you call it.

General STEWART. I know I can speak for myself and the answer is "no" and I am sure I can speak for General Brown. I really think it was part of an unloading and other logical things. I really do not think so.

Mr. STRATTON. You have pointed out previously this transfer took place at the end of August, I believe. Is that correct?

General STEWART. My people advise me it technically took place in the middle of July, but the people had not moved and the people moved on the AIMS program at the end of August. I am beginning to wonder now if I had any Systems Command authority to have been involved in August the way I was; whether I did or not, I took the authority and nobody quarreled with it.

We were in the throes of moving people and the program and I felt I had washed my hands of them at the end of August because the people were moved by then.

Mr. STRATTON. That is the way I understood your previous testimony and that, therefore, this question of whether the First Article approval was to be waived or not to be waived was something that was at that time outside of your particular purview.

General STEWART. I felt, and I meant to convey, you know, that when I signed, I think, a letter on about 30 August, to Mr. Frank and said, "I am disappointed but I can't give you First Article approval," and the letter goes on to say I am passing the problem to General Cody and I didn't do what I told you I thought I would do this month, and I felt I had washed my hands of that at that point. Then Mr. Dickinson and I got off into a discussion about a meeting on 2 September, supposedly after that.

Mr. STRATTON. I wanted to explore this because it troubled me as it troubled Mr. Dickinson.

The record indicates that although you sent this letter on the 30th of August, on September 2d General Stewart met with Mr. Wood

and Leroy Brown of the ASD Judge Advocate General's office. Colonel Stanley, Special Projects Office Director, was not present at that meeting. There it was decided to delete the First Article requirement from the contract if Frank would withdraw his default charge against the Government.

In other words, you were in this meeting after the date when you say you gave up all responsibility and presumably you were part of the decision that was made to delete the First Article requirement. How do you account for that?

General STEWART. I am really delighted you asked me that question. I really am, because I would have brought it up.

You know I was sort of puzzled when Mr. Dickinson took off on this line of questioning the other day. He said, "I am looking at a study which says you had a meeting on the 2d of September."

I said, "You know, I didn't waive First Article acceptance and I don't recall any meetings."

Mr. Lally then showed me the letter—I think it is a letter written by Colonel Stanley—so I asked Mr. Wood. "Fred, did I participate in a meeting on the 2d of September?" He didn't think so.

It still disturbed me when I went home. I dug very deep. The first thing I went to was my calendar. My calendar said that I went on a B–1 Award Fee Board starting at noon on the 31st of August and this went through the night of the 2d September, and I thought, well, that is written on the calendar. Maybe I never got there.

So I dug a little deeper and I went to my travel voucher file for all the traveling I have done and according to my travel voucher file I left Dayton on the morning of 1 September at 7 o'clock, went to Cincinnati and then to Los Angeles and I got back from Los Angeles at 9 p.m., the night of 2 September. So I dug a little deeper.

I dug out the B–1 Award Fee Board minutes and I am convinced beyond a shadow of a doubt I had no such meeting on the 2d of September.

When I look at the 13 September 1971 memorandum (see appendix 4) that Colonel Stanley wrote—you know, he refers to things I said in August and I think perhaps there is some confusion there. You know, all I am saying is I didn't have any meeting on the 2d of September but apparently I was home on the 3d.

I may have had a meeting on the 3d of September, but I honestly don't recall it and I thought I had sort of washed my hands of the AAU–19 with Aerosonic when I signed the letter to Mr. Frank on, I believe, the 30th of August.

I don't really think the date of the 2d is important but to the best of my recollection I washed my hands on the 30th of August and I didn't do much history preparation for this hearing since the 30th of August onward to today. I worked mostly backwards because I thought that was my last involvement in it.

Mr. STRATTON. General, I don't have all of these documents here. The staff may have them, but is your testimony that you did not meet with Mr. Wood and Mr. Brown on the 2d of September, period, or is it to the best of your recollection that you did not meet with them.

General STEWART. To the best of my recollection—and it looks tremendously substantiated by all kinds of documents—I feel rather safe in testifying I didn't meet with Mr. Wood and Mr. Brown on the 2d of September, no, sir.

Mr. STRATTON. Did you talk to them on the phone on the 2d of September or on the 1st of September, or thereabouts, with regard to this question of waiving the First Article approval?

General STEWART. I am only recalling—I am positive I did not talk to them. I don't think I talked to anybody in Dayton or anybody at Wright-Patterson on those two days. Not even my secretary.

Mr. STRATTON. Mr. Lally, do you have the thing referring to this September 2d meeting?

Mr. LALLY. Yes, sir.

Mr. STRATTON. The letter that came in from Mr. Frank on the 1st of September, which led, as I understand it, to this meeting on the 2d of September, threatened to hold the Government in default for not having come up with payments on the items he had delivered. That is correct, is it not?

General STEWART. Yes, sir, there is a letter that I think he sent to the Atlanta office.

Mr. STRATTON. In that letter which I saw when we met—(see appendix 5)—I thought, when we met the other day that in that letter he refers to the failure of Gen. James T. Stewart to live up to verbal commitments he made at a meeting of August 4, 1971, which Aerosonic Corp. contends is as much a part of the contract listed above as any written piece of paper.

What were those commitments that you made at that meeting of August 4?

General STEWART. I had better refer to my memo of record. I think I outlined them in my statement, but I should be very careful.

The committee has a copy of this. Let me read what I think are highlights out of it.

Mr. STRATTON. This is No. 1 (see appendix 1) in the staff documents and it is the memorandum from the record of August 9, 1971. Is that correct?

General STEWART. Yes, sir.

In my paragraph 3 I note five things that Mr. Frank and I had discussed that he asked for help on and that I said I would work on.

In paragraph 4 it says, "with regard to Paragraph 3, above, I assured Mr. Frank that ASD would settle items a through d, qualification, schedule, inventory reimbursement, payment for acceptance tests before the program was completely transferred to ESD. Noting that if the altimeter could not be qualified at this point in time, I would probably take action to terminate the rest of the contract." Then the other pertains to an assertion which Mr. Frank made that Kollsman didn't have to meet their contract.

That accounts really for my 30 August letter to Mr. Frank.

Mr. STRATTON. Before you leave that, in your paragraph 3 there are a number of complaints. He asks for help in them. The qualification, the schedule, the inventory reimbursement, the payment for acceptance tests, and the complaint with regard to Kollsman.

You, in paragraph 4 said that you assured Mr. Frank that ASD would settle items a to d before the program completely transferred to ESD.

Now, "settle," would appear to mean that you promised to handle all of those items to his satisfaction, doesn't it?

General STEWART. I am sure Mr. Frank would interpret my word "settle" that way. I interpret it that we have several contract disputes there and we settle them equitably, we settle them by going to the claims board. We settle them by the Government making a unilateral determination and finding, or we agree with you. I am sure when I wrote this memorandum that settle had no connotation of I agree, you know, with everything that you claim, Mr. Frank, but rather that we would arrive at a determination on them in favor of one or the other.

I can't interpret my memorandum that way and I don't think I meant it that way and I can't interpret it that way now.

Mr. STRATTON. I am trying to find out what he means about these verbal commitments which he regards as as much of a contract as anything written on paper. We have here, first, your assurances these items would be settled and all of these are complaints of things that he wants done to his satisfaction, and then the last sentence in the paragraph says, "I committed myself to a thorough review of the situation and subsequent transmittal of my findings to Mr. Frank.

That is the only time you used the word "commitment" which doesn't imply anything other than you are going to look at it and tell him what you found. It would be difficult to see how he could feel that was a commitment. It would seem to me your statement about settling these items led him to believe they were all going to be settled in his favor.

General STEWART. In my previous sentence I said that if the AAU–19 altimeter couldn't be qualified at this point in time—we are talking about that, and First Article acceptance in the same connotation—I would probably take action to terminate it.

Mr. STRATTON. Terminate the rest of the contract?

General STEWART. Yes, indeed.

Mr. STRATTON. But he wants to be paid for what he has already put out even though it wasn't acceptable?

General STEWART. Yes, sir.

Mr. STRATTON. Now, Mr. Frank writes a letter on the first of September citing commitments that you gave him and threatening to hold the U.S. Government in default.

And the second of September the Government decides that they are going to waive the First Article approval if Mr. Frank will withdraw his default charge. In other words, you would cave in completely?

General STEWART. Yes, sir. The Air Force charge.

Mr. STRATTON. Why would you cave in completely? You are the fellow who dealt with Mr. Frank. You are the one who made verbal commitments to him. The authority is shifted to some other branch but apparently, according to this memorandum, you were consulted on the final decision and your decision was to cave in. How do you account for that?

General STEWART. May I back up and take them in order?

Mr. STRATTON. Any way that you can answer the question.

General STEWART. I have felt, you know, with Mr. Frank, that we would settle these longstanding disputes. You know, there were several there of which the first one and most important is First Article acceptance.

I made him an assurance on August 4, you know, that if the data and everything were the way it was, it would undoubtedly be con-

sidered qualified and we would accept it and I told him, you know, if it isn't, I am probably going to terminate the contract.

The data was not complete and it conflicted with some things we told him. On August 30, I wrote him and I was disappointed and I was frustrated that in the 30 days or 26 days I hadn't been able to settle this and I just passed on a bag of worms to General Cody, and I really meant my disappointment when I put it in my letter to Mr. Frank, that I hadn't settled—I'd only settled two of the four things as a matter of fact. We changed the schedule. We had agreed to pay him for some additional acceptance tests directed by the government. We couldn't settle his excess inventory because he needed to put in an official proposal and we needed to run an audit on it so that one was still open and I hadn't settled the First Article acceptance inspection, and I find—I said I worked backwards in history generally from August 30 because I thought that terminated my involvement in it.

You know we continued to support the Electronic Systems Division. When you talk to Mr. Wood, you will find Mr. Wood was involved on the second of September. You will further find when you talk to Mr. Wood that he will tell you—he told me sometime after—and we are hazy on the date, it is somewhere in early September—that, we were going to waive First Article acceptance inspection, and I asked Mr. Wood, did I grumble, because I sure would grumble today.

As I pointed out the other day, that was a big bargaining tool I felt we had left and Mr. Wood said I didn't grumble very much, and I am terribly disappointed in not grumbling. If Mr. Wood tells me he advised me in early September, I honestly don't recall it, but I trust Mr. Wood and I believe he is honest.

I assume he did tell me. He works for me. I am responsible for what he did. So I have to modify my statement when I say I didn't waive First Article acceptance. I didn't do it directly. I didn't do it knowingly, but I apparently did it unwittingly or was a participant to the events that happened. That is all there is to it.

Mr. STRATTON. Why didn't you write Mr. Frank on the 30th of August and tell him that this thing he was producing was no good, that it wasn't meeting the specifications, it wasn't passing the tests; he wasn't on schedule, and you were disgusted with the whole business? That was the situation at that point, was it not?

General STEWART. In hindsight, I wish I were smart enough or tough enough or whatever you needed to have been, to have done just precisely that. I don't know why I didn't do it.

Mr. STRATTON. Mr. Pike made a couple of points on Monday, factual statements. I asked General Boswell whether those were true and he said he didn't feel that he could answer it and we ought to ask you the question. Are those two factual statements—if I recall correctly they are, first of all, that the test report on this AAU–19 indicated that it was not up to specifications. I haven't the exact wording here.

Mr. PIKE. Would the gentleman yield?

Mr. STRATTON. Yes.

Mr. PIKE. I would simply say my statement had to do with the fact that when this altimeter was being evaluated by the systems engineering group, by a letter dated March 29, 1965, from the Systems Evaluation Group, they said this:

The following firm submitted a proposal that is considered unacceptable and is not recommended for consideration. The reasons for this recommenation are given in the attached summary of findings. A. Aerosonic Instrument Corporation.

My question with General Boswell was simply this: Don't you think that that was a valid item of fact to have been contained in the alleged comprehensive summary of facts which were given to us?

Mr. STRATTON. Is that true, General? Is it true that this report—and I gather that this is it because I see the concluding sentence here—

The bidder is therefore considered unacceptable and a poor engineering risk for producing in production quantities the AAU–11/A and the AAU–19/A altimeter.

General STEWART. I am only fumbling because I hope I am not hooked to a yes or no answer. I will say yes, it is essentially correct, but it is not complete and I would like to elaborate on it with the committee's concurrence. Please recognize I am digging back into history. I was the Director of the Office of Space Systems in the Air Force working for the Secretary of the Air Force in that time period, so I am digging in history the same as you.

Where I say it is not complete, as I understand the history, the AIMS 19 program first started out as the request for proposal for an altimeter to be called the AAU–12—and I won't belabor this because you ought to talk to the people who were there—and that the Aerosonic Corp. did indeed submit a proposal for that and it was rejected as technically unacceptable, and I think they subsequently protested that and the Air Force rejection was upheld.

A change, really, in a part of the altimeter, caused a resolicitation. In other words, a new request for proposal and I think history will in brief show Aerosonic changed their proposal somewhat, submitted it again, was very marginal—I am hazy. I don't think it was rejected a second time, but I think it was on the verge of being rejected and I think there were some specific changes made and they modified their proposal; they became marginally acceptable and once in a two-step advertised procurement now it is a matter of go or no go. It is not that you are marginally acceptable or highly acceptable. You either are or aren't and once you are acceptable you win on the basis of low bid.

You ought to dig deeper into it. That is my recollection of the history but there are people who were there.

Mr. DICKINSON. What Mr. Pike asked—and I ask for your opinion—don't you think that the fact that they were first disqualified was not material enough so that it should be included both in the OSI investigation material and in the summary that the Air Force furnished us? Don't you think that is a sufficiently material fact that it should have been included?

General STEWART. Oh, sure. I will give you an opinion. I haven't read the whole file. I have only read the summary. In my opinion I think the history should start out that way so the best I can say for the Air Force summary is that it is a poor summary. I hasten to add I doubt it was deliberately misleading, but it is a poor summary in my opinion, yes, sir.

Mr. STRATTON. You were aware of the fact that this report indicated that the Aerosonic technical proposal was unacceptable. You then said they made some revisions and the conclusion was that the item was marginal.

The second point Mr. Pike asked General Boswell was something having to do with the recommendation that you got from the technical people, that since it was marginal you ought also to get a second source of supply to cover this in case the Aerosonic production was defective. Were you aware of that fact?

General STEWART. I am, from the history. You know that the management side of the organization and the engineering side of the organization, at least all of them, didn't 100 percent "see eye to eye." That recommendation was made and I think probably Mr. Wood, Mr. Lyon, who was the Chief Engineer, will relate it to you. And I am not sure of the precise steps they took, but they started down that path because in the spring of 1968 there was indeed a second contract let with the Kollsman Co. and about a year later the Kollsman Co. started delivering usable altimeters, and if we had not had that contract we would have been in terrible trouble.

Mr. STRATTON. My question is, in view of that, why was it that you caved in to Mr. Frank's demand?

General STEWART. You know I have to repeat, I don't think I personally caved, and if I did, it was terribly dumb, but I will relate to you what other people have told me and I think they will tell you again that the legal opinions we solicited from within the Air Force—by all this diddling around you have done for the last 3 years, the Air Force has in fact waived that First Article acceptance thing whether you think you did so or not and you are only arguing about technical legal nitpicks.

And there is one other thing that must be added to that. Still, by the summer of 1971, the Air Force in hindsight mistakenly thought, you know, we can repair or modify those altimeters and we will end up with 2,400 or 2,700 good altimeters. As far as details are concerned, you really have gotten beyond my beat and now you need to talk to Mr. Wood and Colonel Stanley and the legal people who did that. I don't recall being involved at all after the 30th of August personally.

I repeat what I said. Mr. Wood said he advised me in early September some time that he had or was going to waive First Article acceptance and I apparently didn't protest and he thinks it was over the telephone and I am embarrassed that I didn't protest.

The CHAIRMAN. Mr. Daniel?

Mr. DANIEL. Mr. Chairman, thank you very much.

I apologize for not being here for part of the hearing yesterday and I did not get the original statement of the general's. I think I ought to say at the outset it is unfortunate all of us don't have the memory retention powers of John Dean, but, having missed that first part, I want to ask this basic question which may already have been asked:

Why did the Air Force feel compelled to award so important a contract to what appears to be a questionable contractor?

General STEWART. We are back in history and you did miss part of my opening statement.

Mr. DANIEL. And I apologize for so doing.

General STEWART. When I dug back into history, I found that the Aerosonic Corp. had delivered numerous—I will call them barometric-like things—air speed indicators, altimeters, and so forth.

In the previous years there was very acceptable hardware, generally at lower prices than the larger corporations could make the same

article for and I don't think Aerosonic was considered a marginal—I am speculating, but I don't think they were considered a marginal company in 1966—is that the right date when they were awarded the contract?

I think what I dug out of history was that the Air Force had the opinion that you had to pay a lot more management attention to Aerosonic than you would to a Boeing or a McDonnell-Douglas or somebody like that, but, by golly, it was worth it because he turned out acceptable hardware and he turned it out at good prices to the Government.

Mr. DANIEL. Based on what testimony I heard, I got the distinct impression that this Aerosonic Corp. was a marginal producer. Is that not correct? Did I get the wrong impression?

General STEWART. I guess when you go back now and rebuild 15 years of history we have to say he is on the borderline because he delivered acceptable hardware at low prices, but it took a lot of management attention on the part of the Government. Maybe you can add that up into the word "marginal."

Mr. DANIEL. Is there a shortage of this type contractor?

General STEWART. I immediately think of four names, or three other names—I think of Kollsman, I think of Bendix, and I think of Sperry. All of them aren't still in all the pieces, but traditionally for many years they have been in the altimeter-air speed indicator-rate of climb indicator end of it.

Mr. PIKE. How about Astek?

General STEWART. I don't want to insult Astek, but the giants are the three names I have thought of for 33 years.

Mr. PIKE. Did they submit a proposal on this altimeter?

General STEWART. Yes, sir.

Mr. PIKE. Was it not found to be qualified while Aerosonic's was found to be not qualified?

General STEWART. This was on the first proposal.

Mr. PIKE. On the AAU–19?

General STEWART. They were acceptable on both the 12 and the 19.

Mr. PIKE. Is there not an outfit called Leigh?

General STEWART. Yes, sir.

Mr. DANIEL. Then I can't understand why you would award a contract to a marginal operator when you had two who were supposedly superior. This is the whole point of my question.

General STEWART. I really tried to give you what I felt is the basis for our having awarded contracts to Aerosonic over the years. When I said "acceptable hardware at good prices," you know, like, at times half the price that their competitors bid and they delivered the hardware.

Mr. DANIEL. You don't take a contract because it is cheaper if it is inferior, do you?

General STEWART. No, sir. We are off in another thing. This was a two-step advertised procurement. Step 1 is, people submit technical proposals. Dollars aren't attached to them. The Government evaluates and negotiates with them and says, "You didn't cover that piece I wanted" and eventually you either get to a point where you either declare part or all of them acceptable. The ones that are declared acceptable then put in a price proposal and then—you know, there is a way we do much of our military construction. You are almost com-

mitted to pick your low bidder. I expressed a dislike for two-step advertised procurement because it leads you to accepting the low bidder and it isn't necessarily the best buy for the Government. The best buy for the Government may be to spend a little more money today and over 15 years or 20 years it is going to be a better buy, so we, at least in these days, used two-step advertised procurement with considerable reluctance.

Mr. DANIEL. Were you concerned with budget constraints?

General STEWART. No sir. There was the contracting strategy we started out on. You know, if you buy shoes you probably will be led to buy shoes on two-step advertised procurement. They can be defined, and you eventually end up wanting to buy an acceptable product at the lowest price. This company did have a history of delivering acceptable products despite my qualification that they required more management attention. The end result was working equipment in the Air Force at a lower cost to the Government. That is how we got into this one. In hindsight. It was bad contracting strategy but we are in hindsight——

Mr. DICKINSON. Would you yield for a question?

Mr. DANIEL. Yes, sir.

Mr. DICKINSON. The contract was advertised in 1965.

General STEWART. First for the thing called the 12.

Mr. DICKINSON. Then it was signed in 1966?

General STEWART. Yes, sir.

Mr. DICKINSON. You came on board as head of the program and assumed responsibility for the contract and for the program in June 1970, 4 years later. Is that correct?

General STEWART. Yes.

Mr. DICKINSON. Then you signed off and went to another job where you had no responsibility for this at the end of August 1971?

General STEWART. I am still in the same job. That part of my job left, the program left.

You know, I am second guessing.

Mr. DANIEL. I understand that. I am talking about general policy primarily.

General STEWART. And I am trying to give you my feeling for these kinds of things.

Mr. DANIEL. Let me ask you this, General: Did you personally participate in any type of plea bargaining as far as this contract is concerned?

The CHAIRMAN. "Plea bargaining" means making a deal.

General STEWART. No way. I was dumb. I may be a dumb representative for the Government, but I made no deal.

The CHAIRMAN. Mr. Mollohan?

Mr. MOLLOHAN. No questions.

The CHAIRMAN. Mr. Hunt?

Mr. HUNT. Thank you, Mr. Chairman.

In your discussion with Mr. Frank, it was apparent that there were a number of handicapped people he employed, which he used as a level for sympathy. Did he ever use this with you to discuss the fact that he had this corporation employing so many handicapped people?

General STEWART. I don't really recall within our—understand, August 4 is the first time I ever met Mr. Frank. I didn't know him

before. I pointed out in my memo, and I am only sort of recalling from there, that he gave me the "I am a small business" treatment and "you guys in the Government are discriminating against me in favor of big business."

I don't honestly recall his having waived the handicapped veteran flag at me. I dug that one out of my pre-meeting background that I dug up. My people advised me that he was small and so on.

Mr. HUNT. I thought you had mentioned that in prior testimony. I made some notes on it.

General STEWART. If I inferred that Mr. Frank gave me that specific treatment on August 4, I can't substantiate it. I know he gave me the small business treatment, and "you discriminate against me in favor of big business," which seems kind of hilarious because we nursed him along for many, many years.

Mr. HUNT. At any time at all has anyone checked to see if he does employ handicapped and how many he does employ?

General STEWART. He does indeed. I haven't seen the awards, but I have been told he has been recognized by a couple of Presidents, by the American Legion, by the Veterans of Foreign Wars. I think he has something he can indeed be proud of. I am not being facetious there. He has a small firm and he apparently has done a great deal in this regard. I don't mean to belittle Mr. Frank.

Mr. HUNT. I am still at a loss to understand how we got so many altimeters that won't work and put them in a warehouse. I have Colonel Stanley's letter of September 1. He goes on quoting a cost to the Government. He says Frank was delivering them for $1,000 and that the other contractor was getting $2,200 for them. That is a tremendous difference in price, although I realize for 5 years we didn't get a decent altimeter from the man.

I realize that you are in a most peculiar position, General. Perhaps it is partly because you haven't been there, but I agree with Mr. Pike that somewhere along the line, this isn't an ordinary aroma. It has a peculiar aroma of somebody covering up something and consistently knowing that something was wrong, and then there is the report which was so grievously misleading, knowing that there were spurious quotes made and they were using a concealed manifold behind a partition for the purpose of getting through the testing of this altimeter. I, for the life of me, can't understand why we got these confounded apparatuses stuck away in a warehouse, that won't work.

General STEWART. I wasn't chuckling at your question; I was sort of chuckling at something Mr. Pike said before. I have to agree with you. A thousand-dollar Cadillac is not a good buy if the damned thing won't run.

Mr. HUNT. If you haven't an engine, what good is the car?

General STEWART. A thousand-dollar Ford isn't a good buy if it won't run. I couldn't agree more.

I haven't had a big strategy huddle with Mr. Zeine, who was program director through part of this period you are talking about, but I said in my opening statement the other day I had a feeling our program office had gotten into the illusion, you know, that we are almost there, and all we are going to have to do is change these a little bit and we are going to have usable hardware.

You get into that kind of illusion and it goes on. Colonel Zeine has to tell you what went through his mind in that regard. I happen

to honestly believe my program office did get into this kind of an illusion and now, in hindsight, made very poor judgment because we never went over the last hill. That would be my impression, my guess. You can get a pulse from Colonel Zeine on that.

Usually you are never totally right or totally wrong when you do something like this in the program management business. You usually end up in between. In this case, the final answer is totally wrong.

The CHAIRMAN. General, I want to ask you a question right there. This is not a unique case. Procurement in Government has been going on ever since I can remember. Not a straightout case like this, but there have been many cases. I have yet to find where the department involved, either Air Force, Navy, or Army, hasn't found poor judgment, hasn't found something less than should have been, and has reprimanded any one individual, or took it to Congress.

Has any suggestion been made to the people who fell short, or are they just going to forget about it?

General STEWART. I can't quarrel with what you say. I think our track record probably hasn't been too good.

I would say people who exercise terribly poor judgment repeatedly, hopefully we don't promote them; we don't reward people that way on a track record. It is difficult for me—the first-line person who is responsible for this is the program director. You know a couple of them are retired who covered it in the whole period. There is nothing criminal involved in here. I can no longer fire them if that were my choice. I think General Goldsworthy—and I don't remember who specifically—I can dig it out for you, but the order of who followed me in the pecking order in running ASD, you know—and, by golly, maybe he should have been fired, but it is difficult to fire somebody in hindsight.

The CHAIRMAN. If they are in civil service, you can't fire them, no matter what they do.

General STEWART. It is more difficult, sir.

Mr. HUNT. How many program managers has this particular program had? Numerically, how many program managers have been handling this thing?

Mr. WOOD. I think five or six.

Mr. HUNT. Can you get the names of them for the record?

Mr. WOOD. Yes, sir.

Mr. HUNT. Let me have the benefit of your candid opinion. You look like you have been around for a few days. You are pretty honest with your answers. In your estimation is this particular type of program, the collecting of procurement and the collecting of materials, and the awarding of the contracts, isn't it hampered by excessive change of personnel? In other words, you lose some officers occasionally who go out or retire, or go to a different job or get switched around.

Is it your opinion that the program may have suffered by virtue of the fact it has had too much in the line of personnel changing? Would you care to recommend some ideas to us so we might in the future keep a little better track of this detail? I have found in some places the programs suffer because the fellow who worked on it for 6 months and had a pretty good handle all of a sudden gets transferred somewhere. Someone else comes in and he is cold.

General STEWART. I will give you even a worse thing than that. Your super people get promoted. My organization has had a pretty good track record of people getting promoted because they are very good people; not because of being in my organization. I can only have so many of the Air Force generals. Colonel Skantze, who runs AWACS whom I regarded highly, was one of my Program Directors. I can only have so many generals. That is one of the terrible things. People get rewarded for being good people.

Let me get to your question. I am not sure that this particular program suffered because I think if you look at the right time period there Colonel Zeine did run the program for a fair period of time and his predecessor, but I think that is a valid, general problem. It has been a concern of ours in the Systems Command and we have tried in particular in lengthening the tours of our military people—maybe that is why I have been at Aeronautical Systems Division for 4-plus years now and my boss says, "You stay there until mandatory retirement," so I am going to be there for over 5 years unless something terrible happens to me as a result of these hearings or something like that.

But the problem in continuity of personnel; conversely, we have another kind of problem with our civilian personnel in that we would like to move them a little bit more than we can. You know, there are some advantages to not moving people helter-skelter, but from an experience standpoint and using them in career progression and things of that kind; I wish we could move our civilian personnel a little more and our military people a little less. That is another story and I think people in the Systems Command would be glad to come over. We have made some progress in this regard. We were very careful in the F–15 program, for example, to keep General Bellis on that program for 4 years; we kept him until we thought we hit a point that was a good transition point.

Mr. HUNT. You never should have let Bellis go from that program. He did a fine job.

General STEWART. I think so. General Bellis had the opportunity to be the Commander of the Electronic Systems Division and, you know, is a probable three-star general in the Air Force and he needs one more job besides that F–15 program to be a good three-star general. You are torn between the program and torn between people, but I will tell you what we did do, though. We kept General Mathis, who bailed the F–111 program out of chaos for us—we kind of kept him in limbo for 6 or 8 months because General Brown, the Secretary and I, and everybody else who had a vote in it, said there was one man in the Air Force besides General Bellis to pick up the F–15 program and that was General Mathis. It is easier to do that with generals. We can do that to a degree with colonels.

Mr. Hunt, in the Program Management we have Colonel Blais, Colonel Zeine, Colonel Stanley, and Colonel Geisey. We have had four in there over this period of time. I think Blais, and Zeine, and Stanley really cover the program in which you are most interested. About a 6-year period.

Mr. PIKE. General, the honeymoon is over and it comes back to me on the end.

You have testified this morning that one of the reasons you kept procuring this altimeter was that they had produced good altimeters for the Air Force and they had worked and they were less expensive.

Now, from the statement of fact which the Air Force did give us for publication, I want to read something. This is paragraph 3 on page 2 of this statement of fact.

Prior OSI investigations beginning in the 1950's, reviewed in conjunction with the current investigation, indicate a history of poor quality production concerning air speed indicators and altimeters manufactured by Aerosonic, in addition to other allegations.

Skipping down a little further in the same paragraph:

In February 1958, an investigation was conducted concerning possible collusion between Frank and Albert Rosenbaum, Chief, Instrument Testing Laboratory, Wright-Patterson Air Force Base, both former coworkers at Lackner Instrument, concerning the qualifications of the Aerosonic air speed indicators. Consistent failure of the air speed indicators had caused production to be stopped.

Now, that is what they did give them.

Are you aware of any Army investigations about this corporation?

General STEWART. No, sir, I am not.

Mr. PIKE. From what they did not give us until yesterday, with the chairman's permission, I would like to read something from the OSI investigation, which they withheld from us.

Mr. DICKINSON. Who is "they?"

Mr. PIKE. "They" is Air Force Legislative Liaison who were requested to provide us with facts, and "withheld" is not an accurate statement. They gave it to us to look at, but told us we could not release this information.

I am on an unnumbered page and I can't give it any better identification than that because they haven't numbered the pages. At the top of the page it says 07D53–27 in vol. 1 of this OSI investigation and they say this:

A 92-page consolidated U.S. Army ACSI/DA report on Frank classified "confidential," dated 24 February, 1956, File A1ABB–CC–D2–018598. This report contained extensive unfavorable information concerning Frank, including allegations to the effect that Frank padded his financial statement and sold defective instruments.

Now, General, this all took place before your responsibility and before you came on the scene, but this AIMS program was not simply an Air Force program. It was an overall service and even FAA program, was it not? But the Air Force was the managing agent for the program, is that correct, or just for the services part of it?

General STEWART. We were the Department of Defense executive agent, or manager, or whatever you want to call it, in a joint program between the total Department of Defense and the FAA, if that was the right title then, yes, sir.

The Air Force was the executive managing agent for the Department of Defense.

Mr. PIKE. Now, in what the Air Force did give us as a statement of fact they list the following under their key questions, and they said, "Apparent low profiling or ignoring of constant advice from the Navy about the contract, and of the Navy's negative opinion and experience with Aerosonic's AAU–19/A altimeters." And that is all they say about it.

Didn't the Navy have much more than a negative opinion of the AAU–19 altimeter?

General STEWART. I think, and somebody is going to have to help me, I think the Navy refused to use the AAU–19 manufactured by Aerosonic.

Mr. PIKE. Exactly. The Navy flatly said, "We won't use the AAU–19 altimeter."

General STEWART. Yes, sir.

Mr. PIKE. And they said it just the year before you took charge or you became responsible for this program; is that not correct?

General STEWART. I have been told and I accept for a fact that the Navy refused to say it. I don't know when they did. They might have said it during my first year of involvement. I don't know when they said it. I do know that no Navy admiral called me and said, "Jim Stewart, you lost your marbles. We aren't going to take the damn thing." That I know is so.

Mr. PIKE. Yes, but when you were reviewing the files on the procurement of this altimeter, as you told us yesterday you were, didn't you even look at what the Navy had done with the procurement of this altimeter?

General STEWART. I just didn't remember the date that they had refused to.

Mr. PIKE. But didn't you know, when everybody is amazed that the Air Force kept buying it and buying it and buying it, all the time it couldn't pass the tests, they just kept buying it and buying it and buying it, didn't you know that the Navy had refused to buy it?

General STEWART. Of course the Air Force knew.

Mr. PIKE. Didn't you personally know?

General STEWART. At some point in time I did. I will say yes, I did. I will cave to that.

Mr. PIKE. Did you know the reasons that the Navy refused to buy it?

General STEWART. I suspect because it didn't pass its First Article acceptance test and it was not qualified hardware.

Mr. PIKE. Wasn't it more than that? Wasn't it that they actually installed it in F–4's and it didn't work?

General STEWART. I don't know. If you tell me they did, I assume they did, Mr. Pike.

Mr. PIKE. I don't know either.

General STEWART. You must really——

Mr. PIKE. Well, I have some documents here which indicate to me that they tried to install it in F–4's and found it unsatisfactory and it didn't work.

General STEWART. I accept that, yes, sir.

Mr. PIKE. Now, let us talk about what the Air Force itself was doing, and now I am talking about while you were on the scene. April 1971 the Hayes Corp., H-a-y-e-s, and I don't know what their total name is, had the responsibility of installing the Aerosonic altimeter in the C–135 aircraft, April 1971.

What did the Hayes Corp. say about the Aerosonic altimeter?

General STEWART. They and others said it wouldn't work.

Mr. PIKE. What were the others that said it wouldn't work?

General STEWART. I think you will find that LTV had a tremendously high rejection rate on local acceptance tests and perhaps another depot. I will dig out the precise one. There was more than one.

Mr. PIKE. You don't need to dig it out. I am just trying to get down to the specifics of what happened while you were in charge of this program. So in April 1971 Hayes said that for the Air Force it doesn't work. LTV said that for the Air Force it doesn't work. And was that not the framework of fact that we had while you were in charge of this program?

General STEWART. It has to be. I have no quarrel with your facts, Mr. Pike.

Mr. PIKE. And within that framework of fact you said to Mr. Frank that, "If you can't pass the qualification test we're going to cancel the remainder of the program"; is that correct?

General STEWART. I said words to that effect. Yes, sir, on the 4th of August I am sure I did. You know, I said, "If you can't pass it by this point in time, at this point, by this point"——

Mr. PIKE. But you already knew that the altimeter didn't work, didn't you, that the Navy had rejected it, that Hayes said it didn't work, that Ling-Temco-Vought said it didn't work, and you told Mr. Frank that if they couldn't pass the qualification test you were going to cancel the rest of the contract and you didn't do anything?

General STEWART. I am only hesitating because, you know——

Mr. PIKE. You did not cancel the contract? You let it go over to ESD?

General STEWART. I did not cancel the contract.

Mr. PIKE. Right, and you let the contract be transferred over to ESD where they waived the First Article testing; is that correct?

General STEWART. That is my view of it. I didn't cancel it.

Mr. PIKE. That is all I have, Mr. Chairman.

The CHAIRMAN. Any further questions on the committee?

Thank you very much, General. We appreciate your cooperation. Do you have a further statement to make?

General STEWART. No. I think Mr. Pike asked me a bunch of questions and I never had an opportunity to answer them here.

The CHAIRMAN. You answer them.

Mr. PIKE. I thought you had answered them. If you want to make a statement, go ahead.

The CHAIRMAN. The door is open.

General STEWART. You know, I just jotted down some points. I have said repeatedly that Aerosonic Corp. required much more management attention, and this includes stops, and starts, and rejections, and modifications, and what have you, but I stand by my earlier statement that the final result, you know, with the exception of the AAU–19, has almost invariably been acceptable hardware and despite any stops and starts at a very good price to the Government. I stand by that.

Mr. PIKE. Then you disagree with the Air Force's statement of fact that they stopped the procurement of this other item?

General STEWART. It says they stopped production, but they probably also restarted it again a month or two later. I don't know which specific they're talking about. I say we have stopped, we have slipped, we have delayed, we have gone back and modified, and this is what I mean by more management attention, but the general result has been

acceptable hardware at lower price to the Government, and I think this has influenced us in our dealing with them.

I think further—can I pick up a few more points?

Mr. PIKE. Certainly.

The CHAIRMAN. Go ahead.

General STEWART. On the Navy, your comment on the Navy, all I can say to that is, boy, I wish on this one that the Air Force had been as smart as the Navy, and I can't say anything more to you than that. They were smart and we were dumb, but I would hasten to add to that point, and I think you need talk with Colonel Zeine, we get back to a theme that I have talked to on this one, that I believe honestly we always thought qualification is one little step ahead and we retrofit and we are going to have good hardware out of it and it is not going to be a total loss.

Mr. PIKE. You thought qualification was just ahead. In August 1971 when you were still there they took 10 of these altimeters out to Oklahoma City, to the Air Logistics Command, and they took some Oklahoma City people down to the Aerosonic plant and trained them in the maintenance of these altimeters, and then they went back to Oklahoma City and they tried to repair these 10 altimeters.

Did they repair any of them?

General STEWART. They couldn't repair them.

Mr. PIKE. Did they spend 800 man-hours and $17,000 trying to repair them?

General STEWART. I don't know. If you tell me that is a fact I will accept that, sir.

Mr. PIKE. But you always thought that repair, the fix, was just around the corner?

General STEWART. I said I think we operated under this illusion. In hindsight we were just dumb, Mr. Pike, and we exercised extremely poor judgment, not once, a flock of times along the way. And I said that at the outset and I say it now. That is my conclusion.

Mr. STRATTON. Will the gentleman yield?

Mr. PIKE. Yes, I'd be happy to yield.

Mr. STRATTON. In other words, your argument is simply that you were dumb. There wasn't any other factor that led to this rather shocking failure to face up to the fact?

General STEWART. Dumb, that is a dumb way to describe it. I am an engineer. That is a poor choice of words, but certainly not good judgment and if I use one word I say dumb. If your question means—there was just poor judgment in the program. I can find no indication of anything nefarious, scheming, underhanded, kickback, collusion, pressure from Members of the Congress, pressure from my bosses in the Department of Defense. I find no indication of that.

I find a lot of indication of poor program management and poor performance by the contractor.

Mr. STRATTON. You had a threat from Mr. Frank which was following your letter in which you indicated that you were going to cancel the contract and very quickly you caved in. You may say that it is just stupidity. I can't help but wonder whether there is something else there.

General STEWART. Apparently, relating secondhand, Mr. Frank threatened to close down his plant the following Monday. This was a

frequent, recurring thing and I vaguely remember hearing that—maybe it is this September 2, or thereabouts, letter that he wrote that he was going to close down. He wasn't going to have his people at work.

I said if he doesn't have his people at work Monday morning we should terminate him for default right there, but I gather Mr. Frank frequently threatened to close down his plant and that threat had long since lost its impact.

I suggest you talk to Mr. Wood and Colonel Zeine and the other people. I think that was a repeat.

Mr. DICKINSON. May I ask one question?

General STEWART. Yes, sir.

Mr. DICKINSON. I think it was stated by counsel the first day but I have forgotten.

What is the final situation now in regard to all the altimeters that were produced? Did the Air Force accept them and pay for them? Are they in litigation now? What is the status today?

General STEWART. The Air Force has 20-some hundred altimeters in storage. We have paid an amount somewhere in the vicinity of $2.8 million to date to the Aerosonic Corp. in terms of progress payments, and it, of course, is in litigation now because the Air Force did finally terminate the contract, and I assume we really can't dispose of those altimeters perhaps until the thing is settled.

I am not sure whether they are going out to salvage now or not.

Mr. DICKINSON. I am sure we will have legal people from the Air Force here. You say they are in litigation?

General STEWART. Yes, sir.

Mr. DICKINSON. What is the litigation about? Is the Air Force trying to recover the $2.8 million that they paid for a worthless product, or is Frank suing for the balance due on his contract, the things delivered? What is the lawsuit about?

General STEWART. We terminated for default and I think the precise words are "For failure to deliver," and I am assuming the Government hopes to recoup the money they paid or part of the money they have paid and Mr. Frank would be contesting it, that, "At best it is a termination for the convenience of the Government and you need to have paid me for everything I have done all along." This is the litigation.

Mr. DICKINSON. Thank you.

General STEWART. Yes, sir.

The CHAIRMAN. Do you have anything, Mr. Lally?

Mr. LALLY. Thank you, Mr. Chairman.

General, what was Mr. Wood's authority with respect to waiver of the First Article requirements on September 2, 1971?

General STEWART. He may have still been officially what you call the PCO, the Purchasing Contracting Officer, for the program, but I don't think Mr. Wood—he may have technically had the authority to sign the document by then but I don't really think Mr. Wood had authority to issue any First Article acceptance or waiver or what have you, not from a management standpoint, sir.

Mr. LALLY. Would he have had to consult with the Director of the AIMS SPO before consenting to such a waiver of the First Article requirement?

General STEWART. I would sure think so.

Mr. LALLY. Would he have to consult with you or the Director of ESD, whoever had the ultimate responsibility at that time, before waiver of the First Article requirement?

General STEWART. I didn't lay that levy on them. There are some things that people must consult with me on and this generally would not fall in that category. This would be a program director judgment as to whether he should consult with me. I would assume, you know, if I had gotten personally involved in the darn thing and most of my program directors consult me before they go off on another path——

Mr. LALLY. Thank you.

The CHAIRMAN. Is there any further statement the gentleman would care to make? The door is wide open and I want you to be completely satisfied that you have been given every opportunity to explain your position.

General STEWART. No, sir. I only want to add one thing.

It really isn't an explanation of a position. We got off quarreling whether something happened on day one or day another and I find it hard to mentally go back in history. I even find it hard in documents that they don't sometimes sort of mean the same thing even to the author today that they did before, and I think there are—I don't know—I probably contradicted myself a half dozen times since I have been here now and, you know, I tell you this. They are honest errors on my part and there is nothing else than that. I think you are going to find contradictions in the statements that follow, but I think we can get off on the wrong track if we build the wrong thing on conflicts in memory and conflicts in interpretation, and that doesn't mean at all, and I talked to Mr. Lally on this you know, that we're investigating procurement practices and, you know, and we both have a responsibility.

When we find something criminal, fraud, anything like that, the first purpose goes to pot and off we go and do that. I find conflict but that doesn't to me mean that the Air Force is deliberately lying to you or we are trying to cover up things, and Mr. Wood is going to tell you he told me something in September and I tell you now that I don't remember it.

But I trust Mr. Wood and if he tells you he told me I believe he did.

The CHAIRMAN. Of course, I can appreciate that, General, and every member of the committee, I am sure, can appreciate that and that would also be in the interpretations of words like Mr. Stratton pressed much on use of the word "feeling."

I personally can understand how that can be interpreted two ways, and there are so many other things that can be intepreted, but Mr. Pike pressed the case that we are looking at the facts and not interpretation of words, and the facts with regard to the decision this committee will come to, and the greatest interest that we have, the paramount interest that we have in the whole thing, is our responsibility as the oversight committee on all the Department of Defense, not only the Air Force, and we get, oh, hundreds of complaints which you do not even hear anything about. We dispose of them here and make our own determination whether they are justified to go ahead and disturb the people in the various branches of the service, and when we do make that determination, then we go ahead with full vigor and attempt to

get to the facts, as in this case, and that is what we are doing here and we hope that we can come up with the facts.

However, again on top of the paramount situation is the fact that all these years this committee has been in existence, the Investigating Subcommittee for over 20 years, maybe 25 years, our original investigation in this committee, strangely enough and by coincidence, revolved around almost exactly the same set of circumstances that involve these Aerosonic people.

The very first investigation was where a nonconforming report was given against the people and it was changed after we sent inspectors in quite a number of times and it defaulted subsequently.

So this is not a new thing for us. We have gotten money back. One time we had $5 million from Ford floating around and nobody in the Government would take the money, hot money, and then we had $20 million in another case given back by General Motors, and so we are a bit exposed to this type and want you to know it. But I want you to feel that you have had every opportunity, as every member of this committee has every opportunity to question you in their own way at length and determine what they want to determine.

General STEWART. Fine, Mr. Chairman.

The CHAIRMAN. Thank you very much.

General STEWART. I was not lecturing to you.

The CHAIRMAN. No; we recognize that and I am sure you recognize that the committee is charged with the responsibility of developing the facts that we have in hand, and certainly things have been developed here that would not have been developed if the committee hadn't brought it to the attention of the Air Force.

General STEWART. I guess I was just pleading for a little understanding for the people that are going to follow me because we honestly have had trouble assembling the facts and not because people were dishonest.

Mr. DICKINSON. We have, too.

General STEWART. I have had trouble, sir.

The CHAIRMAN. Thank you very much.

General STEWART. My pleasure.

The CHAIRMAN. Mr. Frederick Wood is the next witness.

General STEWART. Mr. Chairman, without it being a matter of record——

The CHAIRMAN. Off the record.

[Discussion off the record.]

Mr. PIKE. Mr. Chairman, before he leaves, may I ask one question.

Who today would be responsible for the purchase of altimeters? Does it go through your shop at all?

General STEWART. My deputy for subsystems purchases many altimeters, and air speed indicators, and that sort of thing, yes, sir.

Mr. PIKE. So today it goes through your shop?

General STEWART. The Government-furnished equipment. Some prime contractors buy themselves direct, but we buy many. We buy many.

Mr. PIKE. I want to get one more question on the record before General Stewart leaves.

Are you aware that even during the course of this investigation and within the last 2 months or perhaps 3 months, a noncompetitive

award was made to the same corporation for the production of altimeters?

General STEWART. There have been several awards to Aerosonic over the past several years.

Mr. PIKE. On a noncompetitive basis?

General STEWART. What do we mean by "noncompetitive," sir? I don't know what you mean by that.

Mr. PIKE. I mean sole source, without bid.

General STEWART. Is that because no one else would bid?

Mr. PIKE. I don't know.

General STEWART. The rules for sole sourcing are very tough and if you will give me a couple of specifics I will dig for you.

Mr. PIKE. Let me say I don't know the description of what is sole source, what is noncompetitive, but I want to read a little item out of the Commerce Business Daily, May 17, 1974, page 21, Altimeter Pressure Type AAU–27/A.

In accordance with Spec Mil A83212, dated 21 March 1969, and Amendment No. 4 thereto," and I am not reading all of this, "negotiations are contemplated with Aerosonic Corporation, 1212 North Hercules Avenue, Clearwater, Florida."

Is that a sole source procurement or isn't it?

General STEWART. This was originally a competitive award and this is a follow-on and I will dig deeper than that. I know that is factual right there.

Mr. PIKE. Mr. Chairman, I don't want to hold General Stewart up, but if that is the case I do think it is pertinent to find out whether the Air Force is having any trouble with the AAU–27 altimeter on which this was a competitive award given to Aerosonic.

General STEWART. That is a question?

Mr. PIKE. Yes, sir.

General STEWART. Oh, answer, we have had management problems with it, yes, sir.

Mr. PIKE. Was it not the AAU–27 altimeter, during the course of the testing, in which they found a space manifold inserted into the testing facility at the Aerosonic plant, changing the pressure readings on the altimeters?

General STEWART. I think so, yes, sir.

Mr. PIKE. And so having found in the Aerosonic plant a spare manifold inserted into the testing process on the AAU–27 you are continuing to buy the altimeters on a negotiated bid from this corporation?

General STEWART. Yes, sir. But it needs a postscript.

Did that not trigger the OSI investigation and did that not result in reprimands and action by Mr. Frank to two of his employees? Didn't that trigger that?

Mr. PIKE. Wait a minute. The reprimands were delivered to employees of the Aerosonic Corp. Was any employee fired?

General STEWART. I don't know. I think not.

Mr. PIKE. Was any employee cut in pay?

General STEWART. I don't know, sir.

Mr. PIKE. Has the Air Force ever looked to see whether the employee who was reprimanded has in fact gotten a raise since that time?

General STEWART. I will look for you, sir.

Mr. PIKE. I wish you would.

General STEWART. I will.

Mr. PIKE. I don't know the answer but I expect that the reprimand was a piece of paper given to pacify the Air Force and had nothing whatsoever to do with the feelings of the management of the corporation, because I find it very difficult to believe that the people who were supposed to be testing the quality of this altimeter put a spare manifold into the wall at the plant knowing that they would be reprimanded and disciplined if they did it.

Mr. HUNT. Will the gentleman yield?

Mr. PIKE. I am happy to.

Mr. HUNT. Mr. Pike, is it your belief then that with this manifold, which was not just inserted in the wall, was concealed there——

Mr. PIKE. Oh, yes, was concealed and hidden behind the wall.

Mr. HUNT. Was designed specifically to further the so-called testing proficiency of Aerosonic?

Mr. PIKE. To allow altimeters nominally being tested to not in fact reveal true readings under pressure and vacuum conditions.

Mr. HUNT. In other words, it was designed specifically to upgrade deficient altimeters?

Mr. PIKE. Absolutely. It was designed specifically to, in my judgment, defraud the Government in the procurement of altimeters, and this is the specific altimeter which you now say was awarded on a competitive basis but you are continuing to negotiate additional altimeters with the same corporation.

General STEWART. Yes, sir.

Mr. MOLLOHAN. Mr. Chairman, may I ask a question?

General STEWART. Yes, sir.

Mr. MOLLOHAN. General, did you make an investigation of what Mr. Pike has just suggested here as having been done here in order to reflect a faulty reading of an altimeter? Did you cause an investigation to be made of this?

General STEWART. Somebody is going to help me out, but I am going to answer before I read the note, and I think this was the subject of the OSI investigation. I personally did not trigger that investigation, no, sir.

Mr. MOLLOHAN. Did you have a copy of that report? Are you conscious of it? Are you aware of it?

General STEWART. I got the result of it.

Mr. MOLLOHAN. What did you do about it when you got it with reference to this contract? What action did you take? Did you try to ascertain whether or not any of the company officials had directed that this kind of a construction be effected in testing mechanisms?

General STEWART. The OSI report and the legal opinion of Air Force people were that there was no basis to prosecute on corporation intent to defraud and it was dropped at that point.

Mr. MOLLOHAN. As a contracting officer and the person in charge of this procurement at the highest level, what was your attitude toward the company from then on with reference to the continuation of the contract on the AAU–27? That is the only contract that we have for altimeters active today, isn't it?

General STEWART. We have several active and I will get those for you.

Mr. MOLLOHAN. With Aerosonic, with this company?

General STEWART. Let me answer your prime question there, what is my attitude.

Very carefully dealing with Aerosonic.

Mr. MOLLOHAN. This has been the pattern of about everything that you have said. You have declared here positively there is no bribery, no collusion, no improper influence on the part of any Member of Congress or anyone else.

Then you say that the Air Force was dumb in its handling, and we have had three different contract officers during this period, Colonel Blais, and Colonel Zeine, and Colonel Stanley, and it seems to me rather incongruous that there can be this continuation of an attitude by these various supervising contracting officers unless there was some pattern over and above, say, from your office, which dictated that this should be our attitude toward this company, that this should be the approach that we undertake and that we manifest at all stages at all times.

This is a rather peculiar situation to exist over a period of three or four different contract officers.

General STEWART. Very difficult for me to ban a contractor from all business with the Government.

Mr. MOLLOHAN. I am not talking about all business. I am only talking about two businesses. I am talking about the AAU–19 which from the testimony that I have heard here today doesn't suggest there was ever a test that was given to it at any point in time, that it ever passed completely, and then we go into the AAU–27 and we apparently still have the same continuing pattern of conduct on the part of the manufacturer, the producer, and also on the part of our contract supervisory people.

General STEWART. Out of the investigation came no basis for prosecution.

Mr. MOLLOHAN. I am not talking about prosecution, General. I am talking about the attitude of your contract officials, Colonel Blais, Colonel Zeire, Colonel Stanley, and General Stewart.

What is your attitude toward a company of this sort at this point in time with reference to demanding that they meet specifications and deliveries?

General STEWART. I demand that they do meet the terms of their contract.

Mr. MOLLOHAN. Are they meeting the terms of their contract on the AAU–27 today?

General STEWART. I checked——

Mr. MOLLOHAN. You ought to know that. This thing is hotter than a firecracker. You ought to be able to answer that correctly.

General STEWART. The answer is yes. I was just going to read you some words.

Mr. MOLLOHAN. I don't want you to read. I want you to tell me.

General STEWART. The answer is they are delivering acceptable hardware.

Mr. MOLLOHAN. Are these people delivering now? Are they meeting the specifications and under a properly supervised Governmental testing program?

General STEWART. I will give you a general answer of yes.

Mr. MOLLOHAN. In other words, you have no reason to find fault with any of the hardware that you are receiving now under the AAU–27 contract?

General STEWART. My people tell me I have no cause for concern.

Mr. PIKE. Would the gentleman yield?

Mr. MOLLOHAN. Be glad to.

Mr. PIKE. Did the Air Force have difficulty repairing the AAU–27 altimeter?

General STEWART. Yes; embarrassingly so, but the Navy is able to repair it for us.

Mr. PIKE. So the Air Force has had to turn over to the Navy the repair of this altimeter, and I find no fault with that if the Navy can repair it and the Air Force can't, but you say that they are delivering satisfactory hardware except that to get it repaired you have to give it to the Navy; is that correct?

General STEWART. A Navy depot rather than an Air Force depot.

Mr. PIKE. Suppose they are just overseas somewhere where there isn't a Navy depot around. You have to ship it back to the Navy depot to be repaired; is that correct?

General STEWART. Either repair them at field level, squadron or base, or they go to a depot.

Mr. PIKE. And they can't be repaired at the squadron or base level.

General STEWART. Then they go to a depot.

Mr. PIKE. You answered Mr. Mollohan in saying that it was satisfactory. I think the other part of Mr. Mollohan's question was, are the deliveries on schedule.

General STEWART. On schedule, my people tell me yes.

Mr. STRATTON. Mr. Chairman, may I ask one question?

General, do I understand that the Air Force has never undertaken its own testing of this item which you found was being tested fraudulently in the company's own facilities?

General STEWART. No, sir; I don't think you understand that correctly. I think there is, oh, there is 100 percent witnessed acceptance testing and a sampling plan in production lots, that criteria, a lot of things.

There is a witness testing and I was only fumbling because the DCASR representatives were doing it. They are Government representatives and they are Air Force per se. When hardware is delivered to a contractor or to a depot there generally is an acceptance test of it there, a repeat, to insure at least that it hasn't been harmed in delivery.

There will be a functional check before you put an instrument into an airplane. So along the way there are lots of Air Force tests by lots of people.

Mr. STRATTON. You found that these instruments were being fraudulently tested at the production site. Your testimony is now that you have, nevertheless, undertaken your own tests and you found that in spite of that fraudulent testing they meet the Air Force test.

Is that your testimony?

General STEWART. No, sir. No, it is not.

Mr. STRATTON. Well, what is the testimony? To me this comes as a shock that you should find that these items are being tested in that manner and yet you continue to procure them. I wouldn't want to jump in a parachute that I saw being fraudulently tested and packed by the manufacturer.

General STEWART. Then I fall back that the Government agency did ask the OSI to investigate it and they did, and we won't repeat that.

Mr. STRATTON. I am not talking about the investigation. I am interested in whether you are still procuring these from a company that tests them in such an improper way without testing them yourself.

General STEWART. Does anybody know on the AAU–27? Did we have 100 percent witness testing now.

The CHAIRMAN. Identify yourself, please.

PHILLIP R. MARSHALL. Phil Marshall, from ASD. I work under General Stewart, and on this contract, the current contract that they are delivering on, the contractor offers for acceptance block lots of the unit to the DCASR people—I think they are on the list, one of the witnesses—and they independently test the items before they accept them.

If the sample testing does not pass, they are rejected and returned back to the contractor. This is one form of testing. We are doing it in the plant before we accept a batch from the contractor.

Mr. STRATTON. What is the percentage of acceptance and rejections?

Mr. MARSHALL. I cannot answer that.

The CHAIRMAN. Mr. Hunt.

Mr. HUNT. What plant are they testing these in? The manufacturer's plant?

Mr. MARSHALL. Yes. They are testing them in the manufacturer's plant. The Government people are running the test. The manufacturer's people are operating the test equipment I believe.

Mr. HUNT. Mr. Marshall, have you been to this plant?

Mr. MARSHALL. Yes; I have, sir.

Mr. HUNT. How large a plant is this approximately?

Mr. MARSHALL. In size?

Mr. HUNT. Yes.

Mr. MARSHALL. It is hard for me to estimate.

Mr. HUNT. Well, is it 10 times the size of this room? Twice the size of the room?

Mr. MARSHALL. No; it is probably 10 times the size of this room.

Mr. HUNT. How many people do they employ?

Mr. MARSHALL. I don't know right now.

Mr. HUNT. Well, do you know whether or not the inspection technique that they are using down there is authentic? Has anybody made any further check on this to find out whether they have any concealed manifold back there some way. If you have a building this small it is unbelieveable to me and inconceivable that the management of that plant did not know the fraudulent manifold had been installed, somebody somewhere along the road. This whole thing stinks.

Now, you can't tell me that I can't walk into a plant and find something that is concealed in the wall in my own plant that size. If it was something like Chance-Vought or Boeing I can understand it. But this is a small plant, as I understand it, with less than 200 employees, getting Government contracts and having been caught redhanded with them.

I want to know, as the rest of the committee wants to know, how far has this testing apparatus been checked off? Were photos taken of the concealed manifold? Just how effective was this inspection that discovered this? Something is wrong, Mr. Marshall. I am trying to get to the bottom of it.

The CHAIRMAN. Mr. Dickinson.

Mr. DICKINSON. Thank you, Mr. Chairman.

General, you made the statement that the lawyers and, I think you said the OSI investigators, gave you the opinion that there was not sufficient ground to bring criminal action for fraud. Is that correct? Did I understand that?

General STEWART. I may not identify all the authors of it but that is the overall opinion of the Air Force, no basis for prosecution for fraud.

Mr. DICKINSON. Does that then preclude you from disqualifying them from ever doing business with the Government?

General STEWART. I think it does.

Mr. DICKINSON. I mean if you can't prosecute somebody criminally because you can't identify the guilty individual, that means that you have no recourse against the corporation or the people with whom you are doing business? Your hands are tied and you have to do business with them from then on?

General STEWART. There are other bases for not doing business but I cannot blacklist them for that.

Mr. DICKINSON. That is what I want to know.

General STEWART. I cannot; no, sir.

Mr. DICKINSON. You mean to tell me that if you go into a company and find that they are fraudulently certifying or manipulating the tests, as has been alleged here, and we have three instances claimed here as I understand it, first, the concealed manifold and then on two other occasions someone allegedly found employees in there after-hours juggling the gages, and assuming these three independent substantiated facts are true, do you feel that you still don't have grounds not to do business with these people? Your hands are tied?

General STEWART. I really think they are if we haven't got a basis for taking them to court, you know, the Government filing charges against them——

Mr. DICKINSON. You are talking criminal charges now?

General STEWART. Yes, sir; that is fraud. Fraud is criminal; yes, sir. There is no question of that. And in the Government's opinion here apparently we didn't think we had enough basis for even trying to prosecute it as a fraud case, and I have to keep that in the back of my mind perhaps dealing with them, but because somebody has said he is bad I cannot blacklist them on a contract list; no, sir.

Mr. DICKINSON. Well, then perhaps there is some good that will come out of these hearings because if that is the fact, that you have to deal with somebody that is caught with a smoking gun in his hand, so to speak——

General STEWART. I understand the expression.

Mr. DICKINSON. And speaking as a lawyer and one who has heard a lot of trials, I think that opinion stinks. It is inconceivable to me. You can't put a corporation in jail, but you darn sure can go after them in other ways and not do business with them. Of course, in all this I am assuming the allegations are true, which I have no way of knowing.

Thank you.

The CHAIRMAN. Mr. Gubser.

Mr. GUBSER. If this has been covered part of the time I wasn't here please stop me. Aerosonic is a corporation, is it not?

General STEWART. Yes, sir.

Mr. GUBSER. Are there any retired military personnel on the board of directors or in the employ of Aerosonic Corp.?

General STEWART. I don't know.

Mr. PIKE. Would the gentleman yield?

Mr. GUBSER. Surely.

Mr. PIKE. General, can you tell us how much the Navy charges the Air Force or average charge for repairing an AAU–27 altimeter?

General STEWART. No, sir, and I will find out for you.

[The subcommittee was subsequently furnished the following information: During fiscal year 1974, 435 units were repaired at an average cost of $475 per unit; during fiscal year 1975, 106 units have been repaired to date at an average cost of $482 per unit.]

Mr. PIKE. Thank you.

Mr. GUBSER. Were there any retired Air Force personnel in the employ of Aerosonic Corp. or on the board of directors?

General STEWART. Not that I am aware of, sir.

Mr. RANDALL. Mr. Chairman, may I ask one question?

The CHAIRMAN. Yes.

Mr. RANDALL. Our staff will determine that fact about the past officers or present retired officers?

The CHAIRMAN. The staff will find that out.

Mr. RANDALL. Thank you, sir.

The CHAIRMAN. The committee stands in recess until 2 o'clock. Mr. Wood will be the first witness.

[Whereupon, at 11:56 a.m. the subcommittee recessed to reconvene at 2 o'clock the same day.]

AFTERNOON SESSION

The CHAIRMAN. The committee will be in order. Mr. Wood.

[Witness sworn.]

The CHAIRMAN. Identify yourself.

TESTIMONY OF FREDERICK S. WOOD, CONTRACTING OFFICER

Mr. WOOD. My name is Frederick S. Wood. I was the contracting officer initially on the AAU–19 acquisition starting in the early part of—at the inception, really, and I remained in various capacities through August of 1971.

The CHAIRMAN. Do you have a prepared statement?

Mr. WOOD. No, sir, I do not. I was asked to provide a biography. I did that and submitted same to counsel.

[The biographical sketch follows:]

PERSONAL RÉSUMÉ

Name: Frederick S. Wood.
Home: Dayton, Ohio.
Date of birth: February 19, 1928, Dayton, Ohio.
Marital status: Married.
Children: Four Sons, Three Daughters.
Present title, series and grade: Procurement and Financial Officer, GS–301–15.
Location of present position: Aeronautical Systems Division, Deputy for Prototypes, Wright-Patterson AFB, Ohio.
Education: 1948–52, University of Dayton, major—economics, business.
Specialized training 1970, Defense Management Systems course, U.S. Naval Postgraduate School, Monterey, Calif.; 1974, Federal Executive Institute.

Honors: Honorary member of faculty—Defense Weapons Systems Management Center.

Memberships and activities in professional and technical societies: National Contract Management Association.

Résumé of pertinent experience: September 1971 to present—Chief Procurement and Financial Officer, GS–0301–15, Prototype Program Office, WPAFB.

Organizes and plans the activities of the Procurement and Financial Group responsible for developing, implementing, and directing technical support for financial management programs for the Program Office.

June 1966 to September 1971—Chief Procurement/Production Officer, GS–1101–14; DOD AIMS/TRACALS System Program Officer. (Merger of DOD AIMS SPO and TRACALS SPO effective February 1970.)

Provided advice/council to the System Program Director on procurement methodology for implementation by the SPO and Tri-Services. Evaluates procurement and production problems in relation to successful program accomplishments and either directs a proper course of action or recommends such action to higher authority. Establishes Tri-Service working relationships and operational procedures for use by all three military services in pursuance of DOD program objectives. Represents the SPO at all levels on procurement and production matters.

December 1965 to June 1966—Supervisory Contract Negotiator, GS–1102–13; DOD AIMS System Program Office.

The function of this position was to serve as the System Program Office primary contracting officer for DOD AIMS Air Force (SPO) procured systems/subsystems and to provide direct line supervision to subordinate contract negotiators.

February 1964 to December 1965—Contract Negotiator, GS–1102–12; DOD AIMS System Program Office.

The function of this position was to serve as a contracting officer and senior contract negotiator for designed DOD AIMS SPO procured systems/subsystems.

August 1961 to February 1964—Contract Negotiator, GS–1102–11 and 12; Deputy for Equipment Management, Directate of Avionics Equipment, Guidance and Control Division, Bombing Systems Branch.

The purpose of this position was to perform duties as primary procurement officer, with the authority and responsibility of a contracting officer for Guidance and Control subsystems and equipment.

May 1954 to August 1961—Chief Contract Administrator, Telectro Industries Corp., Long Island City, N.Y.

This period of time was spent in private industry as Chief Contract Negotiator and Administrator. The firm by whom I was employed was a producer of electronic equipments for the Department of Defense. I was responsible for all negotiations between the company and the DOD.

The CHAIRMAN. Mr. Pike?

Mr. PIKE. We are now going backward in time from the present to the time when the decision was made to award this contract, which was then for two separate altimeters, is that correct?

Mr. WOOD. That is correct.

Mr. PIKE. What was your role in the awarding of that contract?

Mr. WOOD. I was the contracting officer, sir.

Mr. PIKE. Does that mean that you made the decision to award that contract to Aerosonic?

Mr. WOOD. Technically yes, but factually no. I was part of a group of people who collaborated on collecting information. I physically signed the contract. I committed the Government on the acquisition.

Mr. PIKE. Now, prior to making that decision, what information was provided to you?

Mr. WOOD. I would have to go back just a little bit rather than answer your question directly, if I may.

Mr. PIKE. Go ahead.

Mr. WOOD. We were using a two-step formal advertised procedure. In the first step of that a technical proposal is submitted. At the conclusion of the evaluation proposals must fall in one of two categories. Either acceptable or unacceptable. There is no gray area.

So the information in the final analysis that I was supplied was the acceptability or nonacceptability of technical proposals. In this particular case all four proposals were acceptable.

Mr. PIKE. Were you provided with the memo or evaluation of the Systems Engineering group, Research and Technology Division of the Air Force Systems Command, dated March 29, 1965, stating that the proposals received on the subject LRFTP R65–7094 have been evaluated and that the Aerosonic Instrument Corp. was considered unacceptable?

Mr. WOOD. Yes, sir.

Mr. PIKE. So you had that piece of paper?

Mr. WOOD. Yes.

Mr. PIKE. Were you then provided with a subsequent piece of paper dated July 8, 1965, from the same people stating that the Aerosonic Corp. was considered acceptable?

Mr. WOOD. Yes; I was.

Mr. PIKE. Did you have the whole piece of paper or just the result?

Mr. WOOD. I am going to assume the whole piece of paper, sir.

Mr. PIKE. Did you have the language that follows?

It should be noted that the acceptance was not unanimous; four evaluators rated the proposal acceptable and two evaluators rated the proposal unacceptable. From the overall low scoring attained, the proposal is considered marginal and therefore is considered a high engineering risk.

Mr. WOOD. Yes.

Mr. PIKE. You had that language in front of you.

Did you have in front of you a document dated July 12, 1965, which said the following:

The Aerosonic Corporation proposal caused considerable controversy, deliberation and soul-searching on the part of the evaluating engineers. This prosposal finally emerged as marginally acceptable after being accorded the most liberal interpretation and application of pertinent procurement policies.

Mr. WOOD. I did.

Mr. PIKE. Did you have before you at the time that you made that decision a telegram from the Chief of Naval Materiel dated November 12, 1965, concerning the need for a split procurement?

Mr. WOOD. I see it here. I am going to assume "yes."

Mr. PIKE. And that document said this:

Navy AIMS is concerned about timely delivery of AAU–11/19 altimeters due under MIPR R65–7897 and 7094 should the entire requirement be awarded to Aerosonic.

It is requested strong consideration be given to a split award between Aerosonic and AAU 11/19 developer for the following reason:

(a) Experience has shown that on complex equipments awards to unproven sources results often in lengthy production development not always envisioned by contractor's planning. It is highly desirable to have a going source of supply provided by the developer while a second source gains required experience. ASO has had to order approximately 1,000 MC–2 and MC–3 altimeters for Air Force and Navy aircraft as the result of delay in award of the AAU–11/A and AAU–19/A. This represents approximately $800,000 purchase of obsolete equipment which will be replaced as soon as the AAU–11/A and AAU–19/A, altimeters are delivered.

Mr. PIKE. On what date did you make the decision that this contract should be awarded to Aerosonic?

Mr. WOOD. I cannot give you a specific date. I think the contract was awarded one day in February, the exact date I do not recall, but that is the date we made the decision, sir.

Mr. PIKE. That would have been in February, 1966?

Mr. WOOD. Yes, sir.

Mr. LALLY. If you will refer to document No. 12—(see appendix 6)—what is the date on there?

Mr. WOOD. February 15.

Mr. PIKE. Now, prior to that time, between the date this responsibility was given to you and you got these documents talking about the marginal acceptability of Aerosonic and the desire of the Navy that a dual procurement be entered into, you had, I presume, several conferences with other people in your own shop about how to go about this procurement, is that correct?

Mr. WOOD. The answer is yes, but not so much as to how to go about the procurement. If I may take the liberty I would like to take you back again to almost ground zero.

I am sure you recall about the 1965, 1966 time period. There was a major thrust throughout our country to change, if you will, that ratio of about 85 percent of our dollars being expended via negotiation to some more palatable ratio of procurement dollars being spent via formal advertisement or competition.

This is one of the things that occurred at that particular time. The system generated this methodology called two-step formal advertising intended to bridge this gap between advertised and negotiated procurements where you could reasonably define the specification and scope of work, permit someone to submit a technical proposal and have competent engineers evaluate it and in that process broaden the competitive base. That is the environment generated here.

When you say I talked with other people about the procurement method, not really, sir. We talked about the findings of the evaluation, but the methodology had been cast in concrete months before.

Mr. PIKE. If the evaluation had been cast in concrete, when you got a memo dated July 8th saying that Aerosonic was marginally qualified, why did it take from July 8th until the following February before you entered into a contract?

Mr. WOOD. I am going to do all of this by memory. Like General Stewart, I really didn't do any homework on this subject, but in addition to the normal 6 months or so that processing takes in our system, in processing contractual documents——

Mr. PIKE. What discretion did you have, Mr. Wood? You say it was cast in concrete. What discretion did you have?

Mr. WOOD. In my judgment, sir, the moment the proposal fell into a category of being acceptable, I had no discretion except to proceed to the second step.

Mr. PIKE. You are saying where you have no discretion whatsoever, it still takes you 6 months within the system to process the papers?

Mr. WOOD. Mr. Pike, that is a true statement. I hate to admit that, but the processing of paperwork through our system is not that expeditious, sir. It is pretty cumbersome.

Mr. PIKE. You say you had no discretion as to the qualification of Aerosonic. Did you have any discretion as to the dual source?

Mr. WOOD. Yes, sir, but let me, if I can, please, again—not to play on words with you, sir, but to try to make sure that I am communicating properly to you. I had discretion relative to Aerosonic, but I did not have technical discretion. There is a preaward survey where

we look at finances, capacity, integrity, and so forth so that in that arena I had discretion, but in the technical decision I had no discretion.

Relative to the second part of your question, the dual award, yes, sir, we did have some discretion in that area and as I will tell you later, we did proceed to do that, but for maybe different reasons.

We had not set up the IFB contemplating or anticipating dual awards. Now, if we don't do that—okay—and we had not—then we have one or two choices. Either shut that procurement off and start off in a context that would give us permission to award dual sources, or go ahead with the award.

We opted, frankly, to proceed.

In March 1966, however—and I did a little research because it had kind of escaped me—we did initiate a request for authority to conduct a negotiation, a nonadvertised procurement between——

Mr. PIKE. This was after the contract with Aerosonic had been executed?

Mr. WOOD. Yes, sir. If I can put it in the right perspective, the contract with Aerosonic was executed the 15th of February 1966. I am saying, sir, about the 2d of March 1966, we began paperwork to authorize us not to advertise for a second procurement of AAU–19 confining, if we could, that competition to Kollsman, Bendix and Astek, those three other sources who had submitted acceptable technical proposals in the first instant procurement.

Mr. PIKE. Mr. Wood, who responded to the telegram from the Navy requesting a duplicate procurement? Would that have been Colonel Blais?

Mr. WOOD. I am going to say yes, but I really don't know. Normally when we communicated with a level that was essentially the same as Aeronautical Systems Division, it would go over the program director's signature. I am going to assume that is the case, but I really don't recall. I really don't know.

Mr. PIKE. Did you see the letter which Colonel Blais sent to the Navy rejecting their request for a dual procurement?

Mr. WOOD. Because of our close working relationship, I will assume I did, sir.

Mr. PIKE. But you had no part in its preparation?

Mr. WOOD. I can't say that, Mr. Pike. I may very well have had a part in its preparation because we worked very closely together, all of the division chiefs in the program office.

Mr. PIKE. Who made the decision that the Aerosonic Corp. was a responsible contractor?

Mr. WOOD. I did, sir.

Mr. PIKE. In making that decision, how much time did you spend at the Aerosonic plant?

Mr. WOOD. I am going to guess, and I think I was a party to either one or two trips on a preaward survey to Aerosonic, sir. It is either one or two and I am not sure and those trips probably spanned, I will guess, and say a day or two days. I don't really recall.

Mr. PIKE. Did you examine past performance of Aerosonic with other Air Force contracts?

Mr. WOOD. Yes, I did, but I think I owe you more of an explanation than that. I am now talking about the Department of Defense. We

tried over many years to gather information and have it in a central point so we could make some kind of retrieval and determine the performance or past performance of contractors. It was a disaster, and how did I go about checking the past performance of other contractors? I essentially do that through the DCAS and where we had other people in ASD involved in buying instruments from them I would check with those people. Between DCAS and people actually interfacing with them at ASD, that was the source of my information, frankly, as to past performance.

Mr. PIKE. Were you made privy to prior OSI investigations of Aerosonic?

Mr. WOOD. No, I had no knowledge and it never came out in any part of the preaward survey or any other aspect.

Mr. PIKE. Were you privy to prior Army investigations of Aerosonic?

Mr. WOOD. No, sir.

Mr. PIKE. Were you privy to prior Navy cancellations of Aerosonic contracts for default?

Mr. WOOD. I cannot say for default, but, yes, I was knowledgeable of either one or two contracts that termination action either had been instituted or was in the process of being instituted against Aerosonic. I don't recall whether it was default or convenience.

Mr. DICKINSON. Mr. Wood, you enumerated a number of things that were taken into consideration in your preaward survey to determine whether or not a company was responsible. Is that the result of that?

Mr. WOOD. That is correct, sir.

Mr. DICKINSON. You used the word "integrity." Could you explain how you arrive at this and what it means? If this company turns out to have good integrity after the record that has come out so far, assuming the facts are true, I don't know what the word means.

Mr. WOOD. The ASPR requires us to look at the integrity. My God, I don't know how to do that. I don't have that kind of all-omnipotent wisdom. I don't know how to do that.

Mr. PIKE. You are still doing business with this same company after having caught them with a concealed manifold hidden behind a panel, jiggling the dials to affect the outcome of tests and having one test certified and initialed when the people whose initials appear thereon say they never saw it? Now, wouldn't that knowledge which you have somehow work into integrity on the awarding of subsequent contracts?

Mr. WOOD. Here, sir, I need some help. I have no experience prior to the AAU–19 with an award to Aerosonic.

I have had no experience subsequent to an award of the AAU–19 to Aerosonic, so I am in no position to speak about other contracts.

Mr. PIKE. Somebody else in the Air Force does that?

Mr. WOOD. Yes, sir.

The CHAIRMAN. Who?

Before you answer that question, the committee will recess for 15 minutes to answer a rollcall.

[Recess taken.]

The CHAIRMAN. The committee will be in order.

I think, Mr. Dickinson, you had a question.

Mr. DICKINSON. I would just like to go on and develop that one thought.

The CHAIRMAN. I think you were about to answer one, weren't you?

Mr. WOOD. Yes, sir. I think that the comment was relative to buying other altimeters and I indicated that I had had no involvement in that business prior to the AAU–19 nor subsequent to the 19.

Mr. DICKINSON. Well, now, to put it in context, I would refer back to the testimony of General Stewart this morning when he indicated that his hands were tied unless he could proceed against the president of the company for criminal fraud, that his advice was that there is nothing he could do to blackball, to keep this company from getting other Government contracts.

Now, certainly he as the head should have, if he did not have, knowledge of these acts that I have mentioned that have been found.

Now, the AAU–27 model was subsequently awarded after all of this information came out, even though it might have been taken from your shop and put into a separate shop, still these things come together at the top somewhere or should.

Mr. WOOD. That is correct.

Mr. DICKINSON. So who can this be, or would it make any difference? Does integrity mean what it says and would this knowledge have had any weight in another preaward survey on a subsequent contract?

Mr. WOOD. Let me say this, sir. It could have had. OK? It could have had. I am not saying that it would have. There are a number of circumstances under which you could suggest, request—OK?—that a company be placed on a debarred bidders' list, an Air Force contractor experience list. Both of these categories say when you do business with this company be very careful about how you do business.

Neither of those preclude you from doing business with that company. They're another footprint in the sand which says you better look long and hard if you do. But neither of those prevents that from happening so that is the reason I said that information could have had an impact but not necessarily would have had.

Mr. DICKINSON. Well, would you agree with me that it should have impact?

Mr. WOOD. Yes, sir. I think it should have.

Mr. DICKINSON. Is there something to preclude General Stewart and his shop from having a list of contractors with which they have just had extremely unfavorable experiences so that you can check to see and then have that index so you can find actually what the experience was?

Mr. WOOD. We have tried that, not necessarily in his office. We have tried that and we do that to a degree. For example, the contract experience list that I talked about and the debarred bidders' list that I talked about, these lists actually exist and they are published and we are aware of companies that are on those lists, yes, sir, but as to the individual performance of contractors who we might have had some, you know, bad experience with, we don't keep that at ASD. I am not sure of any place where they do, sir.

Mr. DICKINSON. Well, are these acts alleged to have been committed of such magnitude or severity that had they been known at a subsequent contract award or investigation that would have been ground to disqualify them, or do you feel competent to answer that?

Mr. WOOD. Yes, sir, I feel competent to answer it, but it is a rather complex answer. Let me just please take a liberty.

Mr. DICKINSON. Feel free.

Mr. WOOD. It is very difficult, very difficult, and I think to some degree rightfully so, for us to say on unproven, unproven, allegations that a company should not get an award. Now, if I can please use a personal reference, and nothing intended here—OK?—if that particular company happened to be a constituent in your particular area, sir, you know, you say——

Mr. DICKINSON. I have been on that side, too.

Mr. WOOD. It is pretty difficult. That is the point I am trying to make. It is not all black or all white. It is very, very difficult. It is certainly something we ought to consider and it is certainly something we do consider, but as to whether or not that would preclude an award I cannot assure you it would, sir.

Mr. DICKINSON. Even the allegation of a manifold concealed behind the wall?

Mr. WOOD. Even a manifold concealed behind the wall, I am not sure that could preclude an award.

Mr. DICKINSON. In coming to a value judgment on integrity that wouldn't make any difference?

Mr. WOOD. Oh, it would make a great deal of difference to me and I would have to make this kind of information known—OK?—no question about that, but I am saying as to the final outcome, I cannot categorically say that that company would not get an award. I cannot say that.

Mr. DICKINSON. Well, I think perhaps if anything good is to come from these hearings it would be to develop a system, if possible, to get at a problem such as this to keep it from recurring, but here you have a history of poor performance in a company. Everybody agrees to that, don't they? You have a history of nonperformance in this contract.

Now you have a history of allegations of fraud on this contract and somewhere it would seem to me that all of these things ought to come together to enable the contracting officer, who, in this case, was you on this altimeter, to come to some judgment that the integrity of this company, even though you can't prosecute criminally, there is certainly enough factual evidence there to make you decide that there is something wanting in the integrity field.

Mr. WOOD. I agree with you, sir.

Mr. DICKINSON. You went out of your way in this contract it seems to me to make them qualify. You had every reason in the world to disqualify them if you wanted to, but you really sort of bent the rules, didn't you? You certainly strained to interpret the rules to make them qualify.

Mr. WOOD. We were extremely lenient, no question.

Mr. DICKINSON. Why should they continue to benefit from dealing with the Government when it turns sour? It looks to me that would be enough. Just because it goes to another shop, they have still got the same boss.

Mr. WOOD. I share your sympathy, sir.

Mr. DICKINSON. That is all, Mr. Chairman.

The CHAIRMAN. Mr. Mollohan.

Mr. MOLLOHAN. The thing I would like to clear up in my own mind is the series of events and your role, if any, in them.

As I understand it, you were the contracting officer at the time the original contract for the AAU–19 was entered into.

Mr. WOOD. That is correct, sir.

Mr. MOLLOHAN. Were you the contracting officer at the time the AAU–27 was contracted for?

Mr. WOOD. No, sir, I was not.

Mr. MOLLOHAN. You were not?

Mr. WOOD. I was not.

Mr. MOLLOHAN. Were you the contracting officer at the time the device was installed behind the wall, that I believe you referred to as a manifold?

Mr. WOOD. I was not, sir. I had no connection whatsover with the AAU–27, sir.

Mr. MOLLOHAN. That is all, Mr. Chairman.

Mr. DICKINSON. Just for the record, if I may clear this up, the four allegations that I have alluded to, the fake wall, and the manifold behind it, and the two employees in the chamber after hours that were manipulating the results, whatever they were doing, plus the signoff on the sheet by initials of two employees that said they didn't do it, were they all relating to the AAU–27?

Mr. WOOD. Yes, sir.

Mr. DICKINSON. And not to the 19?

Mr. WOOD. That is correct, sir.

Mr. LALLY. I beg your pardon.

Mr. WOOD. I am incorrect?

Mr. LALLY. You are incorrect in that, sir.

Mr. WOOD. Please correct me.

Mr. LALLY. The adjustments of the altimeters in the test chamber related to the AAU–19.

Mr. WOOD. I stand corrected. Would you put a timeframe on that for me?

Mr. LALLY. March–April 1972.

Mr. WOOD. That accounts for it. As of September of 1971, subsequent to that I had no connection, so that accounts for my not knowing it. I'm sorry.

Mr. DICKINSON. That clears it up for the record.

Thank you, Mr. Chairman.

The CHAIRMAN. Mr. Hunt.

Mr. HUNT. No questions.

The CHAIRMAN. Mr. Daniel.

Mr. DANIEL. It is my understanding that you signed the contract, Mr. Wood, for the project now under discussion here before the committee. Is that correct?

Mr. WOOD. Yes, sir.

Mr. DANIEL. When you signed that contract, Mr. Wood, were you aware of the Army's experience with this company?

Mr. WOOD. No, sir; I was not. Relative to the OSI reports, et cetera.

Mr. DANIEL. Yes, sir.

Mr. WOOD. No, sir; I was not. I think one of the other gentlemen asked me that question just a short while ago. No, sir; I was not. I had no knowledge of those at all.

Mr. DANIEL. What lessons has the Air Force learned from this experience?

Mr. WOOD. Well, if I could please tell you what lessons maybe I've learned, and maybe that equates to some parts of the Air Force—OK?—I hope we don't get into the environment again where we are forced to essentially formally advertise for equipments or for subsystems that the specifications are not sufficiently definite to permit free and open competition. I hope we don't get into the early 1960's, mid-1960 environment, which forced us to go in that kind of environment. That is one thing that I have learned I hope we don't do.

I also hope that in a couple of areas, particularly as it pertains to administration of a contract—now I am not talking about the people in the field; I am talking about the Program Office, the kinds of things that I am in today—that we might even belly up to decisions earlier and get support to belly up the decisions earlier.

What do I mean by "get support"? We may like very much, or in our best judgment it might be the best thing for us to terminate a particular contract, but that isn't the easiest thing for us to do because of the external influences that we are all subjected to in the fishbowl in which we live to bring about, so I would hope that if we made a judgment call at an earlier time we would get support for that based on our best business judgment that exists at that time.

Mr. DANIEL. Who exerts that influence on you?

Mr. WOOD. I am going to be——

Mr. DANIEL. Some of us?

Mr. WOOD. Yes, sir; I am going to be very candid. It permeates our entire society, inside of the Air Force, in the Congress, even amongst ourselves, frankly, in the Program Office. OK? So it is our whole way of life, the reluctance frankly to bite a hard bullet and take an aspirin and go on to the next one.

Mr. HUNT. Will the gentleman yield?

Mr. DANIEL. Of course.

Mr. HUNT. You mentioned specifications. You are hoping that we learn from this to get more detailed specifications. Would that apply to the 19?

Mr. WOOD. What I was suggesting, sir; if I may, I wasn't suggesting that we write more definitive specifications. We may not have the talent to write more definitive specifications. I am saying if the specification does not suit a formally advertised, and by that I mean a document that would permit competent companies frankly to compete simply on a price basis, if the document doesn't permit that, we shouldn't force it in that route. We should negotiate. That's what I was saying, sir.

Mr. HUNT. No further questions.

The CHAIRMAN. Mr. Mollohan.

Mr. DANIEL. I yield to Mr. Dickinson.

Mr. DICKINSON. Thank you.

I want to clear up one thing that I didn't ask before.

The testimony has come out here about a meeting on September 2 in which you were present and in which General Stewart was present, and in which—I have forgotten—at least one other person was present.

Mr. WOOD. Yes, sir.

Mr. DICKINSON. And General Stewart says that after August 31 he was gone and had nothing to do with it. As a matter of fact, his trip voucher, and so forth, shows that he was in another part of the country.

Could you tell us if there was such a meeting and, if so, when it occurred and what the circumstances around it were?

Mr. WOOD. Fine.

Let me tell you that I have no recollection of such a meeting. OK? Let me also tell you that I personally was actively involved in the AAU–19 subsequent to General Stewart's last letter. I can't tell you whether that was the 1st of September or the 2d of September or the 3d. I can't tell you that. I was actually and actively involved. I am the individual, frankly, who talked to Colonel Stanley in the letter that you have there. I am that guy. I am the guy who talked to Mr. Frank at Aerosonic relative to the waiver or deletion of the First Article clause and I am the guy who talked to ESD, to the JAG people, about the deletion, so really on the subject of the deletion of the First Article clause, Mr. Dickinson, the buck stops here. I am it.

Mr. DICKINSON. You did? If the date is wrong——

Mr. WOOD. The date I don't really recall, but it is that timeframe. That is the right timeframe.

Mr. DICKINSON. You have no recollection of any such meeting with General Stewart?

Mr. WOOD. No, I did not meet with General Stewart but what I do recall and what I did tell him, that after I had marshaled all the forces and after we had agreed to do it, and I don't remember the date, I did close the loop with him and tell him that we did it and he says, "I don't recall that, Fred, but if you say you told me, you told me."

Mr. DICKINSON. You told him after the fact?

Mr. WOOD. Yes, sir.

Mr. DICKINSON. And it was your determination and decision ultimately to grant the waiver?

Mr. WOOD. Not mine necessarily to grant it, but I was the forcing function, and then I have to take you back a little bit.

After talking, after obtaining, I won't say legal advice, after talking with our JAG lawyers over a period of time from the first time we released the equipment to production—OK?—back in mid-1968, I felt we had abandoned the First Article production. I wasn't worried about that because we had also instituted a sample plan A and sample plan B test requirement which were essentially identical to the First Article requirement, so it didn't matter that the clause did not exist as far as I was concerned, and about the end of August, first part of September, Mr. Frank threatened to shut down his operation as I recall it, and I was not a party to that wire, or what have you, but I did talk to him and his concern was that we had not deleted the First Article clause. That was his concern.

Mr. DICKINSON. I can understand that.

Mr. WOOD. I said, "If we delete that, is that what makes you happy."

He said "yes."

I am paraphrasing the conversation but I think that is the way it went. So I talked to Colonel Stanley, told him what we were going to do. OK?

Mr. DICKINSON. Who is Colonel Stanley?

Mr. WOOD. He was the program director for the program which had transferred to ESD, and then I have to tell you a little more there also, it seems to me.

The period of July 15 to about the middle of September was essentially a transition phase for that program. Some people went. Some people did not go. I considered myself in the August–September time period, notwithstanding the fact that I was located at Wright Field and that I was not going to Boston, I considered myself still working for Colonel Stanley because he had not generated in his new Program Office a functioning organic procurement capability, and that is the reason I took the initiative.

Mr. DICKINSON. Go on and tell us the significance then of the A and B versus First Article requirement.

Mr. WOOD. OK. I am going to get to my level of incompetence if I try to describe those tests. I can't do that. But if you would accept my judgment and verify it with one of the engineering guys that will follow me later, the testing was essentially the same as that required under First Article.

So the clause didn't——

Mr. DICKINSON. It never met that requirement?

Mr. WOOD. Oh, no, sir, I am not saying it met it, sir. I am saying the requirement for the test was still there, the clause notwithstanding, because we had changed it and called it something else.

Mr. DICKINSON. Well, assuming that you did in fact, and you did in fact, waive the First Article requirement, it never met the A and B test requirement?

Mr. WOOD. That is a true statement, sir.

Mr. DICKINSON. So I don't understand why your legal beagles would advise you that, well, all is lost and you waived it, anyway and pay on the contract, or allow them to continue production if they never had met A and B.

Mr. WOOD. There is one other very important thing I think that needs to, and again I can't talk about it in detail because I really wasn't there, but it was not, sir, until early part of 1972 that the Air Force knew that they did not have a workable unit, early part of 1972.

Mr. DICKINSON. They don't learn very fast, do they?

Mr. WOOD. I am saying that I think that is about when it occurred, the early part of 1972. Before then we knew we were accepting units that had not met—OK?—or passed First Article or sample plan A or B combined tests, whatever language you want to put on that, but they were usable units, as far as we knew, and they were units that we had at some points in time hundred percent inspection on it, other times we didn't have, but we had no reason to believe it was not a usable unit up until the early part of 1972, and if I am wrong on those dates I wish one of the people would correct me but I think that is about the timeframe.

Mr. DICKINSON. If I can paraphrase what you said, what you are saying is because you put in sample plans A and B it really made little difference whether or not you waived First Article testing.

Mr. WOOD. That is right, sir, whether or not you waived the First Article clause, because the test requirements were essentially the same.

Let me just check one thing to be sure. Am I saying the right things? Is that a true statement?

OK. I thought I was correct.

Mr. DICKINSON. What legal difference did it make in waiving First Article inspection or requirement as opposed to A and B sample plan?

Mr. Wood. All right, sir; I am now going back to the lawyers, which I am not. OK? They told me that we essentially abandoned it, anyway, when we released to production so it was kind of academically relative to our ability to recover, and I accepted that. I believed it and I still believe it.

Mr. Dickinson. So whatever it would take to correct the deficiency, by way of retrofits or anything else that would be required of the contractor, under this First Article, even though the requirements for sample testing A and B remained when you waived First Article you gave up your right to claim against the contractor all of the deficiencies including whatever it takes to correct them; is that right?

Mr. Wood. I would agree with that, sir. I will agree with that with one stipulation if I can. At least I had been advised earlier and I agree—OK?—that we had already done that, anyway, although language was still in the contract because we had authorized the contractor to proceed with production and ship equipment and we had taken title to it.

Mr. Dickinson. Who did that?

Mr. Wood. That decision was made, and I guess I might as well explain here, actually the program director was Colonel Zeine, so you can say Colonel Zeine made the decision. I think your people have records that would show that. Really it wasn't Colonel Zeine in isolation. We sat around the table, all the division chiefs, and discussed the pros and cons and the risks associated as seen by us with releasing that to production, prior to First Article approval, and we came to the conclusion to do it.

What were some of the things we looked at? We looked at, is there a safety-of-flight problem as we know it with the instrument, and that answer came out no. Can the instrument be used in a standby mode, and that answer came out yes. If we don't go that route, what do we have to do? We have to buy AAU–7's.

The manufacturer, and only manufacturer by the way, was Aerosonic Corp. It had a non-AIMS capability, so we would have to know that and replace it with one that did have that capability at a later date.

For Navy application we would have to buy MC–3's and those weren't readily available, so we took the risk of releasing it, so I wouldn't want to say, although he is responsible because he was the program director—I am submitting to you the environment in which that decision was made, and which I was a party to, around the table in the program office.

Mr. Dickinson. It would seem relatively simple to me when you made that determination that you could, if you are going to alter the contract, you could certainly require the same degree of responsibility of the contractor.

Mr. Wood. Yes, sir.

Mr. Dickinson. If he was willing to go into production on that basis, why wouldn't that be a logical thing to do?

Mr. Wood. We did, sir. We put that language in the contract, but so much time passed after we had done that. That's when we began to feel that we had abandoned. Some years passed from the time mid-1968 when we released production until the exclusion or dele-

tion or waiver of that clause which occurred in the early part of 1972. So much time had passed and some 2,000-plus units had been shipped.

Mr. DICKINSON. Yes, they are still in storage.

Mr. WOOD. Right, sir.

Mr. DANIEL. Did the waiving of that First Article reduce the cost of that instrument?

Mr. WOOD. No, sir, it did not.

Mr. DANIEL. It didn't reduce the cost?

Mr. WOOD. No, sir, it did not.

Mr. DANIEL. You had fewer tests required, didn't you?

Mr. WOOD. No, sir.

Mr. DANIEL. Maybe I don't understand.

Mr. WOOD. What I tried to say, and again please bear with me because from that standpoint I get to my level of incompetence, the combination of the sample plan A and sample plan B testing——

Mr. DANIEL. I understand that.

Mr. WOOD. —was a contractual requirement, to give you the same results. What you are saying to me is, since he was required contractually to do that twice, when we took it out we should have gotten some consideration for it. We did not get any consideration.

Mr. DANIEL. That is the point I was trying to make. If you did get consideration why wasn't the cost of the contract less?

Mr. WOOD. That is right, sir. We did not get consideration for doing that, sir.

Mr. DANIEL. Earlier today there was some mention made here of a cave-in. If there was a cave-in, did you participate in it?

Mr. WOOD. Cave-in? I remember General Stewart using that term, but I am trying to remember now the context in which he used it. Could you help me a little bit?

Mr. DANIEL. I think the context in which he used it was simply this: That there came a point in time when a decision had to be made and all the advantages were given to the other side. That was the cave-in that was referred to.

Were you a part of that decision or a party to that decision?

Mr. WOOD. Sir, if you are saying was I a party to the waiver of the First Article clause, you are absolutely correct, sir, I was.

Mr. DANIEL. Thank you, Mr. Chairman.

The CHAIRMAN. I am very much intrigued by a statement you made, Mr. Wood, in connection with your overall review of how the system operates and it is in effect, and if I am in error correct me, that the system operates because all the factors are taken into consideration. It is sort of a way of doing business.

Mr. WOOD. Yes, sir.

The CHAIRMAN. That is what it is?

Mr. WOOD. Yes, sir.

The CHAIRMAN. And that way of doing business takes into consideration the factors of an individual here and an individual there, and you mentioned Congress?

Mr. WOOD. Yes, sir.

The CHAIRMAN. And that is what I want to pinpoint now.

Mr. WOOD. Yes, sir.

The CHAIRMAN. Do you mean to tell me that because of the intervention of a Congressman on behalf of an individual firm or corporation

that the feelings, the assertions, or the urging of a Member of Congress would be of influence against the regulations?

Mr. WOOD. No, sir, not against the regulation.

By the way, maybe I should clarify one point.

The CHAIRMAN. That is what I want to clarify because I am very sensitive about the responsibility of the Armed Services Committee because the buck stops here.

Mr. WOOD. Right, sir.

The CHAIRMAN. And when we get numerous complaints from Members of Congress, which is their right, and they come to us with anything, we will refer them to the proper department for their consideration, but not once has this committee or will this committee ever indicate that they want to influence a decision. I want that to be crystal clear.

Mr. WOOD. No, sir, I never meant to leave that impression at all and that did not happen in the case of the AAU–19, not at all.

The CHAIRMAN. It may have happened in other cases. I know that. I am not naive in the way these things happen. I don't agree with them but I know the things that do happen. I don't point my finger at any Member of Congress, but in view of what has happened in recent months. I just want to make it clear that the Committee on Armed Services has never and never will, as long as I chair it, not only this subcommittee but the full committee, never indicate to anybody that influence of a Member of Congress will override what the regulations and rules are.

Mr. WOOD. Right, sir. I agree.

The CHAIRMAN. Will the gentleman identify himself.

Mr. MARVIN D. STEARN. Mr. Stearn. The reason I raise my hand is because I have handled procurement complaints in the Air Force for Members of Congress for about 3 years and I may confirm what you have said, that we have had inquiries from the committee and individual Members of Congress but I know of no case where a Congressman has attempted to influence a decision, or push it to the point where it might contravene the law.

The CHAIRMAN. Contravene the law or the regulation.

Mr. STEARN. The regulation, right.

The CHAIRMAN. Or the practice.

Mr. STEARN. Exactly, to stay within the rules.

The CHAIRMAN. The only reason I am making this statement is I want the record to show it for future generations because we won't be around then.

Mr. STEARN. Sir, I am confirming your point.

The CHAIRMAN. Fine.

Mr. Mollohan?

Mr. MOLLOHAN. Mr. Wood, you have been close to this from the very inception up to, I understand, the time of your termination from that position and that occurred in August of 1971.

Mr. WOOD. In the August–September time period I continued again because of the lack of an organic capability at ESD during the transition phase, up until the early part of September.

Mr. MOLLOHAN. I believe you stated, and I am sure you did, that this was a marginal decision to approve it and you made the final decision to approve Aerosonic as an acceptable vendor. And when you

did this, you accepted also that this would require an extraordinarily high level of management on your part, on the part of those who were representing the Government in the contract.

Mr. WOOD. Yes, sir.

Mr. MOLLOHAN. Do I understand that there was no test taken at any point in time that met 100 percent of the requirements of the specifications for the altimeter?

Mr. WOOD. No, sir, that is not correct.

Mr. MOLLOHAN. That is not true?

Mr. WOOD. Every unit that was shipped out of Aerosonic passed the tests designed for inspection and acceptance of those units or they didn't go out of the house.

Mr. MOLLOHAN. That is contrary to much of what I understood here because running through this statement seems to be a series of failures to meet testing requirements and then ending up with an acceptance of the requirement, that they did not do their job when they were installed, that they needed to be reworked, refitted, and on and on.

How do you reconcile the fact that they may have passed these tests of yours but still did not work?

Mr. WOOD. I can't answer that question for you in any depth, but let me say that the testing required to demonstrate that a unit is ready to go in production is far more stringent than the testing on the production process. The qualification tests are far more stringent, sir.

Mr. MOLLOHAN. Did this testing that we have talked so much about—where the testing mechanisms allegedly were tampered with—occur at that point in time when they were trying to get approval of a production line, or when they were testing the individual units that were being delivered?

Mr. WOOD. Sir, I have to back off, and I am not trying to avoid the question, but that didn't happen on my watch, sir. I just don't know anything about the tampering. That occurred, I am told, sometime in 1972.

Mr. MOLLOHAN. Who is Mr. Roy Brown?

Mr. WOOD. Roy Brown is one of our lawyers in the JAG at Wright-Patterson.

Mr. MOLLOHAN. On September 15, according to the information made available here to all of us, you and Mr. Brown contacted the Staff Judge Advocate at Hanscom with reference to deletion of the First Article requirement.

Now, what were the persuasions which caused you to do that?

Mr. WOOD. OK, twofold essentially.

Mr. MOLLOHAN. Just before you answer that, did you at that point in time recognize that they had not met the First Article?

Mr. WOOD. They had not met the First Article, yes, I knew that, sir. I knew they had not——

Mr. MOLLOHAN. Despite the fact that they had not met the First Article, there were persuasions here justifying your recommending that the First Article be set aside?

Mr. WOOD. That is correct.

Mr. MOLLOHAN. What were the persuasions?

Mr. WOOD. And they were persuasions that I had had for some time and I had discussed openly for some time and again it had to do with having talked with our legal guys on that subject, that

having released the contractor to production, having released him to production, and then having generated test requirements, a combination of sample plan A and B testing, we had essentially duplicated what was required in the First Article provisions—OK?—so to take those provisions out didn't remove the test requirement.

The test requirement still was there.

Mr. MOLLOHAN. No, but it relieved the contractor of certain responsibilities, did it not?

Mr. WOOD. Yes, sir, I would agree with that, sir.

Mr. MOLLOHAN. You don't have to agree with me on it. This was your legal advice that was given to you.

Mr. WOOD. I agree with you that it did, but it was questionable in the minds of the lawyers that I talked with that we would be able to recover or recoup, having abandoned it and released it to production much, much earlier. It was highly questionable in their minds.

Mr. MOLLOHAN. You mean this decision was made and the lawyers told you that the Government had in substance and in effect already waived its right?

Mr. WOOD. Yes, sir, absolutely.

Mr. MOLLOHAN. And that the actual physical waiving of the First Article had no real impact and real import?

Mr. WOOD. Kind of academic, sir.

Mr. MOLLOHAN. Now, what is the relationship between you and the program director of the AIMS program, that is, the relationship between the contract officer, you, Mr. Wood, and the program director?

Mr. WOOD. I worked for the program director.

Mr. MOLLOHAN. You mean you are directly under his authority?

Mr. WOOD. Yes, sir. He makes out my report card. That is the way I like to describe it, sir. Yes, he does.

Mr. MOLLOHAN. Thank you.

Mr. DICKINSON. Mr. Chairman.

The CHAIRMAN. Mr. Dickinson.

Mr. DICKINSON. I just have one point I want to clear up, if I may, Mr. Chairman.

A discrepancy has come to my attention, Mr. Wood. I want to give you an opportunity to speak to it for the record.

Mr. Dave Warren of our staff interviewed you earlier as to the facts that you have testified to today; is that correct?

Mr. WOOD. Yes, he did.

Mr. DICKINSON. Let me read you from his report and let you comment on it if you would. This is on page 61, for the record, of our staff report. There had been some conversation between you and him as to the history of this thing, and I am reading now:

> DAVE: So, then later in the month, General Stewart wrote a letter back saying that certain matters had been taken care of. However, the first article was still outstanding and that he would refer it to, I believe, General Cody at ESD. And then on September 1, Mr. Frank wrote another one of his letters putting the contract in dispute. . . . Then the next day General Stewart held a meeting in his office between yourself and, I guess, numerous other individuals in the program. And it was decided at that time that, if Mr. Frank would withdraw the letter, that the First Article would be waived.

Now, is that essentially correct?

Mr. WOOD. No, sir; I was wrong. There was no meeting.

Mr. DICKINSON. Well, your answer was:

WOOD: It's essentially correct. But I think you need to know something else there. Most of us held the opinion, and now I'm including our JAG people. Okay. That we had essentially abandoned the first article provision anyway.

Mr. WOOD. So I was wrong about a meeting.

Mr. DICKINSON. Now, skipping to another place here——

DAVE: So, really what my question would be . . you were at the September 2 meeting?

WOOD: I'm sure I was.

Now, you say that information is wrong?

Mr. WOOD. That information is wrong, although I said it.

Mr. DICKINSON. (Reading.)

DAVE: Can you remember any of the details of what was discussed?

WOOD: Yes. Just what I just said to you really. It was just about that simple. It may have been over a period of an hour. But it was just about that simple. That again. I say in conjunction with JAG we agreed. We'd have bent our first article provisions anyway.

Then in another place——

Dave: Do you know if there were any notes of that particular September 2 meeting.

Wood: I'm sure there were. I know I didn't take any.

Dave: Could you try, when you go back, if you could find if there was a memorandum perhaps written by General Stewart or one of his aides?

Wood: As I recall there were four of us in the room. You (Lyon) were there, Roy Brown, myself. I don't think there was anybody else there.

So all this conversation never occurred?

Mr. WOOD. Let me tell you how I now reconcile that with myself.

I was confusing the meeting with the August 4 meeting and the discussion with Frank that was probably some time near to the deletion of the First Article, sir. I closed the loop with General Stewart but I had no meeting with General Stewart the 1st or 2nd of September. I think Mr. Warren checked with Mr. Brown and he doesn't recall a meeting. That is a true statement.

Mr. DICKINSON. We will ask Mr. Warren later, but you can understand our concern and perturbation when you not only say you were at the meeting; you describe what went on, talk about taking notes of the whole business. It falls into context chronologically with the letter. The whole thing dovetails, and then you come in and say, as the General says, there was no meeting. You say there was no meeting. You hadn't attended, after this rather minute detailing of it, and it is perplexing.

Thank you, Mr. Chairman.

Mr. MOLLOHAN. Mr. Chairman, may I ask one further question?

Mr. WOOD. I would like to say one other thing, too, and put this in the right context. I hope I will.

At the time I came down to talk to Mr. Warren I hadn't even thought about AAU–19 since August–September of 1971. I knew Mr. Warren was talking with other people, so when I came in one morning and I really couldn't stay very long because I had something else that I had to do. I gave him the information to the best of my recollection.

He said, "Do you mind if I tape it" and I said, "I have no reservations at all. Go right ahead." And I sat down and talked with him like I am talking to you now.

But that part about the meeting was just flat wrong. I had it in my mind confused partially with our August meeting with Mr. Frank. That's the best explanation I can give you, sir.

Mr. DICKINSON. Thank you.

Mr. MOLLOHAN. Mr. Wood what were the circumstances and what were the actions, and by whom, between the beginning of this contract and that date of September 23, 1971, when the First Article was officially waived which, in substance and in effect, actually waived the Government's protections under the First Article?

Mr. WOOD. Well, I think probably the first time I got involved I either had a call or some notification from ESD—I am not sure what form that took—that Aerosonic had threatened to shut down their operation. OK?

And they told me——

Mr. MOLLOHAN. Approximately what was the date on that?

Mr. WOOD. Let me just assume, sir, it was the first part of September.

Mr. MOLLOHAN. Of 1971?

Mr. WOOD. Of 1971, yes, sir.

Mr. MOLLOHAN. Then you mean all of these things which were done by the Government were done within a period of 2 weeks then?

Mr. WOOD. Very short period of time.

Mr. MOLLOHAN. Which actually waived the provisions of the first article?

Mr. WOOD. Yes, sir, very short period of time.

Mr. MOLLOHAN. What were those things? What did they do exactly?

Mr. WOOD. What did they exactly do? I think there was even a visit on the part of some ESD people to Aerosonic. I am not sure of that but I think there was, which was one action that took place. I think there was discussion between the program office and the JAG Office at ESD. I think there was some discussion between the JAG office at ESD and the JAG office at ASD.

Mr. MOLLOHAN. You mean before your contact with Mr. Brown to Hanscom? This was on September 15, according to the memo I have.

Mr. WOOD. I talked with Mr. Brown before September 1 or 2 off and on. It is kind of a daily thing, not daily really. It isn't that true either.

Mr. MOLLOHAN. Well, you must have done something, or somebody did something very positive, with Mr. Frank, or with the company.

Mr. WOOD. I talked to Mr. Frank.

Mr. MOLLOHAN. Which caused you to waive the protections of your first article. What were those things that were done?

Mr. WOOD. I talked to Mr. Frank myself. I can't tell you what day it was. It might have been the 1st of September. It might have been the 2d. I really don't recall.

Mr. MOLLOHAN. The First Article is a part of the contract.

Mr. WOOD. Yes, sir.

Mr. MOLLOHAN. You or someone must have done something very, very positive indeed to have waived those contractual provisions. What were they?

Mr. WOOD. An actual contractual document was issued, I believe, sometime in September by the Electronic Systems Division, if that is the positive action you are looking for, sir.

Mr. MOLLOHAN. The only thing I am trying to find out is that Col. Robert Burns, the Staff Judge Advocate, says in the memorandum dated September 21 that the Government had "waived the requirement of first article approval and that the contractor may not now be required to rework, retrofit or correct any deficiencies alleged which would prevent the articles from meeting the First Article approval tests required by clause J of the Schedule as amended."

In reading that, does that mean that that clause or the provisions of the First Article were waived as of that moment, or according to what I inferred from what you were saying there had been actions which already waived those protections.

Mr. WOOD. I am simply trying to guess now what Colonel Burns had in mind, but it is my opinion he is trying to say that by our actions of releasing the hardware to production and accepting title, we had waived. I think that is what he is trying to say.

Mr. MOLLOHAN. At what point in time was that done?

Mr. WOOD. That was done in mid-1968.

Mr. MOLLOHAN. That was under Colonel Zeine's orders?

Mr. WOOD. Yes, sir.

The CHAIRMAN. Mr. Pike.

Mr. PIKE. Thank you, Mr. Chairman.

Mr. Wood, before mid-1968 we had a contract in February 1966 and then we modified that contract. I have a document called a supplemental agreement, saying that its effective date was September 8, 1966, executed by you as contracting officer, and obviously you were concerned with your delivery schedule. There had been a protest by Kollsman and the Air Force permitted the delivery schedule to slip until the GAO ruled on that.

But the first waiver of the rights of the Government, it seems to me, occurred in that document of September 6. Would you agree with that?

Mr. WOOD. May I see the document, sir.

Mr. PIKE. Yes.

Mr. LALLY. You have a copy on the desk.

Mr. PIKE. It is tab 13. (See appendix 7.)

It has a lot of dates on it. The effective date was 8 September 1966. There is a received date stamped on it September 19, 1966. There is a mailing date stamped on it October 19, 1966.

Mr. WOOD. If I may, sir, I can't really directly answer your question. Let me address 1(a), if I can, and say what we tried to do in paragraph 1(a).

Mr. PIKE. All right. The last paragraph of paragraph 1(a). "Pending approval of First Articles, except for longevity and shelf life tests, the contractor may fabricate but not deliver the articles called for by this contract."

Now, that was the first modification of the basic contract allowing him to do something without this First Article approval, was it not?

Mr. WOOD. I will accept that. I am not—it is an SA No. 11, and I am not really sure whether this was the first act or not, but I understand where you are going, I think, and I will accept that.

Mr. PIKE. What I am trying to do is exactly what Mr. Mollohan was trying to do, establish how the Government took the position where the JAG said, "We have already given away all our rights" and I am trying to just establish how we gave away all of our rights.

And I ask you that when we said that the contractor may fabricate before approval of the First Article, was not that the first give-away of the Government's rights?

Mr. Wood. No, sir, I don't categorize it as a give-away. If I may, please, let me tell you what we intended. We had a delivery schedule that we had specified contractually that unless we authorized him to purchase and fabricate he could not meet, no one could meet, unless he utilized his own capital, risk capital, and go out and buy all the parts and fabricate the hardware unless we did.

Mr. Pike. Under your original delivery schedule he couldn't have met it under any circumstances, could he?

Mr. Wood. That is the way it turns out, sir.

Mr. Pike. How long did it take you to find out that under your original delivery schedule he couldn't have met it, anyway?

Mr. Wood. That is speculation on my part but if this is dated like some time—I don't know the answer to that, sir, but this is October 1966 and we recognized that as being a problem in October of 1966. I am not saying that his initial contract was impossible of performance, however. I don't know that, sir.

Mr. Pike. But in this document which you agreed to, you gave him the right to fabricate prior to First Article approval?

Mr. Wood. That is right, sir.

Mr. Pike. He did not have that right under the original contract; is that not correct?

Mr. Wood. I am trying to think through the process. I feel that he always has that right. It depends upon who accepts the potential financial responsibility. I think he always has that right.

Mr. Pike. What you did then was allow him to fabricate on the Government's money prior to First Article approval?

Mr. Wood. That is essentially correct, sir.

Mr. Pike. OK, but you reserved this in the following sentence: "The First Articles will be returned to the contractor, for rework if necessary, and delivered as production articles."

So at this point even though you had allowed him Government money to start his fabrication with, he still had to meet the First Article test procedures.

Mr. Wood. Yes, certainly.

Mr. Pike. That was specifically set forth.

Mr. Wood. Certainly, sir.

Mr. Pike. To follow on with Mr. Mollohan's line, you say in 1968 the decision was made to accept the articles. What piece of paper made that decision?

Mr. Wood. There is an—I remember seeing the other day a CCN No. 8, I believe, which is dated sometime mid-1968, I believe, which authorized him to ship and it was consummated in a contractual document later, in a definitive document later, the number of which I don't recall.

Mr. Pike. Is this the document that you had in mind?

[Document shown to witness.] (See appendix 8.)

Mr. Wood. Yes.

Mr. Pike. Do we have enough copies so he can have one?

Mr. Lally. I believe this is the only copy we have. We just got this the other day.

Mr. Wood. I believe I brought that with me.

Mr. PIKE. All right. Now, this is making some engineering change proposals, three separate engineering change proposals. It changed the delivery schedule. But where on this document does it indicate that he does not have to meet First Article approval?

Mr. WOOD. I am not sure that it is anywhere on that document, sir. Let me look again if I may. It has been many years.

Mr. PIKE. Yes, sir.

Mr. WOOD. That is correct, it doesn't exist there.

Mr. PIKE. It doesn't exist and in fact it says this: "The contractor agrees by acceptance of this CCN"—and that is Contract Change Notification?

Mr. WOOD. Right, sir.

Mr. PIKE. "To correct any deficiencies revealed as a result of preproduction testing at no additional cost to the Government."

Mr. WOOD. Yes, sir.

Mr. PIKE. So in this document we reserve the rights of the Government to make the contractor correct any deficiencies.

Mr. WOOD. That is correct, sir.

Mr. PIKE. Where is the document which released the contractor from correcting any deficiencies?

Mr. WOOD. I don't know the supplemental agreement number, but I think your staff has it and it is probably dated sometime in 1971, sir, the one that deletes the First Article provision. (See appendix 9.)

Mr. PIKE. Well, what I am trying to get at is you tell us that the First Article requirements were already waived because we had agreed to accept these units.

I read you the original documents whereby we agreed to accept these units. They not only don't waive the testing; they specifically require the testing.

Mr. WOOD. No quarrel with that, sir. I am simply saying to you that legal opinion to me was that we had essentially abandoned it, and now I am talking 3 years later, or more than that, when the actual waiver was deleted, sir.

Mr. PIKE. I guess we will have to get to who delivered the legal opinion and what they based that on, and I won't try to get that out of you, Mr. Wood. You, I think, were saying to Mr. Dickinson, when I came into the room, that the first notice you had that there was something going amiss with the performance of these units was when——

Mr. WOOD. No, sir. I said that as far as I knew we did not know until nearly 1972 that we were accepting equipment that we could not use.

Mr. PIKE. Until 1972?

Mr. WOOD. I think that timeframe is correct, sir.

Mr. PIKE. Did you ever see a telegram from the U.S.S. *Constellation* dated December 1969 as follows:

Reference A advised that Aerosonic's AAU–19 altimeter—

And here there is some stuff which I frankly can't read. I think it is a serial number of an altimeter or more than one—

Installed some F–4J aircraft. Reference B stated Aerosonic's altimeter not acceptable for Navy use. There has been no change in position on use of Aerosonic's altimeters.

Did you ever see that?

Mr. WOOD. Not to my knowledge, sir.

Mr. PIKE. Now, here is a message dated November 5, 1969, from Naval Air Systems Command to Director, DOD, AIMS SPO WPAFB—I assume that is Wright-Patterson Air Force Base—Dayton, Ohio, and it says this and it is RE: Aerosonic AAU–19 altimeter:

> Many failures, reported Reference A, such as the baroset oscillation, and standby reset are recurring problems. These problems considered singularly are significant. Considered collectively with the QC items discussed Reference A make the altimeter unsatisfactory for service use. No get well date is in sight. Previous technical recommendations have not resulted in any appreciable improvement.

This was to the Director, DOD AIMS SPO, at Wright-Patterson. Didn't you get that telegram?

Mr. WOOD. I am not saying we didn't get it. I don't recall it. I may have even seen that. The one from the *Constellation* I have no knowledge of. I may have even seen that. Where is it from?

Mr. PIKE. Did this give you an indication that you were buying an altimeter unfit for service use?

Mr. WOOD. No, sir; that alone would not do that for me.

Mr. PIKE. A message from the Naval Air Systems Command would not give you that?

Mr. WOOD. No, sir; that alone would not do that. If I may, let me explain to you why. I can assure you that any Government-furnished equipment—and by that I will define that as equipment that we buy—subsystems or components that we buy—and furnish to airframe contractors as Government-furnished equipment, particularly in the electronics area—I can assure you there will be a reasonable reject rate at the contractor's plant. I can't tell you what a reasonable reject rate is. It will vary from plant to plant. That alone would not tell me I had unusable equipment even if I saw that.

Mr. PIKE. It went on and said this:

"NAVAIR has not installed Aerosonic AAU–19A altimeters in Navy aircraft to date, nor can the unit be accepted for future installations until the technical remedies have been demonstrated."

At this point was the Air Force installing the altimeter in Air Force aircraft?

Mr. WOOD. I think we were, sir, and let me go on to say that I fully understood the Navy's position and had indepth knowledge the Navy absolutely refused to install the altimeters in their machines until after First Article approval. I understood that. I never had any doubts about that.

Mr. PIKE. Well, was it just First Article approval, or was it because the altimeter didn't work?

Mr. WOOD. Their indication, sir, was that "Until it is fully qualified First Article approval, we won't put it in our machines."

Mr. PIKE. Did you not get any indication from the Hayes Aircraft Corp. that the altimeter didn't work and they couldn't fix it?

Mr. WOOD. We knew that Hayes had reject rates. We sent people there, as a matter of fact, both from—I believe this to be true now—from our program office, from OCAMA, and from the contractor's plant to investigate. I don't recall what the results were. But again rejects in and of themselves would not tell me that I did not have a usable item.

Mr. PIKE. This wasn't reject at the plant. Were you not aware as program director that OCAMA had, in August 1971, undertaken to repair 10 of these altimeters?

Mr. WOOD. No, sir, I was not in August of 1971, no, sir. It is understandable though. We were in kind of a state of flex. I was trying to wear two hats in August of 1971, which was immediately before it left ASD to go to ESD. It is not unusual that I would not really know that.

Mr. PIKE. Your title again was what?

Mr. WOOD. I was director of procurement production in the AIMS program office, not the program director.

Mr. PIKE. And it is not unusual that you would not know that they couldn't repair or make work the altimeter that you were procuring?

Mr. WOOD. At that time, yes, sir. Had it happened a year or 6 months before, I am sure I would have known. I am trying to emphasize the transition period between ASD and ESD, some thousand miles separation and physically and organically moving a whole function and body of people. In the August time period we had very few people left at ASD who were at all involved in the AIMS program. The preponderance of those who were going to go were up at ESD. Those who were not going to go in many cases were out on other jobs and were in the process of hiring new people, or the Air Force was, new people to take on the function at ESD so in August 1971, it doesn't surprise me at all. I think I would have been in complete dereliction of my responsibilities had not I known in January or February of 1971 if something like that happened.

Mr. PIKE. If you, in your title, should not have known, who should have known?

Mr. WOOD. I didn't say I should not have known. I say it doesn't surprise me that I didn't know that in August, 1971.

Mr. PIKE. Was there anyone who had a greater responsibility to know at that particular time than you did?

Mr. WOOD. Maybe not necessarily a greater responsibility, but there were others who had an equal responsibility.

Mr. PIKE. Who were they ?

Mr. WOOD. Certainly the people at OCAMA have an equal responsibility—AFLC—have an equal responsibility.

Mr. PIKE. They knew they couldn't fix the altimeter, but they weren't buying the altimeter.

Mr. WOOD. I understand, sir, but I can't tell you——

Mr. PIKE. How do we turn off a procurement if the procuring officer is not advised that the altimeter doesn't work?

Mr. WOOD. I agree with you, sir. I would have to find out from OCAMA who did they advise. I would have to know that.

Mr. PIKE. And they never advised you?

Mr. WOOD. I have no recollection in August of 1971, sir, of that. They may have. I have no recollection of it.

Mr. PIKE. When you first heard about this telegram of Mr. Frank, of September 1, 1971, did you get on the telephone with Mr. Frank?

Mr. WOOD. Yes, sir, I did. After I had talked with, I believe, Colonel Stanley, but I am not sure. I believe I talked with him, or someone at ESD, and then I did get on the horn with him.

Mr. PIKE. Did you say to Mr. Frank, "We will waive the First Article requirement?"

Mr. Wood. I may very well have, but probably what I said to him was, "What is the problem?" And he probably outlined, "You know, General Stewart didn't do what he said he was going to do."

"Well, what didn't he do? What is causing you the big heartburn?"

And he probably mentioned the First Article position.

I said "If that is taken care of, would you go back to work tomorrow?"

And he probably said yes.

The Chairman. The committee will recess for 15 minutes.

[Recess taken.]

The Chairman. The committee will be in order.

Mr. Pike.

Mr. Pike. Thank you, Mr. Chairman.

Mr. Wood, we were covering the fact that you had a telephone conversation with Mr. Frank on the 1st or the 2d of September, probably the 2d, in response to this letter which he had sent and which will be brought to your attention. I don't want to misquote you but I believe you said you may have said to Mr. Frank that the First Article testing requirement could be waived, is that accurate?

Mr. Wood. I may very well have said that. I probably said something like, "Is that your problem?"

Mr. Pike. When did you first indicate in any manner to Mr. Frank that the First Article testing requirement would be waived?

Mr. Wood. Either at that time or shortly thereafter because I had some conversation with the people at ESD; by that I mean like the program director, and even the JAG people. I was reminded a few moments ago—you know, your memo about September 15, or so, from the JAG people, that is a culmination of a lot of things that went on before the 15th. There were people involved at that time like JAG people, procurement people at ESD, the program director and myself.

Mr. Pike. Did you, in any manner, request in writing an opinion from JAG as to the legality of waiving the first article testing requirement?

Mr. Wood. No, sir.

Mr. Pike. Did you ever get from JAG an opinion in writing stating that the First Article testing could be waived?

Mr. Wood. I saw the opinion written by the ESD JAG sometime in September. I don't remember the date.

Mr. Pike. If you didn't request the opinion, how did they happen to write it?

Mr. Wood. It was requested by the then procurement operation at ESD. They requested, in conjunction with the program director——

Mr. Pike. Who requested the written opinion from JAG?

Mr. Wood. I will have to ask for some help from someone else. I am not sure. I don't know.

Mr. Pike. The fact is you probably told Mr. Frank this would be waived before the legal opinion in writing came back from JAG?

Mr. Wood. That is a true statement.

Mr. Pike. Mr. Wood, who ultimately made the decision to cancel this contract?

Mr. Wood. That was made by the Electronic Systems Division. I can't tell you by name which procuring contracting officer recommended. I don't know, sir. It was made by Electronic Systems Division.

Mr. PIKE. You had nothing to do with the cancellation of the contract?

Mr. WOOD. No, sir, I did not.

Mr. PIKE. When did you last have any responsibility for the conduct of this procurement?

Mr. WOOD. The first part of September. The interface on the waiver or deletion of the First Article requirements. I have had no contact since then that I can recall, sir.

Mr. PIKE. Did you know at any time when you were the contracting officer the results of the testing of the equipment which was being purchased under your contract?

Mr. WOOD. Yes, I did. Yes, sir.

Mr. PIKE. Did you get the report from DCAS on the testing being conducted?

Mr. WOOD. The program office did and I am sure, sir, I have seen them. I don't remember any specific one, but yes, we got reports, yes, sir.

Mr. PIKE. Did you know all the time that you were in this position that none of these altimeters had ever passed all of their tests?

Mr. WOOD. Again, I am thinking through the process here. I have every reason to believe every unit shipped out of Aerosonic passed the required testing for the purpose of shipment. I am convinced of that, sir. I have seen no evidence which would lead me to believe otherwise, nor have I had anyone tell me——

Mr. PIKE. The testing was that which was done by Aerosonic with the DCAS people observing. That is the first test, is that correct?

Mr. WOOD. Yes, sir.

Mr. PIKE. What was required beyond that for altimeters to be shipped out of Aerosonic?

Mr. WOOD. There was some sample testing——

Mr. PIKE. There was a plan A test and a plan B test?

Mr. WOOD. Yes. I can't tell you about the lot numbers. I don't recall that.

Mr. PIKE. Was it required that the plan A test and the plan B test be successfully completed before the altimeters were shipped from Aerosonic?

Mr. WOOD. I don't recall, sir, but I don't think so. I don't recall, but I don't think so.

Mr. PIKE. You don't think that was any part of the contract?

Mr. WOOD. I know they had to pull samples out of certain lots, every so often. I don't remember the details on that, but whether or not the actual sample testing had to be done before shipment, I don't recall. I don't think it had to be, but I am not sure of that.

Mr. PIKE. Did you at any time request a higher level of inspection at the Aerosonic plant?

Mr. WOOD. Yes, sir. Either on one or two occasions we requested that 100 percent inspection be implemented—if that is what you are calling a higher level of inspection, sir.

Mr. PIKE. Would that be what is described as class A mandatory inspection?

Mr. WOOD. I am told that is right.

Mr. PIKE. What happened when you demanded the class A mandatory inspection—this was a request made by you?

Mr. WOOD. Yes, sir.

Mr. PIKE. I think you have these papers. I refer you to tab 32 dated July 30, 1968 (see appendix 10) a document signed by you directed to DCAS in Clearwater, and you said, "It is requested that class A mandatory inspections in accordance with above manual be conducted on AAU–19/A altimeters produced under subject contract."

Mr. WOOD. Yes.

Mr. PIKE. You requested 100-percent inspection?

Mr. WOOD. Yes, sir.

Mr. PIKE. Why did you do that?

Mr. WOOD. Because we were concerned about the quality.

Mr. PIKE. What caused this concern about the quality in June or July of 1968? You said the Navy was saying in 1969 that it was not fit for use, which didn't make you stop, but here suddenly earlier than that in 1968 you went to 100-percent inspection. Why?

Mr. WOOD. I am going to guess—and that is all I am doing—it was about the same time we released the equipment to production and we convinced ourselves that in the absence of full qualification it also seemed prudent for us to impose 100-percent inspection to both enhance the quality as well as the usability of the instrument that we were taking the calculated risk to receive.

Mr. PIKE. Was there any reaction from Mr. Frank and the Aerosonic people when you established 100-percent inspection?

Mr. WOOD. He was unhappy.

Mr. PIKE. How unhappy was he?

Mr. WOOD. It is hard for me to quantify it.

Mr. PIKE. Did he say he would close down his plant again?

Mr. WOOD. I don't know whether he said that at that time. He said it to me, either to me, or in writing, on two or three occasions during the tenure of this contract.

Mr. PIKE. Did he demand that the 100-percent inspection be removed?

Mr. WOOD. This isn't going to come out right, sir. No one ever demanded me to do anything so the answer to that part of it is "No." No, sir.

Mr. PIKE. Did he say that unless the 100-percent inspection were removed he would stop producing the altimeter?

Mr. WOOD. I don't recall him saying that to me.

Mr. PIKE. Was the 100-percent inspection removed?

Mr. WOOD. Yes; it was. As we got a higher level of confidence, after discussions with the DCAS people and I can't tell you exactly when that occurred, but we did take it off.

Mr. PIKE. You got a higher level of confidence after discussions with the DCAS people?

Mr. WOOD. Please don't let me put that in the context of something that happened immediately. That was some months later.

Mr. PIKE. The DCAS people then informed you that everything was going all right with the AAU–19 altimeter so you had a higher level of confidence and you could remove the 100-percent inspection?

Mr. WOOD. I may be wrong here, but I think I asked them did they still think we needed this. I think I did. I am not sure of that, but that is kind of my character. I probably would.

Mr. PIKE. That is all I have.

Mr. LALLY. When was Kollsman Instruments awarded a contract for manufacture of altimeters?

Mr. WOOD. You have me there. I don't remember the exact date. The first contract I had the people look up and it was retired. We started the action to make that award, or that they were involved in, in March 1966. I think it was about a year later before we actually awarded it, so it probably was the early part of 1967.

Mr. LALLY. Do you know the approximate quantity of the Kollsman contract?

Mr. WOOD. I want to say 4,200, but I am not sure that is right, sir.

Mr. LALLY. Why was that contract awarded to Kollsman when you had this contract going?

Mr. WOOD. No single source could meet the quantitative demands we had on a monthly basis. You have to remember we had a need as we saw it then for upwards of 20,000 altimeters. No single source including Kollsman, could produce at the kind of rate we decided we needed based on a January 1, 1973 implementation date for the program so we needed two sources. We knew that from the outset and tried from the outset, nothwithstanding the fact we didn't make provisions in the IFB for split awards.

Mr. LALLY. Did you subsequently award another contract for altimeters to Bendix?

Mr. WOOD. Yes; we did.

Mr. LALLY. Do you know when that occurred?

Mr. WOOD. I am going to guess and I think it was the latter part of 1969 or 1970, but I am not sure. I can check that for you if you like.

Mr. LALLY. Was that contract to take up the slack caused by the Aerosonic problems?

Mr. WOOD. Not so, That contract, frankly, was the result of competition. Bendix bid the lowest price of the three acceptable sources who had some available capacity. That was Bendix and Kollsman. They were low bidders. We needed gages. Again, remember, the maximum we could have bought under the Aerosonic contract was upwards, I believe, of 10,000. We needed some 20,000 gages. It wasn't to offset the Aerosonic situation. We just needed more gages than we had under anyone's contract.

Mr. LALLY. Directing your attention to the September 2, 1971 period, either before or after your consultation with Mr. Frank, did you consult with Colonel Stanley about this proposal to waive the First Article?

Mr. WOOD. Yes; I did.

Mr. LALLY. When did you consult?

Mr. WOOD. I don't know. It has to be one, two, three, or four, like that, the September time period. I don't remember the exact time.

Mr. LALLY. Was it before proposing to Frank the First Article requirement be waived?

Mr. WOOD. I think it was, but I am not even positive of that, frankly, but I think it was.

Mr. LALLY. Did he concur in your recommendation?

Mr. WOOD. I don't remember every really asking him, frankly. I know I talked about it, but whether or not I asked for his concurrence to do this, I don't recall.

Mr. LALLY. Was his concurrence necessary?

Mr. WOOD. Yes; I think so, yes, sir.

Mr. LALLY. You don't recall whether you obtained it?

Mr. WOOD. I really don't.

Mr. LALLY. At the time of the authorization for Aerosonic to produce in mid-1968, did you concur in the decision to authorize production?

Mr. WOOD. I certainly did.

Mr. LALLY. What was the basis for your concurrence?

Mr. WOOD. I will go back once again. We looked at the alternatives. More AAU–7's, more MC–3's, did we have a safety-of-flight problem, and that came up negative. Aerosonic was the only producer of AAU–7's so if we used AAU–7's we would have to go to them to buy them. I don't know if the MC–3's were in production. All of them were non-AIMS gages. The Aerosonic AAU–19 could be used based on the engineering opinion in the standby mode and not have a safety-of-flight problem.

Mr. LALLY. When that authorization was granted to Aerosonic to produce, was any limit placed upon the quantity they could produce?

Mr. WOOD. I found a letter in the file where we said something like 200 that we sent to Aerosonic and I think I signed that letter, by the way.

Mr. LALLY. When was that letter?

Mr. WOOD. It has to be mid-1968. I can't tell you exactly when, but I can find the letter in our files.

Mr. LALLY. The quantity exceeded the 200. What occurred to authorize them to produce beyond the 200 level?

Mr. WOOD. We asked ourselves the same thing yesterday. We issued the contractual document and there we had no limit. I cannot tell you why the quantities frankly were not specified in the contractual document. I cannot recall the answer to that. That is one we just discussed yesterday and I don't know.

Mr. LALLY. Thank you, Mr. Chairman.

Mr. MOLLOHAN. Mr. Chairman, there is one thing that bugs me constantly. When I asked you earlier what were the actions and circumstances that caused the legal determination that we had already waived all the protection under the First Article, you referred me back to the program director authorization of July 1968 which authorized Aerosonic to begin production, and then when Mr. Pike read that contractual agreement or understanding, there was a specific provision which carried forward and reaffirmed the protections of the First Article.

Mr. WOOD. Right.

Mr. MOLLOHAN. There must have been something else because you seem to have been the advocate of waiving First Article.

Now, don't mess me up with a bunch of language. Just come up with something direct here. Exactly what was it that persuaded you to believe that you had set aside First Article when, on the face of it, as I read this document, there had been no satisfactory First Article tests. They failed completely the testing in May 1967. You rescheduled for October 1967 and they failed again. Your October 1968 test results were that 15 out of 23 passed the test and then under the B schedule to which Mr. Pike referred, none of those tested, none of the 6 units tested passed.

What was the persuasion that caused you, the contracting officer and the responsible officer here, to waive the only protection you had?

Mr. Wood. It is impossible for me to pinpoint a specific thing and if I led you to believe that the mid-1968 released production was the only thing, then I was in error. That was the No. 1 driver, but so many things happened, Mr. Mollohan, between the release to production and the deletion of that First Article provision. If nothing else, a span of 4 years of time, and all of the events that took place in that period of time really helped to solidify my thinking in conjunction with the JAG people that we had abandoned any possible recourse. I can't pinpoint one thing for you, sir. I wish I could.

Mr. Mollohan. How many reports did you have back from the field between October 1968—I assume that is the date you began production for delivery and for installation in planes—and your decision of 1971 to urge waiver officially of the First Article? Did you not receive a series of complaints as to the ability of the altimeters to do what they were required to do during that period?

Mr. Wood. I have recollection of the Hayes incident. I have recollection of an LTV incident. I think there was a minor one also at McDonnell Douglas. Those are the ones that come to my mind.

Mr. Mollohan. You had one from Naval Air Systems Command, didn't you?

Mr. Wood. They were not a user of equipment. That is a test function, sir.

Mr. Mollohan. Still, isn't something of that sort of significance to you?

Mr. Wood. Yes, sir; it is important, but I was trying to answer your question in the context of squawks where we made an effort to use the altimeter in an operating environment. That is what I was really trying to address, sir.

Mr. Mollohan. Now, it seems here, while you may have felt that the protections of First Article had been waived, it must not have been a judgment in which General Stewart concurred since General Stewart said in his letter of August 16, 1971, to Mr. Frank that the First Article approval would be granted if all test data and information now in hand support the contention that there were no failures. This says to me that General Stewart was very definitely under the impression that First Article protections were still in effect.

Mr. Wood. I will have to tell you what he told me.

Mr. Mollohan. All I know is what he told us in the letter.

Mr. Wood. He told me, I guess last night or this morning, or whenever, that looking at it in retrospect, if I had talked with him he probably would have argued that subject with me because he probably did not share my opinion.

Mr. Mollohan. His August 30 letter to Mr. Frank says again that the test data reflects that a number of test points were outside the specified tolerances.

Then when Mr. Frank tells you that he has notified the Government in a letter of September 1, 1971, that he is holding the Government in default of the contract, you all cave in. Now, why did you cave in?

Mr. Wood. There is a big difference to me, and if you will bear with me for a second, between waiving the First Article requirements and

granting First Article approval, there is a big difference. If I tell you you have a qualified, particular item——

Mr. MOLLOHAN. I agree. What you are doing in one sense is releasing him from a contractual responsibility and the other is that he is meeting the contract responsibility. That is the difference between waiving and passing the test. In one he meets the contract requirements and in the other one he doesn't, and, yet, you waive it.

Mr. WOOD. If I may remind you again, he still had the tests to pass under samples A and B.

Mr. MOLLOHAN. That doesn't make any difference. That isn't the point. What you have done here as a contract officer is, you have given up the protections which you built in there previously when you originally executed the contract. You have waived it.

Mr. WOOD. That is a true statement, sir.

Mr. MOLLOHAN. Now again answer my question. Tell me why, when he told you he was going to shut down, to sue you or place you in default of the contract, did you feel this was sufficiently persuasive to cause you to say, "We will withdraw that and grant you First Article?"

Mr. WOOD. Because I did not think we were giving up a thing. I didn't believe we could recover anything.

Mr. MOLLOHAN. Is this a decision you can make unilaterally? I have heard some discussion here about others you talked to on this point and I am confident you must have talked to General Stewart about it. I am confident you must have talked to the Program Director who is your boss, as I recall it?

Mr. WOOD. Yes, sir.

Mr. MOLLOHAN. I must accept that this is not your unilateral dedecision.

Mr. WOOD. No; it is not a unilateral decision with me but I did not discuss it with General Stewart beforehand.

Mr. MOLLOHAN. Before what?

Mr. WOOD. Before making the decision. I do recall having some discussion, I believe, with Colonel Stanley, but I am not positive of that. I know I talked with him on the subject.

Mr. MOLLOHAN. Do you have the authority to waive the First Article in this instance?

Mr. WOOD. I kind of think so, sir.

Mr. MOLLOHAN. Are you the one who signed this Mod 57 in September 23, 1971?

Mr. WOOD. No, sir, I am not.

Mr. MOLLOHAN. Who did? That person must have had the authority or he would have not taken that action.

Mr. WOOD. That person at the point in time that document was issued had reponsibility for that.

Mr. MOLLOHAN. That would be ESD?

Mr. WOOD. Yes, sir.

Mr. MOLLOHAN. I am quite sure Mr. Wood didn't sit down and talk to himself and decide this should be done. Now, you didn't talk to Colonel Stanley about it, as far as you recollect, and you didn't talk to General Stewart about it. With whom did you talk?

Mr. WOOD. I know I talked to Colonel Stanley. I can't tell you that I asked Colonel Stanley's permission to do this or request his concurrence in doing it. I don't recall that. I know I talked to the JAG people both

at ASD and ESD. I know I talked to Mr. Frank. Those are essentially the people that I talked to in this time period of September 1 or 2, or whatever it was. But I can't tell you in detail what I talked to them about. I really don't recall.

Mr. MOLLOHAN. Now, for the record, will you detail for me exactly what was your reasoning which persuaded you to say to ESD, "We did not take the action to waive the requirement when we had the authority for this contract. You now have the authority and I urge you to do this."

Mr. WOOD. I am probably repeating myself, but the persuasion was I didn't feel we were giving up a thing. I did not believe we were giving up a thing.

Mr. MOLLOHAN. That is all, Mr. Chairman.

The CHAIRMAN. Thank you very much, Mr. Wood.

The committee will stand adjourned until tomorrow morning at 10 o'clock.

[Whereupon, at 4:50 p.m., the committee was adjourned, to reconvene at 10 a.m., Thursday, August 1, 1974.]

AIR FORCE PROCUREMENT OF AAU-19/A ALTIMETERS

THURSDAY, AUGUST 1, 1974

HOUSE OF REPRESENTATIVES,
COMMITTEE ON ARMED SERVICES,
ARMED SERVICES INVESTIGATING SUBCOMMITTEE,
Washington, D.C.

The subcommittee met, pursuant to adjournment, at 10 a.m., in room 2337, Rayburn House Office Building, Washington, D.C., Hon. F. Edward Hébert (chairman of the subcommittee) presiding.

Present: Messrs. Hébert, Stratton, Pike, Mollohan, Daniel, Dickinson, and Hunt.

Also present: John F. Lally, acting counsel, and David R. Warren, staff investigator.

The CHAIRMAN. The committee will be in order.

Mr. Lyon?

[Witness sworn.]

The CHAIRMAN. Identify yourself.

TESTIMONY OF WILLIAM LYON, CHIEF ENGINEER

Mr. LYON. I am William Lyon, the Deputy Director of the Traffic Control and Landing Systems Program Office, which is part of the Electronic Systems Division of the Air Force. I have held that position since January of 1972. Prior to that time I was the Chief Engineer, Chief System Engineer, of the Air Force or Department of Defense AIMS program recently, Electronic Systems Division and prior to that, the Aeronautical Systems Division at the Wright-Patterson Air Force Base.

The CHAIRMAN. Do you have a prepared statement?

Mr. LYON. No, sir, I do not.

The CHAIRMAN. Mr. Pike?

Mr. PIKE. Mr. Lyon, you are telling us then that you were with the AIMS program both at ASD and when it was transferred to ESD?

Mr. LYON. Yes, sir.

Mr. PIKE. That is correct?

Mr. LYON. Correct.

Mr. PIKE. You stayed with the program?

Mr. LYON. Yes, sir.

Mr. PIKE. What was your function in connection with this procurement of this AAU-19, and did you have any part in the AAU-27 altimeter?

Mr. LYON. I had no part in the AAU-27 altimeter, sir.

Mr. PIKE. Then tell us what your role was in connection with the AAU-19 altimeter?

Mr. LYON. All right, sir.

Again, I believe you have heard what the AIMS program was. It involved a number of things to improve our air traffic control capability. I was the Chief System Engineer for that entire AIMS program, which involved procurements of many different components, both airborne and ground, and the integration of them into the aircraft and into our total air traffic control system. Therefore, I was responsible for integration of the various components of the AIMS system, the technical integration and functional capability.

Mr. PIKE. I am asking you what your responsibility was, not with the overall AIMS program. I am asking you what your responsibility was in connection with the AAU–19 altimeter.

Mr. LYON. As the Chief Engineer I was responsible to see that we got a qualified, a usable, satisfactory instrument for the Air Force.

Mr. PIKE. Did you have any role in the technical evaluation of the four proposals submitted by the four contractors who submitted proposals to build this altimeter?

Mr. LYON. No, sir, I did not.

Mr. PIKE. In other words, your role in this altimeter did not begin until after that decision had been made?

Mr. LYON. My role was more supervisory, sir, and not in the detail that I would have gotten involved in that technical proposal or the evaluation of those technical proposals.

Mr. PIKE. Was the technical proposal not submitted to you?

Mr. LYON. It was not submitted to me, sir. It was submitted to our Systems Engineering Group, which was charged with the full technical evaluation.

Mr. PIKE. Who was the Systems Engineering Group? Give me your title again.

Mr. LYON. I was the Chief System Engineer of the AIMS Program Office.

Mr. PIKE. Were you not the head of the Systems Engineering Group for the AIMS altimeter?

Mr. LYON. No, sir, not in 1964.

Mr. PIKE. Who was the head of the engineering group for the AIMS altimeter?

What I am trying to do, and what all of us are trying to do, is fix the responsibility for the people who made the decisions, and I don't like answers that say that things were submitted to groups. Somebody was in charge of the group. Who was the human being who was in charge of the group?

Mr. LYON. A gentleman named Mr. Worley was in charge of the engineering group, which was responsible for that evaluation, sir.

Mr. PIKE. And what was your role at that time?

Mr. LYON. I was not involved in that evaluation. We delegated that to another group.

Mr. PIKE. But you were responsible for the overall AIMS program at that time?

Mr. LYON. Yes, sir.

Mr. PIKE. The engineering of it?

Mr. LYON. Yes, sir.

Mr. DICKINSON. Would you yield just a minute?

Mr. PIKE. Certainly.

Mr. DICKINSON. It would be helpful to me and to all of us if we knew the dates when this started and when you assumed your responsibility, if you wouldn't mind asking him that.

Mr. PIKE. Absolutely.

Did you have responsibility over the AIMS program prior to the first evaluation of the AAU–19 altimeter?

Mr. LYON. Yes, sir.

Mr. PIKE. But the results of that evaluation were not submitted to you?

Mr. LYON. That is correct, sir.

Mr. PIKE. Did you have to approve the results of that evaluation?

Mr. LYON. No, sir.

Mr. PIKE. Who did have to approve the results of that evaluation; this group headed by Mr. Worley?

Mr. LYON. Yes, sir, from the technical evaluation, yes.

Mr. PIKE. And you had no voice in whether this proposal was technically qualified or not?

Mr. LYON. That is correct, sir. I did not have.

Mr. PIKE. When did you first start having any voice in the technical qualifications, or production, or the technical part of the AAU–19 altimeter?

Mr. LYON. As soon as the source was selected and the contract awarded, sir.

Mr. PIKE. And the source was selected when?

Mr. LYON. February 1966.

Mr. PIKE. That was the date of the execution of the contract, was it not?

Mr. LYON. Yes, sir.

Mr. PIKE. The source was selected before that, was it not?

Mr. LYON. I do not know, sir. Perhaps, but not very long before that.

Mr. PIKE. I think our previous testimony was that it was selected quite a while before that, and there was a protest by one of the other competitors, and therefore the actual execution of the contract was signed.

Your role, however, did not start until the execution of the contract; is that correct?

Mr. LYON. Yes, sir, that is correct.

Mr. PIKE. Did you have any voice in approving the contract?

Mr. LYON. No, sir.

Mr. PIKE. Did you have any voice in the contents of the contract?

Mr. LYON. In the contents of the specification which was part of the contract, yes.

Mr. PIKE. So you had the responsibility for stating what the technical requirements of this contract should contain?

Mr. LYON. Yes, sir.

Mr. PIKE. When the contract was executed, were you satisfied with the contents of the contract, from the technical point of view?

Mr. LYON. Yes, sir.

Mr. PIKE. Were you satisfied that the corporation which got the contract could perform the contract?

Mr. LYON. Yes, I was. I had no reason to be otherwise.

Mr. PIKE. You say you had no reason to be otherwise.

In the course of your duties as the technical head of this AIMS program, did you have access to prior performance records of the various contractors involved?

Mr. LYON. Yes, sir.

Mr. PIKE. And you were satisfied with the prior performance and record of this contractor?

Mr. LYON. Yes, sir.

Mr. PIKE. To what extent did you examine the prior performance record of this contractor?

Mr. LYON. I did not personally examine it all, sir.

Mr. PIKE. What then was there that satisfied you? If you didn't look at it, how did you come to be satisfied?

Mr. LYON. By the actions of the other people in the technical evalution and in the facility review prior to award of the contract.

Mr. PIKE. When you say "the other people," were you aware that the other people who first evaluated the proposals said that this corporation was not qualified?

Mr. LYON. Yes, sir, I was aware of those actions.

Mr. PIKE. And were you aware that eventually they said by the most liberal interpretation of the regulations, the company could be declared marginally qualified?

Mr. LYON. Yes, sir.

Mr. PIKE. And you were satisfied with that?

Mr. LYON. Yes.

Mr. PIKE. When, after February 1966, was the first technical change made in the AAU–19 altimeter contract?

Mr. LYON. In the contractual document, sir?

Mr. PIKE. Yes.

Mr. LYON. I do not know, sir.

Mr. PIKE. Were you not responsible for any technical changes in the specifications for this altimeter?

Mr. LYON. Yes.

Mr. PIKE. Do you know when the first technical change was approved?

Mr. LYON. No, sir, I do not know.

Mr. PIKE. Do you know how many technical changes there were?

Mr. LYON. No, sir.

Mr. DICKINSON. Will you yield for a question?

Mr. PIKE. Certainly.

Mr. DICKINSON. Do you have any records or documents with you to which you could refer to ascertain answers to the questions just propounded?

Mr. LYON. I do not, sir. I presume I could certainly get them. I presume we are talking about a certain number of engineering changes made to this contract.

Mr. PIKE. Yes, that is what we are talking about.

Mr. LYON. I am sorry I do not have that data with me.

Mr. PIKE. Did you approve of all of the engineering changes made in this contract?

Mr. LYON. Yes, sir, all those changes that were made were approved by me, yes.

Mr. PIKE. Were any of the changes so substantive that they amounted to, in effect, a redesign of the altimeter?

Mr. LYON. No, sir.

Mr. PIKE. What was the most significant change in the technical requirements of the altimeter?

Mr. LYON. I am sorry, sir. I can give you several examples that I am aware of, but whether they would be considered the most significant would be of course——

Mr. PIKE. You tell us. Give us several that you consider the most significant.

Mr. LYON. All right, sir.

The size of the pivot in the instrument, as originally produced by Mr. Frank by the Aerosonic Corp., was changed to a larger size to preclude breakage of that very precise element of the instrument. The barometric setting switch was changed, because the one that was installed had erratic operation, was not reliable in its operation. The electrical connectors internally in the instrument were changed from one type to another, either from a soldered joint to a plug-in connector, or the reverse. I forget which it was. Those are major changes that I recall, sir.

Mr. PIKE. But none of them, according to your testimony, appears to be particularly major.

Mr. LYON. As far as changing the basic design of the instrument, no. I do not consider them major at all.

Mr. PIKE. Were you responsible, other than the fact of the technical design, for seeing that what was produced lived up to the technical design?

Mr. LYON. Yes, sir.

Mr. PIKE. Were you aware during the course of the fabrication of the altimeter that the contractor was inserting at one point, during the course of the fabrication, materials not permitted under the specifications?

Mr. LYON. No, I was not aware of that, sir.

Mr. PIKE. Were you aware of the fact that die castings, which were a component part of the altimeter, were found when they came to Aerosonic to have a very high rate of cracks in them?

Mr. LYON. I do recall something to that effect, Mr. Pike. I don't recall the exact details. I do know there was a problem with some received material, and it was a subject of some technical investigation by our people working with the contractor's people. I was not personally involved in that investigation.

Mr. PIKE. Were you aware that there had been an investigation of this corporation based on their acceptance of damaged rate-of-climb indicators and damaged altimeters from subcontractors?

Mr. LYON. No, sir.

Mr. PIKE. Mr. Edward J. Lolley was, I think, the quality control director at the DCAS operation; is that correct?

Mr. LYON. I do not know, sir.

Mr. PIKE. You do not know?

Mr. LYON. No, sir, I am not familiar with that name.

Mr. PIKE. Did the DCAS inspectors on the scene keep you advised of the technical difficulties which were arising during the course of the building of this altimeter?

Mr. LYON. Yes, sir. May I expand on that one bit, sir?

Mr. PIKE. Yes.

Mr. LYON. They kept my engineers advised, not me personally, but the engineers who reported to me, yes.

Mr. PIKE. When were you first advised of problems involving the fabrication of the altimeter?

Mr. LYON. May I ask a point of clarification on that, sir? You mean after production was begun or before production was begun?

Mr. PIKE. First advised. I would assume that would be before production was begun.

Mr. LYON. Yes, sir. I would say within 2 months after the contract was awarded.

Mr. PIKE. And that would have been March or April 1967?

Mr. LYON. 1966, sir.

Mr. PIKE. 1966.

What was the nature of those first problems?

Mr. LYON. Difficulty in fabricating the test models to the point that they would pass the prescribed First Article testing.

Mr. PIKE. What was your responsibility at that point in seeing that the articles did pass the First Article testing?

Mr. LYON. Just that, sir. I was responsible to see that an instrument was designed and fabricated in the required test quantities, and that it did in fact pass the specified First Article tests.

Mr. PIKE. And you were aware that there were difficulties by April 1966?

Mr. LYON. Very early on in the program, yes, sir.

Mr. PIKE. What did you do in an effort to resolve those difficulties and have the altimeter pass the First Article testing?

Mr. LYON. The engineers at the Aeronautical Systems Division responsive to me worked closely with the contractor and his design engineers, and the DCAS inspectors, to attempt to make the unit an acceptable instrument.

Mr. PIKE. And in an effort to do this, I assume that there were certain engineering change proposals jointly agreed upon by the contractor and the Government engineers; is that correct?

Mr. LYON. Yes, sir. Could I expand on that point a bit?

At that time, during that early phase of the development, the contractor was permitted to make design or engineering changes to his instrument in order to pass the test or hopefully pass the test without getting Government concurrence, that is, engineering change proposals. A formal, approved document was not necessary because the design was not yet frozen.

Mr. PIKE. I see. The design was not yet frozen. The contractor was building nothing but first articles, in order to pass this test.

Mr. LYON. Yes, sir.

Mr. DICKINSON. May I ask a question?

Mr. PIKE. Certainly.

Mr. DICKINSON. How many units were required of him, and was part of the problem in building this number, or was it something in the unit?

Mr. LYON. No, sir. I believe it was intrinsic in the design, not the quantity. I believe the quantity was approximately eight that he was to build and test for the First Article portion.

Mr. DICKINSON. In fact these would be hand built.

Mr. LYON. Yes, sir, they would be essentially hand built.

Mr. DICKINSON. And the problem that came about was something within the design and not the fact that they couldn't physically fabricate the pieces.

Mr. LYON. Yes, sir, that is my recollection. It was in the design, not the quantity of instruments.

Mr. DICKINSON. Thank you.

Mr. DANIEL. Will the gentleman yield?

Mr. PIKE. I will be happy to.

Mr. DANIEL. Mr. Lyon, according to the evidence we have here, in December 1966, eight units were tested and again failed to pass the test but due to urgent aircraft requirements two were accepted by the Government and six were retained by Aerosonic for additional work tests. Following that, there are several other instances enumerated where they were accepted. Then Colonel Zeine "after consultation with Mr. Lyon, authorized Aerosonic to begin production delivery of AAU–19's without requiring the First Article approval." What advice did you give Colonel Zeine as the engineer?

Mr. LYON. In the 1968 time period, sir?

Mr. DANIEL. No, sir, this was 1966.

Mr. LYON. I am sorry, sir, I am confused with the facts.

Mr. DANIEL. I am sorry, you are correct, 1968.

Mr. LYON. Very good, sir.

In 1968 I advised Colonel Zeine that the instrument had not yet successfully passed all of the First Article test requirements as called for by the contract.

Mr. DANIEL. Did you object to proceeding with the production?

Mr. LYON. No, sir, I did not formally object. I did not concur. I did not object. I made certain that Colonel Zeine was fully aware of the facts that the instrument had not yet passed the test that the contract called for, had not fully passed the test. I advised him of that fact. I did not object to his decision.

Mr. PIKE. After this first batch of difficulties in 1966, with the technical design, at what point was the design frozen?

Mr. LYON. Formally the design was not frozen until mid-1969, sir, when we held a First Article configuration inspection. It was either June or July 1969, I believe.

Mr. PIKE. At the time that the design was frozen, the altimeter still had not passed the first article test, had it?

Mr. LYON. That is correct, sir.

Mr. PIKE. Why was the design frozen when the altimeter couldn't pass the tests?

Mr. LYON. We froze the design because we wanted to be certain that what we were accepting from production, that everything was the same, peas in a pod, so to speak. We didn't want the contractor to be permitted to change design in production without our knowledge or approval.

Mr. PIKE. In other words, you are saying that the contractor had already gone into production before the design was frozen?

Mr. LYON. Yes, sir.

Mr. PIKE. So are you also saying that before the design was frozen, you were getting production altimeters which were not alike?

Mr. LYON. No, sir. To my knowledge that is not true, but we did not have the positive contractual controls at that time to preclude unlike instruments.

Mr. PIKE. What was your responsibility for granting permission to go into production?

Mr. LYON. My responsibility was to advise the program director——

Mr. PIKE. And who was that?

Mr. LYON. Colonel Zeine.

Mr. PIKE. Colonel Zeine, right.

Mr. LYON [continuing]. Of the fact that the unit had not yet done all the things it was supposed to from a technical performance standpoint.

Mr. PIKE. Was your responsibility not also either to recommend that it go into production or not to recommend that it go into production?

Mr. LYON. I don't believe it was, sir.

Mr. PIKE. You are the man responsible for the technical qualifications of the altimeter, but you say it was not your responsibility to recommend whether technically the altimeter is ready to go into production or not?

Mr. LYON. I believe that in my clearly stating to Colonel Zeine that the altimeter had not yet passed the prerequisite tests for production in accordance with the contract, that I, in fact did make sure that he understood that fact, and therefore the decision to go into production was totally his, with full knowledge of all the facts.

Mr. PIKE. Wouldn't one of the facts that he would have to have be a judgment as to whether or not the altimeter could pass First Article testing? How can he make the decision as to whether or not you go into production without knowing whether in your judgment—you are the technical man—the altimeter could work?

Mr. LYON. I advised Colonel Zeine that the altimeter was capable of functioning successfully in an airplane, and would not create a safety-of-flight hazard condition, based on the testing that we knew at that time.

Mr. PIKE. Did you put that advice in writing?

Mr. LYON. The safety of flight, yes, sir, we did. We did an analysis of the elements that had not yet passed the First Article testing, and deduced it was not a safety-of-flight concern.

Mr. STRATTON. Would the gentleman yield?

Mr. PIKE. Certainly.

Mr. STRATTON. The material that we have summarizing this case refers to a conversation between you and Colonel Zeine saying that "Colonel Zeine, after consultation with Mr. Lyon, authorized Aerosonic to begin production and delivery of AAU–19's without requiring First Article approval. The engineering staff objected to production, but admitted that the problems with the AAU–19 did not constitute a safety-of-flight hazard."

You have just used the term "safety-of-flight hazard," so I take it that you are referring to the conversation that is referred to in this summary; is that correct?

Mr. LYON. Yes, sir.

Mr. STRATTON. According to this summary, it says "The engineering staff objected to production." You have said that you didn't make any recommendation one way or the other, but you are the head of the engineering staff.

Mr. LYON. If I may repeat, sir, and I don't mean to belabor it, I felt at that time, and I still do, that my clear position to Colonel Zeine as to the status of the First Article approval, in other words, it was not quite there yet, it was not there yet, was sufficient advice to

him that we are not ready to do what the contract said we were going to do. We weren't there. I was well aware that he was thinking very seriously about entering into production in spite of that fact.

Mr. STRATTON. Then you really recommended to him that they not go into production, did you not?

Mr. LYON. Yes, sir, but I did not put on a piece of paper that exact statement.

Mr. STRATTON. We are not talking about what you put on a piece of paper. We are talking about what advice you gave to Colonel Zeine, and your testimony now is that you recommended against going into production.

Mr. LYON. But I am not certain I used those exact words, sir. I do not recall that I used those words "Please do not go into production."

Mr. STRATTON. I didn't give you any words. The document here, which summarizes the case, says that "The engineering staff objected to production," and you just admitted a couple of minutes ago that that was correct, that you did object to going into production.

Mr. LYON. Yes, sir.

Mr. STRATTON. Thank you.

Mr. DANIEL. Would the gentleman yield?

Mr. PIKE. Certainly.

Mr. DANIEL. On that same point, a technical question, Mr. Lyon. If the AAU–19 did not constitute a safety-of-flight hazard, what was the problem? Why did it not pass the test?

Mr. LYON. There were certain aspects of the test requirements in primarily the electrical or servo mode of the instrument as we call it, that had not yet, had not successfully met the tolerances that our specification called for. The specification was quite explicit as to what the instrument had to do.

Mr. DANIEL. Now, then, how did you conclude that it did not constitute a safety-of-flight hazard?

Mr. LYON. Those functional aspects of the altimeter, and there were many different functional aspects, that related to the safety-of-flight elements, particularly in the pneumatic or, as it was called, standby mode of operation, had successfully passed the First Article testing. Those elements, functional aspects that had not yet passed the testing we felt would not be a safety-of-flight hazard if, in fact, they did not work correctly in the aircraft.

Mr. PIKE. Mr. Chairman, could I ask a couple more question?

The CHAIRMAN. Go ahead.

Mr. PIKE. This altimeter had two modes, a barometric mode and a servo mode; is that not correct?

Mr. LYON. Yes, sir.

Mr. PIKE. And at the time that the production was approved, the reason it did not constitute a safety-of-flight hazard was that one of these modes worked; is that not correct?

Mr. LYON. That is correct, sir.

Mr. PIKE. And the other one did not?

Mr. LYON. Did not function according to specification, yes, sir.

Mr. PIKE. Did the failure of the altimeter ever to pass its first article testing result from its design?

Mr. LYON. Yes, sir, I assume that is the only thing it resulted from.

Mr. PIKE. I would be happy to yield now, sir.

The CHAIRMAN. Mr. Dickinson?

Mr. DICKINSON. Thank you, Mr. Chairman.

I think most of this has been covered. Mr. Lyon has made a very good witness, and has given very affirmative answers or has very clearly answered, one way or the other, most of the questions, but you have answered one question both ways, and I would like to get that cleared up.

You said that you did not object to going into production, and then on further questioning, you did object to going into production.

Could you explain? Just go on and elaborate in your own words what you did or what you did not do, and what your responsibility was. I understand what you have said, but you can't have it both ways.

Mr. LYON. Yes, sir, I would be happy to. I appreciate the opportunity to do so.

As the Chief Engineer, based on advice from the people responsive to me, I stated to the program director, Colonel Zeine, that the instrument was not yet ready to go into production from a technical standpoint. Again I was aware of what he was considering doing for valid reasons, reasons that he had, and I did not make a violent objection. I did not put in writing to him the fact that he was making a mistake. I did not go to a higher level than Colonel Zeine and explain about what he was doing. I had all of those options. I did not take those options because I felt that he had the total authority to make such a decision, and, in fact, personally, I felt as long as he had all of the facts available to him, and he did, then his decision was not really a bad decision. That was my personal opinion.

Mr. DICKINSON. He was program director?

Mr. LYON. Yes, sir.

Mr. DICKINSON. What does that mean? What is his authority, and how does he relate to you?

Mr. LYON. He was my immediate supervisor, sir.

Mr. DICKINSON. He was your supervisor?

Mr. LYON. Yes, sir.

Mr. DICKINSON. So there was no way that you could order him not to do it.

Mr. LYON. I could not order him not to do it, no.

Mr. DICKINSON. The only thing you could do was express an opinion.

Mr. LYON. Yes, sir.

Mr. DICKINSON. Did you express an opinion as to whether or not he should?

Mr. LYON. No, sir, I did not. Only the technical judgment. I said, as the Chief Engineer, we are not ready to go into production. We have not done the things we are supposed to do.

Mr. DICKINSON. Then you explained to him wherein it fell short technically?

Mr. LYON. Oh, yes, sir, yes.

Mr. DICKINSON. And then he had to make a value judgment as to whether or not to go from there based on your input.

Mr. LYON. Yes, sir.

Mr. DICKINSON. Were you in on the granting of the waiver later?

Mr. LYON. Yes, sir, I was.

Mr. DICKINSON. Tell us about that.

Mr. LYON. All right, sir.

In September 1971, and it was approximately the 7th or 8th of September as I remember, at Electronic Systems Division, Colonel Stanley was then the program director, succeeded Colonel Zeine. Colonel Stanley, myself, the JAG, the Chief of Procurement, all got together and discussed this matter of the First Article clause in the contract as to whether or not it should remain in the contract, remain a viable effort, or whether it should be deleted or waived.

Mr. DICKINSON. All right. At that point, before you continue, what was the situation in regard to having received and having on hand the altimeters, the AAU–19, and what was the manufacturer doing at that time?

Mr. LYON. He was producing the altimeter, sir, at really the best rate that he had ever achieved, approximately 100 a month throughout 1971.

Mr. DICKINSON. So at that time you had how many on hand?

Mr. LYON. Roughly 2,000 or maybe 2,200.

Mr. DICKINSON. That is all you have now, isn't it?

Mr. LYON. We eventually delivered 2,600, sir.

Mr. DICKINSON. 2,600?

Mr. LYON. Yes.

Mr. DICKINSON. You only got some 400 after you granted the waiver. The rest of them you already had on hand, stored and had been working with in various ways trying to get the darn things to work.

Mr. LYON. That is correct, sir.

Mr. DICKINSON. You knew, according to what you just told us, that at the inception when they were evaluated, they were qualified as marginal. They were a marginal company. Weren't you aware of that?

Mr. LYON. I was aware of that, but only from the standpoint of Air Force and Navy evaluation of the various proposals; yes.

Mr. DICKINSON. I would think that would be sufficient. And then as Chief of Systems Engineering of AIMS, I assume that you kept tabs on this from time to time, particularly when problems would surface, and you were aware of the first problem surfacing within 2 months, right?

Mr. LYON. Yes, sir.

Mr. DICKINSON. And this continued on for years, from 1966 to 1969 to—when was the waiver granted—1971, and all of this time I assume you were tracking it and the more problems that surfaced, the more you should have been concerned.

Would this be a fair statement?

Mr. LYONS. Yes, sir, that is a fair statement, but if I may amplify a little bit.

Mr. DICKINSON. Please.

Mr. LYON. In the time period of 1969, 1970, and well into 1971. I was not aware of any major problems in the Aerosonic altimeter program. It was in production. The production rate or yield was low, lower than we had wanted, but it was still, as best we knew, a usable instrument at that time.

Mr. DICKINSON. I think it is pretty fortunate it was so low, or else we might have 10,000 of those things stored out there.

Were you aware that they had tried to install these in airplanes, that the Navy had rejected them outright, that Hayes said they won't

work or that the rejection rate is too high to make it practical, and these problems were increasing all along? Did these problems surface up to you?

Mr. LYON. Yes, sir. The Hayes effort particularly, which I believe was about April of 1971. Prior to that time I was not aware that we had a major problem.

Mr. DICKINSON. Were you aware that they were not being installed in airplanes?

Mr. LYON. No, sir. In fact I really don't quite agree with that statement, sir.

Mr. DICKINSON. How many were installed?

Mr. LYON. I don't know exactly, but there were several hundred, maybe as many as 600—actually there were as many as 600 or 700 installed in airplanes, not the Navy but Air Force.

Mr. DICKINSON. As I recall, one of the services, I think it was Air Force, had to buy $800,000 worth of old model altimeters and install them until the new ones could be acquired and installed; is this correct?

Mr. LYON. Yes, sir. That is because the production yield was so low, so far below what we had planned.

Mr. DICKINSON. Of the 600 plus that were installed in Air Force airplanes, were they subsequently removed?

Mr. LYON. Yes, sir.

Mr. DICKINSON. When was this?

Mr. LYON. In the fall of 1972, sir, starting in August of 1972.

Mr. DICKINSON. And they were being installed all during the life of the production run?

Mr. LYON. Yes, sir.

Mr. DICKINSON. And you were having no trouble with them in service? You heard no feedback?

Mr. LYON. We did not have any abnormal trouble, or were not aware of it until the April 1971 time period.

Mr. DICKINSON. And what happened then?

Mr. LYON. The big flag was waived at Hayes Aircraft, and then some subsequent actions and investigations undertaken by our Oklahoma City Air Materiel area people in support of our own office effort did determine, after much investigation, that the unit was not good.

Mr. DICKINSON. Give me that date again?

Mr. LYON. I believe it was April 1971, sir.

Mr. DICKINSON. All right.

Mr. LYON. When the Hayes Aircraft Co. determined—that a large quantity of instruments they had to install on airplanes did not check out properly.

Mr. DICKINSON. When was the waiver granted?

Mr. LYON. Waiver of the First Article requirement?

Mr. DICKINSON. Yes.

Mr. LYON. In September of 1971, sir.

Mr. DICKINSON. This is puzzling me.

In April you say the big flag went up from Hayes, and you realized the seriousness, I assume——

Mr. LYON. Yes, sir.

Mr. DICKINSON [continuing]. Of the problem, but they continued to produce April, May, June, July, August, September, and in September you gave them a waiver.

Mr. LYON. Yes, sir.

Mr. DICKINSON. Could you explain this to me so that I can understand it, because it is very puzzling to me.

Mr. LYON. The best I can do, sir, is say that the Hayes Aircraft incident waived a flag, but that was not proof that we had a totally unacceptable instrument. There was better than 50 percent of a quantity of units that Hayes had that did not check out as they should before being installed in aircraft. That caused us, the Air Force, to do a much more exhaustive investigation of the altimeters, which took considerable time. Oklahoma City Depot did take a number of instruments and check them out. All that took time to do and to determine the real depth and magnitude of the problem.

Mr. DICKINSON. But during that time from April, when you were really put on notice that something major was wrong with the article, all of this time the production was increasing, and you were accepting production articles more each month, because you said at the time of the determination they peaked out as to their production rate. You continued to accept them, and then in September of 1971, instead of canceling, because it took you that long to check them out yourself, you granted a waiver. I don't understand this. Could you explain it to me?

Mr. LYON. Yes, sir. I see no direct connection between the granting of the waiver of the First Article requirement and the deficiencies that we were beginning to find at that time in the delivered instruments. We did not grant this waiver because of anything that was going on in that time period regarding our analysis of the quality of the instrument.

Mr. DICKINSON. When you say "that time period," I am concerned about the entire time from 1966 on——

Mr. LYON. Yes, sir.

Mr. DICKINSON [continuing]. When the First Article requirement was in effect——

Mr. LYON. Yes, sir.

Mr. DICKINSON [continuing]. And had even been reinstated in a subsequent contract change, so there would be no question of waiving it. Then you continued to buy when, in fact, they never were able to pass, and then the big problem surfaced and you finally concluded, I assume, after a few months—how long did it take you to determine that it was not remediable and couldn't be retrofitted and adapted and it just was not serviceable? When did you make this decision?

Mr. LYON. It took us approximately 1 year, sir.

Mr. DANIEL. Would the gentleman yield? I missed a point.

Mr. Lyon, after the altimeter was installed, and before the flag went up, what was the experience of the Air Force during that period with the altimeter?

Mr. LYON. To the best of my knowledge, it was reasonably normal, sir. The instrument was not considered worse than altimeters usually are.

Mr. DANIEL. Was it considered better?

Mr. LYON. About the same as the normal altimeter, yes, sir.

Mr. DICKINSON. I yield to the gentleman from New York.

Mr. STRATTON. Thank you, Mr. Dickinson.

I must say that I share Mr. Dickinson's problem here in understanding what you are talking about, Mr. Lyon. You said in response to

his question that you saw no connection between the fact that you were getting products that only about 50 percent of them would meet the specifications, and yet you saw no connection between that fact and the waiver of the First Article approval.

First Article approval means that before you start accepting production, the product has got to meet the required specifications and tests, does it not?

Mr. LYON. Yes, sir.

Mr. STRATTON. And if you were getting 50 percent of the products bad, doesn't that have a major bearing on whether you would allow this product to continue to be produced without even having to perform the requirements that you established for acceptance of the product?

Mr. LYON. Yes, sir, of course it does, and the consideration had to be, once we knew the product was bad, when do we stop?

Mr. STRATTON. You knew that 50 percent of it was bad?

Mr. LYON. We were getting that information. We were developing that information during that time period, yes, sir.

Mr. STRATTON. And yet you felt that getting 50 percent rotten apples in the barrel was a good reason for saying that "hereafter, we don't even have to check any one of these apples. We will just take all of them."

Is that what your conclusion was?

Mr. LYON. No, sir.

Mr. STRATTON. Well, if you recommended a waiver, you recommended that these apples be accepted without even bothering to check them, even the first one. That is what the waiver of First Article approval is, isn't it?

Mr. LYON. If I may comment on that, sir, the First Article approval waiver was that action was taken based on legal opinion——

Mr. STRATTON. I don't care why it was taken. The action itself means that you are going to continue to accept the apples without even bothering to check them thereafter.

Mr. LYON. No, sir, it does not mean that.

Mr. STRATTON. Well, what does it mean?

Mr. LYON. It means that we no longer required the contractor to demonstrate this First Article test which the contract called for.

Mr. STRATTON. That is right, which is to demonstrate whether the apple is rotten or good.

Mr. LYON. But there was subsequent testing still remaining in the contract for all production units.

Mr. STRATTON. Well, you were going to waive the requirement that the First Article had to be acceptable after you had gotten the barrel, 50 percent of the apples of which were rotten. Isn't that what you did?

Mr. LYON. Yes, that is true, we waived the requirement for the First Article test.

Mr. STRATTON. Thank you.

Mr. DICKINSON. I have just a couple more and I will be glad to subside here. But now the significance of the waiver, as I understand it, is to relieve the manufacturer, the contractor, of all legal responsibility to correct, to modify, to retrofit, to do whatever is necessary to make it acceptable; is this not correct?

Mr. LYON. I am terribly sorry, sir, I cannot comment on the legal aspects of what that really entailed.

Mr. DICKINSON. Aside from the legal niceties, just in common parlance, everyday jargon, if they did not measure up and could not pass the First Article test, whatever it cost them to pass the First Article test was the responsibility of the manufacturer; is that not right?

Mr. LYON. Yes, sir, when that First Article clause was still in the contract.

Mr. DICKINSON. Right.

Mr. LYON. Yes.

Mr. DICKINSON. So the significance is that when you and the company and then the Air Force, in its infinite wisdom, decided to waive it, then you formally said, "We will no longer look to you to correct all these 2,000 plus that we have in inventory and whatever it costs to take and to modify them"; is that not the effect of that?

Mr. LYON. Yes, sir, it would appear to be.

Mr. DICKINSON. Now something has been said here about the fact they still had the same requirements, that is, sample A, sample B testing, which kept the requirements locked in, that you had already waived. But, in the waiver you gave away the Government's right to charge back to the manufacturer the costs of correcting whatever deficiencies there were; is that not correct?

Mr. LYON. Yes, sir, of those units delivered at that time.

Mr. DICKINSON. Right, you already had over 2,000, you never bought more than 2,600, so we are talking about almost the entire buy.

Now, when the flag went up, as you say, at Hayes, then you took a closer scrutiny of the instruments and you took 10 to Oklahoma to test, is that right, or took 10 out of the inventory?

Mr. LYON. Yes, sir, that is correct.

Mr. DICKINSON. Now, of the 10 that you tested in inventory, how many passed the First Article test?

Mr. LYON. I am sorry, sir, I do not know. I can find out.

Mr. DICKINSON. Would it surprise you if the answer is zero?

Mr. LYON. I believe that is correct.

Mr. DICKINSON. I know it is.

Mr. LYON. I know there were a number of tests that Oklahoma City performed in that summer.

Mr. DICKINSON. Would this not have been—how long would it normally take to perform the tests in Oklahoma, on 10 instruments?

Mr. LYON. A week or two weeks, perhaps.

Mr. DICKINSON. All right. So after the flag went up at Hayes and you then did your own tests and 0 out of 10 passed, would this not have caused you some additional concern so that at least you would not continue to procure and put in inventory these for another year?

Mr. LYON. It certainly did cause us concern, sir.

Mr. DICKINSON. But not enough to even slow down production for at least a year, if I understand you correctly.

Mr. LYON. We did not slow production down.

Mr. DICKINSON. Right now I am speechless. I yield back, Mr. Chairman.

The CHAIRMAN. Mr. Stratton?

Mr. STRATTON. Thank you, Mr. Chairman.

Mr. Lyon, you said in response to Mr. Dickinson, I believe, that you were in a meeting in September of 1971 at which the question of the First Article waiver was discussed. You said that Colonel Stanley, somebody from JAG, the chief of procurement, were also at that meeting.

Mr. LYON. Yes, sir.

Mr. STRATTON. When did that take place?

Mr. LYON. There were a number of discussions, sir, in the September 1971 time period. I do not recall one meeting, I recall several discussions, there were several pieces of correspondence.

Mr. STRATTON. Well, now, General Stewart has testified that he was not present at a meeting on September 2 at which Leroy Brown of the JAG was present, Mr. Wood was present, and this question of the First Article waiver was discussed. Was that the meeting that you attended?

Mr. LYON. No, sir.

Mr. STRATTON. This was another meeting?

Mr. LYON. I am speaking of meetings, discussions at the Electronic Systems Division in Massachusetts. I am sure it was subsequent to September 8 because I did not arrive there until that date.

Mr. STRATTON. Subsequent to September 8?

Mr. LYON. Yes, sir.

Mr. STRATTON. In other words, the question of waiving the First Article inspection had not been decided on as of September 2, following the meeting by General Stewart?

Mr. LYON. To my knowledge, that is correct, sir.

Mr. STRATTON. Would you describe the discussions that you had in the Electronic Systems Division on that subject of the waiver?

Mr. LYON. Yes, sir.

With our counsel, that is our JAG, we discussed what had gone on in the past.

Mr. STRATTON. Who would that be, by the way?

Mr. LYON. Colonel Robert Burns.

Mr. STRATTON. Colonel Burns. Who was the chief of procurement that was there?

Mr. LYON. Colonel Wilson and a Lieutenant Colonel Hood.

Mr. STRATTON. And what went on in that discussion?

Mr. LYON. We discussed the background of the program and the acceptances that we had—that is the deliveries that the Air Force had accepted to date and Colonel Burns and the others did in fact deliberate as to whether or not the Government had already waived its rights to demand this First Article approval or to demand that the contractor fix the instrument if in fact any design changes were necessary. This type of discussion was carried on at some length over, I think, several days, Mr. Stratton, not necessarily one particular meeting.

Mr. STRATTON. Who was in charge of these discussions, Colonel Wilson?

Mr. LYON. I do not recall, sir.

Colonel Wilson and Colonel Burns were the heads of procurement and legal respectively, I do not know which would have been considered in charge.

Mr. STRATTON. Was somebody trying to make a decision?

Mr. LYON. Yes.

Mr. STRATTON. Was Colonel Wilson trying to make a decision?

Mr. LYON. Colonel Wilson, yes, sir, would have been trying to make a decision; yes, he was the chief.

Mr. STRATTON. On whether the waiver should be granted?

Mr. LYON. Yes, sir.

Mr. STRATTON. Well, now, what was your input to those discussions?

Mr. LYON. An advisor. I had the most experience in the program. I knew more of the background than any of those other gentlemen involved.

Mr. STRATTON. What did you say, what was your contribution?

Mr. LYON. I do not recall that I recommended anything, sir; in fact, to the best of my knowledge, I did not, I simply advised them of what had gone on in the past.

Mr. STRATTON. What did you advise them?

Mr. LYON. I told them the facts of the contract to that time.

Mr. STRATTON. Which were what?

Mr. LYON. The fact that we had gone into production without fully—without granting First Article approval and that a large number of units had been delivered over the 3-year period, fully paid for by the Government and were in the operational inventory.

Mr. STRATTON. Now, one of those were—whether they were paid for and the number of units delivered were not in your particular field; your field was the technical field, was it not?

Mr. LYON. Yes, sir.

Mr. STRATTON. What did you tell them about the technical qualifications of the 2,000 items which had been paid for and received without First Article approval?

Mr. LYON. I do not recall telling them anything other than the fact that the unit had never been given, that is, passed all the tests required for First Article approval, sir.

Mr. STRATTON. As you testified earlier, 50 percent of them did not perform, is that right?

Mr. LYON. There was a quantity at Hayes Aircraft in—I forget the exact number—in which approximately 50 percent did not check out, sir.

Mr. STRATTON. Did you tell them that?

Mr. LYON. I believe so. I do not recall exactly.

Mr. STRATTON. Now, this is a meeting, as I understand it, to try to make a decision as to whether First Article approval should or should not be waived. Ordinarily, when you go into a meeting, the fellow that is in charge of the meeting, if he has some staff assistance, says "Boys, we have got to make a decision now as to whether we are going to waive this First Article approval or not." Then he turns to the people in the room and says, "Joe, what do you think we ought to do? Bill, what do you think we ought to do? Tom, what do you think we ought to do?"

When he gets these recommendations, he then makes a decision. Is it your testimony that in that meeting you were not asked for your recommendation from a technical point of view as to whether the First Article approval should be waived?

Mr. LYON. I do not recall, sir. I would say very definitely I was asked and I recollect that I did not object to the final decision to delete

or waive the First Article requirement. I did not object to that in any way whatsoever.

Mr. STRATTON. You did not object to it in any way?

Mr. LYON. No, sir, and I may well have recommended it, that is, along with other recommendations. I do not recall.

Mr. STRATTON. Well, you say you did not object. I take it you are talking like somebody in the service that when the boss makes a decision, you do not object to the boss' decision.

I am talking about what your recommendation was before the decision was made. Did you say that, "technically there is no problem with these and, sir, I see no reason why you should not waive First Article approval. These are fine technical instruments"?

Mr. LYON. No, sir, I did not say that.

Mr. STRATTON. Did you say, "These are pretty lousy technically and it would seem to me to be a mistake from a technical point of view—I do not know anything about the legal setup, but from a technical point of view it seems to me it would be idiotic to waive First Article approval."?

Mr. LYON. No, sir.

Mr. STRATTON. Of something that is going to have to be retrofitted, if it is going to perform at all?

Mr. LYON. No, sir.

Mr. STRATTON. You did not do that?

Mr. LYON. No, sir.

Mr. STRATTON. And it is your testimony, you are asking me to believe that nobody even asked you for a recommendation?

Mr. LYON. I do not recall that, sir.

Mr. STRATTON. You do not recall it?

Mr. LYON. No, sir.

Mr. STRATTON. Is it possible that they might have asked you for a recommendation?

Mr. LYON. Certainly.

Mr. STRATTON. It is possible that they might have asked you? And what would your recommendation have been?

Mr. LYON. I would have recommended waiving the requirement for First Article approval at that time.

Mr. STRATTON. You would have recommended waiving it on the fine technical performance of the items that had been delivered; is that your testimony?

Mr. LYON. No, sir. I would not say fine technical performance.

Mr. STRATTON. Well, how did you regard the technical performance?

Mr. LYON. At that time, I still thought it was adequate.

Mr. STRATTON. You do not have very high requirements, I gather?

Mr. Lyon, you were in a meeting on the 4th of August with General Stewart, Mr. Wood, and I believe Mr. Frank from Aerosonic. Mr. Frank was complaining about the fact that he was not getting paid and made certain threats, according to the testimony that General Stewart has given us. Is that correct, were you in that meeting?

Mr. LYON. Yes, sir, I was.

Mr. STRATTON. There was a question raised at that meeting as to the qualifications of the contractor. What did you contribute to that particular meeting, as the technical engineering chief?

Mr. LYON. I am——

Mr. DICKINSON. Would you yield for a clarifying question?

Mr. STRATTON. Yes.

Mr. DICKINSON. I thought that was the meeting you were talking about before.

Mr. STRATTON. No.

Mr. DICKINSON. What meeting—there never was a meeting September 7, that is what everybody said. Is that not what you just said, in a meeting in September?

Mr. LYON. No, sir.

Mr. STRATTON. No, he said he was in another meeting at the Electronic Systems Division where they also discussed a question of First Article waiver.

Mr. DICKINSON. Is that what you were discussing then, Mr. Lyon?

Mr. LYON. That is what we had been discussing, that one, and now I believe Mr. Stratton is addressing another meeting.

Mr. DICKINSON. Fine, I just wanted to find out which meeting we were in.

Mr. LYON. Yes, sir.

Mr. STRATTON. I am now shifting to the 4th of August, to the meeting which General Stewart had with Mr. Frank, where Mr. Frank came down and complained. General Stewart wrote a memorandum for the record and Mr. Lyon was in that meeting. My question to Mr. Lyon is, what was your input into that meeting when the question of the qualification of Mr. Frank's company to perform came up?

Mr. LYON. I am terribly sorry, sir, I either do not understand your question—I do not recall anything about qualification of the contractor or his facility. We did talk about it at great length, the approval of the First Article test requirement.

Mr. STRATTON. Mr. Frank, according to General Stewart, was complaining that his company was being discriminated against, and his memorandum says that Mr. Frank coupled his discrimination charges with a concern that resolution of several open items in his contract might be unduly delayed due to the program being transferred to ESD.

Specifically, he asked for help in qualification, noting that 2,000 instruments had been produced but were not officially qualified and that he had been told it would never be qualified, that he could not bid on other contracts and was incurring excessive COD liability, et cetera.

Mr. LYON. Thank you, sir; I understand now what you are speaking of.

The word "qualification" in that context I am certain is synonymous with First Article test approval.

Mr. STRATTON. Yes, OK.

What was your input into that conversation when that particular subject came up?

Mr. LYON. I advised General Stewart and I am sure stated to Mr. Frank that we did not have test data in our hands that supported his request to grant First Article approval. And General Stewart advised Mr. Frank that if he, Mr. Frank, would submit data to us, supporting his contention that he should be granted First Article approval, and if that data in fact was good, that he, General Stewart, would grant First Article approval.

Mr. STRATTON. General Stewart also says that he told Mr. Frank that if the AAU–19 altimeter could not be qualified at this point in time, "I would probably take action to terminate the rest of the contract." Were you aware of that statement that he made?

Mr. LYON. Yes, sir.

Mr. STRATTON. And what do you understand that to mean, "could not be qualified at this point in time"?

Mr. LYON. I cannot interpret further than what it says.

General Stewart told him if his data is good, he will grant approval or qualification, if you will; if the evidence shows that the unit is not good, cannot be qualified, then General Stewart stated that he would consider whatever termination of the remaining quantity——

Mr. STRATTON. Did you concur in that statement?

Mr. LYON. I was not asked to concur, I did not comment on it, sir.

Mr. STRATTON. Yet in September, whenever your meeting was that we just discussed previously, that qualification had not been made, had it?

Mr. LYON. That is correct, sir.

Mr. STRATTON. Yet you say at that time you recommended, or had no objection to First Article approval waiver.

Mr. LYON. May I make a comment, sir?

Mr. STRATTON. Yes, sure.

Mr. LYON. I never recommended First Article approval. The only thing we did in September was deliberate on whether to remove the requirement for the First Article testing, not approve the unit as having passed First Article.

Mr. STRATTON. I will accept that change.

You recommended or did not object to the waiver of the First Article approval in September?

Mr. LYON. To the waiver of the First Article clause in the contract, sir.

Mr. STRATTON. First Article approval clause, right?

Mr. LYON. Yes, sir.

Mr. STRATTON. Now, let me go to another point, if I may.

There has been a good deal of discussion by previous witnesses of fraudulent testing that took place at Aerosonic, including the hiding of a manifold behind the wall, or whatever it is that it was hidden behind, to produce fraudulent results. Were you aware of that information?

Mr. LYON. No, sir.

Mr. STRATTON. You were aware of the fact that you were getting broad differences between the test results at Aerosonic and those at OCAMA. Where is that in Oklahoma?

Mr. LYON. Oklahoma City Air Materiel Area.

Mr. STRATTON. All right. Were you aware of that in January and February of 1972?

Mr. LYON. Yes, sir.

Mr. STRATTON. Did you ever undertake, as the technical chief, to try to determine why those tests should be so different?

Mr. LYON. Yes, sir.

Mr. STRATTON. What did you do?

Mr. LYON. We sent a team of our people, that is Government people, first to the plant at Aerosonic, the contractor's plant in early Feb-

ruary 1972. They witnessed tests of instruments, they then went to Oklahoma City Air Materiel Area, the same team of Government people, and tested units there and invited the contractor to send his people or technicians to Oklahoma City to make sure that we tested the exact same way, using similar equipment so that the test results should be the same. We even carried units carefully from one place to the other to assure no intransit damage and in one instant we then took some of the units, 5 or 10. I forget the exact quantity, sir, from Oklahoma City, after testing them there, back to Clearwater to the Aerosonic plant and tested again a third time, the same test procedures, to try to determine the cause of this contradictory data that we were getting.

Mr. DANIEL. Will the gentleman yield?

Mr. STRATTON. Just a minute. Did this take place in April and May of 1972?

Mr. LYON. Yes, sir, there was still testing going on that late; it started in February, I believe, and we did numerous tests the next few months.

Mr. STRATTON. Ten units were tested at the Aerosonic plant and all passed; the same units were taken to Oklahoma and retested and all failed; is this what you are talking about?

Mr. LYON. Yes, sir.

Mr. STRATTON. And you did not find any reason why that discrepancy occurred?

Mr. LYON. No, sir, not as a result of that testing, we did not.

Mr. STRATTON. What did that tell you about Aerosonic's testing capability?

Mr. LYON. It did not tell me anything about their testing capability; it told me that the instrument itself, the design of it was in all probability unstable to where it did not give the same results from one test to another test.

Mr. STRATTON. If all of them passed the Aerosonic test, and all of them failed the Oklahoma test, this did not tell you anything? That did not raise a doubt in your mind as to the validity of the Aerosonic test?

Mr. LYON. Yes, sir, I guess I would have to say it did. And may I address that point?

Mr. STRATTON. I wish you would.

Mr. LYON. We did run a survey——

Mr. STRATTON. I am glad to see you are getting a little suspicious about something.

Mr. LYON. We ran a quality assurance survey of the facility at Aerosonic, using the Government people, the Defense Contract Administration Services to assure themselves, again, that the procedures the contractor used were still proper. We did in fact have the Government Precision Measuring Equipment Laboratory go to both Oklahoma City and the Aerosonic plant and check the calibration of the precision equipment that they used.

The results in both cases were favorable. The Aerosonic procedures and equipment were acceptable.

Mr. STRATTON. Now, the staff tells me that the information about the manifold at Aerosonic came out in February of 1972, February 24, and there were some other instances of fraudulent activity in connection with the tests that came out in March and April of 1972. Is it your testimony you never heard about that?

Mr. LYON. I never heard about the so-called concealed manifold, sir.

Mr. STRATTON. Well, what did you hear about that was fraudulent?

Mr. LYON. I heard of one instance where the Government inspectors found a contractor's inspector or technician in the plant during other than duty hours or off duty hours adjusting some of the instruments in a test chamber.

Mr. STRATTON. And that occurred in March and April of 1972, and the tests that you were making here were in April and May. Is it your testimony that information did not come to your attention during those tests?

Mr. LYON. The one instance I spoke of, of finding the person in the plant adjusting the equipment, did come to my attention, yes.

Mr. STRATTON. That did not tell you anything about Aerosonic's testing ability?

Mr. LYON. No, sir.

Mr. STRATTON. Mr. Lyon, you have been discussing this contract under a number of circumstances with a number of different people. Was anything ever said to you or did you learn anything that led you to believe that, regardless of what the performance of Aerosonic's equipment was, that the contract should be continued at all cost?

Mr. LYON. No, sir.

Mr. STRATTON. Nobody ever mentioned anything like that to you?

Mr. LYON. No, sir.

Mr. STRATTON. You never heard about it?

Mr. LYON. No, sir.

Mr. STRATTON. You were just carrying on to the best of your technical ability to try to do the best job for the Air Force that you possibly could?

Mr. LYON. Yes, sir.

Mr. STRATTON. That is all.

The CHAIRMAN. Mr. Daniel?

Mr. DANIEL. I want to go back to the testimony which you gave a moment ago in response to a question from the gentleman from New York. Why would these units test out favorably in one instance and then when taken back to the same testing unit they failed the test; how could that happen?

Mr. Lyon, let me read from this testimony.

In April and May of 1972, 10 units were tested at Aerosonic plant and all passed. The same units were taken to OCAMA and retested and all failed. The same 10 units were taken back to Aerosonic and retested and failed to pass.

In one instance they passed; in the next instance they did not not. How could that happen?

Mr. LYON. The only explanation we were ever able to come up with, sir, was that the design of the instrument was inherently unstable, such that in one condition, one day it would work and another condition another day, even the same conditions, if you will, the same test conditions as nearly as we could duplicate them, the unit would not work and we assumed the same thing could then happen in an airplane.

Mr. DANIEL. Who is responsible for establishing these testing standards?

Mr. LYON. The test—if I may, sir, the test requirements in the specifications and the tolerances that the unit must meet, I was responsible for that.

Mr. DANIEL. The only other question I want to ask, Mr. Chairman, is the last sentence here, "termination of the contract was for failure to satisfy the delivery schedule." Why was not shoddy work and unsatisfactory performance the reason for terminating the contract?

Mr. LYON. I do not know, sir. Definitely the contract delivery schedule was not being met at the time of termination.

Mr. DANIEL. You know what bothers me about this, the next man who comes along in this same position, and he looks at the reason for this termination, might very well conclude, "Well, they had a personnel problem," or something of this sort. Not knowing what had gone on in the past, he might very well recommend another contract for these same people. That is why I think that this is erroneous, completely erroneous. It is very disturbing.

Mr. LYON. Yes, sir.

The CHAIRMAN. Mr. Mollohan?

Mr. MOLLOHAN. Mr. Lyon, you answered Mr. Daniel's question a while ago as to the quality of this altimeter by suggesting that it was about average, I believe, for altimeters. I have always thought that an altimeter was a very exact, precise instrument and was accurate.

Are we to understand from your testimony that this is not so, that an altimeter is subject to variations?

Mr. LYON. Oh, no, sir; I am terribly sorry if I gave that impression. I intended in addressing Mr. Daniel's question to say that in the time period at which the units were being delivered and we did not realize that they were less than satisfactory, and that is about a 3-year time period, their maintenance record and performance in the aircraft was normal, we did not have more failures reported than we would normally expect in instruments. I am not talking about the preciseness of the instrument, I'm talking about the failure rate, the unsatisfactory report and where it has to go back to the overhaul facility to be repaired.

Mr. DICKINSON. Is that in both modes?

Mr. LYON. Sir, we were operating at that time primarily in the pneumatic barometric mode because we did not have all the equipment to operate in the servoed mode, other related equipment.

Mr. DICKINSON. Thank you.

Mr. MOLLOHAN. You responded also to Mr. Daniel's question a moment ago about the 10 instruments that were tested at Aerosonic, found to be acceptable; tested by Government, found to be unacceptable; taken back to Aerosonic and found to be unacceptable.

Mr. LYON. Yes, sir.

Mr. MOLLOHAN. Were the tests Aerosonic conducted strictly by Aerosonic people in each instance, or were they conducted under some type of Government supervision?

Mr. LYON. They were conducted by Aerosonic people, but under very close Government scrutiny, sir. The Government engineers and technicians were standing right there watching the test results and confirming in the reported readings.

Mr. MOLLOHAN. In each instance?

Mr. LYON. Yes, sir.

Mr. MOLLOHAN. Both the first tests when they were approved and the second tests when they were found to be faulty?

Mr. LYON. Yes, sir.

Mr. MOLLOHAN. When you had your comments or recommendations to make to Col. Merele Zeine, when he was making the decision, preparing to make the decision and did make it, to authorize production, you raised some questions suggesting that you disagreed with his final decision. Were these areas of your concern in areas which caused you to believe that the deficiencies of the altimeter would be such as to impose flight hazards if installed and made operational?

Mr. LYON. No, sir, they were not. In fact, we very specifically analyzed the flight hazard element of the instrument at that time and determined that there were no flights hazards involved.

Mr. MOLLOHAN. Now as I understand it, the problems went to design and not to faulty construction; is that true?

Mr. LYON. I cannot, I cannot confirm nor deny that, sir.

Mr. MOLLOHAN. Now, the concern that I have, and I think all of us have here, is the span of years over which this kept failing to pass your first article inspection, a period of about 3 years. And you were with this during that entire period, were you not?

Mr. LYON. Yes, sir.

Mr. MOLLOHAN. What input did you and those associated with you, sharing like responsibilities, have insofar as requiring changes of design or perfecting of design which would assure the meeting of the first article provisions?

Mr. LYON. We had during that period, or any period in this program, we had design changes submitted by the contractor, sometimes after discussions with our engineers, in the form of engineering change proposals. And there were a couple of these approved during the production phase of the program. I enumerated three of those earlier.

Mr. MOLLOHAN. And this went on over a period of 3 years?

Mr. LYON. Yes, sir.

Mr. MOLLOHAN. And then finally in desperation you get to a point in October 1968, when you just say, "Well, so what? We can't get what we want, we will take what we can get." Now, in substance, is this not what Colonel Zeine's final decision amounted to?

Mr. LYON. I cannot comment on that question, sir.

Mr. MOLLOHAN. We go on down the line until September 1971, when we come to grips with the idea of formally waiving the First Article requirement. There has been some suggestion here by others who have been on the stand before you to the effect that the Government had already waived the protections of the First Article provisions.

Do you agree with that? Do you agree that there are any actions or any circumstances accepted by the Government which placed them in the position of no longer having the protections of the First Article provisions?

Mr. LYON. I do agree with that, yes, sir.

Mr. MOLLOHAN. Why do you agree with it; what were the actions and by whom, and what were the circumstances?

Mr. LYON. I agree with it based on the advice from Air Force counsel in that regard, our judge advocate people, as to what had gone —when they know what had gone on in the past, the actual facts and their position——

Mr. MOLLOHAN. You are not telling me what your reasons were for accepting that there were actions or circumstances; you said there were.

Mr. LYON. All right, sir, I am sorry.

The fact that we authorized production prior to demanding final acceptable completion of the First Article——

Mr. MOLLOHAN. Are you familiar with the fact that there was express language which in substance reiterated the provisions of the first article in that authorization of October 1968 which reaffirmed or reasserted the First Article provision?

Mr. LYON. I heard that yesterday in this hearing, sir. I was not familiar with that, because I was not familiar with the details of the contractual instruments.

Mr. MOLLOHAN. Go ahead.

Mr. LYON. All right. The fact that we did authorize production prior to completion of the First Article, the fact that we had then accepted in excess of 2,000 units, each of which had been tested—its individual production acceptance test—by the contractor, witnessed or verified by the Defense Contract Administration Service inspectors, and had in fact paid the contractor the sum of money that he was charging per instrument, we had totally accepted these units and had been using them or had them in our possession for in excess of a year in many, many cases, and there was then no recourse to go back to the contractor and say, "We don't like what we have bought from you." We felt that would not hold up in any kind of a claim.

Mr. MOLLOHAN. Were these units being installed as rapidly as they came off the assembly line?

Mr. LYON. No, sir, they were being installed as rapidly as we could put them in airplanes, but the airplane lines, the modification of the aircraft to get ready to accept them was a major ongoing program also.

Mr. MOLLOHAN. Well, now, why would this be an issue, a problem, if you were complaining about the slowness of the delivery? I believe this delivery was all supposed to have been effected some date in 1969.

Mr. LYON. Yes, sir.

Mr. MOLLOHAN. And if there had been a need and a demand for these instruments in certain aircraft during that period, projected at a level of some 10,900, you are saying to me now though that you did not have that demand, they were just being stockpiled.

Mr. LYON. No, sir, no, sir. We had the demand. It simply took a while to get them from the stockpile into the physical airplane that is flying. In production aircraft, for example, the contractor, NORAIR building T–38, they demanded the instruments some 6 months before that airplane was accepted off the end of the production line. That is when they installed it in their production flow. So there was a time period required from acceptance of the Unit from Aerosonic until it was actually installed in and flying in an aircraft.

Mr. MOLLOHAN. I believe there was a change effected in this 10,900–plus contract reducing, or taking 3,500 units away from that contract. At what point in time was that done?

Mr. LYON. I do not recall, sir.

Mr. MOLLOHAN. Do you recall it being done?

Mr. LYON. Yes, sir.

Mr. MOLLOHAN. What was the justification and reason for it?

Mr. LYON. The reason was that we needed the unit, the AAU–19 altimeters, very badly and Aerosonic was not delivering in the quantities that we needed, we wanted to put those units on another contract with Kollsman.

Mr. MOLLOHAN. Now you see this is completely contrary to what I understood you to say just a few moments ago, that was, you did not have the demand for them, so they moved into inventory. Where am I here?

Mr. LYON. I am terribly sorry, sir, I must have misspoken. I did not think I said we had no requirement. We have a very great demand and requirement for all of those years.

Mr. MOLLOHAN. You have the requirement, but you do not use it. After you get the units, you do not put them in. You got me lost here.

Mr. LYON. No, sir.

Mr. MOLLOHAN. In one sense you tell me you cannot put them in as rapidly as they produced them; in the testimony you gave, you said you did not have the supply sufficient to meet your demand, so you go to another source.

Mr. LYON. We had a great demand for the AAU–19 instrument. We could not always take it right off of the instrument manufacturer's plant, so to speak, and put it in an airplane within a week or two; it took time to get it into the system, our supply system, and get it programed—that is, an individual instrument—get it programed into an airplane.

Mr. MOLLOHAN. How many do you have on hand now that have never been installed in an airplane?

Mr. LYON. I do not know, sir. I know we have approximately 2,300 or 2,500 on hand right now.

Mr. MOLLOHAN. How many were installed in airplanes?

Mr. LYON. All right, sir. Approximately 600 or 700 were installed in aircraft.

Mr. MOLLOHAN.. Then you had a backlog of 1,700 to 1,800 that were never pulled out of inventory to put in airplanes?

Mr. LYON. No, sir, I believe there would have been a good deal more than that that were in airplanes that then failed and were removed from the airplane and taken back to the depot to repair and we never can get to repair them. So I do not know the exact number of Aerosonic units installed in aircraft. It would have been 700 and 1,000 units perhaps that did get installed.

Mr. MOLLOHAN. Then that still leaves 1,200 to 1,500 that were excess to demand or use?

Mr. LYON. Not excess, if I may, sir; they were not yet put into use at the time we declared them unacceptable.

Mr. MOLLOHAN. Have any of the 3,500 from Kollsman been delivered?

Mr. LYON. Oh, yes, sir, a good many more than that.

Mr. MOLLOHAN. In other words, you are using the Kollsman instrument now?

Mr. LYON. Yes, sir, in great quantities.

Mr. MOLLOHAN. Is it a sole source now?

Mr. LYON. No, sir. There is another contract with Bendix, building the same instrument.

Mr. MOLLOHAN. Let me go back to one other thing. Is the altimeter a precise and accurate instrument?

Mr. LYONS. Yes, sir, very much so.

Mr. MOLLOHAN. Thank you, Mr. Chairman.

The CHAIRMAN. Mr. Hunt?

Mr. HUNT. Thank you, Mr. Chairman.

Mr. Lyon, you are an engineer?

Mr. LYON. Yes, sir.

Mr. HUNT. What school?

Mr. LYON. U.S. Military Academy, sir.

Mr. HUNT. When?

Mr. LYON. Graduated in 1948, sir.

Mr. HUNT. How long have you been with the Government as an engineer?

Mr. LYON. Since 1948, sir.

Mr. HUNT. In other words, you graduated from the Military Academy and were on active duty?

Mr. LYON. Yes, sir.

Mr. HUNT. How long?

Mr. LYON. Twelve years.

Mr. HUNT. So you left the active duty status and went with the Government in the capacity as an engineer?

Mr. LYON. Yes, sir, as a civilan employee.

Mr. HUNT. Yes. You had no other employment in the interim period or there was no interim period of employment, as you were never with any other corporation?

Mr. LYON. That is correct, sir.

Mr. HUNT. All of your time as an engineer has been with governmental functions?

Mr. LYON. Yes, sir.

Mr. HUNT. How long have you been in your present capacity as a deputy program director, how long have you held that title?

Mr. LYON. Since January of 1972, sir.

Mr. HUNT. And prior to that, what was your title?

Mr. LYON. I was the Chief Engineer from 1964 until 1972.

Mr. HUNT. I do not want to go back over plowed ground, but we want to put this in perspective.

You start way back in March 20, 1965, when there was some discrepancy with the Aerosonic proposals and the Aerosonic equipment. Then we come down into April 1965, come down to July 1965, July 18, down into December 1966, March 1967, May 1967, October 1967, October 1968; nothing but a series of failures; is this correct?

Mr. LYON. Yes, sir.

Mr. HUNT. Just an inferior production article. I think that's the way you referred to them in part of your testimony and in conclusion you came to the decision it was an unstable article?

Mr. LYON. The design itself we considered to be unstable.

Mr. HUNT. Unstable article.

Now, you have testified that the altimeter is a precise instrument.

Mr. LYON. Oh, yes.

Mr. HUNT. Are you a flyer?

Mr. LYON. No, sir, I am not.

Mr. HUNT. You are familiar with the fact that men who fly the aircraft depend on that altimeter to get it down safely, to be in a certain pattern, to be at certain altitudes; you are familiar with that?

Mr. LYON. Very much, sir.

Mr. HUNT. How can we accept an article with a 50 percent rate of failure to be installed in a plane and continue to buy these things from 1966 until the present date? How do we justify buying an inferior, unstable article, when all of the tests and all of the history indicate that the design is not proper? How do we justify this?

Mr. LYON. I do not——

Mr. HUNT. I am not trying to put you on the spot, Mr. Lyon. I am just drawing on your expertise as an engineer. That is why I qualified you as an engineer, because it requires a precise answer. Now I want to know as an engineer, and from your own knowledge as an engineer, would you fly a plane with one of these inferior altimeters installed?

Mr. LYON. No; not knowing what we know——

Mr. HUNT. You have a crew with you, you are responsible for them.

Mr. LYON. Yes, sir.

Mr. HUNT. Would you fly that plane with the inferior altimeter that has a known history over a period of years, would you want to fly that plane?

Mr. LYON. Knowing what we know now; no, sir.

Mr. HUNT. Well, on September 7, it apparently came to your attention, very abruptly, that something was wrong with this altimeter, because there was a consultation and you did consult with Legal Services, with JAG, by your testimony, Col. Robert Burns—you had Colonel Wilson there, Lieutenant Colonel Hood, so it must have been a high-level conference.

Now we come down to saying whether we are going to accept the article or not. It is my recollection that you said it was a usable item, but was not perfected. But you did not object to it in any definite emphatic manner.

Mr. LYON. That is correct, sir.

Mr. HUNT. I just do not understand it, I really do not, how we can continue to have delivered to us all of the altimeters that we have in stock now that could have, if they were installed and used—apparently some of them were installed and were taken out of the planes as not being of high quality—how we could have installed something that may have caused the loss of life. I just do not understand it.

All of the testimony I have heard here, Mr. Lyons, indicates to me that somewhere along the engineering tests, I do not know where it was, but when you have altimeters that pass under Government inspection at the Aerosonic plant in Florida, are then transported, by your own statement, transported carefully to Oklahoma where they are rejected, and then taken back, again under careful transportation, and again tested under Government supervision back in Florida under the self-same apparatus and found to be deficient, how can you say that in this internal period of time of testing, all 10 became complete failures? How did it happen? Do you have any explanation for it? Is it because of climatic conditions?

Mr. LYON. No, no.

Mr. HUNT. Because the temperature is the same under all testing conditions?

Mr. LYON. We were careful about that.

Mr. HUNT. That is right.

Mr. LYON. The conditions were similar.

Mr. HUNT. I have watched them. They are very, very careful.

Mr. LYON. Yes.

Mr. HUNT. And I have watched altimeter testing. I have done a little flying. I am a little bit particular about the thing. Mr. Pike is also an experienced flyer.

Mr. LYON. Yes, sir.

Mr. HUNT. But I just cannot understand who missed the boat and, if so, why. Why did we continue this program? I guess there is no answer.

Mr. DICKINSON. Time for two quick ones, Mr. Chairman?

The CHAIRMAN. We will sit here until the quorum.

Mr. DICKINSON. Two very quick ones—I think.

Mr. Lyon, how many altimeters were installed? There were some variances between how you answered my question and how you answered Mr. Mollohan's, I think.

Mr. LYON. All right, sir.

Mr. DICKINSON. To the best of your recollection, how many were installed?

Mr. LYON. Approximately 700 units were in aircraft when we decided to take them out; we found 700 units installed, roughly. Those were removed.

Mr. DICKINSON. All right.

Mr. LYON. Now, there had been others installed and removed due to failure over the normal utilization of equipment in prior years, I do not know how many that is, sir.

Mr. DICKINSON. You said that was not a significant number, I believe.

Mr. LYON. I do not really know. It could be, I would guess, as high as maybe 300.

Mr. DICKINSON. I would think that would be very significant, wouldn't you? Or would that be normal, if it went as high as 300?

You had not put in many?

Mr. LYON. Sir, I am terribly sorry, I just do not know how many were installed, I do not——

Mr. DICKINSON. Could you get that for us and supply it for the record?

Mr. LYON. Yes, sir.

Mr. DICKINSON. Or to whom should we direct this inquiry?

Mr. LYON. I believe the gentlemen from Oklahoma City who are here do have some of this data, sir.

Mr. DICKINSON. All right.

Now, the altimeter was made to be used in two modes?

Mr. LYON. Yes, sir.

Mr. DICKINSON. Servoed and barometric. Was it ever used in a servoed mode after being installed?

Mr. LYON. Yes, sir.

Mr. DICKINSON. In all of the planes it was put in or most of them, it was used in the servoed mode?

Mr. LYON. Yes, sir.

Mr. DICKINSON. And performed satisfactorily?

Mr. LYON. I would have to say yes, it performed satisfactorily in the servo mode. Most of the rejects or removals for improper operation, I believe, were in the pneumatic mode, but again I would like very much to consult with, or defer to my Oklahoma City people on that count, sir.

Mr. DICKINSON. Well, all right. We will get that later from them.

One last question. If we had waived, and as you say, JAG gave you the opinion that we had in fact waived our rights, the Government's rights under First Article testing requirement, but the history here is that Mr. Frank was very, very anxious to get the waiver. So he must have felt that it was very important. That was the last conversation that he had with General Stewart. And so General Stewart said, "What is it you want? What is it giving you heartburn?" He said, "I want the waiver of the First Article testing requirement." It was ultimately done.

Well, it is surprising to me that we would think that it is nothing, and Mr. Frank, who is facing a substantial expenditure if he has to correct all the deficiencies, he was most exercised about it, according to what we have heard to date.

Was there any quid pro quo for giving the waiver? What did we get for it? What were we getting? Was there anything in return? Was the contractor to do anything different from what he had done?

Mr. LYON. No, sir. We got no consideration for that action.

Mr. DICKINSON. I do not mean to imply anything improper, you understand. I mean was the contractor to do something more or——

Mr. LYON. No.

Mr. DICKINSON. Why do we give away something that to me is a very substantial right and we just blithely sign it away? What would happen if we did not give them the waiver?

Mr. LYON. I do not know, sir.

Mr. DICKINSON. Well, I hope we find out.

The CHAIRMAN. May I interject here?

What would happen, as I understand it, Mr. Lyon, is that by waiving, the Government took on the expense of testing, is that correct?

Mr. DICKINSON. And retrofitting.

The CHAIRMAN. And retrofitting.

Mr. LYON. Yes.

The CHAIRMAN. The Government took it on at that point?

Mr. LYON. Yes, sir.

The CHAIRMAN. So if you had not waived, the contractor would have had to do that?

Mr. LYON. Yes, sir.

Mr. PIKE. If I could ask a few questions, I think I may be able to shed a little bit of light on this.

We have heard a lot of testimony about a letter of September 1, 1971, from Mr. Frank, saying that he was going to stop his production line, and hold the Government in default. It was immediately after that that the decision to waive this First Article testing was made.

Was there a letter from Mr. Frank 1 month earlier on August 2, asking that the production be stopped for the convenience of the Government?

Mr. LYON. I do not know, sir.

Mr. PIKE. Mr. Chairman, I found among this sheaf of papers, which the Air Force did not give us until you requested them, this language, and this is included in a summary of the legal reasons for granting the waiver:

Aerosonic letter dated August 2, 1971, to DCASO asked for immediate termination for the convenience of the Government. On August 3, 1971, Mr. Dale Marler, assistant to Senator Chiles, Florida, asked General Stewart, Commander ASD, to meet with Mr. Frank, which he did on August 4, 1971.

Now we have heard about the phone call, we have heard about the meeting on August 4, but we never heard about the letter of August 2 from Mr. Frank asking for termination of the contract for convenience of the Government. If the contract had been terminated for convenience of the Government, then Mr. Frank's corporation would have been relieved from all liability for the improper performance of the altimeters; is that not correct?

Mr. LYON. Yes, sir.

Mr. PIKE. So, instead of doing that, he accomplished the same thing by having the First Article compliance waived; is that not correct?

Mr. LYON. I do not know, sir, whether that would be considered the same thing or not.

Mr. PIKE. Now, nobody told us, except that it was buried in these papers here, that 1 month before the letter of September 1 there was another letter from Mr. Frank. Now, I want to go back to——

Mr. DICKINSON. Do you mean this was not included in the Air Force summary?

Mr. PIKE. Oh, no, it was not included in the Air Force summary.

Mr. DICKINSON. How could this be?

Mr. PIKE. I want to go back, way back to 1966. What I find hard to swallow in your testimony, Mr. Lyon, is the fact that nothing—you said at one point that all through 1969 and 1970 and 1971, you were not aware of any problems that would cause you to cut off this procurement.

In October 1966, there was a show-cause letter issued to the corporation by the ACO at the request of the PCO, and the ACO, as I understand it, was with the DCAS and the PCO was out where you were; is that correct?

Mr. LYON. Yes, sir.

Mr. PIKE. What was the show-cause letter of October 1966, what did it say to Aerosonic, what did it ask them to do?

Mr. LYON. I am not familiar with it, sir.

Mr. PIKE. Now at the time that you decided to go into production or to permit production without the First Article approval, there had been one test of the First Article in June of 1967 and that was a miserable failure and I am not even going to go into the details of it.

There was a second testing during the week of October 23, 1967, and this was the last attempt to qualify these First Articles before the production decision was made; is that not correct?

The production decision was made before, in other words, the next First Article testing was completed, is that not correct?

Mr. LYON. I believe so, sir, but I am not positive of the dates.

Mr. PIKE. All right. Here is the status, and this was contained, I think, in a letter from Mr. Wood to the company, regarding the status

at the time of the production decision and they are talking about what is wrong with the altimeter. "Servo scale error . . . four of eight units tested exceeded the specified tolerance. Altitude deviation"—and I wish Mr. Hunt were here—"Problems were detected at all test conditions, with the most serious occurring at the extreme power conditions. Five of eight units failed at room temperature and normal power."

I am not going to read all of these, Mr. Chairman.

"Friction, stop and jump," that means that the altimeter goes like this [indicating] does it not, as it goes up and down?

Mr. LYON. Yes, sir.

Mr. PIKE. "The contractor's tests revealed several units exceeding requirements," and they were only testing eight units; is that not correct?

Mr. LYON. Yes, sir.

Mr. PIKE. "Zero set scale/Backlash * * * five of the eight instruments did not meet specification tolerances. Quality control: Quality control discrepancies continued to prevail. It should be noted that even if performance had been totally acceptable, most of the eight units would have been rejected for quality control discrepancies."

Internal interconnecting wiring * * * the wiring as routed between the various electrical and mechanical components was not tied down sufficiently. To the naked eye some of the insulated leads appeared to be touching against nearby gears and other moving parts. This condition constitutes a constant hazard during the operational life of an instrument in that shock or prolonged vibration could shift the leads sufficiently to compromise even the altimeter's "emergency" mode of operation.

Now, it was after that evaluation—and believe me I have read you less than half of it—that the decision to go into production was made, is that correct?

Mr. LYON. It was after that, sir. I do not know what transpired between that point and the decision.

Mr. PIKE. And you said you did not have any real flagging until the Hayes Aircraft incident of 1971. You did not consider the Navy's rejection of the altimeter to be a real flagging in 1969?

Mr. LYON. We were quite aware of that, sir, of their refusal to use the instrument, yes.

Mr. PIKE. But you did not consider it significant to be a real flagging of problems?

Mr. LYON. We did not consider it significant enough to stop delivering to the Air Force, that is correct.

Mr. PIKE. That is all I have, Mr. Chairman.

The CHAIRMAN. Thank you very much.

The committee will stand in recess until 2 o'clock.

[Whereupon, at 12:08, the committee recessed, to reconvene at 2 p.m., the same day.]

AFTERNOON SESSION

The CHAIRMAN. Mr. Walter Melnick?

[Witness sworn.]

The CHAIRMAN. Sit down, sir.

Identify yourself for the reporter.

TESTIMONY OF WALTER MELNICK, SYSTEMS ENGINEER

Mr. MELNICK. All right, sir.

My name is Walter Melnick. I am presently employed by the Flight Dynamics Laboratory at Wright-Patterson Air Force Base. Prior to July 1971 I was employed by the AIMS SPO. I was there since its inception from December 1963. I was employed as a systems engineer, and among my duties was that of project engineer on the Aerosonic AAU–19. Specifically my responsibilities included formation, supervision of the technical team that was involved in the spec writing, the witnessing of tests, and technical recommendations to the SPO.

The CHAIRMAN. Mr. Daniel?

Mr. DANIEL. Thank you, Mr. Chairman.

Mr. DANIEL. Where were you physically located during that period, Mr. Melnick?

Mr. MELNICK. I was physically located at Wright-Patterson Air Force Base, Ohio.

Mr. DANIEL. What type of reports were you getting from the field on this project?

Mr. MELNICK. On the project, on the altimeter itself?

Mr. DANIEL. Yes, sir.

Mr. MELNICK. Well, sir, could you be more specific, please, as to the time period?

Mr. DANIEL. Maybe first I ought to ask you what your specific role was as it relates to this project.

Mr. MELNICK. All right. I was responsible within the SPO to Mr. Lyon. Prior to that, to Mr. Worley, since Mr. Worley was Chief Engineer until about 1967. Then, through a reorganization, and demise of Mr. Worley, I was then placed under direct supervision of Mr. Lyon. I was specifically responsible, as the project engineer, for the Aerosonic AAU–19, responsible for the organization of the technical team, its conduct, the spec writing, spec corrections performed by the spec team from a technical point of view; that essentially is it.

Mr. DANIEL. As I understand it, you were representing the Department of Defense; is that correct?

Mr. MELNICK. Correct. I was with the Air Force.

Mr. DANIEL. That is the point I wanted to make.

Mr. MELNICK. Yes, sir.

Mr. DANIEL. What type of reports were you getting from the field which you passed on to your superiors at DOD?

Mr. MELNICK. Relative to the behavior of the AAU–19; is that right, sir?

Mr. DANIEL. Yes, sir, the matters which we have been discussing here.

Mr. MELNICK. I was getting the same reports that my superior was receiving directly, except that in most instances I was required to perform a technical evaluation as to their content, meaning, and present a recommendation to the SPO through Mr. Lyon as to the course that should be followed.

Mr. DANIEL. And what did you do with that information they furnished you? Did you make any recommendations at all?

Mr. MELNICK. Oh, yes. In most instances, where we had complaints from the field, I would personally visit the Aerosonic facility, and either have tests conducted by the Aerosonic people while they were being witnessed, or would actually have conducted some of the testing myself, or in the person of the tech team members who were with me.

Mr. DANIEL. Were you familiar with the background of this contractor?

Mr. MELNICK. I was, sir. Prior to the award, I did look into the backgrounds of the various contractors, talked with people who were familiar with their past performances, et cetera.

Mr. DANIEL. Were you familiar with the experience of the Navy and the Army?

Mr. MELNICK. I was.

Mr. DANIEL. As it relates to this company?

Mr. MELNICK. I was familiar with the experience of the Navy more so than I was of the Army. I had very little contact with Army experience regarding this particular contractor.

Mr. DANIEL. Did you raise any objection to awarding the contract to this company?

Mr. MELNICK. I certainly did.

Mr. DANIEL. With whom did you raise your objection?

Mr. MELNICK. I raised the objection with my immediate superior, and on certain occasions actually raised objection with the SPO bosses who were in power at the time.

Mr. DANIEL. And who was your immediate superior?

Mr. MELNICK. Mr. Worley originally, who is deceased as of 1967, then, Mr. Lyon.

Mr. DANIEL. And what was their reaction to your opposition to the contractor?

Mr. MELNICK. I must say they listened. They heard me, I think the testimony that has been presented thus far would indicate that they have not yet disclaimed knowledge of the problems. I communicated with them both by personal face-to-face meetings, as well as memos, trip reports, et cetera.

Mr. DANIEL. Would you give this committee the benefit of your personal opinion as to why the contract was awarded in the first place, and why it was continued after having failed to meet the requirements of the contract?

Mr. MELNICK. I am glad you said personal opinion, sir.

To start with, the SPO was seeking to procure the AAU–12, the AAU–11, and the AAU–19. I mention them in their nonnumerical order because the AAU–11 and the AAU–19 were of the same counter-drum-pointer-type display. The only difference was that the AAU–19, as this one (witness used actual models), had a rectangular case, and the AAU–11 was a circular case design. The reason for the two case designs was that there were some aircraft at the time which had instrument panels that appeared to preclude the use of a rectangular-cased instrument.

Now, the AAU–12 would have looked much the same as this AAU–19/A instrument, except for the display. The AAU–12 display was going to be a correctional three-pointer type.

Now, I recognize from the discussion that has taken place so far at this hearing that some of you gentlemen have had piloting experience, but for the benefit of those who have not, this is the three pointer

versus the counter-drum-pointer display. What I want to emphasize now is that the Air Force was originally seeking to procure the AAU–19-type altimeter with this three-pointer face; and that it was called the AAU–12.

The problem that arose relative to the AAU–12 procurement is this: There were those of us, early in the formation of the AIMS program, who felt that the three-pointer display was not only more difficult to read than the counter-drum-pointer, but was also easier to misread. In fact, there had been aircraft accidents indicating that a misreading of the three-pointer altimeter could have been the cause.

Recognizing that we were about to launch off on a procurement of many thousands of the three-pointer units, I set about trying to see if we could get an agreement between the Air Force and Navy, particularly within the Air Force, to adopt a new display; namely, the counter-drum-pointer. Since the mechanism of the counter-drum-pointer type versus the mechanism of the three-pointer type were essentially the same, there would be no difference in the basic drive mechanism requirements. Only the face would be different. We therefore started an exercise early in 1964 to see if the AIMS SPO could get agreement and approval on the adoption of the counter-drum-pointer type display for Navy and Air Force aircraft. I was allowed to conduct this exercise as long as it did not interfere with the planned or scheduled procurement of the AAU–12 (the three-pointer display) altimeter. If I could get a decision before award of the AAU–12 contract, we would then swing to the AAU–19's.

With the preceding comments as background, we then entered into the procurement phase; namely, request for proposals. At this point the SPO had not yet received the go-ahead from headquarters Air Force to adopt the new counter-drum-pointer display.

The proposals were received. They were received from four different contractors, Astek, Kollsman, Bendix, and Aerosonic. To repeat, these proposals were for the AAU–12, the three-pointer instrument.

In the evaluation, the Aerosonic proposal was found not acceptable. Before the procurement effort progressed any further, the SPO was advised by the Pentagon that the Air Force could go to the AAU–19 counter-drum-pointer display. The SPO then stopped procurement effort for the AAU–12. Almost concurrently, and as scheduled, the SPO began procurement action to acquire AAU–19 altimeters for the Navy. The SPO added to this procurement the quantity of the AAU–19 counter-drum-pointer altimeters now needed by the Air Force to replace the canceled AAU–12's.

At this point in time, Aeronsonic was not yet advised of their nonacceptable status on the AAU–12, so they submitted to the SPO essentially the same technical proposal that they had submitted to us, unsuccessfully, for the AAU–12. Obviously, Aerosonic would have to be labeled nonacceptable again.

The CHAIRMAN. May I interrupt?

Mr. DANIEL. Yes, of course.

The CHAIRMAN. Why were they unacceptable?

Mr. MELNICK. Because of certain design features that were contained in their instrument. I would be glad to discuss it.

The CHAIRMAN. It was a technical thing.

Mr. MELNICK. Right.

The CHAIRMAN. That is all I wanted to know.

All right, Dan.

Mr. DANIEL. Proceed.

Mr. MELNICK. All right, sir.

At this point in the procurement we received communication from two of the bidding contractors, Kollsman and Bendix separately, each indicating to the SPO their concern for one of the specification parameters having to do with friction. They felt very strongly that this parameter was too tight and would be costly to meet in production.

I was then confronted with the question of whether it would be wiser for the Government to wait after contract award before making a change in the specification; or, to submit this change for consideration by the bidders before the contract was awarded. Since procurement was not in my area of responsibility, I approached Mr. Wood with the question. He advised that we go out with the changes before a contract is awarded to anyone.

I reminded him that by this time Aerosonic had already been fully informed as to why they could not be listed acceptable on their AAU–12 design, and that I was concerned that they could use this information to rewrite their proposal. Further, that Aerosonic might elect to use the specification change as reason to submit that proposal to us for re-evaluation.

Mr. Wood assured me that the kind of change involved would not render Aerosonic that privilege. The specification changes were mailed to all four contractors for their comments. A new proposal arrived from Aerosonic, and I was given that proposal to submit to the technical team for evaluation.

The new proposal had a totally changed design concept. In fact, some elements of one of the competitor's design appeared in that new proposal. Under the circumstances the technical team, as far as the basic proposal was concerned, had no choice but to render it marginally acceptable. The marginally acceptable aspect was there primarily because of certain deficiencies that still persisted in the Aerosonic proposal submission. I personally—now this is a personal opinion—I can't help but feel that most of the evaluators felt as I did; that Aerosonic, having knowledge of why their first proposal was unsuccessful, was, in a sense, coached to success. When we evaluate technical proposals, gentleman, we see before us a design description that is supposed to relate whether a contractor has or has not got enough of an understanding of the problem to proceed on a reasonably successful basis.

Once the contractor has been told why he hasn't succeeded during an earlier attempt, we obviously have lost the advantage of being able to look at his own, original thinking. And so, the successful proposal, even though it was marginal—and under the two-step procurement, marginal meant success—put the Aerosonic people into the bidding. They bid low and came in.

Mr. DANIEL. Was is your personal opinion that this company could not produce an acceptable item?

Mr. MELNICK. I felt that they could not produce an acceptable item within the timeframe, and more so, felt that in the Aerosonic case I could not even identify or forecast the time slippage.

Mr. DICKINSON. What does that mean that you couldn't identify slippage?

Mr. MELNICK. I couldn't identify, sir, how much they would miss the mark schedule-wise.

Mr. DANIEL. Mr. Chairman, since Mr. Pike is the pilot, literally and otherwise, I want to yield to him.

The CHAIRMAN. I suggest, Mr. Pike, that we go to the floor and vote.

The committee will be in recess for 10 minutes.

[Short recess.]

The CHAIRMAN. The committee will be in order.

Mr. Pike?

Mr. PIKE. Thank you very much, Mr. Chairman.

Mr. Melnick, at the time of the first evaluation, there were six evaluators; is that correct?

Mr. MELNICK. That is about right, sir. I can't remember the exact number.

Mr. PIKE. Was the decision that the Aerosonic submission was not satisfactory a unanimous decision?

Mr. MELNICK. And this is the one for the AAU–12 design; is that correct, sir?

Mr. PIKE. Well, it would have been the first decision that was made. I think the answer is yes.

Mr. MELNICK. OK. That is right, sir.

Mr. PIKE. It was a unanimous decision.

Mr. MELNICK. As I recall, it was a unanimous decision.

Mr. PIKE. You said that you had a conversation with Mr. Wood following that decision regarding whether or not this change should be incorporated before or after the next bite, let's say, at the procurement, and your reasoning was that once you told Aerosonic what was wrong with their proposal, they would have a pretty big leg up on curing it the next time around; is that it, essentially?

Mr. MELNICK. That was my personal feeling, yes.

Mr. PIKE. Mr. Wood said that this would not happen. Can you elaborate a little bit more on this? Why wasn't it going to happen according to Mr. Wood?

Mr. MELNICK. First, sir, my question to Mr. Wood was made in the sense that I felt that having had a good debriefing on where they fell down that Aerosonic would very likely want to submit a new proposal, avoiding the bad design features. This then, to me, would have represented knowledge that wasn't strictly of their own concoction.

Mr. PIKE. When the decision was made to request new proposals, Aerosonic having been disqualified the first time, did they have to be invited to submit a new proposal the second time?

Mr. MELNICK. Yes. I was told that for the first original AAU–19 invitation that the door was open to them, yes.

Mr. PIKE. When the second bid came in, you stated, I believe, in response to a question from Mr. Daniel, that you found some similarity in the Aerosonic proposal to that of one of the other drawings.

Did you have any reason to believe that in the debriefing of Aerosonic following their first proposal that any of the information as to why they had failed included the competitive proposal or the schematic drawings, or whatever you would call them, to enable them to have a similar design to one of the other competitors the second time around?

Mr. MELNICK. May I paraphrase your question?

Mr. PIKE. Sure.

Mr. MELNICK. And try to answer it?

Mr. PIKE. Sure.

Mr. MELNICK. With the nomenclature being strange to this committee, it can be quite a complex story and I am afraid it could get out of hand here, quickly. First, we had Aerosonic submitting a technical proposal against the AAU–12. It was their No. 1 submission. Before they were debriefed on the evaluation the AIMS SPO request went out for AAU–19 proposals. Aerosonic submitted a proposal for the 19. This now being dropped. In the process they were informed that they had lost out as far as their proposal was concerned, and were told why.

Mr. PIKE. On the 12?

Mr. MELNICK. Right, and now of course the 19 would have to be included.

Mr. PIKE. All right.

Mr. MELNICK. The two were essentially the same. It was the same design.

Mr. PIKE. The same design with a different face.

Mr. MELNICK. Right, different face. In fact, as I recall, one of the features that was pointed out in the original AAU–12 Aerosonic proposal was that their innards, the mechanism, could be used in either the 12 or the 19. It had that flexibility. It was a feature they definitely told us about, and sure enough the same mechanism did appear in the 19 proposal. Then, as I said earlier, we were given recommendations by two separate sources, Bendix and Kollsman, relative to alleviating a rather severe friction tolerance.

Mr. PIKE. Friction tolerance.

Mr. MELNICK. The question then arose: Should the spec be changed now, before bidding, or should the spec await change until after the award?

Mr. PIKE. And the only spec we are talking about changing now is this friction tolerance.

Mr. MELNICK. Friction tolerance. That was the spec requirement under consideration.

Mr. PIKE. And prior to the change in the spec on the friction tolerance, Aerosonic had been found not qualified on the 19.

Mr. MELNICK. Correct.

Mr. PIKE. As well as the 12.

Mr. MELNICK. Correct.

Mr. PIKE. All right.

Mr. MELNICK. By virtue of similarity.

Mr. PIKE. Right.

Mr. MELNICK. Now, I approached Mr. Wood with the question and asked if making the spec change prior to award would have some advantages bidwise. If it did, would this also cause us to receive a totally new set of proposal designs from Aerosonic, since they now knew where their deficiencies were? Could they possibly come in with a brand new proposal? He advised me that such would not be the case.

However, after the notice was issued to all four contractors of this change, asking for comments from them, the comment that came from Aerosonic was in the form of a brand new technical proposal.

Mr. PIKE. And the only change that you had made in the spec was the friction change recommended by Bendix and Kollsman.

Mr. MELNICK. Correct.

Mr. PIKE. Aerosonic, in response to that change, came in with a wholly different technical proposal.

Mr. MELNICK. Correct.

Mr. PIKE. The wholly different technical proposal in your judgment showed some of the same features of one of the other competitors; is that correct?

Mr. MELNICK. Well, yes, the key servo components in particular.

Mr. PIKE. Now we get back to my question.

Is it, in your judgment, likely that the reason for this change in Aerosonic's second proposal had to do with the information they gained through the debriefing?

Mr. MELNICK. I could personally see it no other way.

Mr. PIKE. Which proposal was it that theirs was similar to?

Mr. MELNICK. Kollsman.

Mr. PIKE. When Kollsman protested this award to Aerosonic, did they raise this issue that Aerosonic's second proposal apparently copied their technology?

Mr. MELNICK. As I recall, sir, they did.

Mr. PIKE. Going on from there, the decision was made that Aerosonic's submission was technically, although marginally, acceptable.

Do you know what happened that caused a show cause letter to go out in October 1966 to the Aerosonic Corp.?

Mr. MELNICK. I am not familiar with that show cause letter, sir.

Mr. PIKE. You are not?

Mr. MELNICK. No.

Mr. PIKE. Were you any part of the preaward survey conducted at the Aerosonic plant?

Mr. MELNICK. Yes, sir.

Mr. PIKE. Did you participate in the preaward survey?

Mr. MELNICK. Yes, sir.

Mr. PIKE. What was your personal judgment as to the ability of Aerosonic to perform this contract based on the preaward survey?

Mr. MELNICK. My personal judgment at the time was that Aerosonic, because of their previous manufacturing experience with other aircraft instruments, could probably, in time, adapt to manufacturing something like the AAU–19. However, my great concern at the time was their ability to get to the design that would be suitable for production or manufacturing.

In short, I felt that Aerosonic could put an AAU–19 through a production line; however, I was very, very skeptical about Aerosonic being able to arrive, within any reasonable timeframe, with a successful design.

Mr. PIKE. The end result of a preaward survey has to be a yes or a no.

Mr. MELNICK. Correct.

Mr. PIKE. What was your own personal recommendation?

Mr. MELNICK. Obviously no, as a personal recommendation, but we combined——

Mr. PIKE. How many members of the team were there that conducted this preaward survey?

Mr. MELNICK. There were five, five on the technical team, sir.

Mr. PIKE. Five on the technical team.

Mr. MELNICK. Right.

Mr. PIKE. Did anyone of the other four join you in your "no" recommendation?

Mr. MELNICK. There were, as I recall, two others who felt about as strongly as I did about this.

Mr. PIKE. So three of the five felt no as far as Aerosonic was concerned at the time of the preaward survey.

Mr. MELNICK. Yes.

Mr. PIKE. We are talking about production within a timeframe.

Mr. MELNICK. Correct.

Mr. PIKE. Right.

Now I gather that the results of a preaward survey is not determined by a majority vote.

Mr. MELNICK. I sure hoped at that time it would have been, but it was not. There was another interpretation given. I imagine there were the financial aspects and what-have-you that also entered into the picture, and Mr. Wood summed up.

Mr. PIKE. Mr. Wood made the decision?

Mr. MELNICK. Yes.

Mr. PIKE. Is that correct?

Mr. MELNICK. He summed it up, let me say it that way.

Mr. PIKE. And in fairness to Mr. Wood, Mr. Wood testified before us yesterday that he made the decision, but we did not know until today that the majority of the people participating in the survey felt the opposite.

Mr. MELNICK. That Aerosonic being able to manufacture the AAU–19 within that timeframe, no.

Mr. PIKE. No.

Did you participate at all in the production decision, the decision of 1968 to go ahead with production prior to the passing of the first article tests?

Mr. MELNICK. To the extent of recommending that the SPO not authorize production until we had a satisfactory first article experience.

Mr. PIKE. Do you know how many other——

Mr. DICKINSON. Excuse me. I didn't understand the answer. Will you repeat that, please?

Mr. MELNICK. Right, sir. Only to the extent, sir, of recommending to the SPO that they not permit or authorize production, until passage of First Article.

Mr. DICKINSON. SPO is what?

Mr. MELNICK. Special Program Office.

Mr. PIKE. Was that Mr. Wood or was that Colonel——

Mr. MELNICK. That would have been at the time that Colonel Blais left us and Colonel Zeine joined us; in July of 1967, as I recall.

Mr. PIKE. So it would have been Colonel Zeine then at the time of the production decision.

Mr. MELNICK. Right.

Mr. PIKE. Your recommendation to him was that they not do that.

Now who else that you are aware of did Colonel Zeine consult in making that decision?

Mr. MELNICK. As near as I could recollect, Colonel Zeine consulted just about all of his deputies at the time, and other than that, I wouldn't know. I know there were several sessions with his deputies.

Mr. PIKE. Do you know of anyone, other than you, who recommended that they not go ahead with the production?

Mr. MELNICK. Yes.

Mr. PIKE. Can you name some other person or people who recommended that they not go ahead with the production?

Mr. MELNICK. Well, for one, our instrument engineer, Mr. Phil Marshall. For another, his counterpart in the Navy, Mr. Steve Kalatucka.

Mr. PIKE. In this case, to the best of your knowledge, did a majority of those who were consulted recommend that they go ahead with the production or recommend that they not go ahead with the production?

Mr. MELNICK. That is a difficult question, sir.

Mr. PIKE. You may not know the answer.

Mr. MELNICK. I don't know the answer, right.

Mr. PIKE. Were you consulted in the year 1969 as to the decision to freeze the design?

Mr. MELNICK. I was consulted in the sense that I was asked to head the technical team which would conduct or participate in this First Article review, or this FACI, as we call it.

Mr. PIKE. And you did conduct a First Article review?

Mr. MELNICK. Right, sir, against my objections.

Mr PIKE. And you were asked to head the team that conducted the review.

How many members were there on the team?

Mr. MELNICK. There were about seven people, sir.

Mr. PIKE. And it was your personal judgment at that time that the design should not be deemed to be frozen; is that correct?

Mr. MELNICK. Correct, sir.

Mr. PIKE. Of the seven members on that team, did any others agree with you?

Mr. MELNICK. Yes.

Mr. PIKE. Who else agreed with you?

Mr. MELNICK. I would say Mr. Kalatucka agreed with me, and I am not certain but I would say also a Mr. Thomas also agreed with me.

Mr. PIKE. What was the eventual recommendation of your team?

Mr. MELNICK. As I recall, I submitted a minority statement.

Mr. PIKE. So the majority did recommend that they freeze the design, and you submitted a minority statement.

Mr. MELNICK. Minority statement against it.

Mr. PIKE. Let me just say to you, Mr. Melnick, I have a certain sympathy for that position, because I find myself in the same position on the Armed Services Committee all of the time.

Mr. DICKINSON. But for different reasons.

The CHAIRMAN. I hope that you were treated with the same great respect our majority has for the minority.

Mr. PIKE. Mr. Melnick, I frankly do not know enough about what your participation in this program after that design freeze decision was. I am just going to be sort of shooting in the dark here.

Did you have any part in the decission in 1971 to waive the First Article testing?

Mr. MELNICK. None at all, sir. I was not aware or made aware of any of the meetings that took place surrounding that decision. I did have some inkling that something was going on, but I was not apprised of any of the events.

Mr. PIKE. Between the period between 1969 when the design was frozen and the procurement was continuing, did you take any actions at any time recommending the cutoff of this procurement?

Mr. MELNICK. I did not take any actions in that sense, sir. I had already, you might say, reconciled myself to the fact that the ball was rolling. I had already made somewhat of a nuisance of myself. I had already been orally advised that it would be best if I stay away for awhile from the Aerosonic plant, in that there were perhaps indications that some of the production difficulties being experienced may have been caused by some of my so-called interferences.

Mr. PIKE. Who gave you that advice, Mr. Melnick?

Mr. MELNICK. Mr. Wood.

Mr. DICKINSON. May I ask a question before we leave that?

Mr. PIKE. Yes.

Mr. DICKINSON. You said there were seven on the team that made the decision, whether or not to freeze the design. It was your best recollection, 4 to 3 were in favor of freezing. Did that mean that that constituted the decision or did someone else take this information and make the judgment?

Mr. MELNICK. Someone else took the information, sir, and made the judgment.

Mr. DICKINSON. Would that be Mr. Wood?

Mr. MELNICK. Mr. Alty.

Mr. DICKINSON. Where does he fit in this?

Mr. MELNICK. All right, sir. He was the Deputy for Configuration Management.

Mr. DICKINSON. And he reported to whom?

Mr. MELNICK. To the SPO Chief.

Mr. DICKINSON. I see. Thank you.

Mr. PIKE. Mr. Chairman, I am almost through, but I simply would like to say at this time to Mr. Melnick that your testimony, as far as I am concerned, has cut through this whole procurement fog like a breath of fresh air and obviously, in hindsight, all of your judgments were correct. I can only hope that looking forward to the future, the fact that you were right on this and so many other people were wrong on this, will not hurt you in your career.

Mr. MELNICK. Yes, sir, thank you.

The CHAIRMAN. He speaks as a majority now.

Mr. DICKINSON. I will join with him.

Mr. PIKE. I am through, Mr. Chairman.

The CHAIRMAN. Mr. Dickinson?

Mr. DICKINSON. Thank you, Mr. Chairman.

Mr. Melnick, you made this statement:

"I was told that the door was to be open to them," referring to their being allowed to bid on the AAU–19 after having been disqualified on the AAU–12. Who told you that? Evidently you had serious question in your mind because this had the same, as you say, innards. So you had a question in your mind as to this. Who told you, "Yes, they would be allowed to bid on the 19"?

Mr. MELNICK. Correction, sir.

First of all, I used the expression "door open, door closed." This was in connection with my conversation with Mr. Wood and I was anxious to know whether or not the submission of these changes, these spec changes at this time before bidding took place, would in fact open the door for Aerosonic to come in, or others for that matter, with totally new proposals.

Mr. DICKINSON. You had a discussion with Mr. Wood and Mr. Wood said, well, with the spec changes it would in fact open the door?

Mr. MELNICK. It would not, no, equated negative.

Mr. DICKINSON. I see.

I guess I am confused. I thought that you said in the change between the 12 and the 19 that would allow additional bidders.

Mr. MELNICK. OK, I was afraid that there would be confusion here since three different Aerosonic proposal submissions were involved.

Mr. DICKINSON. Between the AAU–12 and the original and revised proposals for the AAU–19/A; did I not follow you?

Mr. MELNICK. No; this is why, sir, I earlier put these actual altimeters on the table before us—to help us visualize the progression of events. I said from this to this we were talking about a three-pointer face (AAU–12) to a counter-drum-pointer face (AAU–19).

Now it is conceivable that some of the four bidders here might have felt it necessary to make some design change in their proposals in making this transition from the AAU–12 to AAU–19. It is conceivable.

Actually, the terms "door open" and "door closed" would be appropriate to use in connection with either the second or third Aerosonic proposal submission. Let me try to restate the events, regarding the three different Aerosonic proposal submissions and hopefully answer the question more properly.

Aerosonic's first proposal was disqualified, for technical reasons; this was for the AAU–12 servo/pneumatic altimeter. A short time later, when the AIMS SPO sought proposals for the AAU–19 servo/pneumatic altimeter, I was told by Mr. Wood that the door was open to Aerosonic to propose on the AAU–19; the reason being that the AAU–19 was a separate and new procurement action from the AAU–12. Aerosonic did submit a design proposal for the AAU–19; it contained the same unacceptable design features as were presented in their proposal for the AAU–12. It was essentially the same proposal.

During the AAU–19 proposal evaluation phase, engineering determined that certain of the spec tolerances, pertaining to friction requirements, should be made less stringent.

Now then, my question to Mr. Wood was: In going from the original AAU–19 spec, to the AAU–19 with the loosened friction spec tolerances, would that also open the door for another new proposal? That was my question.

Mr. DICKINSON. OK.

Mr. MELNICK. From the AAU–19 basic specifications to the AAU–19 changed specification, a la the tolerance-loosening, I was told it would not invite or open the door for a new proposal.

Mr. DICKINSON. But between the first and the second, or from the 12 to the original of the 19, I understood you to say that Mr. Wood said yes, that would open the door.

Mr. MELNICK. I did not ask the question from the AAU–12 to the AAU–19, sir.

Mr. DICKINSON. I see. All right.

Mr. MELNICK. No.

Mr. DICKINSON. Now we have heard the terminology used, acceptance and marginally acceptable. Could you tell me what difference these two make?

Mr. MELNICK. All right.

In my understanding of it, sir, acceptable is a very broad term. And it is for this reason, by the way, that I totally objected from the outset to the use of the two-step proposal, the coach to success philosophy. Acceptable has a very wide range. A man could be just on the brink of having a design that could hack the job, to having an excellent design that is even beyond our expectations. Yet we have to label both with one word, "acceptable." That is what two-step forces assent to.

It was the intention here to highlight what we meant by acceptable when we labeled the decision marginally acceptable.

Mr. DICKINSON. Well, when you say marginally acceptable, that is just as acceptable as any other acceptable, it just sort of puts a flag up, is that right?

Mr. MELNICK. That is what it was, sir.

Mr. DICKINSON. But that gets them legally under the wire?

Mr. MELNICK. Right, sir.

Mr. DICKINSON. But it should put someone on notice.

Mr. MELNICK. That was the intent.

Mr. DICKINSON. Now, I think perhaps you have had more dealings and more direct relationship with this problem than has even come to the surface here. I gather this from your statement that Mr. Wood suggested that you stay away from this project for a while because Mr. Frank might begin to blame you for some deficiencies by claiming that you interfered.

Evidently you had some running contact and had been in touch with this over a long period of time. And I wonder if you could just, in short narrative form, tell us what your experience and history with the company, in relation with these altimeters was up to that point when you were advised. I believe you probably put it in a more polite phrase than was actually said, but I do not know this. Could you just tell us what brought you to that point, what your history of dealing with this company was?

Do you understand what I am asking?

Mr. MELNICK. Yes; I understand.

If I have not selected a mental outline now to give this to you extemporaneously, in a short term, please interrupt and I will try to cut it shorter.

In the first place, we had a design here which, when shown to us for the first time in its first model form, a design which did not duplicate the proposal that was evaluated.

Mr. DICKINSON. I do not understand that.

Mr. MELNICK. Namely, there were design techniques used in the model that were not portrayed in the design proposal that was submitted for evaluation.

Mr. DICKINSON. All right.

Mr. MELNICK. However——

Mr. DICKINSON. This is irregular itself, is it not?

Mr. MELNICK. No. Surprisingly, this is modus operandi, sir. So it raises another question, why does one take the original proposal so seriously? Of what value really is it? But at any rate, this is what happened.

The approach taken by Aerosonic in the area of controlling servo mode oscillation involved a mechanical arm or finger. And, when I talk about servo oscillation; if we had an AAU–19 instrument energized at this time and resting at a fixed altitude, an instrument that goes into servo oscillation would show itself with a pointer that would be essentially doing this. [Demonstrated by holding a pencil at one end, between fingers, and whipping pencil rapidly.]

Mr. DICKINSON. I would say that was quivering.

Mr. PIKE. Vibrating.

Mr. MELNICK. It would be so rapid that you could not actually recognize the pointer itself, and the excursion of such oscillation could vary from 100 to 300 feet of reading.

Now, since this morning's discussion on flight safety, et cetera, I want to make a point clear here. This, to me, was not a flight safety situation, because, if that AAU–19 did go into servo oscillation the pilot, at will, could disengage it from the servo mode.

When the contractor was originally questioned as to the reason for this "arm," he did not describe it as being an arm used to discourage oscillation; it was instead portrayed as a device to cut down wear on pivots in the instrument, wear which he claimed was generated by the 400-cycle AC driving this unit.

So by putting this arm against the drive shaft, the main shaft, Aerosonic claimed this would dampen this 400-cycle oscillation.

I actually inquired of Aerosonic, in writing, as to the purpose of this device. And, as I recall the contractor's reply, there was, let's say, reluctance to admit to the fact that this arm, this mechanical finger was, in effect, an oscillation dampener, more so than it was a pivot protector. It is this kind of setting now that we are dealing with.

When we were invited, in July of 1966, by Mr. Frank to witness a demonstration of his first eight prototype units, upon arrival we were shown only two, and these misbehaved in different ways, one or two to the extent that we could not carry on testing.

Mr. PIKE. You only had two?

Mr. MELNICK. What I was trying to say probably both, as I recall now, were in such condition we could not proceed with testing to any great degree. By the way, I think it ought to be brought out at this time that we had two sets of requirements, you might say, on Mr. Frank for instruments.

The first requirement was for eight prototype units. "Prototype" is not to be confused with a "preproduction" model. We wanted these eight prototype units as fast as we could get them, and they did not have to pass First Article because they were not going to be flown in aircraft. But we needed them real bad to hand over to the airframe people who were starting to mock up cockpits for AIMS; and that was the basic purpose for the prototypes. We wanted, at least, to be able to turn on power in the aircraft and watch needles move, et cetera; to be sure that the installation was proper. We needed them for the mockup aircraft.

These eight instruments, we never did get them to successfully pass all the basic testing that we had in store.

We then launched into the First Article testing early in 1967 and here we found some instrument discrepancies in plant; these instru-

ments, after the in-plant testing, were then delivered to Johnsville, Pa., a Navy test facility.

By the way, the Navy does all of its own, in-house, testing at least on a spot check basis, it has not been Air Force policy to function that way. It was at one time and this was changed. At any rate, the Air Force personnel, technical personnel, met at the Navy facility and we spot checked the instruments there.

We found discrepancies there that were not found, or let's say determined at the contractor's plant. We also ran tests on these instruments——

Mr. DICKINSON. Were these discrepancies of a serious nature or were they minor?

Mr. MELNICK. Serious, in the sense that to us it indicated that more development work would be required to get them into proper configuration—proper performance.

Mr. DICKINSON. All right, go ahead.

Mr. MELNICK. At this time we also conducted some tests that were not specified as tests in the specifications. There are two major parts, to technical people, two major parts to the specification, we call one section 3 the other section 4.

Section 3 describes how the instrument shall perform, and section 4 outlines some tests that we want done to verify that we have attained that performance.

Well, we found in a couple of instances that apparently the instruments had been designed to the testing portion only and not to the general performance requirements section of the specification. It was here that we had to get into some change discussions with Mr. Frank. The instruments, supposedly, that were to be retested in October 1967 would have these problems corrected.

Mr. DICKINSON. Let me interrupt just a moment?

Mr. MELNICK. Yes, sir.

Mr. DICKINSON. Was Mr. Wood made aware of all of these problems as you went along?

Mr. MELNICK. Oh, yes. We could not have conducted the test and we could not have made these moves without his coordination.

Mr. DICKINSON. All right, proceed, please.

Mr. MELNICK. The First Article test was completed.

The second First Article test took place later that year, I believe it was October 1967, right. It was not really a complete First Article test, it was more a test to determine whether the deficiencies found in the first First-Article series had been taken care of.

And here again we found some problems. The unit now had gone through quite a bit of change, many of these changes being introduced by Aerosonic in an effort to comply with specifications. Then that brings us up to the October—I am sorry—the July period, I believe, the June 1968 period, for the third First-Article run. It is at this time, again, that we were faced with the proposition of whether to allow Aerosonic to produce instruments.

The SPO authorized Aerosonic to produce only, if they were able to meet certain basic—as we call sampling plan A tests at this time. And, at this time——

Mr. DICKINSON. Just so that I do not get lost.

Mr. MELNICK. Right.

Mr. DICKINSON. Where are we now?

Mr. MELNICK. We are in the mid-1968 period.

Mr. DICKINSON. Mid-1968. So you have already signed the contract?

Mr. MELNICK. Oh, yes.

Mr. DICKINSON. That was in 1966. You are in mid-1968.

Mr. MELNICK. Right.

Mr. DICKINSON. They have not yet produced the first acceptable article?

Mr. MELNICK. That is right, sir; correct, sir.

Mr. DICKINSON. Now, the SPO, who was Colonel Zeine——

Mr. MELNICK. At this time, yes, sir.

Mr. DICKINSON [continuing]. Laid some new qualifications on them in order to keep from canceling the contract, I assume, and what were the new conditions now?

Mr. MELNICK. Well, the new conditions were not new in the sense that they were a departure from the spec requirements.

Mr. DICKINSON. I do not mean that.

Mr. MELNICK. Right. They were new in the sense that conditions of acceptance of production models were changed.

Mr. DICKINSON. All right.

Mr. MELNICK. And in these tests, the instruments were successful. The instruments from then on were in production.

Mr. DICKINSON. Was that when the decision was made to allow them to go to production?

Mr. MELNICK. In my recollection, sir, the permission to produce was to have been restricted to a finite quantity, 100 or 200, I do not remember.

Mr. DICKINSON. Well, that would be the normal way of doing business, would it not, if you were going to allow any production at all, before First Article acceptance?

Mr. MELNICK. Right, and the SPO, I might say, had hopes, and if I may interject a personal thought here, it was their thought that the instrument might, by the time the 100th or 200th item had been completed, we might have seen a compliance with the First Article testing.

Mr. DICKINSON. All right.

So Colonel Zeine is the one, or Mr. Wood, or whoever made the decision to allow the first production models of a limited quantity?

Mr. MELNICK. I am not certain as to which of the two gentlemen specifically.

Mr. DICKINSON. Would it be one of those two, though?

Mr. MELNICK. Well, I would assume, sir, that since Mr. Wood worked for Colonel Zeine and since this was an item of great import, a decision of great import, that Colonel Zeine would have had to make it.

Mr. DICKINSON. All right. Thank you.

Proceed if you would.

Mr. MELNICK. I think you asked me to stop at this point in my observations. To summarize a bit, or recap on the kinds of things that were in evidence to me as an observer, first of all, the quality control was pretty uncontrolled. It was rather loose. Loose screws, missing part on one occasion I remember, pressure leaks through the case; transformer that was supposed to have been cemented in place had come loose at one other time. Engineering practices within the plant

seemed to be lacking in the sense that when problems were found, there did not seem to be a directed attack on the problem.

On one particular occasion, I recall we were having problems with a safety device that is built into this instrument and, by the way, the AAU–19 is designed to be a fail-safe item. A safety device built into this instrument, a monitoring circuit, was failing on us at extremely cold temperatures. We had witnessed this on several occasions and finally I discussed this with Mr. Frank himself. I found him generally willing to go along with suggestions, but very slow on initiating some of these actions on his own, which bothered me to some degree.

We, at any rate, spent time looking for the problem, narrowed in on one specific component that was causing the trouble, and from then on Mr. Frank incorporated a special receiving test procedure on that component, to weed out these failing items and that pretty much cured that particular problem.

The engineering on the AAU–19 seemed to be mostly of a cut-and-try kind of thing. Aerosonic was also very quick in reacting with a solution, but quite often the solutions had not been proven.

So, as General Stewart pointed out on the first day, there always seemed to be this light at the end of the tunnel, and time went on.

This, of course, if I may inject another personal opinion, may have caused some of our problems in that, as I look back and reflect on it, by the time that Colonel Blais first became sympathetic to what was really happening, he transferred. Enter Colonel Zeine who now is approached by not only his own staff, who are hungry for production instruments, but also Mr. Frank, who has solutions to the problems and promises along with the solution as to how soon these problems could be corrected. This, I think, may have caused some dragging on of the situation. I will be glad to answer any specific questions.

Mr. DICKINSON. You have brought us up to Colonel Zeine approving production in limited quantity. Is this normally done by some piece of paper, some writing, or is this usually done verbally?

Mr. MELNICK. I would imagine, sir, not being a contract person, I would only hazard a guess here, that a decision of this nature could not be done without some paper coverage, at least to initiate the production.

Mr. DICKINSON. Right. Let me ask the staff, do we have such piece of paper?

Mr. LALLY. We do have that paper.

Mr. DICKINSON. Does it limit production?

Mr. LALLY. I do not believe there is any quantity mentioned in it. No there is no quantity mentioned in it.

The CHAIRMAN. He testified there was no quantity.

Mr. DICKINSON. So we go into unlimited production. That was approved by Colonel Zeine, as far as you know?

Mr. MELNICK. As far as I know, sir.

Mr. DICKINSON. All right. Tell us what, if anything, happened between that time when Colonel Zeine had come on the scene and authorized limited production, or production, and the time it was suggested that perhaps you should not be riding herd on this project any more because you were either an irritant to Mr. Frank or were interfering with his production?

Mr. MELNICK. From then on there was a lull as far as my visitation to his facility is concerned. I am trying to recall the exact time that we got back into business over the broken pivot experience.

We had a rash of failures and again, if one wants to become spectacular or overdramatic, it is certainly very easy here at this point because just about 75, I would hazard a guess, 70 percent of the instruments that were delivered arrived in a broken condition; this having nothing to do with the fact that they were accepted as working and arriving at destination later and found unacceptable.

I do not think we want to mix these two events; that is: those damaged during shipment and those simply out of spec. We had instruments that were totally disabled due to shipping damage; I would say this is one of these types [witness holds up AAU–19]. You could easily recognize it; you do not even have to subject it to a test, in that now it should be reading near ground altitude and it is reading 61,000-plus feet; this is a damaged AAU–19.

We went through an era of conducting drop tests of the package, an altimeter at Wright Field, and we found a combination of problems existed.

In the first place, the pivots were determined to be very marginal; that is the original pivot sizes that were breaking.

Second, there was a deficiency in the packing arrangement material, et cetera, that was being used to ship these instruments around the country. The Air Force shared responsibility for this aspect, and this was reconciled to a rather favorable degree.

Despite a fix in the packaging aspect, we noted that on several occasions we still had broken pivots, but in a different location in the AAU–19. In other words, we strengthened one area, then we broke loose in another. Again back to the drawing board.

Mr. DICKINSON. During all this time, Colonel Zeine and Mr. Wood were apprised of these facts, I assume.

Mr. MELNICK. Well, certainly not only by myself but there were messages arriving from OCAMA about the situation.

Mr. DICKINSON. Proceed, please.

Mr. MELNICK. As soon as these instruments began arriving at their destinations, and were tested by the recipients before placing in aircraft, we started getting stories from them about instruments not passing tests. Investigating these situations, we did find that some of these complaints were not necessarily complaints that one could levy against the instrument, per se, in that we had a learning experience to go through.

This instrument is the first of its kind as far as the Armed Forces are concerned. It is a different instrument to handle; it is a very accurate instrument by specification. Even with its testing deficiencies in, let's say, the standby mode, we must remember that we are talking about a much tighter specification; that, even with some of these deficiencies in the standby mode, this instrument was more accurate than its predecessor, the AAU–7, which was in wholesale use at the time.

We proceeded, then, to get more returns back to Aerosonic. Aerosonic was set up as the repair facility in an effort to turn these instruments around quickly and get them back into use.

I found that this quality control thing was really beginning to plague us, even to the extent that some of the marginal design com-

ponents, such as the STANDBY/RESET switch, were becoming a nuisance in their behavior. By being a marginal design, it automatically required much closer quality control and so we had an additive situation going here. We finally had to have the switch redesigned. The barocounters which you set to the local atmospheric pressure to compensate for the changing pressures occurring all the time—to get a more accurate reading on the altimeter—had counters that were misbehaving. For example, counters being delivered to Mr. Frank from a supplier contained metal chips that interferred with proper operation. I personally weeded through five or six of these counters before I found one usable one at his plant.

On another occasion, I found that there was a defective gaging tool being used by Mr. Frank's people on the assembly line; this was related to adjustment of the magnetic dampener. The magnetic dampener was the device Mr. Frank's people came up with to replace that mechanical finger that we objected to originally. This magnetic dampener is a very, very critical device to set. So a special tool was made that would be inserted into the instrument, the magnetic dampener adjusted to that specially-machined tool, and locked in place.

I found that the tool itself was out of tolerance. It is this kind of thing that, let's say, was very challenging when one wanted to identify whether we had a design problem or a quality control problem.

So we had both.

Mr. DICKINSON. And as a result of the continuous contact that you had with them, and working continually over a long period of time with a myriad of problems, it was ultimately felt that Mr. Frank would blame you for his failure to produce it adequately because you called them to his attention?

Mr. MELNICK. That was the inference, sir.

Mr. DICKINSON. Well, was it inferred or stated?

Mr. MELNICK. It was stated.

Mr. DICKINSON. What did he say, are we talking about Mr. Wood now, or Colonel Zeine?

Mr. MELNICK. No; I am talking about Mr. Wood.

Mr. DICKINSON. What did he say?

Mr. MELNICK. I would have to paraphrase, it has been some time. But it would be a good idea not to make so many visits there for a while because the production line is not delivering what it should be delivering at this point, and it may be that these changes and delays that are coming up could be attributed to your visits, et cetera.

Mr. DICKINSON. There was no inferred criticism there of you and what you had been doing, that you took, at least?

Mr. Melnick, did anybody fulfill the function that you had been doing?

Mr. MELNICK. Well, certainly we always had the QAR in place. I was almost on a daily phone contact with some one or two of the people at the plant.

Mr. DICKINSON. Thank you.

Mr. Chairman, I know I have taken too much time. I apologize for it. But I think in bringing this out in narrative form, it helps me and all of us get a feel for what was really the basic problem and how it grew.

I yield back the balance of my time.

The CHAIRMAN. Mr. Mollohan?

Mr. MOLLOHAN. What type of a unit preceded your need for the AAU–19? I believe you referred to an AAU–7.

Mr. MELNICK. Correct, sir.

Mr. MOLLOHAN. Is that it there on the table?

Mr. MELNICK. That is what the AAU–7 would look like. [Witness points to model on table.]

Actually, this is an AAU–8, the difference being one has internal lighting and the other one does not, it is lit externally. But the instrument would appear, face, head-on, just like this.

Mr. MOLLOHAN. In this timeframe, what sort of a unit did commercial aircraft use for an altimeter? Were they more advanced than the AAU–7?

Mr. MELNICK. Some aircraft used versions of this, but let me explain. They had started to go electronic, also. They were driving some of their instruments with a, what we call servo and some aircraft actually had a display like this AAU–8; other aircraft, commercial airline aircraft, had variations of the counter-drum-pointer type of display. Some, as I recall now, attempted to go all-digital, rather than have any needle indications. But there is no standardization, really, amongst airlines. Each airline pretty much identifies what they prefer for their aircraft in the way of instruments.

Mr. MOLLOHAN. Was there in existence in this 1965 timeframe anything as advanced as this you put in your specifications for the AAU–19?

Mr. MELNICK. I would have to answer that question with a thought only, sir, in that this instrument was originally designed, developed, over a 3-year period, through a contract or series of contracts with Kollsman.

Mr. MOLLOHAN. What timeframe are you talking about?

Mr. MELNICK. Prior to AIMS.

Mr. MOLLOHAN. You mean 1961 to 1964?

Mr. MELNICK. How would you answer that, Phil?

Mr. PHIL MARSHALL. The contracts were in the 1959 to 1963 timeframe.

Mr. MOLLOHAN. And your contract with Kollsman was to develop an instrument which would be responsive to your needs; is that right?

Mr. MELNICK. At that time it was a development effort. This was before AIMS came on the scene.

I also want to explain, if I may at this point, very briefly, why we got into a design of this type. There was very good reason for it: We knew that with the thousands of altimeters that would be introduced through the AIMS program that we would be placing the bulk of these instruments in aircraft that already existed. Therefore, we were concerned with the amount of work or rework that would have to accompany each installation of this altimeter. So obviously the closer we could come up with a design that would resemble this one (AAU–7/8) physically, the more economical it would be for the Department of Defense to install the new AIMS altimeter.

We were forced into an electronic altimeter by virtue of the FAA requirement for altitude reporting. AIMS introduced into the DOD inventory the first altitude-reporting devices. They are operating today.

The thing that got us into the electrical altimeter is the fact that this altitude-reporting, first of all, had to be of a more accurate value than previous altimeters could give us. So we had to resort to computers.

Unfortunately, although it may sound very, very simple and very basic, although we are only trying to measure what the ambient pressure may be at this level [indicating], the problem becomes phenomenally difficult in that the altimeter sensor is not on a body that is resting in a static condition. We are moving this thing through space and, as you move it, you destroy or perturbate this ambient value. So with air speed, increased air speed, the level of altitude, registered on this indicator, becomes erroneous.

We introduced the computer to take out that error. In the case of the AAU–7, AAU–8, the only way a pilot could take care of that error was to carry a small correction card with him in the cockpit—and by the way, we found most pilots did not even refer to these—and look at the altimeter and says, "Let's sse, I am now doing 300 knots, I have to subtract 75 feet from what I am reading here."

AIMS eliminated that problem by installing a computer which did the adding or substracting automatically for the pilots. But that computer had to feed its information electrically to the pilot. So we had to go to an electric instrument.

When you talk to military pilots about an all-electric instrument, you have a real selling job, because what happens if the power fails on us? What are we going to use? So "standby" altimeter comes into the picture immediately.

Now if we introduced a new electric altimeter and a second instrument just for standby, we have really compounded our installation problem. We had this development effort behind us as a result of contracts with Kollsman, and so with this development effort, specifications were now written to combine both the electrical altimeter and the "standby" altimeter in one unit.

Mr. MOLLOHAN. This gets to the one question I intended to ask, and I was trying to get to a place where I could ask it.

Mr. MELNICK. Yes, sir.

Mr. MOLLOHAN. From all that we have heard up to this point, it seems that design was the basic problem all along the line for the 4-, 5- 6-year period of the existence of this contract with Aerosonic. Was it looked upon as a new technology or a combination of technologies?

Mr. MELNICK. I would personally have elected the latter of your descriptions. I would have called it a combination of technologies.

Mr. MOLLOHAN. But all of the technologies were known, you knew how to do each of these various and sundry things.

Mr. MELNICK. We knew how to do them, sir, but they had to be done in a highly refined way.

For example, we knew how to drive instruments with a servo. If we could make just servo instruments, we would have no problem at all. Any one of the 2 or 3 dozen manufacturers in this country could give us a good servo instrument.

On the other hand, there are probably, and I am guessing right now, about half a dozen or eight people in this whole country who can make the diaphragms that are used to power the mechanical AAU–7 kind of instrument. It is a very limited technology.

We are talking, for example, about a set of diaphragms which, over the entire range from sea level to 80,000 feet of altitude, only move one-quarter of an inch, and that one-quarter-of-an-inch movement has to be translated mechanically into rotating this pointer around 80 times. And we are talking about high accuracies.

At ground level we would like to read it within about 40 or 50 feet of what the ground altitude is. We want it to also read this accuracy even under conditions of heat and cold; if we had to take off, after a fast scramble from a cold base, for example.

This part of the instrument may have been exposed to cold for a period of time, a "cold-soak" situation. Unfortunately, these diaphragms are also good temperature sensors. So now we have to put temperature compensating elements into the mechanism. I am only going into this depth to indicate to you that this is no simple trick to begin with.

Mr. MOLLOHAN. One ending question.

Mr. MELNICK. Yes, sir.

Mr. MOLLOHAN. Who is producing the units for you today that you are using?

Mr. MELNICK. Kollsman, most of those instruments, and that——

Mr. MOLLOHAN. What is the identification of that instrument?

Mr. MELNICK. Same instrument, an AAU–19.

Mr. MOLLOHAN. Where does AAU–27 come in?

Mr. MELNICK. AAU–27 is essentially this type of unit; in fact, this is one. [Note: Witness points to a "pneumatic-only" counter-drum-pointer altimeter on the table.]

Mr. MOLLOHAN. You mean it is a more modest unit?

Mr. MELNICK. It is much more modest.

First of all, it is only a barometric unit, a pneumatic unit, with a new face; with a counter-drum-pointer face. And, we employ it in aircraft of a prop-driven lower speed class, lower altitude class, and aircraft, that go to 30,000/35,000 feet, maximum altitude. We still want to do altitude reporting from these aircraft. Since we have a pilot and co-pilot, and we only need one altimeter in the cockpit with the altitude-reporting capability; the second altimeter in the cockpit can be of a much simpler design, the AAU–27.

So to give the pilots, both pilots, the same altimeter display for this application, the altimeter with a self-contained altitude reporting capability is the AAU–21. Pardon me for nomenclature; but the AAU–21, same counter-drum-pointer face again, no computer because it is a slower airplane—we are not bothered by altitude perturbation produced by air speed. It is the AAU–21 and uses this AAU–27 as a companion. To the pilots, they look alike.

Mr. MOLLOHAN. Thank you, Mr. Chairman.

The CHAIRMAN. Mr. Lally?

Mr. LALLY. Thank you, Mr. Chairman. I have one question.

Mr. Melnick, back at the time of the technical proposals when this change in the specification to ease the friction tolerance was incorporated, how much of a change did that require for the other manufacturers, for example, Kollsman, Bendix, Aztek?

Was this a major change?

Mr. MELNICK. No, no, it was not.

As I recall, I do not recall anything but a narrative statement reacting to this introduction of the spec loosening in those cases.

Mr. LALLY. Thank you.

The CHAIRMAN. Thank you very much. We appreciate very much your appearance here.

Mr. MELNICK. Yes, sir.

The CHAIRMAN. Next.

Mr. LALLY. Colonel Zeine.

The CHAIRMAN. Colonel Zeine.

[Witness sworn.]

The CHAIRMAN. Proceed.

TESTIMONY OF COL. MERELE ZEINE, U.S. AIR FORCE (RETIRED), DIRECTOR

Colonel ZEINE. I am Merele Zeine. I was Director of the AIMS–SPO from July of 1967 to December of 1970, and I retired at that time. I have no prepared statement.

The CHAIRMAN. You have no prepared statement.

Mr. Pike?

Mr. PIKE. Thank you, Mr. Chairman.

Colonel Zeine, can you tell me what would have been the reason for a show-cause letter directed from the DCAS to the Aerosonic Corporation on the subject of the AAU–19 altimeter in October of 1966?

Colonel ZEINE. Well, that was before I got there. But the most obvious reason would be a lack of performance.

Mr. PIKE. When you get a show-cause letter, it is pretty serious, is it not?

Colonel ZEINE. Yes, sir.

Mr. PIKE. It means either you are going to do something right, or do something different, or we are going to cancel your contract, does it not?

Colonel ZEINE. It could be that.

Mr. PIKE. But you do not know?

Colonel ZEINE. It usually requires a corrective action.

Mr. PIKE. Yes.

Colonel ZEINE. Yes.

Mr. PIKE. But you do not know what the cause of that particular letter was?

Colonel ZEINE. No, sir.

Mr. PIKE. Colonel Zeine, when you came on board as SPO for this procurement, what was given to you as to the status of this procurement? Did you get a briefing from your predecessor?

Colonel ZEINE. I had an overall system briefing from my predecessor before I actually took over. But after I got on board as the Director, would probably be when I would get my first briefing on the details of the problems, and that sort of thing, and then of course I did get a briefing on the AAU–19.

Mr. PIKE. Who gave you the briefing on the AAU–19?

Colonel ZEINE. I do not really know. I would have to assume that probably my deputy, Mr. George Johnson, at that time.

Mr. PIKE. And he had been with the program for some time?

Colonel ZEINE. Yes, sir.

Mr. PIKE. Do you remember when you first got introduced to the AAU–19, whether anybody told you there were some real problems with it?

Colonel ZEINE. Yes, I am sure that I was told that this was a real problem and this was a critical problem, probably a key problem in the program at this time.

Mr. PIKE. What was the first decision which you had to make regarding the AAU–19 procurement?

Colonel ZEINE. I have to go back and think about that for a minute because—I think in October of 1967 there was a First Article inspection, which failed, it—I may be off on dates here. And there was action taken by the contractor to try to fix the problems, but I think the first major decision would have to be the decision to go into limited production in 1968.

Mr. PIKE. And that was when, in June of 1968?

Colonel ZEINE. It seems to me it was a little later than that, but it is right in that time period.

Mr. PIKE. All right.

Now, before you made the decision to go into limited production, did you confer with the legal people as to the effects of that decision in safeguarding the Government's position vis-a-vis the contractor?

Colonel ZEINE. No, sir, not directly. I would have consulted with my own staff. Of course I relied on my procurement chief to take care of that end of it.

Mr. PIKE. But you got no advice from legal people as to whether going into production would in any manner jeopardize the Government's rights?

Colonel ZEINE. No, sir.

Mr. PIKE. All right. With whom on your staff did you consult as to the question of going into production?

Colonel ZEINE. Well, normally on something like that I would have consulted with my procurement officer, Mr. Wood.

Mr. PIKE. Mr. Wood?

Colonel ZEINE. My chief of engineering, Mr. Lyon, my deputy who was also an engineer and familiar with these areas; probably configuration management and my production control people, those were the people who handled the overall scheduling of equipments. So I would get a feel from that as to whether I had holes to fill, or whether I had enough extra to go around, that sort of thing.

Mr. PIKE. All right.

Now, of the people whom you consulted, who recommended that you go into production and who recommended that you not go into production?

Colonel ZEINE. I can only be sure that Mr. Wood recommended it.

Mr. PIKE. Recommended which?

Colonel ZEINE. That we go into production because he was responsible for production. He is the guy I am beating over the head all the time for items. I do not believe anybody told me or recommended that I not do it, but I was apprised of the risk.

Mr. PIKE. Nobody recommended that you not go into production?

Colonel ZEINE. Not to my knowledge.

Mr. PIKE. Who apprised you of the risks.

Colonel ZEINE. Engineering.

Mr. PIKE. And what risks did they apprise you of?

Colonel ZEINE. Well, I knew from the past history of the unit that there had been problems, and I knew that there had been corrections made on problems, new problems found, and corrections made to these problems. It seemed like each time it was closer, but never perfect. And on that basis I made the decision to go ahead, knowing it was risky.

Mr. PIKE. You were in the room this morning when I read some of the results of the prior First Article testing?

Colonel ZEINE. Yes.

Mr. PIKE. You were aware of the results, or let's say the deficiencies found in the prior First Article testing?

Colonel ZEINE. That is right.

Mr. PIKE. At that time you made the decision to go ahead?

Colonel ZEINE. Right.

Mr. PIKE. Did you in making that decision sign any pieces of paper?

Colonel ZEINE. No, I do not think so. I would have merely told Mr. Wood to go ahead and authorize a limited production. We were talking about a limited production. I saw that piece of paper.

Mr. PIKE. You were talking about a limited production at one time of only 200 units, were you not?

Colonel ZEINE. Two or 300, or whatever the figure was, I do not remember.

Mr. PIKE. But when this message got passed to the Aerosonic Corp., did anyone limit it to 200 or 300 units?

Colonel ZEINE. Apparently not. It came out with a schedule instead of a number, you know, a schedule per month, instead of a number limiting it.

Mr. PIKE. But the schedule per month went up to how many total units?

Colonel ZEINE. I do not think there was a limit on it, it just scheduled the next 6 months, or something like that, and then thereafter so many a month.

Mr. PIKE. But it could have gone to the entire 10,000 units, could it not?

Colonel ZEINE. Yes, sir.

Mr. PIKE. So what happened to your preliminary discussion to authorize only 200 units so that when Aerosonic was authorized to proceed, they were authorized to build thousands of units?

Colonel ZEINE. I just cannot answer that. Somewhere between the discussion and drafting up and sending out of that CCN, it did not get in there, the actual limitation.

Mr. PIKE. Whose responsibility was it to see that this limitation was placed on the authorization to proceed?

Colonel ZEINE. Well, it would have been Mr. Wood's responsibility to see that it was put in, if in fact that was a specific item decided. I cannot swear that that was done. I thought it was. I am really not sure.

Mr. PIKE. Whose responsibility was it to make the decision?

Colonel ZEINE. Mine.

Mr. PIKE. And you do not know whether that was ever decided or not?

Colonel ZEINE. I am not positive.

I know that I authorized limited production, I thought it was limited production; the contract change notice indicates that it was not limited except by numbers per month.

Mr. PIKE. Did you ever see the document sent by Mr. Wood to Aerosonic?

Colonel ZEINE. I do not believe I did. I saw it when I got here, that is the first time I actually saw it. I was not in the habit of actually reviewing the contracts and parts thereof.

Mr. PIKE. So your testimony is that you told Mr. Wood, you believe, to authorize production of 200 units, but when Mr. Wood prepared the actual document, there was no limit to the number of units which were authorized for Aerosonic to produce, is that correct?

Colonel ZEINE. I would like to rephrase that a little bit if I may. It is my recollection that we discussed a limited number, whether it was 200 or 300 or a like number, I do not know, but limited, yes, versus unlimited.

Mr. PIKE. Limited, but you do not know limited to what?

Colonel ZEINE. I am not sure anymore.

Mr. PIKE. Were you, following the decision to go into production, aware of the next attempt to complete the First Article testing?

Colonely ZEINE. I am sure I was.

Mr. PIKE. Did you discuss it with Mr. Wood?

Colonel ZEINE. Mr. Wood, Mr. Lyon, the whole staff.

Mr. PIKE. How many of the articles completely passed the next First Article testing?

Colonel ZEINE. I do not remember specifically, but in my recollection there never was a time when all of them passed all of the tests.

Mr. PIKE. Was there ever a time when any of them passed all of the tests?

Colonel ZEINE. Probably not, and I am not positive of that. Now that doesn't mean—whether they passed all of the tests or not would not really bear on the usability of the instrument, of course.

Mr. PIKE. Were you paying attention to how many of these units were being procured?

Colonel ZEINE. I got a monthly report on the numbers. There weren't very many.

Mr. PIKE. During the period of time that you were in charge of this project, how many units were procured?

Colonel ZEINE. I don't know. I think less than 1,000.

Mr. PIKE. What was the period of time when you were charged with this project?

Colonel ZEINE. It would have been from July 1967.

Mr. PIKE. From July 1967.

Colonel ZEINE. To December 1970. It was just about in the 1970 time period when the production started coming along pretty well.

Mr. PIKE. You got monthly reports on how many units were being produced. You had only authorized the production of a limited number of units. Did you ever say to Mr. Wood "What is going on here? We have already produced more units than we have authorized."

Colonel ZEINE. No, sir, I never did.

Mr. PIKE. Did you ever try to stop the procurement of more units than you had authorized?

Colonel ZEINE. No, because I suppose by that time it either had slipped my mind that it was 200 or 300 or whatever it was, and we were concentrating more on numbers of instruments, just happy to get them, and I don't remember even considering that.

Mr. PIKE. When you say you were happy to get them——

Colonel ZEINE. Yes, good instruments.

Mr. PIKE. I beg your pardon?

Colonel ZEINE. Yes, as long as they were good instruments we were happy to get them.

Mr. PIKE. Did you get any good instruments?

Colonel ZEINE. Every indication was that they were good instruments.

Mr. PIKE. How can you say that every indication was that they were good instruments when you just said a moment ago that not one of them ever passed all of the tests to the best of your knowledge?

Colonel ZEINE. No, I am talking about the acceptance test on the instrument when it is produced at the factory and accepted by the Government. These instruments had to go through an acceptance test that was fairly stringent, this type A and type B testing, plus some other specification tests, sometimes 100 percent testing in this case. These instruments were considered to be safe to fly and good instruments, and, true, they had not met the First Article configuration or FACI as we call them, but they were being improved as time went on and I felt no compunction whatsoever as long as they were flyable, usable instruments and safe, to accept them.

Mr. PIKE. When you say "flyable, usable instruments," you were aware that the Navy had refused to install them, were you not?

Colonel ZEINE. Yes, sir.

Mr. PIKE. That happened while you were in charge of the program?

Colonel ZEINE. Yes, sir.

Mr. PIKE. Did it not?

Colonel ZEINE. Yes, sir.

Mr. PIKE. And you were aware of Mr. Melnick's reservations on going into production?

Colonel ZEINE. Yes, sir.

Mr. PIKE. Were you aware of the fact just testified to a few moments ago that about 70 percent of them were arriving from the factory in damaged condition?

Colonel ZEINE. This was a certain period of time, yes, sir, but these were repaired.

Mr. PIKE. Now who repaired them?

Colonel ZEINE. Aerosonic.

Mr. PIKE. Was there a separate contract with Aerosonic to repair them?

Colonel ZEINE. I think this probably came under—I am not sure. I shouldn't say because they were accepted and they were packed according to specifications at the time, and maybe the Air Force had to pay for them. I don't know.

Mr. PIKE. Mr. Chairman, I would like to yield to Mr. Dickinson for a while if he has questions.

Mr. DICKINSON. No. I only have one.

Are we not going to make this quorum?

[Discussion off the record.]

Mr. DICKINSON. Back on the record.

I think you answered this, but I want to make sure that I understood what the answer was.

You agreed to a limited production, even though you knew that there was some reservation on the part of those who made the inspection and so forth.

Colonel ZEINE. Yes, sir.

Mr. DICKINSON. Some recommended against it, but Mr. Wood came to you as best you can recall, and he had the ultimate decision, and he recommended going ahead into production and you agreed?

Colonel ZEINE. No; I don't think he had the ultimate decision. I did.

Mr. DICKINSON. All right.

Colonel ZEINE. He recommended it.

Mr. DICKINSON. As between the inspection team——

Colonel ZEINE. Yes, sir.

Mr. DICKINSON. There was some disagreement among the team that went down and assessed, evaluated, and did the facility inspection and so forth. Wood was aware of this. He made the decision, recommended it to you, you approved it——

Colonel ZEINE. Yes, sir.

Mr. DICKINSON [continuing]. To go into prodcution. It was your understanding at the time that it would be limited production.

Colonel ZEINE. Yes.

Mr. DICKINSON. And the figure 200 has been mentioned. Does this sound right?

Colonel ZEINE. It sounds right, but nowhere can I find any evidence that it was specific. There just doesn't seem to be any paperwork, or anything like that, where we put down 200 as a limiting factor.

Mr. DICKINSON. As a matter of fact it was never limited, was it?

Colonel ZEINE. That is right.

Mr. DICKINSON. You just authorized full-scale production in fact; isn't that correct?

Colonel ZEINE. The only thing that would have limited it, according to that CCN as I read it, would have been his ability to produce good instruments that, you know, pass the acceptance tests.

Mr. DICKINSON. Well, that would be in any contract, wouldn't it?

Colonel ZEINE. Yes, sir.

Mr. DICKINSON. So instead of authorizing limited production, you did in fact authorize full-scale production with the caveat that it was still subject to passing First Article inspection; is that right?

Colonel ZEINE. That was still in there. Also in that contract change notice was the caveat that the contractor would be responsible for repairing his instruments or bringing them up to spec.

Mr. DICKINSON. And this was later waived.

Colonel ZEINE. Not to my knowledge. I never waived it.

Mr. DICKINSON. Is what you have just said something different from the First Article inspection test?

Colonel ZEINE. In this case it seems to have been a sort of a substitute but I don't think it was meant that way. We never waived the First Article test. That was supposed to be done sometime, but in the meantime in order to protect the Government, this clause was put in the contract that those instruments—let's say the thinking as far as I am concerned in something like this: let's say a year from now we have

received 150 to 200 instruments, and we do have a successful First Article configuration, the contractor would be required to go back and fix all those instruments that he had produced to that configuration at his cost.

Mr. DICKINSON. All right.

Then you mentioned another responsibility on the part of the contractor which I didn't understand. It sounded just the same as the requirement of the pre-First Article inspection.

Did he have the responsibility after First Article inspection to still correct deficiencies, and did he have a warranty on the instrument in effect, if he had ever been granted a First Article inspection? Did he still have the responsibility at his own expense to correct any deficiencies, malfunctions or any shortcomings or defects in the article?

Colonel ZEINE. Yes, he would, because if the configuration is fixed, as it would be with a First Article configuration, from that point on any deviation from that, of course, would be, No. 1, illegal and he would have to fix it and, No. 2, if the instrument became inherently, I guess you would have to call it, a materials problem, he would have to fix that.

Mr. DICKINSON. This is in a technical area and I am having difficulty understanding you, even though I am sure you are saying it right.

The last thing you said was First Article configuration. Now this is different from inspection, right?

Colonel ZEINE. Yes, sir.

Mr. DICKINSON. When you say First Article configuration, you are referring to the configuration that is frozen?

Colonel ZEINE. Yes.

Mr. DICKINSON. At some point.

Colonel ZEINE. That is right, yes, sir.

Mr. DICKINSON. I don't necessarily mean any deviation from that. I mean a malfunction due to some reason connected with the machine warranty in effect, as we would say as civilians. If he didn't manufacture it right, even after the First Article configuration, would he be responsible for the repair of that?

Colonel ZEINE. Yes, but I am not sure exactly how far his liability would go, because there is a defective materials type clause and all those sorts of things which I am not that familiar with. You would have to go back to the contract and see how it read. It is part of the boiler plate in the contract.

Mr. DICKINSON. I think, if I can summarize what you have said, that was definite and that we are interested in, somewhere either between you and Mr. Wood, one of you dropped the ball on limiting this production; is that right?

Colonel ZEINE. I have to assume the responsibility, although I don't know how it happened. When I authorized production on these units, apparently I did not specify clearly enough that there were to be 200 or 300, or whatever it was, and it didn't happen.

Mr. DICKINSON. It sure didn't.

Thank you, Mr. Chairman.

The CHAIRMAN. Mr. Pike?

Mr. PIKE. I have no further questions.

The CHAIRMAN. Mr. Lally?

Mr. LALLY. Thank you, Mr. Chairman.

Colonel, from October 1968 when the third attempt at First Article approval failed until you left the AIMS SPO in December 1970, was any further effort made to satisfy First Article approval?

Colonel ZEINE. I don't think there were any formal tests set up. That would have been what, about a year, a little over.

Mr. LALLY. Was this a decision of yours to just abandon the First Article approval effort?

Colonel ZEINE. It might have been, but if it was, it was an unconscious type decision. In other words, I was expecting the thing as it progressed to get better and to pass these tests, and probably assumed that eventually it would do the first thing as passed the First Article without having gone through a formal series of tests, but you are right. We did not set up a formal FACI at that time.

Mr. LALLY. I noticed Mr. Melnick raised his hand back there.

Do you have something to offer on that, sir?

Mr. MELNICK. Yes, sir. We knew what the deficiencies were as a result of a failure of that 1968 October series tests, and we set about trying to eliminate these deficiencies on a one-by-one basis. We had eliminated several of these deficiencies, lighting, et cetera, that prevailed. However, there were still some lingering deficiencies existing up into the 1970–71 time period, among them being the servo oscillation problem.

Mr. LALLY. Thank you sir. Colonel, at that time that you were considering authorizing production in mid-1968, did Mr. Wood, or anybody else, suggest that if you did authorize this production without obtaining First Article approval, that you were in effect waiving the First Article requirement?

Colonel ZEINE. No, sir.

Mr. LALLY. Thank you, Mr. Chairman.

The CHAIRMAN. Thank you very much, Colonel. We appreciate your appearance.

Colonel ZEINE. Thank you, sir.

Mr. LALLY. Colonel Stanley, please.

[Witness sworn.]

Mr. LALLY. Would you state your name?

TESTIMONY OF COL. PAUL P. STANLEY, U.S. AIR FORCE (RETIRED) ACTING DIRECTOR

Colonel STANLEY. Yes. I am Paul P. Stanley. I was the acting program director of the AIMS SPO from January 1971 to June 30, 1972, and I retired on that date and have since been retired.

The CHAIRMAN. Mr. Pike?

Mr. PIKE. Thank you. Colonel Stanley, this morning I read a memorandum which purported to quote a letter from the Aerosonic Corp. dated August 2, 1971, requesting that the AAU–19 contract be canceled for the convenience of the Government.

Were you aware of that letter?

Colonel STANLEY. I don't believe specifically, sir. I heard something at that time; if I am not mistaken, that Mr. Frank had requested DCAS to cancel all Government contracts for the convenience of the Government immediately, if that is the one I am thinking about.

Mr. PIKE. This was a letter, a month before, roughly, his letter of September 1 canceling the contract and saying he was going to stop

production because of the default of the Government; is that correct?

Colonel STANLEY. That would be the time period, yes, sir.

Mr. PIKE. When you first heard about the letter from Mr. Frank of September 1, how did you hear about it?

Colonel STANLEY. As I recall, this letter of September 1 follows in a sequence—you are talking about 1971?

Mr. PIKE. 1971.

Colonel STANLEY. Sequence of the meeting and correspondence between General Stewart and Mr. Frank. On the 15th of July I physically transferred from ASD to ESD as part of the transition by moving the SPO up there.

Mr. PIKE. Would you tell us who you replaced in connection with this AAU–19 program?

Colonel STANLEY. I replaced Colonel Zeine.

Mr. PIKE. You replaced Colonel Zeine?

Colonel STANLEY. Yes, sir, he retired the end of December and I came in on the 1st of January, yes, sir.

Mr. PIKE. Go ahead.

Colonel STANLEY. I don't recall exactly when I did see this September 1 letter. I did not know where it went. I recall hearing about it later, but again we had several people working this thing it seems like from both ASD and ESD at the same time.

Mr. PIKE. Well, you heard about it sometime between September 1, 1971, when Mr. Frank wrote it, and the 13th of September.

Colonel STANLEY. Yes, sir.

Mr. PIKE. When you wrote a letter regarding it; is that correct?

Colonel STANLEY. That is right, and I could even have heard about it from Mr. Wood who was still at ASD, or it could have been through the ESD procurement people up at ESD, which had been transmitted, let's say, by the DCAS people to ESD. I am not sure which.

Mr. PIKE. But you were aware there has been a prior letter from Mr. Frank recommending that the contract be canceled for the convenience of the Government?

Colonel STANLEY. I cannot positively say that I did, positively. I would think that I would.

Mr. PIKE. Were you aware of more than one suggestion or threat by Mr. Frank to close down his production line?

Colonel STANLEY. It seems that there were two or three over the time period that I was involved in this program. Whether they all involved my particular contract, I am not certain. Again I recall one instance where I understood that he had requested that the DCAS terminate all of his Government contracts.

Mr. PIKE. In August of 1971 General Stewart met with Mr. Frank, and apparently made certain commitments to Mr. Frank about clearing up problems with this contract before it was transferred to ESD. And then on September 1 Mr. Frank wrote, saying that he considered the contract breached by the Government because of one flagrant discrimination against the corporation, et cetera, "Two failure of Gen. James T. Stewart to live up to verbal commitments he made," et cetera, and in response to that, you wrote a letter regarding the deletion of the First Article testing clause from the contract.

Prior to your writing that letter, with whom did you consult?

Colonel STANLEY. My letter was dated what, sir?

Mr. PIKE. September 13, 1971.

Colonel STANLEY. All right, sir. Again there are several people that are in this pot. I had conversation with Mr. Wood from ASD, and ESD, of course, was just in the process of picking up this pretty complicated contract, so that over a period of days we had several meetings or discussions between myself, our procurement people, the Chief of Procurement at ESD and the Judge Advocate.

Mr. PIKE. To whom was your letter of September 13 addressed?

Colonel STANLEY. That would be addressed, if I recall correctly, to my production organization, and when I say "my," I take that advisedly. It is the production organization that I would go to to take care of contractual actions on my particular contract. At ASD that production organization was part of the SPO. It would have been Procurement and Production Division. ESD, because of the difference in organization that was an outside source. Therefore, I would have had to recommend or request any procurement action or contractual actions through that organization, and he reported, we both reported to the Deputy for Communications at ESD.

Mr. PIKE. Was this letter then addressed to people who were essentially your own subordinates?

Colonel STANLEY. No, sir; they were not my subordinates.

Mr. PIKE. Were they your superiors?

Colonel STANLEY. Do you have a symbol there?

Mr. PIKE. No; I don't seem to have.

Colonel STANLEY. It is DCP.

Mr. PIKE. That is one of the reasons I am having difficulty.

Colonel STANLEY. If it was addressed to DCP, it would be what you would call an equivalent organization.

I am sure that went to DCP, which would be Procurement and Production Division within my deputy, that is Colonel Walsh, which would essentially be three letter symbols essentially on the same level.

Mr. PIKE. You are correct. It was a letter to DCP, Lt. Col. A. Hood. What did you request in this letter?

Colonel STANLEY. I requested, I don't remember I used the word "waive" or "delete," and this is a matter of wording for the legal people to take care of.

Mr. PIKE. Colonel, there is a package there, Exhibit 21 (see appendix 4) if you will take a look at it, please?

Colonel STANLEY. All right, sir. I requested that they delete it.

Now this was not a letter written from scratch by me for no particular reason. Again this was a result of my knowledge of what had gone on before, since I had come into the program, my discussions, and a knowledge also of General Stewart, Mr. Lyon, Mr. Wood's discussions with Mr. Frank and the activities that came out of there.

Mr. PIKE. You talked directly with Mr. Frank?

Colonel STANLEY. No, sir. I got my information from Mr. Wood, and finally I think this was in the early part of September, supposedly after Mr. Wood had talked to Mr. Frank, after this one letter which threatened termination, closing the plant, not termination but closing his plant, that he had talked presumably to Mr. Frank, asked him what his problem was, and it became the First Article problem. He indicated to me that he had essentially agreed with Mr. Frank that with the waiving of the First Article test requirement, the First Article

clause, as we say here, that he would continue production. I understood at the time he had cleared this with General Stewart. General Stewart, as you recall, did not recall that, but he did take Mr. Wood's advice on that.

I immediately got with these people that I mentioned before, my own office of procurement people, the Chief of Procurement for the Division, Colonel Wilson, the Judge Advocate, and everybody who they would have in there with them, to discuss the pros and cons of this, and to advise them again of the total history, as we knew it, of the program, and to see what would be the best course of action.

Mr. PIKE. Did you talk to General Stewart?

Colonel STANLEY. No, sir, I did not.

Mr. PIKE. You didn't ask him whether he had approved this waiver?

Colonel STANLEY. No, sir, I didn't.

Mr. PIKE. You took Mr. Wood's word that General Stewart had approved this.

Colonel STANLEY. Yes, I did, and recall again that I had transferred up there in the middle of July. I knew that Mr. Lyon and Mr. Wood were working with General Stewart, with Mr. Frank, but I did not personally call General Stewart to confirm that; no, sir.

Mr. PIKE. You said contractually Aerosonic has been authorized to ship AAU–19s prior to First Article approval.

Did you ever discuss with your predecessor the fact that that was supposed to be a limited production?

Colonel STANLEY. No, sir.

Mr. PIKE. Did you ever discuss with Mr. Wood that this was supposed to be a limited production?

Colonel STANLEY. No, sir.

Mr. PIKE. Did Mr. Wood ever raise the subject with you?

Colonel STANLEY. No, he didn't, and as I——

Mr. PIKE. You had no knowledge that this was supposed to have been a limited production?

Colonel STANLEY. No, sir. The only problem I figured that was there, that this First Article compliance inspection should be completed some time. It should have been completed way before I got in there, but it was hanging fire, but I knew of no other restriction on the production.

Mr. PIKE. You knew of no limitations?

Colonel STANLEY. No, sir.

Mr. PIKE. You stated that the contractor had already shipped in September of 1971, 2,100 units.

How did you get that information?

Colonel STANLEY. From whatever production figure sources we had, and I would presume at that time that would also not only be ASD, but the ESD procurement people should have had those figures by that time too.

Mr. PIKE. You said that contractually he is obligated to ship 100 units per month on all remaining quantity.

From whom did you get that information?

Colonel STANLEY. This was my knowledge of the contract status from Mr. Wood, and I think that should also be borne out by the contract as it stood with the ESD people at that time, and I believe they did have the contract at that time, so they both should have said the same thing.

Mr. PIKE. And where did you get the information that 700 units were already installed in aircraft?

Colonel STANLEY. I got that from, I would believe, Mr. Lyon, who was the chief of my engineering division who, in turn, would probably get this from the Air Materiel area people.

Mr. PIKE. Where did you get the information that the Government was currently paying the Aerosonic Corp. approximately $1,000 per unit versus $2,300 for the Kollsman units?

Colonel STANLEY. It would be my contractual sources. Depending on the time period that would either be Mr. Wood and/or the ESD contract people because they had the contract with them.

Mr. PIKE. You stated in this letter:

Inasmuch as the ASD commander—

And now we are talking about General Stewart—

had agreed to either solve the First Article problem or investigate termination of subject contract, he called a meeting with ASD personnel familiar with the problem with the view to settling the matter in the best interest of the Government. Several alternatives were explored. The one which appeared to be mutually beneficial and in the best interest of the Government was deletion of the First Article clause.

What you are now talking about is a meeting which General Stewart had had with other people including Mr. Frank, and your version of what was decided at that meeting. You did not discuss it with General Stewart, but from whom did you get that information?

Colonel STANLEY. I would have to say a combination of Mr. Lyon and Mr. Wood and how much I got from each one would depend on when Mr. Lyon was en route to ESD.

Mr. PIKE. All right. Did you not feel it incumbent to discuss with General Stewart the contents of this meeting which he had with Mr. Frank to confirm what he had actually agreed to, if anything?

Colonel STANLEY. By his letters, by our conversation, I felt that that word was good with me that I was getting from Mr. Lyon and Mr. Wood.

Mr. PIKE. What response did you get to your letter?

Colonel STANLEY. 13th of September letter, sir?

Mr. PIKE. Yes.

Colonel STANLEY. All right, sir.

As I recall, this went again to DCP, who would be my procuring and contracting agency. One thing I would like to bring out, this letter, the answer to it and so on, and another letter, possibly, these letters are really a culmination of activities or discussions which were agreed to in between. So it is more or less following up with the correspondence. So from this letter, I believe DCP, which is the procuring agency, came back and suggested rather than delete this, to waive the First Article requirement.

Now I had no objection to this because I am only a layman when it comes to procurement and production. So if this was a legal bit, why, fine.

Again, I am sure that there was, shortly thereafter, another meeting with the JAG, and the Chief of Procurement and this Procurement Division and myself to clarify this particular point.

Mr. PIKE. And was it Colonel Hood who signed the response?

Colonel STANLEY. Colonel Hood signed the answer back to me suggesting that I not delete, but waive the First Article clause.

Mr. PIKE. But waive?

Colonel STANLEY. Yes, sir.

Mr. PIKE. Was it from Colonel Hood that you first heard, or was it your position that the Government had already waived its requirement to First Article testing?

Colonel STANLEY. It was not my position, because I was not that knowledgeable of contracts. It was my agreement, after listening to all the discussions, the consensus, that I certainly had no disagreement with the fact that we had waived it. If that were true, it was something that was up to the contract people.

Mr. PIKE. Did you ever get anything in writing from the Judge Advocate, Colonel Burns, stating that in fact the permission to Aerosonic to go into production had waived the Government's rights under the First Article testing?

Colonel STANLEY. He did put an opinion in writing. I do not believe that was addressed to me. I think this would be the result, since I went to the DCP and before DCP would take action on my recommendation, they would go to the JAG and get that recommendation for their support.

Again, like I say, there were meetings during and in between these pieces of correspondence. I knew that he did agree with that and this was a way of closing the correspondence loop.

Mr. PIKE. Do you know whether that response from the Judge Advocate's office came before or after your reply from Colonel Hood?

Colonel STANLEY. I am sorry. Let me hear that again.

Mr. PIKE. All I am asking is, did the Judge Advocate give the advice in writing before the decision was made or after the decision was made?

Colonel STANLEY. He would have given the decision before—the opinion—let me make sure I understand this.

Which decision are we talking about?

Mr. PIKE. I am talking about the decision to waive the First Article testing.

Colonel STANLEY. Is this the decision by the contractual people to go to the contractor with a piece of paper and waive that; is that the decision? Or is it my recommendation?

Mr. PIKE. I thought it was the decision by you, actually.

Colonel STANLEY. Oh, no, sir, you are talking about my request.

Mr. PIKE. Yes.

Colonel STANLEY. All right, sir.

The formal decision from the JAG came down after my letter. The discussions——

Mr. PIKE. Did it not also come down after the response from Colonel Hood to your letter?

Colonel STANLEY. Yes. But again, before I wrote my letter, I had had all kinds of discussions with the JAG and the procurement people and Mr. Wood and Mr. Lyon and did this before I was in a position to suggest waiving the article.

Mr. PIKE. Was there anything beside Mr. Frank's threat to shut down the production line which precipitated this waiving?

Colonel STANLEY. No, sir, not that I know of, at all.

Mr. PIKE. So the only reason that the First Article testing was waived was because Mr. Frank said "I am going to shut down the production line"?

Colonel STANLEY. It was not the only reason; that is the only consideration I think you could say that we really got out of it. But I would feel sure, whether Frank had ever threatened to shut down this line or not, it is quite possible, I will not say probable, it could be probable but at least possible that ESD would have gone the same route after reviewing this can of worms that we brought up there with us.

Mr. PIKE. Well, this gets back to the fact that he had previously asked to stop the procurement for the convenience of the Government, is that not correct?

Colonel STANLEY. I will agree with that, since you did quote the particular letter and I do not recall reading it. Is that on this particular one contract, sir?

Mr. PIKE. Yes.

Colonel STANLEY. All right, all right, sir, yes, I will go along with that.

Mr. PIKE. And was the JAG aware that he had previously asked to stop this procurement for the convenience of the Government?

Colonel STANLEY. I am sure that he was aware of every piece of paper that I would have been aware of and that the ESD people would have been aware of and were getting, which would have been by the 1st of September, yes, sir.

Mr. PIKE. Now you say you discussed this completely with Mr. Wood, Mr. Lyon, and the JAG people, but nowhere in your communication do I find any mention of the legal consequences flowing from the Government as a result of the waiver of the First Article testing. And am I to assume that that is because you had then concluded that there were no legal consequences flowing against the Government as a result of that waiver?

Colonel STANLEY. Against the Government?

Mr. PIKE. Yes.

Colonel STANLEY. I would not know of any legal consequences against the Government at that time. It was the consensus that we could not recover anything from the First Article standpoint, from the contractor.

Mr. PIKE. Mr. Dickinson?

Mr. DICKINSON. I do not think so; no, I have no questions.

Mr. PIKE. Mr. Lally?

Mr. LALLY. No, thank you.

Mr. PIKE. Colonel Stanley is excused.

The committee will stand in recess until 10 o'clock tomorrow morning.

[Whereupon, at 4 p.m., the committee recessed, to reconvene at 10 a.m., Friday, August 2, 1974.]

AIR FORCE PROCUREMENT OF AAU-19/A ALTIMETER

FRIDAY, AUGUST 2, 1974

HOUSE OF REPRESENTATIVES,
COMMITTEE ON ARMED SERVICES,
ARMED SERVICES INVESTIGATING SUBCOMMITTEE,
Washington, D.C.

The subcommittee met, pursuant to adjournment, at 10:10 a.m., in room 2337, Rayburn House Office Building, Washington, D.C., Hon. F. Edward Hébert, chairman of the subcommittee, presiding.

Present: Messrs. Hébert, Stratton, Pike, Mollohan, and Bray.

Also present. Frank M. Slatinshek, chief counsel, Committee on Armed Services, John F. Lally, acting counsel, Armed Services Investigating Subcommittee, and David R. Warren, staff investigator.

The CHAIRMAN. The committee will be in order.

Members of the subcommittee, this morning I have received in my office a letter from Mr. Dumond Peck Hill, who is the senior partner of Hill, Christopher and Phillips, a law firm in Washington representing Aerosonic Corp.

I will read this letter into the record so it may express the opinions of those representing the Aerosonic Corp.

[The following letter was read by the chairman.]

HILL, CHRISTOPHER AND PHILLIPS, P.C.,
Washington, D.C., August 1, 1974.

Hon. F. EDWARD HÉBERT,
2340 Rayburn House Office Building,
Washington, D.C.

DEAR CONGRESSMAN HÉBERT: I and other members of this law firm, on behalf of the Aerosonic Corporation of Clearwater, Florida, have attended the hearings held Monday, July 29 and Wednesday, July 31, by the Armed Services Investigating Subcommittee, relating to the Air Force procurement of the AAU-19/A altimeter from Aerosonic.

Prior to the hearings we indicated that we were unhappy at the prospect of the hearings taking place in view of the fact that litigation is presently pending before the Armed Services Board of Contract Appeals relating to the AAU-19/A contract and involving many of the issues which we believed would come before the Committee. We obviously cannot and should not interfere or attempt to interfere with the prerogative of Congress to hold hearings and to investigate matters pertinent to the Congress's responsibilities, including oversight of the U.S. Government's procurement programs. We therefore did not pursue the issue even though the Committee hearings would obviously involve matters presently under litigation.

We are, however, extremely concerned with one aspect of the hearings and that is the fact that numerous statements have been made to effect, and indeed in some cases directly asserted, that Aerosonic is guilty of "fraud", "fraudulent conduct", "tampering with tests", and indeed of criminal conduct. Until we attended the hearings, we had no intimation that such charges would be part of the Committee's investigation and, until we reviewed documents in the course of the Air Force pertaining to the AAU-19/A procurement in the course of dis-

covery on the ASBCA proceedings, we had no intimation at all that any conduct on the part of Aerosonic personnel was considered by the Government to demonstrate lack of integrity, much less fraud.

The only advice on this subject that we received prior to the hearings concerning the subject matter of the hearings was that allegations of "tampering" by Aerosonic personnel and the adequacy of Aerosonic quality control would be part of the inquiry. We were given no more specific information and no factual data.

We cannnot gainsay the Congress's right to make such allegations as those set forth above. We do not, however, believe that it is fair to make such charges until the evidence on which such charges are based has been placed in the record and until thorough investigations have been made of whether the charges are warranted. In this latter connection, we would like to point out that, to the best of our knowledge, no member of Congress or of the Committee's staff has ever discussed the matter with any officer or director of Aerosonic or with any of its engineers. No engineering discussions have been held as to whether the so-called "tampering" is permitted under the specifications. Instead all that has been available to us has been approximately three sheets of paper obtained during the "discovery" on the ASBCA case containing rather imprecise allegations.

We are perhaps even more seriously disturbed with the reading from investigative reports some of which go back as early as the 1950s without such reports being made available to us. We have no knowledge as to the identity of any informants or even as to the contents or charges of the reports. Nevertheless, the "integrity" of the president of the company and of the company itself is being publicly challenged based on information in these reports. To challenge a man's integrity without providing the reasons is, to our minds, not in accord with standards of fairness and justice.

In closing we wish to emphasize once again that we have no legal objection to the Committee's inquiries. We do, however, protest the characterizations of our client as having committed fraud, fraudulent acts, criminal acts or as lacking in integrity prior to one iota of evidence as to the acts alleged having been placed in the record and an opportunity granted to us to rebut such evidence. The net result is that the conclusion has been stated prior to any evidence being introduced.

We appreciate your consideration in this matter.

Identical letters are being sent to all members of the Subcommittee.

Sincerely yours,

DUMOND PECK HILL.

The CHAIRMAN. The Chair wishes to make a statement in connection with the letter. You will recall at the opening of these hearings the Chair made the statement Aerosonic would be given every opportunity to present its side of the case in the manner it decided it wanted to.

The Chair would not attempt to control Aerosonic in the presentation of its case. It is a wide-open door. I will say to the members of the subcommittee, unless there is any objection or further comment on what I say, I recognize the letter that has come here. If I had been a lawyer representing the company, I probably would have written the same letter. It is also par for the course for this subcommittee to conduct investigations in a manner we have found very successful in other years.

I think the history of this subcommittee will indicate in many areas we have had a closed session where we thought it was necessary; we have refused to open the doors to the public or the press. However, in this case our information has been that much of this has been discussed openly before in other committees of the Congress, not necessarily on this side of the Capitol, but on the other side, and that the president of the Aerosonic Co., himself, made many, many statements which are public record to members of the other body so there is nothing in secret here at these hearings and in view of this I decided, with the concur-

rence of the subcommittee, that these hearings be open after our staff had made a thorough and complete investigation.

With the presentation of the facts given here, I cannot control, nor do I attempt to control, any language used by any member of this subcommittee. That is the members' responsibility, whether I agree or don't agree.

Every member of this subcommittee is a seasoned Member of the Congress, a senior member of the Armed Services Committee, well schooled in investigative areas, and I have every reliance and dependence upon them.

With that statement I will again say to the gentlemen who represent the Aerosonic Co. who are present here now, that after we finish hearing what our staff has developed—and every piece of evidence we have will be in the record—then the Aerosonic people have every right to sit at that table and conduct their own presentation in the manner they see fit. Their time is their own; their time is unlimited and the book is wide open. I cannot do more than that.

Has any member of the subcommittee a comment?

It has been suggested further that the subcommittee, up to this time, has come to no conclusion, has made no charges, has merely interrogated the witnesses in an effort to arrive at a conclusion based on the facts as presented here in open hearing and not on any secret documents we have, nor with reference to any documents that have become public through the presentation and the activity of the president of Aerosonic in the other body. As far as this subcommittee is concerned, we have no connection with him; we know nothing about him. He has not appeared and we have not talked to him, as far as I know. If he wants to appear here today, or tomorrow, or the next day and present his case himself, the chair is vacant, wide open. Take the ball and run with it.

Are there comments?

Mr. Squires, raise your hand, please.

(Witness sworn.)

TESTIMONY OF ESMOND F. SQUIRES, DEPUTY CHIEF, INSTRUMENT SYSTEMS DIVISION

The CHAIRMAN. Identify yourself.

Mr. SQUIRES. Sir, my name is Esmond F. Squires. I am the deputy chief of the Instrument Systems Division, Oklahoma City Air Logistic Center, Air Force Logistics Command. I am an inventory manager, one of 12 that exist throughout the Air Force Logistics Command.

My responsibility is to manage some 4,000 different recoverable-type items of which the AIMS altimetry, AIMS computers and pitotstatic tubes fall in the Federal supply class arrangement for which I am responsible.

Our involvement with the AAU–19 with respect to Aerosonic took place at the time of the first delivery of the assets to the Air Force. Air Force Logistics Command has the basic function and responsibility for supporting a new item once it has arrived on an aircraft either through retrofit, or through a new aircraft from production. During acquisition we have a coordinating and collaborating function with the Systems Command.

I have been asked by counsel to summarize our involvement with respect to the testing of the Aerosonic altimeters, as well as our involvement with the repair. I will refer to my notes if I may, sir.

Mr. STRATTON. You may proceed with your statement.

Mr. SQUIRES. Our first testing effort was the March 23, 1971, incident at Hayes Aircraft Co. At that time the KC–135 system manager advised me, the inventory manager, that 36 percent of the Aerosonic type altimeters, being used by that contractor to install on the KC–135 aircraft had failed.

At that point in time, March 23, 1971, I would like to set the stage as to about where we stood logistically. Aerosonic had delivered to the inventory approximately 1,100 installations that went to new production aircraft at McDonnell, Northrup, and LTV, as well as the 10 different system managers in AFLC that were installing by retrofit the AIMS system.

At that point in time the inventory manager had received 389 spares in his inventory and those had been received since September 1969 through this date of March 23.

On the 23d of March we had no serviceable assets on hand. We had 319 reparables on hand. We were running approximately 2,000 not operational ready hours on our aircraft so the kitchen was hot, logistically speaking.

We had successfully, as far as we knew, repaired 170 altimeters on a repair contract with Aerosonic. At that point in time on the 23d of March 1971 we had approved and had in being four engineer-change proposals that were proposed by the contractor to the SPO. They were changes 18, 19, 23, and 34. They were the new pinions that have been mentioned; the replacement connectors or the terminal boards, that replaced the connectors; the new switch and the new barocounter. Those ECP's have previously been discussed.

We were concerned on the 23d of March 1971 and upon receipt of the notification of the problem at Hayes we dispatched an engineer. He found at Hayes that 21 of 58 units manufactured by Aerosonic had failed. They had failed because they were either out of tolerance or the pointer was "spooking." Now, if I may use my hand that means that the pointer jumps and holds on the indicator.

On the 12th of April 1971, we advised our findings to the SPO and we agreed that we would ship 16 of those assets from Hayes to Aerosonic and we would all convene at Aerosonic to try to fix the problem.

On the 10th through the 13th of May 1971, Aerosonic, with our people from the Oklahoma Logistics Center DCASO and a U.S. Navy representative together with the SPO, convened at the plant.

Now, we additionally hand-carried with us two emergency unsatisfactory material report exhibits called EUMR's. These were from the 416th Bomb Wing, a B–52 bomb wing, and these particular units had failed aboard an aircraft. So we had in fact 18 exhibits to work on, 16 shipped from Hayes and two that we had hand-carried to the contractor's plant.

We found the following: We found that three of the units had failed because they did not have the new pivots. We found that three were relatable to poor quality control.

We found that four were relatable to a new problem that for the first time came to the surface. That was the rolling-over of the crown gear.

The balance of eight were relatable to the three ECP's, the 18, 19, and 23. In other words, had those ECP's been incorporated in those particular eight units, they, in all probability, would have passed.

Upon return to Oklahoma City on the 25th of May 1971, we issued instructions to our System Managers and asked them to inspect all Aerosonic altimeters that were in their holding accounts pending retrofit on their aircraft.

The System Managers came back and reported to us they had 475 units on hand. They identified to us that 102 of these were pre-ECP, 18, 19, and 23 units.

They also advised, upon inspection. 14 of these that we thought were serviceable, were reparable units. These units had pins that were broken. In essence, we had 359 serviceables on hand throughout the accounts at that point in time.

We became concerned and we sent our technician and engineer to our warehouse and they withdrew five units. We opened these five units up——

Mr. PIKE. Mr. Chairman, may I interrupt?

When you say at that point in time, would you be a little more precise about the time?

Mr. SQUIRES. Yes, sir. Exactly.

Approximately the 15th of June 1971, we went to the warehouse and withdrew five units. We hand-carried photographs of those five units and parts of the altimeters that had corrosion. Where we could identify the crown gear problem we also hand-carried these exhibits to SPO between the 21st through the 24th of June. There is a message we provided to Mr. Warren, GAO, on my conversation with the SPO people on that particular problem at that point in time.

By the 13th of July 1971, we now had received from the System Managers from their holding accounts the 102 units they had shipped back to us at Tinker Air Force Base in Oklahoma. The 102 serviceable units plus the 14 reparables. They kept on hand the 359 serviceable units that had the ECP's incorporated for installation on their aircraft.

On the 11th of August 1971, we put instructions out to our System Managers, who in turn put them out to all of our base users, explaining the cautions to be used on the Aerosonic unit when installed on B–52, KC–135, T–39, and T–140 aircraft.

There was the possibility of the airmen causing the crown gear to roll over and become deformed in the testing technique of the Aerosonic altimeter if the computer on the aircraft was operating.

Now, if I may drop back just 2 days: On the 9th of August 1971, after we had available all of the 116 serviceable and reparables that we had received from our Systems Managers, we established a project in our shops there at Oklahoma City and we moved into our shops 100 of these altimeters and we began our tests.

What we were testing for at that point in time was scale error, stop and jump, and friction tests.

I might say to you that we were looking at approximately 400 checkpoints. I believe it takes something like 475 checkpoints to sell a new instrument out of manufacture. We were looking at not only the pneumatic points, but we were also looking at the servo points or the servo portion of the altimeter.

In that particular regard we were testing both hot and cold, particulary in the scale error, and also in ambient room temperatures. So the 400 tests were something that took a considerable amount of time to complete, somewhere in the neighborhood of about 16 hours to run a complete test.

We had already started in February of that same year, 1971, and had successfully repaired the Kollsman unit. We were now repairing approximately 40 units a month of the Kollsman configuration and had repaired somewhere in the neighborhood of about 200 to 250 units by August 1971.

So we did have a capability to test the Aerosonic altimeter and we were using the same test equipment that was recommended by Aerosonic in testing these particular units.

We tested the Aerosonic altimeter from the 9th of August through the 9th of November 1971 and all 100 of those units failed that we called in.

I must stop here. This was incredible that we should have that kind of failure. I might say that in processing well into 3 or 4 million instrument units we had never run into a situation like that. We couldn't understand and it was a shocking situation to us.

So in December of 1971 we got five new production units that were produced by Aerosonic and delivered to us on the 19th of November 1971. We took those five new production units that had all the ECP's incorporated in them and we checked those and all five failed.

We did not identify this formally in letter until the 5th day of January 1972, but I will assure you that constantly during this time period we were in contact with our people in the SPO by telephone.

On the 5th of January 1972, after counseling with Colonel Rose—General Rose now—we wrote a letter to the commanding general of the ESD and in that particular letter, which the committee has, we had six enclosures. We identified all the problems that we had involved in this testing sequence.

I am going to talk next, sir, about our repair efforts on the Aerosonic altimeter because that letter dealt with the testing, as well as the repair and the repair effort I haven't addressed yet. I would like to do that subsequent to this discussion.

In that letter we said we felt we had a design that bordered on safety of flight. We stated that:

> The instrument will not test to specifications and that in our opinion it was not economical to repair. We recommended either immediate redesign or termination. We asked that all these units be pulled off of the aircraft immediately and that we store them pending a resolution to condemn or redesign.

Now, on the action taken by SPO:

On the 1st of February 1972, there was a joint SPO, Oklahoma City, and, DCASO conducted onsite evaluation test of 16 units and they were tested at Aerosonic and all 16 failed.

Between the 1st and 15th of February 1972, on our own inititative, we took 8 of the 23 new production units that had been delivered to us by Aerosonic in the month of January 1972, and tested these in our shop and they all failed. We held those as exhibits.

We then coordinated with the SPO. We took eight more altimeters and tested these at Oklahoma City in the presence of DCASO and

Aerosonic. All failed. Two units from February's production, new production from Aerosonic, were also tested, and all failed.

Now, on the 28th of February 1972, since I had no formal reply to our January 5 letter, I went to headquarters AFLC and briefed out Mr. Gorman, the Deputy, to the Director of Material Management, that was General Rose at that time. And the guidance I got was immediately go to ESD and start termination action on this contract.

When I arrived at ESD we convened a meeting. In that particular meeting Colonel Stanley was there, Colonel Hood, Colonel McKinney, who was the Air Force Logistics Command Systems Manager for AIMS, Bill Lyons, and a number of other people.

In that particular briefing I gave, I showed where we stood with respect to support. At the time we had in excess of 500 back orders. At the time we had in excess of 10,000 not operational ready hours on the aircraft. At the time we had almost 1,200 reparable Aerosonic units and we had attempted—and I will talk to this in a minute—to get a repair contract with Aerosonic. I would like to defer my comments on that matter until I talk about repair.

So we had the kitchen burning around us and we were in a state of crisis as far as support was concerned. We had strongly recommended termination immediately and I must say that Bill Lyons supported me 100 percent on that particular point. At that point in time Colonel Stanley felt that we had not successfully proven that the item could not be repaired in view of the fact that we had previously had a repair contract with Aerosonic for some 170 units, back in the 1969 time period and all these units had been delivered to the Air Force inventory and insofar as we knew they had properly operated.

Second, the second repair contract that I will address in a moment, we had not yet experienced deliveries from and we had no proof that Aerosonic could not successfully repair the altimeter.

Insofar as Colonel Stanley felt, from his conversation with Mr. Frank we, Oklahoma City, didn't know how to repair the item.

I agreed at that point with great reluctance we would now send another team back to Aerosonic and to have them properly trained in the repair of this particular altimeter. I also did agree to continue our testing.

I arrived back at Oklahoma City on approximately the 4th of March 1972. On the 13th of March, through the 24th of March we sent three people to Aerosonic. We took the two best highly qualified repairmen in altimeters that we have in the Air Force, Mr. Carpenter and Mr. Daniels, headed up by Mr. Gene Evans.

I insisted the ground rules be properly established in this particular endeavor. What I wanted to have done was to have our people sit at one table and show how they were using the technical order and how they were doing the repair with an Aerosonic man looking over our shoulder. At another table the Aerosonic people would be simultaneously doing the repair on a separate altimeter.

After much discussion, much clarification, that effort did occur, I will say, through my people; they reported Mr. Frank was very cooperative in that effort.

All three units were attempted to be repaired. The Aerosonic units failed acceptance tests. Our two units also failed. We have those units locked in the safe with the evidence today supporting that failure.

The tests continued. On the 10th of April 1972, we took 10 of the units that were manufactured by Aerosonic in the March 1972 time period and tested those. They all failed. We shipped those 10 units back to Aerosonic and had those tested by DCAS and SPO people. All of them failed initially, but 3 of those 10, when rezeroed, did pass.

During the time period February 6 through April 19, 1972, we took 56 of the 77 units that were repaired by Aerosonic on the repair contract. We got our first units delivered to DCASO in the latter part of January or the early part of February 1972. We tested 56 of the 77 and we found that all 56 of the 77 did in fact fail. That proved to us now that the repair effort was not a satisfactory operation. We took immediate termination action on the first of March 1972 to terminate the balance of our repair contract on the basis of our testing. That contract was a contract that Oklahoma City Logistics Command had with Aerosonic. It was nothing to do with the Systems Command contract.

Between the time period of August 9, 1971 that I mentioned through April 19, 1972, we tested 205 units. All 205 of those failed with the exception of the 3 units that I mentioned after being rezeroed, that did pass at Aerosonic.

Now, I would like to relate to the repair effort, in which we spent approximately 1,500 man-hours in the attempt to repair 29 units, and were unsuccessful.

Our first involvement with a repair effort was a contract repair program that we had for 170 units with Aerosonic. That was a contract awarded April 14, 1969. The contract called for a test and evaluation which cost us $25. After test and evaluation, between the ACO and the contractor, a negotiated price for the repair of the unit was negotiated.

We paid approximately $350 for the repair, but $25 first for the test and evaluation and then a negotiated repair depending upon the amount of work that had to be done.

Those particular units that were repaired by Aerosonic moved from Aerosonic out to our system managers for retrofit on airplanes or out to the base. They did not go through Oklahoma City because we had no test equipment at that time to test the unit. We made the assumption, of course, the units were tested and properly accepted by the DCASO and we had no reason to believe at that point in time that we had a problem.

There was no way, since we don't control items by serial number, to ever trace down what happened to those particular units, and there was no way to determine how long they lasted because they did not have a small elapsed time indicator clock on the unit as many of our instruments do.

So we had no reason to believe those 170 units caused us any problem.

I believe I have already mentioned that a milestone for us was February 1, 1971, because that was the date we had successfully repaired the first Kollsman AAU–19 altimeter. It took us approximately 8 hours to repair a Kollsman unit and it cost us approximately $160 for the repair of that unit. Eventually we built our capability up to repair 200 units per month and that was by early January 1972.

On March 23, 1971, our people at Oklahoma City started their

efforts to obtain the second repair contract with Aerosonic. We were in bad shape at that time. We had 319 reparables on hand.

We were unsuccessful in getting a repair contract with Aerosonic until very reluctantly we agreed to his conditions in the October 1971 time period.

The contractor refused to accept a normal Government repair contract. What I mean is with all the provisions and all the controls that are necessary with any kind of a contract.

What he proposed was: You give me a unit and I will give you one back and don't bother me with all your controls and your reports.

We did agree in October 1971 that we would do this provided the altimeter was 100 percent tested by the DCASO and provided we ourselves would test the item at Oklahoma City. We did that for the reason we couldn't repair the altimeter ourselves, and we were trying to determine whether it was a repairable item or was it not a repairable item.

On May 25 we established a project with our maintenance people to see if it was possible to repair the Aerosonic units using the preliminary technical orders or the overhaul manuals that we had bought from Aerosonic.

The secondary purpose of that thrust was to see how effective ECP's 18, 19, and 23 were and to see if it was possible for us to include those particular ECP's into a repaired altimeter.

We determined in that effort that, yes; we could successfully incorporate those ECP's into the unit, but, after the full range of tests, we could not pass the unit on our test equipment. That was determined roughly about the 25th of August, 1971. On the 31st of August, 1971, we went to the SPO by message and advised him of our findings.

The formal training of this particular altimeter was to take place in the July 1971 time period. However, the contractor was not ready. It was slipped until September 15 and on September 15 through October 3, 1971, the training was conducted for our people at Aerosonic.

There were seven people involved in that training effort. One was an ASD engineer and the other six people were from our activity at Oklahoma City.

We took seven reparables with us, one for each individual. After spending 120 hours, we found out that it was impossible to repair the altimeter using the technical orders that we had.

Mr. Gene Evans, our man, with assistance from the Aerosonic people on the spot, rewrote the technical order.

We then came back to Oklahoma City and we established a project with our maintenance people using this rewritten technical order that we had hand-carried back which had not yet been officially accepted by the Government, in an attempt to repair altimeters. We spent 800 hours on 10 units, but could not get them to pass acceptance tests.

I had the most frustrated maintenance people you ever saw and we were unsuccessful in repairing those particular units.

Now, sir, I must say again, we had literally repaired millions of instruments and had never gone through anything like this.

We also have to admit that we were dealing with a highly complex instrument. We had two sciences incorporated in this instrument and we were pushing the state of the art. We knew this was a drastically different instrument from the Kollsman instrument. There was some question about whether we had the know-how, how to do it.

We notified verbally in the December 1971 time period the SPO of our problem. We specifically put it on record in that letter I mentioned of the 5th day of January 1972 to the commanding officer of ESD.

When I arrived at ESD on the 28th of February 1972 after briefing out the Deputy for Logistics at AFLC, I pointed out the fact we were in a very serious logistics situation.

Colonel Stanley felt we had not yet completely proven that this altimeter was not a repairable item. He had talked with Mr. Frank, who offered to assist us.

I agreed we would send the team back down to Aerosonic, which we did. I have aleady covered that, which was the 13th through the 24th of March 1972 effort.

On the 12th of April 1972 I gave a viewgraph presentation to the headquarters AFLC Joint Review Team concerning the overall problem. It was probably one of the hottest problems that we had at that point in time in instruments, or probably in the Command.

Many people wanted to make sure that there was no possibility we had missed something in attempting to repair this altimeter because it was impossible to believe we couldn't repair an item for which we had 2,500 units delivered. It never happened to us before. We never conceived of anything like this. We organized a senior officers' board to review all the facts and that board was made up of senior officers at Oklahoma City.

On the 9th of May 1972 they came to the conclusion the instrument could not be economically repaired and should be condemned.

When I was at ESD in the meeting in the latter part of February 1972 we had agreed that we turn this problem over to ARINC, an independent organization, to evaluate the altimeter. Also the SPO would turn it over to the Air Force Flight Dynamics Laboratories for evaluation.

While our people at Oklahoma City concluded the item was of unstable design and could not be economically repaired, that was also confirmed by ARINC on August 27, 1972. It was also confirmed in August 1972 by the Air Force Flight Dynamics Laboratory, who state it was a poor design, poor quality, poor workmanship, it was not qualified and that it could not be economically repaired.

We briefed our vice commander at headquarters, AFLC, on the 19th of October 1972, on the entire situation. At that point in time we told him the 2,500 units we had would be placed in hold storage and that we would identify each of these as an altimeter not to be put aboard an aircraft.

On the 14th of August, if I may backtrack just a moment, the SPO came to us and said that we had a potential safety-of-flight item. We put instructions out that in the upper right-hand corner a red dot would be placed on the altimeter by our field maintenance people, and a cautionary note on the use of the instrument was also provided to the pilots.

We immediately started to withdraw the Aerosonic altimeters and replace them with the Kollsman altimeters.

The record I have shows we had at that point in time 354 Aerosonic altimeters installed in aircraft. As we got the Kollsman item, we replaced those 354 with Kollsman instruments which were swapped out by the early part of 1973.

Today we have 2,430 of these Aerosonic instruments in our warehouse of the 2,577 that were delivered. Seven went to the Navy. We have successfully used 100 of these in our simulators in the Air Force and 25 of these for simulators in the U.S. Army. We are holding the balance because there is a potential of reclaiming some $166 worth of piece parts. There is the possibility we could use the case at a later point in time. There is no use for it now because that is an odd-sized case. Plus the fact that as we got into these altimeters we found there were multiple configurations of piece parts in the altimeters. Insofar as we know they were not built in accordance with specifications.

The units are locked up and are being held for such particular purpose as may be required. As you know, we have put a cautionary sign on each altimeter to be sure it never gets on an aircraft and causes a catastrophic failure.

That is the summary, sir, of our repair and our testing efforts in AFLC on this particular instrument.

The CHAIRMAN. Mr. Pike?

Mr. PIKE. Thank you very much, Mr. Chairman.

First I want to commend you, Mr. Squires, and also commend our own staff, because I think it is very useful when we get this summary presentation at the beginning of your testimony, to put it all into perspective.

I want to inject first here a somewhat personal note. How many people do you have working for you at Oklahoma City?

Mr. SQUIRES. 250, sir.

Mr. PIKE. I want to say to you, Mr. Chairman, and to the other members of this committee, that the first that I ever heard about this particular altimeter came from 1 of the 250 people who work at Oklahoma City. I had exactly the same reaction to his story that you have indicated.

I found it incredible that this story was true. I then went to Mr. Lally and Mr. Warren went out there and this story has unraveled for all of us. I think we all feel it to be an incredible story.

In the normal course of your operation, altimeters don't come from the manufacturer to you, do they? They go from the manufacturer to the field, is that not correct?

Mr. SQUIRES. In the main, that is correct, sir.

Mr. PIKE. When you talk about repairing these instruments—you said at one point that February 1, 1971, was a major breakthrough point for you because it was the first time you successfully repaired a Kollsman instrument. Was this a new instrument?

Mr. SQUIRES. Yes, sir. All my references are to the AAU–19 altimeter. We had repaired literally hundreds of thousands of the old altimeters—pneumatic type.

Mr. PIKE. My question is why did it need repair? Had it already been to the field, or was it brand new?

Mr. SQUIRES. It had successfully operated well into 1,000 operating hours on an aircraft and failed.

Mr. PIKE. That is what I wanted to establish.

Now, as to the other altimeters which you were repairing, you didn't attempt to repair any of the Aerosonic altimeters until this first complaint came in from Hayes, is that correct?

Mr. SQUIRES. Yes, sir.

Mr. PIKE. That is the first introduction which you had to the troubles with the Aerosonic altimeter.

You said that during the course of your testing you were in constant contact with the SPO as to the results of this testing. Who was the SPO at that time?

Mr. SQUIRES. May I clarify that, sir? We had a senior Air Force officer from AFLC called the system manager who was colocated with the SPO, almost side by side. All during the time period of the AIMS program I had a logistics officer assigned to that system manager. My contact was always with the senior Air Force AFLC representative. At that time it was Colonel McKinney.

Mr. PIKE. Colonel McKinney theoretically was working hand in hand with the SPO?

Mr. SQUIRES. Right, sir.

Mr. PIKE. Who was the SPO at that time?

Mr. SQUIRES. It was Colonel Stanley at that time.

Mr. PIKE. You said that the first major batch that you tested was the Hayes batch, is that correct?

Mr. SQUIRES. Yes, sir. That was the first. That was done, however, down at the Aerosonic plant. We had already determined they had failed.

Mr. PIKE. At what time was that testing conducted?

Mr. SQUIRES. That testing was done at the Aerosonic plant on May 10–13, 1971.

Mr. PIKE. What was the result of that test?

Mr. SQUIRES. That test of all 16 of those units was confirmed as failures. You realize that Hayes had already said they were failures.

Mr. PIKE. You tested them again in May 1961 and confirmed that they were all failures.

Mr. SQUIRES. Right.

Mr. PIKE. Was Colonel McKinney advised of this?

Mr. SQUIRES. Yes, sir.

Mr. PIKE. Did he advise the SPO of this?

Mr. SQUIRES. The SPO participated in that, sir.

Mr. PIKE. The SPO participated in this, so he knew about it at that time. How many altimeters had been delivered at that time? Can you give us a rough figure? I know you would not know precisely.

Mr. SQUIRES. Yes, sir. We had delivered at that point in time approximately 1,100 units to LVT, McDonnell and Northrop and the 10 different systems managers who were going to install these units on their aircraft. Up to that point in time 358 of Aerosonic configurations had been delivered as spares to the inventory manager. We had issued all of those spares out to the field, however.

Mr. PIKE. On August 9, 1971, you began testing of another batch of 100 altimeters, is that correct?

Mr. SQUIRES. Yes, sir. That is correct.

Mr. PIKE. You said that it took approximately 16 hours just to test one altimeter.

Mr. SQUIRES. Yes, sir, if you did a lone singular unit.

Mr. PIKE. As you tested each one of these altimeters, you found that every one of these altimeters failed.

Mr. SQUIRES. Right, sir.

Mr. PIKE. Did you advise Colonel McKinney of this at that time?

Mr. SQUIRES. Yes, sir. He was aware of it as we went downstream.

Mr. PIKE. Was Colonel Stanley advised that all of these altimeters were failing at that time?

Mr. SQUIRES. I have to assume he was, sir.

Mr. PIKE. Was your representative advised that at that time General Stewart was meeting with Mr. Frank in relation to a discussion about waiving First Article configuration tests?

Mr. SQUIRES. No, sir. We were not aware of change order 57 until sometime in the October/November 1971 period, after approval of that change order.

Mr. PIKE. Every altimeter was failing every test in this time frame. Do you know whether General Stewart was advised that every altimeter was failing every test during this time period?

Mr. SQUIRES. No, sir, I do not.

Mr. PIKE. Was your office responsible in any way for the legal consequences of the waiver of the First Article testing requirement?

Mr. SQUIRE. We never agreed to it, sir. But to answer your question straightforward, we would only have had a voice in recommending.

Mr. PIKE. Were you asked for your recommendations on the waiver of the First Article testing?

Mr. SQUIRES. No, sir, but we disagreed in writing to accepting engineering responsibility, for the Aerosonic altimeter.

Mr. PIKE. If you weren't asked, how did it come about that you provided a statement?

Mr. SQUIRES. We made it a matter or record after we found out. I don't know exactly the details.

Mr. PIKE. It was after-the-fact disagreement and not a prior-to-decision disagreement?

Mr. SQUIRES. That is right.

Mr. PIKE. When did you first tell the SPO, through Colonel McKinney, that in your judgment this procurement ought to be terminated?

Mr. SQUIRES. I believe we started to specifically talk by telephone about that somewhere in the time period of November 1971. It was January of 1972 when we put it down in hard, cold facts in writing.

Mr. PIKE. It was November 9, 1971, when you completed your test of the 100 units and found that every one of them failed?

Mr. SQUIRES. Right, sir.

Mr. PIKE. It was after that that you first recommended orally?

Mr. SQUIRES. That is right. We did that, sir, because the production we had received from Aerosonic in November of 1971—as you remember we tested in December 1971—did in fact fail. We also had concluded in December 1971 that we just couldn't repair the unit.

Mr. PIKE. The December testing was just the five new production units?

Mr. SQUIRES. That is right.

Mr. PIKE. And all five of those failed?

Mr. SQUIRES. Right, sir.

Mr. PIKE. When you recommended that a contract be terminated, did you recommend that it be terminated because the bloody things didn't work and couldn't be repaired? Or did you recommend that it be terminated for the convenience of the Government? Or did you

recommend that it be terminated because they didn't meet the delivery schedules?

Mr. SQUIRES. We had no way of knowing about delivery schedules. We weren't that close to delivery schedules because we were only one of the many receivers from SPO.

Mr. PIKE. You had nothing to do with the delivery schedules?

Mr. SQUIRES. Right, sir. We were more concerned at that point in time about the reliability of the instrument.

Mr. PIKE. Was the nature of your recommendation that the contract be terminated because there might be a safety-in-flight problem?

Mr. SQUIRES. Precisely, sir, and a design deficiency.

Mr. PIKE. That is all I have, Mr. Chairman.

Mr. HÉBERT. Mr. Stratton?

Mr. STRATTON. Thank you, Mr. Chairman.

Mr. Squires, I have some questions with regard to the sequence of your presentation. I am not sure that I followed it completely. I have the impression that you were giving us two different sequences.

Mr. SQUIRES. Yes, sir.

Mr. STRATTON. I am not quite sure at which point the separation came. Let me see if I can reestablish some of these things.

First of all, for my own information, is the Kollsman product an attempt to meet the same specifications as the Aerosonic product?

Mr. SQUIRES. Yes, sir. It is fit, form, and function interchangeable in the aircraft with the Aerosonic unit. The design, obviously, is different.

Mr. STRATTON. The specifications are performance specifications?

Mr. SQUIRES. Right, sir.

Mr. STRATTON. Are both of these dual altimeters with a pneumatic function?

Mr. SQUIRES. Yes, sir.

Mr. STRATTON. And also a servo function?

Mr. SQUIRES. Right, sir.

Mr. STRATTON. Is the Kollsman contract the one that was awarded in an effort to make sure that the Air Force had a fallback if Aerosonic didn't perform?

Mr. SQUIRES. Yes, sir. That is my understanding.

Mr. STRATTON. Why is the Aerosonic one then a matter of pushing the state of the art where the Kollsman one is not, as I gather?

Mr. SQUIRES. Sir, I didn't mean to imply that. Both of them were pushing, in my opinion, the state of the art.

Mr. STRATTON. But they each approached the same result by a slightly different technical path.

Mr. SQUIRES. That is right, sir.

Mr. STRATTON. Again I am slightly lost. I think perhaps you may have been following a different sequence. We got up to February 1972 where you met with Colonel Stanley, Mr. Lyon, Colonel Hood, and some others.

Mr. SQUIRES. That is right.

Mr. STRATTON. Mr. Lyon supported your position but Colonel Stanley still opposed it and said that you couldn't prove that Aerosonic couldn't repair.

Mr. SQUIRES. Right.

Mr. STRATTON. Then you said on the 15th of March, which I gather is 1972, you sent people back to Aerosonic and tried to show Aerosonic how to repair them, but after that instruction they still failed?

Mr. SQUIRES. Yes, sir. Can I elaborate on that to see if I can clarify it?

Mr. STRATTON. Please, yes.

Mr. SQUIRES. We had successfully, to our knowledge, repaired 170 units on a contract repair effort with Aerosonic. Those units were delivered from Aerosonic and went to the field. That was accomplished.

Mr. STRATTON. It's those 170 that give me the difficulty because that is what I was leading up to. I thought the figures were that you had this total of 400-something or other and only three ever got by successfully. I couldn't figure out where you got this 170.

Mr. SQUIRES. All right, sir, if I may. On the 14th of April 1969, we had a repair contract with Aerosonic. That particular repair contract was completely delivered, all 170 of those units were delivered by June of 1971. Let's just consider those 170.

Mr. STRATTON. All right.

Mr. SQUIRES. Those units moved from the Aerosonic plant out to our 10 different system managers for installation on aircraft, or they could have gone to any of one of 200 Air Force bases for support of the base. We had no way of knowing whether they were good units or bad units. We didn't track them by serial number.

Mr. STRATTON. I see.

Mr. SQUIRES. It was indicative, as far as proof was concerned, that those altimeters were good units. We had nothing to believe otherwise. I am taking the positive here now.

Colonel Stanley's point had merit from this point of view. We had yet to prove that the contractor could not repair an altimeter because the 170 each units apparently had successfully been delivered and used aboard our aircraft.

We did have a second repair contract that Oklahoma City awarded to Aerosonic in October of 1971 for the repair of the AAU–19 altimeter. That contract had its first delivery in January of 1972. We had not yet tested any of these units, sir, when I was at ESD. Colonel Stanley's point was that you don't know whether the altimeter can or cannot be repaired until such time as we test these items received from your latest repair contract. You cannot say that they cannot be successfully repaired. That is a statement of fact, and it is true. We had no proof to disprove that statement at the time, other than our attempt in our shops.

Mr. STRATTON. That is the 170 units you are talking about?

Mr. SQUIRES. No, sir. The 170 had been delivered. Now we have another repair contract. The one we let in October of 1972. We moved into that contract as planned and placed somewhere around 100 some odd units on the first call. Aerosonic repaired and delivered to the Government 24, as I recall, in January. Excuse me. Aerosonic delivered 34 in January of 1972. He delivered 16 in February 1962, and he delivered 27 in March of 1972. We terminated the contract on the first day of March of that year, but Aerosonic still delivered 27 that month of March 1972.

Even when I was there at ESD we had not tested any of that group. We did not test that second group that was repaired by Aerosonic until the March 1972 time period. Then we definitely knew neither the Government could repair the altimeter, nor the contractor could successfully repair the altimeter.

Mr. PIKE. Would the gentleman yield for just one question?

Mr. STRATTON. Yes.

Mr. PIKE. Did you have any program of testing the 170 that had been delivered under the first repair contract?

Mr. SQUIRES. No, sir, not at OCAMA.

Mr. STRATTON. I am still a little confused on the chronology because you are saying that these that came back from repair came in around March of 1972.

Mr. SQUIRES. Thirty-four came in January, sir. They were released from the plant. I don't have the date when we got them in the warehouse.

Mr. SQUIRES. 34 came in January, sir. They were released from the plant. I don't have the date when we got them in the warehouse.

Mr. STRATTON. Again you had written a letter to somebody or other—I am not clear who it was—in January 1972 complaining about this horrendous situation that had come to your attention.

Mr. SQUIRES. Yes, sir.

Mr. STRATTON. You said you got no reply to that letter. Where did that letter go?

Mr. SQUIRES. It went to the commander of the Electronic Systems Division, Hanscom, Mass.

Mr. STRATTON. ESD?

Mr. SQUIRES. Yes.

Mr. STRATTON. Then you went personally to the AFLC?

Mr. SQUIRES. Yes, sir. That is my headquarters, at Wright-Patterson, the Logistics Command.

Mr. STRATTON. You talked to a General Gorman?

Mr. SQUIRES. A Mr. Gorman, who is General Rose's deputy.

Mr. STRATTON. Then, as a result of that, you had this meeting in either February or March with Colonel Stanley, Mr. Lyon, et cetera?

Mr. SQUIRES. The latter part of February, yes, sir.

Mr. STRATTON. That was the same time that these repaired items were coming back, right?

Mr. SQUIRES. Right, sir, coming back to us for retest.

Mr. STRATTON. Then you sent some people out to Aerosonic on the 15th of March?

Mr. SQUIRES. Right, sir.

Mr. STRATTON. To teach Aerosonic how to repair?

Mr. SQUIRES. For us to get competent and find out how we could repair the Aerosonic AAU–19 altimeter.

Mr. STRATTON. As I understand, no matter who repaired them, they still all failed?

Mr. SQUIRES. That is right.

Mr. STRATTON. Fifty six out of 77 units had been repaired by Aerosonic and all 56 still failed?

Mr. SQUIRES. Yes, sir.

Mr. STRATTON. How can you have all of these failures coming along and at the same time you are undertaking to examine some others that you say are coming back? Are these 56 the ones that are coming back from Aerosonic? Are we talking about the same thing?

Mr. SQUIRES. Yes, sir.

Mr. STRATTON. On the basis of that result that occurred in April of 1972, OCAMA then terminated its repair contract with Aerosonic; is that correct?

Mr. SQUIRES. On the first day of March of 1972.

Mr. STRATTON. On the first day of March 1972?

Mr. SQUIRES. That is right.

Mr. STRATTON. I got the impression here, or maybe I am wrong, that at some time after that date Colonel Stanley got you still to go back to Aerosonic and resume their effort to repair. Is that correct or am I mistaken?

Mr. SQUIRES. No, sir. We sent a team down on the 13th of March of 1972 to see if it was possible to repair this unit.

Mr. STRATTON. You terminated your repair contract before you sent the team down?

Mr. SQUIRES. Yes, sir. We had in excess of $1 million worth of assets, a fantastic amount of money tied up, and we wanted to do something with that inventory, so we sent our people to learn to repair the item. We terminated based on testing.

Mr. STRATTON. I got the impression that Colonel Stanley was pretty anxious to have you keep trying to find some ray of light issuing from Aerosonic.

Mr. SQUIRES. That is true, sir.

Mr. STRATTON. In other investigations that we have conducted, I found that the project officer seems to get a kind of emotional wedding to the program and finds it almost impossible to believe that there can be any negative information about it. Is that what you seem to detect from Colonel Stanley?

Mr. SQUIRES. I believe that Colonel Stanley was influenced by the discussion he had with Mr. Frank, that we, OCAMA, did not know how to repair the unit and that he could successfully repair the unit.

Mr. STRATTON. When did you finally reach the point that you were certain from your point of view that it couldn't be repaired?

Mr. SQUIRES. Absolutely, irrevocably on the 24th of March 1972 when our people came back from Aerosonic. The two best repairmen we have in the Air Force conclusively proved in our opinion that the item could not be repaired. There was no doubt in my mind after that date.

Mr. STRATTON. On the 13th of March?

Mr. SQUIRES. Right, sir.

Mr. STRATTON. My understanding is that even after that you still had difficulty convincing Colonel Stanley.

Mr. SQUIRES. No. I don't think after that date we had any trouble convincing anybody that the item could not be repaired. We still, however, continued on serviceability testing. This is a different aspect, sir. We wanted to find out whether the contractor was turning out a serviceable item.

Now we had the problem of proving to DCAS that he was accepting an item that was not a serviceable item.

Mr. STRATTON. DCAS—what is that again?

Mr. SQUIRES. That is the Defense Contract Administration Services.

Mr. STRATTON. On May 9 you had the conclusion from a senior officers' board that the items should be condemned?

Mr. SQUIRES. That was our Oklahoma City Air Logistics Center senior officers' board, that is correct, sir.

Mr. STRATTON. Then you sent it out to a private firm called ARINC, who made the same conclusion on the 27th of August?

Mr. SQUIRES. We in AFLC did not do that. That was done by the SPO. That was the result of the meeting I was in in February where

it was agreed that we would have an independent agency, along with our Air Force flight laboratories, evaluating this unit for both repairability and for operability.

Mr. STRATTON. When did you finally get this thing canceled or terminated?

Mr. SQUIRES. The contract was terminated by the SPO on the 26th day of June, 1972.

Mr. STRATTON. So the ARINC thing was after the fact?

Mr. SQUIRES. Yes, sir.

Mr. STRATTON. Yesterday we had Mr. Lyon before us. It was very difficult to get him to testify that he had ever made any recommendation whatsoever from a technical point of view. His testimony seemed to be that all he did was to state the technical facts, but in any discussion of this particular object, he never made any recommendation, based on those facts, in any way. Yet you say that at the meeting that was held in either February or March of 1972 with Colonel Stanley, Colonel Hood, Mr. Lyon was present, that Mr. Lyon supported your position that this was a defective item and you ought to stop buying it.

Mr. SQUIRES. Yes, sir. Out of that meeting evolved the continuation of the testing I have explained, the continuation of the repair effort.

Mr. STRATTON. I am not interested in what evolved out of it. Am I correct in stating your testimony?

Mr. SQUIRES. That is correct.

Mr. STRATTON. You were present at that meeting?

Mr. SQUIRES. Right, sir.

Mr. STRATTON. There is no question but that Mr. Lyon made a recommendation that, on the basis of the technical information—and he was the Chief Engineer—this was a defective item and it should not continue to be accepted?

Mr. SQUIRES. Yes, sir. Mr. Lyon said to me, "That is the most productive meeting we have had in the last 2 years."

Mr. STRATTON. So he lost a little of his virginity there and actually made a recommendation.

You testified in answer to Mr. Pike's question that, from your knowledge, none of this information—let me put it another way. As far as you know, you don't know whether this information went back to General Stewart?

Mr. SQUIRES. No, sir; I do not know that.

Mr. STRATTON. I have a couple other questions. Again I am not a technician. How do you test these items? What is it that you look for?

Mr. SQUIRES. There are two engineering sciences in this instrument. It has a pneumatic and there is a servo mode which must be tested. What you want to look for—and you are testing up and down scale—you want to look for static, scale error and stop-and-jump characteristics. Testing is accomplished by using a very accurate barometer and a vacuum source. The vacuum source is connected to both the altimeter and barometer which the maintenance man bleeds off pressure from to stabilize at specified readings that must correspond on both the altimeter under test and the barometer. We test clear up to 80,000 feet. When you are through with going through this assembly of tests, there are approximately 400 check points that you have tested the unit. We perform these tests in hot, cold, and ambient conditions.

Mr. STRATTON. You put it in a pressure chamber and reduce the pressure by a certain factor?

Mr. SQUIRES. Right.

Mr. STRATTON. And you know exactly what pressure you have and then you want to see whether the scale on the altimeter exactly matches the pressure, right?

Mr. SQUIRES. Right, sir.

Mr. STRATTON. It failed because it didn't match the pressure and it stuck in spots and it jumped from one position to another instead of moving at a steady pace, is that right?

Mr. SQUIRES. Yes, sir, why many combinations but not all tests ever passed.

Mr. STRATTON. We had testimony yesterday that many of these items were tested at Aerosonic and passed. Then they went to OCAMA and they failed. Then they came back to Aerosonic and they failed.

How would it be possible for these to pass at Aerosonic and fail at OCAMA and then come back to Aerosonic and fail at Aerosonic?

Mr. SQUIRES. I am not trying to evade that question, sir, but I just cannot answer that question. The DCASO people are the only ones who can answer that question.

Mr. STRATTON. I don't know whether you can call it fraud or not, but we had information that there was a manifold found hidden in the wall during one of these tests and that manifold apparently would have some bearing on the pressure.

Mr. SQUIRES. Sir, I believe that that is the other altimeter. I would like to state for the record that the AAU–27 altimeter, to which that point is alleged to be, I was never aware of that. I will assure you if I had known that, I would have been in my general's office 5 minutes after I knew it. I was never aware that that took place. I never was aware until I was here. It was like a blind man walking in the dark seeing light for the first time, these kinds of allegations.

Mr. STRATTON. Let me put the question this way. You had no doubt about the validity of the testing procedures at OCAMA, right?

Mr. SQUIRES. No, sir, none whatsoever.

Mr. STRATTON. Then, if you had an instrument which failed at your testing procedures but passed at Aerosonic, wouldn't your first impression be that there was something wrong with the testing procedures at Aerosonic?

Mr. SQUIRES. Yes. And we would immediately start testing and calibrating the barometry and the monometry. We did that, incidentally, on another instrument with Aerosonic by bringing in our Air Force calibration people out of Newark Air Force Station, where our Air Force calibration laboratories are, to make sure that our test equipment was proper.

Mr. STRATTON. What did you find out about their test equipment?

Mr. SQUIRES. On another piece of equipment, our barometer was out of calibration and so was the contractor's and both were brought back into calibration, Barometry is a very subtle art. Calibration equipment can get out of calibration relatively easy and it's checked quite frequently.

Mr. STRATTON. The answer we had yesterday to this was that these items are highly delicate and they respond in unusual circumstances, if I recall, so that it was quite possible that a slightly unstable instru-

ment could test okay at one time—at Aerosonic, let's say—and test badly later on at the same facility. Is that a possibility?

Mr. SQUIRES. Yes, sir. But I want to qualify, not to the degree that we found, however, in our total testing. But it is possible to have that kind of variance you outline. That is why we rezero the instrument.

Mr. STRATTON. This letter that you sent in January 1972, where did it go?

Mr. SQUIRES. To the commanding general of the Electronic Systems Division.

Mr. STRATTON. You never got any reply from that, did you? Is that correct?

Mr. SQUIRES. I would be unfair by saying we never got any reply per se. We never got a response to the letter in writing, but we had an understanding with all these testing actions that took place between Aerosonic, DCASO, and Oklahoma City. We were all aware that those testing efforts related to that particular letter.

Mr. STRATTON. But that only came before you went directly to the Air Force Logistics Command, did it not?

Mr. SQUIRES. No, sir. The first testing started, on the 1st day of February 1972 when we conducted an on-site test at Aerosonic on 16 units that he had produced. All those units failed. The letter then still wasn't answered, but they still continued on with the testing.

Mr. STRATTON. That is all I have, Mr. Chairman. Thank you.

The CHAIRMAN. Mr. Mollohan?

Mr. MOLLOHAN. Mr. Squires, in your exchange here with Mr. Stratton and Mr. Pike there is quite a bit of reference to 56 units. Would you follow through on those 56 units for me?

Mr. SQUIRES. Surely.

Mr. MOLLOHAN. Obviously, they were produced by Aerosonic and passed their testing by Aerosonic.

Mr. SQUIRES. Yes, sir.

Mr. MOLLOHAN. What became of those units after that first testing?

Mr. SQUIRES. We have those units locked up today.

Mr. MOLLOHAN. I know. But where did they go at that point in time from the testing platform at Aerosonic? Where did they go? Did they go to you?

Mr. SQUIRES. Yes, sir.

Mr. MOLLOHAN. In OCAMA?

Mr. SQUIRES. Yes, sir.

Mr. MOLLOHAN. Were they ever installed in an airplane?

Mr. SQUIRES. Never in an aircraft.

Mr. MOLLOHAN. In other words, they were completely new units?

Mr. SQUIRES. No; they were repaired units, sir.

Mr. MOLLOHAN. Repaired units?

Mr. SQUIRES. Yes, sir.

Mr. MOLLOHAN. Let's back up then. Let me go back to the point of manufacture.

Mr. SQUIRES. All right, sir.

Mr. MOLLOHAN. At that point those 56 units were manufactured at Aerosonic and approved in their testing process and accepted by the Government?

Mr. SQUIRES. Right, sir.

Mr. MOLLOHAN. Where did they go from there?

Mr. SQUIRES. They would have gone out to LTV, who was manufacturing our A–7's weapons system and to McDonnell who was manufacturing our F–4E weapons system, or to Northrup for the T–38 or to our bases.

Mr. MOLLOHAN. Were they installed in airplanes? Were they ever installed, this is what I want to know?

Mr. SQUIRES. Yes, sir. We had a minimum known quantity of 600 units that were installed in aircraft and successfully flew.

Mr. MOLLOHAN. Those 56 then are a part of that 600?

Mr. SQUIRES. Yes, sir.

Mr. MOLLOHAN. Then they were determined to be faulty, not faulty but they broke down after they had been used X number of hours?

Mr. SQUIRES. Right.

Mr. MOLLOHAN. Do you have any handle on how long these were used and how long they were in use in the airplane before they were determined to be faulty or no longer operable satisfactorily?

Mr. SQUIRES. No, sir. The reason we don't is because we don't track items by serial number except on a very selective quantity of items. That we do only on high cost and high volume items.

The other point is that this instrument was not built with an elapsed time indicator to show us the number of hours that it operated on an aircraft. So there was no real way to take a serial numbered item and relate it to an aircraft to determine how many hours it flew.

However, we did do some sampling. We found, for example, that the Aerosonic altimeter was located aboard our General's aircraft at Tinker Air Force Base and we knew it had been on the aircraft well into a year and it successfully operated. We had also done some sampling on the T–38 aircraft at the Air Training Command bases and determined that they had successfully operated.

So out of this large accumulation that we had, there were in fact approximately 600 units that were installed aboard aircraft and did successfully operate.

You asked the question, obviously, how could we have 600 that operate and 2,000 that didn't. When you look at today's inventory that we now have locked up and see the lack of configuration control in building the instrument, then you can understand how some units could successfully pass and operate and others cannot.

This is not an all black or an all white area. It is gray because some of those units did successfully operate, and that is what makes the problem difficult to evaluate.

Mr. MOLLOHAN. I believe you suggested earlier in your testimony that there was a different configuration of the component parts of the unit itself.

Mr. SQUIRES. Right, sir.

Mr. MOLLOHAN. In other words, there was no uniformity from the beginning of the construction of those final ones that were delivered. There was a great deal of variation?

Mr. SQUIRES. There is a variation. We have not pulled all 2,400 of those units apart, but we have taken a look at some of them. We have found such things as different sized cross-shafts and gears were used in the unit.

Mr. MOLLOHAN. Were these changes in the sizes and in the configuration of the individual component parts approved by the Government as a part of change orders?

Mr. SQUIRES. No, sir.

Mr. MOLLOHAN. What sort of quality control does the Government exercise in the manufacture of units such as this?

Mr. SQUIRES. We establish a First Article configuration control.

Mr. MOLLOHAN. I don't mean that.

Mr. SQUIRES. From that point nothing is changed.

Mr. MOLLOHAN. I don't mean that. I mean what type of controls does the Government have insofar as inspection and assurance that the specifications as projected in the contract are met?

Mr. SQUIRES. That is the responsibility of the DCAS to insure that the specific piece parts are used. The design that is agreed to at the configuration inspection, where we fix the configuration is to insure that the item is manufactured to that specification. No charge can be made without DCAS approval.

Mr. MOLLOHAN. Does DCAS have an inspector in charge at the plant and in residence all the time?

Mr. SQUIRES. Yes, sir.

Mr. MOLLOHAN. Then how could there be this kind of variation in the component parts with the DCAS representative, a Government representative, there onsite inspecting presumably each unit as it comes off the assembly line?

Mr. SQUIRES. Incredible, sir! In the avionics business in 15 years of experience it never has happened to us. This is that kind of an industry that we just never ran into that problem.

Mr. MOLLOHAN. In other words, in any other contracts that you ever had any association with or responsibility for, there had been very positive inspection services which produced and maintained the quality control essential to the fulfillment of the contract?

Mr. SQUIRES. Yes. I must say this, I am sure our DCAS people did everything possible—and I can't speak for them, they will have to speak for themselves—to insure the configuration controls.

Mr. MOLLOHAN. How can that be so? You mentioned one item, the shaft. The shaft is something that you can very clearly visualize, even a lay person, and you can distinguish very readily any differences in the configuration of a shaft.

Mr. SQUIRES. Yes, sir.

Mr. MOLLOHAN. There may be some very minute or small items in here which would be difficult to distinguish just by a casual look, but the difference between shafts to a professional person would be a very obvious difference.

Mr. SQUIRES. Yes, sir.

Mr. MOLLOHAN. Doesn't that DCAS inspector have responsibility for looking at these component parts before they are put into the unit and before they are assembled into the unit?

Mr. SQUIRES. On a lot inspection basis he is supposed to, yes, sir.

Mr. MOLLOHAN. That is all, Mr. Chairman.

The CHAIRMAN. Mr. Daniel?

Mr. DANIEL. Thank you, Mr. Chairman.

Mr. Squires, I want to join Mr. Pike in commending you for your performance here this morning. Your testimony was well organized and even I can understand it.

Mr. SQUIRES. Thank you.

Mr. DANIEL. I have just one question, Mr. Chairman. During the course of your testimony this morning you made reference to, I believe,

1,500 man-hours that were spent at some given point. How many management and technician hours would you estimate were spent in an attempt to qualify this instrument? And what did it cost the taxpayer? I realize it would have to be a guess.

Mr. SQUIRES. The team that I have consists of five people, highly qualified employees who are paid approximately $16,000 per year. Those people handle all the AIMS equipment.

I would say that we spent more than 50 percent of our time on this one instrument. Considering we had all the air computers and all the pitotstatic tubes and the other Bendix products—the Bendix altimeter and the Kollsman—so, in terms of time, I would make the rough estimate that we spent approximately 2 man-years in the management of this instrument with the efforts we put into it.

Mr. DANIEL. This is a cost to the taxpayer, is it not?

Mr. SQUIRES. Yes, sir.

Mr. DANIEL. There is no way that this could be recovered from the contractor?

Mr. SQUIRES. No, sir. But there have been some bitter lessons learned.

Mr. DANIEL. Thank you, Mr. Chairman.

The CHAIRMAN. Mr. Lally?

Mr. LALLY. Thank you, Mr. Chairman. I have a couple of questions for Mr. Squires.

You mentioned that from August to April there were 205 units tested and all failed?

Mr. SQUIRES. Yes, sir.

Mr. LALLY. And that three units were subsequently passed testing after rezeroing?

Mr. SQUIRES. Yes, sir.

Mr. LALLY. What does rezeroing consist of?

Mr. SQUIRES. Rezeroing is a means by which the maintenance man at the Air Force base can normally adjust the instrument prior to installation on the aircraft. Rezeroing is accomplished with a screwdriver and special wrench by adjusting the knob and screw on the face of the altimeter in order to shift the instrument's tolerance to the desired plus or minus factor to compensate for barometric changes that occurred since last adjustment. These adjustments are often necessary due to the minor changes that occur within the Aneroid Diaphragms in the instrument. It is a perfectly acceptable and authorized adjustment. This particular case, we rezeroed the instrument at Oklahoma City and then we rezeroed it again at Aerosonic. Three of those units did successfully pass at Aerosonic; 3 out of the total of 205 we tested.

Mr. LALLY. Three out of the 205. Is this rezeroing only permissible at the beginning of the test?

Mr. SQUIRES. Only at the beginning of the test, sir, that is correct, and not during the test.

Mr. LALLY. Is it ever permissible during the course of the testing?

Mr. SQUIRES. Absolutely not. If it is, somebody has jimmied the testing results.

Mr. LALLY. You mentioned that over 600 were installed and operated in aircraft. Do you know, Mr. Squires, whether these operated in both modes or whether it was just one of the modes?

Mr. SQUIRES. Only in one mode, sir, for the F–4 and some T–38 aircraft. We did not have at any time during this time period both modes operating on all aircraft.

Mr. LALLY. In which mode did they operate?

Mr. SQUIRES. They operated in only the standby mode for F–4 and some T–38.

Mr. LALLY. That is the pneumatic mode?

Mr. SQUIRES. Yes, sir.

Mr. LALLY. Thank you, Mr. Chairman.

Mr. PIKE. Mr. Chairman, could I ask a couple more questions?

The CHAIRMAN. Surely.

Mr. PIKE. You said, in response to a question by Mr. Stratton, that the manifold business that has been alluded to here, the extra manifold in the testing procedure was not on the AAU–19 altimeter but on the AAU–27 altimeter. Did your shop at OCAMA have any responsibility for the repair of the AAU–27 altimeter?

Mr. SQUIRES. Yes, sir.

Mr. PIKE. Were you able successfully to repair the AAU–27 altimeter?

Mr. SQUIRES. No, sir. I would like to qualify that remark, if I may. At the time that we had the means to do the repair of the AAU–27 altimeter at Oklahoma City, we were in the process of implementing a DOD program called the technology repair center concept where we placed all homogeneous categories of instruments at single repair locations rather than proliferating them out through our repair centers.

Altimetry was an aggregation of instruments that were transferred to Sacramento. This made real sense because it let us combine all those altimeters at one center and cut down on our overhead.

It happened that we attempted to repair the AAU–27 altimeter during the transition of the move of this item so therefore we never were able to repair the item. We realined our skills at Oklahoma City. We went to the Navy in September of 1973. The Navy, in February 1974, was repairing the AAU–27 altimeter for us at a cost of $463.

Mr. PIKE. $463 per unit?

Mr. SQUIRES. Yes, sir.

Mr. PIKE. What is the original cost of the altimeter?

Mr. SQUIRES. I believe today's cost is approximately $900. I think the original quote price on that unit was somewhere in the neighborhood of $490.

Mr. PIKE. It was around $490 to purchase it originally. We all recognize that there is an inflation factor, but today it costs $460 to repair.

Mr. SQUIRES. Right. But today's new price is $900.

Mr. PIKE. Mr. Squires, I didn't mean to indicate at all that you were at fault in not being able to repair the AAU–27 altimeter. I just meant to put in perspective the fact that you never heard of this spare manifold or extra manifold, although at that time your shop did have the responsibility for attempting to repair these AAU–27 altimeters.

Mr. SQUIRES. Sir, if I may use the vernacular, we worked our tail off to repair that unit. And we ran it back and forth all over the country in an effort to try to find out why we couldn't repair it. As quickly as the problem developed, it disappeared. All of a sudden we were able to work it. Our first attempts to repair the AAU–27 altimeter were not successful, but we overcame the initial problems and started production in September 1973.

Mr. LALLY. Mr. Squires, if you had known of this manifold discovery, would that have influenced your efforts to repair the AAU–27 altimeter?

Mr. SQUIRES. Definitely, sir. I will assure you I would have been in General Randolph's office.

The CHAIRMAN. Thank you very much, Mr. Squires.

Mr. LALLY. Mr. Blickenstaff.

[Witness sworn.]

The CHAIRMAN. Please state your name.

TESTIMONY OF EUGENE BLICKENSTAFF, DCAS QUALITY ASSURANCE REPRESENTATIVE

Mr. BLICKENSTAFF. I am Eugene Blickenstaff. I was the DCAS quality assurance representative at Aerosonic Corp. between December 1970 and January 1972.

The CHAIRMAN. Do you have a prepared statement?

Mr. BLICKENSTAFF. No, sir.

The CHAIRMAN. Mr. Pike?

Mr. PIKE. Mr. Blickenstaff, what was your position? You were with the DCAS operation, is that correct?

Mr. BLICKENSTAFF. Yes, sir.

Mr. PIKE. What was your position in the timeframe that we are speaking of when the AAU–19 and the AAU–27 altimeters were being procured? Where were you and what was your job?

Mr. BLICKENSTAFF. Approximately December 7 of 1970 or approximately the first week in December I went into Aerosonic to take over as the QAR from Akins. I was officially detailed there.

Mr. PIKE. Would you spell out QAR?

Mr. BLICKENSTAFF. Quality assurance representative. I was officially detailed to Aerosonic on December 20, 1970. I was there until January 2 of 1972.

Mr. PIKE. How long were you at Aerosonic before you noticed your first irregularity in quality assurance?

Mr. BLICKENSTAFF. About a week.

Mr. PIKE. What was the nature of what you first observed?

Mr. BLICKENSTAFF. We had discovered that there were mixed hardware, mixed parts, unidentified parts in the AIMS area where they were being manufactured.

Mr. PIKE. In other words, there were components there which were not approved components for inclusion into the altimeter, is that correct?

Mr. BLICKENSTAFF. There was no documentation with the parts identifying them as being inspected, accepted or rejected at the time I found them.

Mr. PIKE. What did you do with this first discovery that you made?

Mr. BLICKENSTAFF. We issued a quality control deficiency report to the company's QC manager.

Mr. PIKE. That is quality control manager?

Mr. BLICKENSTAFF. Yes, sir.

Mr. PIKE. Who was that?

Mr. BLICKENSTAFF. Mr. Ed Lolley.

Mr. PIKE. You put this document in writing, is that correct?

Mr. BLICKENSTAFF. Yes, sir.

Mr. PIKE. What did Mr. Lolley do with this document?

Mr. BLICKENSTAFF. I believe, sir, that he went and got the parts and separated them and I believe he identified them and gave me an answer to the QDR, the quality deficiency report, stating that in so many words corrective actions had been taken.

Mr. PIKE. Do you have reason to believe that he told Mr. Frank about it?

Mr. BLICKENSTAFF. I don't think on that particular occasion it was necessary to inform Mr. Frank.

Mr. PIKE. Would you tell us what was the next problem area you ran into?

Mr. BLICKENSTAFF. Then I was in the AIMS manufacturing area and I found a tray of support castings.

They had no identification on them as being accepted, rejected or experimental. The castings had been repaired. There was evidence of it being repaired with solder. The support castings had been cracked. They had repaired these with solder.

At this time I wrote this up in a memo to DCASO, St, Petersburg, and at the same time——

Mr. PIKE. DCASO in St. Petersburg was your boss, is that right?

Mr. BLICKENSTAFF. Yes, sir.

Mr. PIKE. Is DCASO St. Petersburg a human being or is it a group?

Mr. BLICKENSTAFF. It's a group.

Mr. PIKE. Who was the head of that group?

Mr. BLICKENSTAFF. Commander Curtin was the chief of the DCASO at that time.

Mr. PIKE. Go ahead.

Mr. BLICKENSTAFF. At the same period of time during that day I had Mr. Larry Ickes issue a quality control deficiency report on the cracked and reworked castings.

Mr. PIKE. Was Mr. Larry Ickes one of your subordinates?

Mr. BLICKENSTAFF. Yes, sir.

Mr. PIKE. He worked with you?

Mr. BLICKENSTAFF. Yes, sir. Mr. Ed Lolley issued another quality control deficiency report on this condition. I believe that Mr. Lolley's statement to me and to Mr. Larry Ickes was that he had been bypassed with these particular parts and that Mr. Frank had given the orders to go ahead and use these. I was informed that they were supposed to have been used as experimental.

Mr. PIKE. But they were actually being included in the altimeters at this time?

Mr. BLICKENSTAFF. I didn't see any in the altimeters at that particular time. The support castings were on the bench in an area where they were ready to be assembled. In fact, there were some parts that had already been assembled on the support casting itself. There was no metal stamp or no identification on the castings or the box that they were experimental.

Mr. PIKE. So you put your objection to this in writing to your superior?

Mr. BLICKENSTAFF. Yes, sir.

Mr. PIKE. Could you tell us what happened after that?

Mr. BLICKENSTAFF. I called my supervisor and asked him to come out.

Mr. PIKE. Who was your supervisor?

Mr. BLICKENSTAFF. Ray Carter was my immediate supervisor at that time. I asked him to come out so that we could discuss this and show him what the problem was. He came out and, after talking to Larry Ickes and myself, he went to Mr. Herb Frank and discussed it with him. I don't recall the outcome of the conversation that Mr. Frank had with Mr. Carter, other than the fact that Mr. Frank has stated they were experimental.

Mr. PIKE. Would you tell us what next occurred in your inspection?

Mr. BLICKENSTAFF. This, I believe, was in February, if I am not mistaken.

Mr. PIKE. Of which year?

Mr. BLICKENSTAFF. Of 1971. We had found that there were workmanship problems on the AIMS instruments. We were not too satisfied with the way that the testing of the various instruments was being handled. Larry Ickes and Buddy Hathcock, who at that time was another assistant QAR that I had there, had discussed this because they would be working in one area and they would be testing in another area.

So on March 4, I believe the first letter that I issued to Mr. Ed Lolley, the quality control manager, was that prior to starting of any tests—and I believe I had listed various instruments on a memorandum or I had put all items on the memorandum—that, prior to them starting any tests, they would notify us so that I might have someone there to witness the test setup and the start of the test.

The next sentence in the letter is that if I didn't have anybody available at that particular time when they were going to start the test that they could go ahead with it. In other words, I wasn't going to hold them up from testing because I didn't have people available. I think that letter was on March 4.

The next letter I wrote was on March 10. I issued two letters on that day.

Mr. PIKE. What did those two letters say?

Mr. BLICKENSTAFF. One of them was on the casing, inspection of the instrument prior to casing. This was so that we could inspect the instrument for workmanship, foreign material, loose hardware, any damage, and so forth, before they put it into the case.

At this particular time we were concerned also with the cracked support casting. We wanted to make sure we didn't get any of these installed on the instrument because you could see the repair because of the solder they used.

Mr. PIKE. If the case has not been closed, you would be able to detect it, is that correct?

Mr. BLICKENSTAFF. If the instrument wasn't in the case and we could inspect it to make sure there weren't any cracked support castings there or there wasn't any bad workmanship or foreign material or loose hardware, and so forth. My same statement on this was if we didn't have anybody available to inspect the units before they were cased that they could go ahead and case them. In other words, again I wasn't going to hold them up for this.

I would like to back up on the testing for just a second.

Mr. PIKE. I will let you, but you said there was a second letter the same day.

Mr. BLICKENSTAFF. The other letter was on spare parts. We wanted to see the spare parts after they were manufactured, after the company quality control got finished with them. We wanted to inspect them for workmanship, dimensions, possible damage, and so forth, before they were packed. They were spare parts that were going out to various customers.

Mr. PIKE. Now back up on your testimony.

Mr. BLICKENSTAFF. All right. On the letter on the testing, Aerosonic would give us a list of the instruments that were possibly going to be tested that day. There was no timeframe put on this list, as to when those instruments would start test. In some cases the instruments that were on the list may not be tested on that particular day. They could go into the next day or be tested that night.

I felt that we should have the opportunity to see the instrument, test equipment set up, and the test started. This was the reason that we issued this letter.

Mr. PIKE. What happened as the result of these letters which you submitted?

Mr. BLICKENSTAFF. I think it was on March 18, I can't recall that particular date, but Mr. Tabor was in my office at the particular time.

Mr. PIKE. Who is Mr. Tabor?

Mr. BLICKENSTAFF. He was my immediate supervisor at this particular time. Mr. Frank had a letter delivered and stated on this letter that our services were not needed.

Mr. PIKE. Delivered to whom?

Mr. BLICKENSTAFF. Delivered to me personally.

Mr. PIKE. Mr. Frank wrote a letter to you. What did that letter say?

Mr. LALLY. It's number 29 (see appendix 11) in that package of documents.

Mr. BLICKENSTAFF. This letter was dated March 10, 1971. It says:

> DEAR MR. BLICKENSTAFF: We are notifying all of our Government offices that we are not going to comply with the two letters dated March 10 and the one dated March 4, and until these letters are rescinded or other arrangements made, no further shipments will be made on any Government contract since we consider these letters a threat and discrimination against our organization caused by you and your group.
>
> Therefore, you and your quality control representatives will not be needed or admitted on the premises after 4:30 p.m. today until further notice.

Mr. PIKE. You had asked that the casings not be closed until one of your men or you, personally, had an opportunity to inspect them?

Mr. BLICKENSTAFF. Yes, sir.

Mr. PIKE. You had asked that the spare parts be inspected. Are those the two letters that he is referring to of March 10?

Mr. BLICKENSTAFF. There are three letters, two on March 10 and one on March 4.

Mr. PIKE. What was the third request you had made? It was the closing of the casing and the spare parts and what else?

Mr. BLICKENSTAFF. Final functional test.

Mr. PIKE. You wanted to be present at the testing?

Mr. BLICKENSTAFF. That is correct, sir.

Mr. PIKE. Mr. Frank responded to that by saying that he considered those letters a threat and a discrimination and there would be no fur-

ther shipments made on any Government contract and that you would not be needed or admitted to the premises after 4:30 that day?

Mr. BLICKENSTAFF. That is correct, sir.

Mr. PIKE. When you got that letter, what did you do?

Mr. BLICKENSTAFF. Mr. Tabor immediately called the office.

Mr. PIKE. Called what office?

Mr. BLICKENSTAFF. Our DCASO office in St. Petersburg, and read the letter over the phone to, I believe, Major Fringer who, at that time, was the Chief of Quality Control, the Chief of our Quality Control.

Mr. PIKE. To the best of your knowledge, was this Mr. Frank's first statement that he would stop the production?

Mr. BLICKENSTAFF. Yes, sir. To my knowledge that is the first time.

Mr. PIKE. This letter to you was immediately reported to your supervisor by telephone. Then what happened?

Mr. BLICKENSTAFF. There was, I imagine, a lot of conversation and discussion going on at the St. Petersburg office, but I was not part of it.

The next morning the three of us, Mr. Ickes, Mr. Hathcock and myself, went to Mr. Carter's office at Electronics Communications in St. Petersburg.

Mr. PIKE. You went to St. Petersburg at your suggestion?

Mr. BLICKENSTAFF. We were told to go there.

Mr. PIKE. Who told you to go there?

Mr. BLICKENSTAFF. My immediate supervisor, Mr. Carter.

I mentioned Mr. Tabor but this was incorrect because Mr. Carter was my immediate supervisor at the time. Mr. Tabor was the Deputy Chief of Quality at that time.

Mr. PIKE. Mr. Carter told you, Mr. Ickes and who else to go to St. Petersburg?

Mr. BLICKENSTAFF. Buddy Hathcock. We went to the Electronics Communications plant where he had his office.

Mr. PIKE. How far away was this?

Mr. BLICKENSTAFF. A 20- or 25-minute drive, I guess.

Around noontime we were let back into the plant the next day.

Mr. PIKE. What was said at this meeting at St. Petersburg? What did they say to you and what did you say to them?

Mr. BLICKENSTAFF. I didn't become involved in a meeting in St. Petersburg until I believe it was aproximately the 18th, or prior to that.

Mr. PIKE. Where was it you were sent the day after this letter?

Mr. BLICKENSTAFF. Electronics Communications.

Mr. PIKE. What was said at that meeting?

Mr. BLICKENSTAFF. There wasn't really a meeting there. I just reported in to the office, Mr. Carter's office, at that particular time.

Mr. PIKE. You reported in to Mr. Carter's office. What did Mr. Carter say to you and what did you say to Mr. Carter?

Mr. BLICKENSTAFF. I believe there were discussions on the telephone between Mr. Carter and St. Petersburg office. We really didn't talk to amount to anything—nothing specific.

Mr. PIKE. He didn't ask you any questions?

Mr. BLICKENSTAFF. Not to my knowledge. We just more or less sat around until someone made a decision that we went back in or stayed out.

Mr. PIKE. Nobody asked you why you had written these letters?

Mr. BLICKENSTAFF. No, sir. No, sir. Nobody discussed it with me.

Mr. PIKE. Did anybody call Mr. Frank?

Mr. BLICKENSTAFF. I would imagine Major Fringer or Commander Curtin may have called them, I don't know.

Mr. PIKE. You only know you went to Mr. Carter's office and you sat around a while and eventually somebody told you to go back home?

Mr. BLICKENSTAFF. No; we went back to the Aerosonic facility.

Mr. PIKE. At the Aerosonic facility were the requests contained in your three letters being complied with?

Mr. BLICKENSTAFF. No, sir.

Mr. PIKE. Were your three letters ever withdrawn by you or by any of your superiors?

Mr. BLICKENSTAFF. There was a meeting approximately on March 18. That was the date of the letter that Commander Curtin wrote to Mr. Frank concerning the three letters. At this meeting——

Mr. PIKE. What happened at the meeting of March 18?

Mr. BLICKENSTAFF. Commander Curtin rescinded verbally at that particular time, all three of my letters. He rescinded two. I am sorry. The spare parts letter was kept in force until we developed a quality history on the spare parts and then it would be rescinded.

Mr. PIKE. He did this in writing to Mr. Frank?

Mr BLICKENSTAFF. It was first done verbally in a meeting and then there was a letter written, I believe, March 18.

Mr. LALLY. It is No. 40 (see appendix 12) in the file of documents.

Mr. PIKE. Your meeting was on March 18, is that correct?

Mr. BLICKENSTAFF. Yes, sir.

Mr. PIKE. Who signed that letter to Mr. Frank?

Mr. BLICKENSTAFF. Commander Curtin.

Mr. PIKE. Did you have any conversation with Commander Curtin at this time?

Mr. BLICKENSTAFF. No, sir.

Mr. PIKE. You went to this meeting at whose request?

Mr. BLICKENSTAFF. I assume Commander Curtin's.

Mr. PIKE. Who told you to go there?

Mr. BLICKENSTAFF. My supervisor, Mr. Carter.

Mr. PIKE. Did Mr. Carter go to this meeting?

Mr. BLICKENSTAFF. Yes, sir.

Mr. PIKE. Who else was present besides Mr. Carter, yourself, and Commander Curtin?

Mr. BLICKENSTAFF. I believe Major Fringer, Mr. Frank, Mr. Benmayor.

Mr. PIKE. Mr. Frank himself was at the meeting?

Mr. BLICKENSTAFF. Yes, sir. Mr. Ed Lolley, the QC Director. Mr. Jim Hardin at that time the QA Supervisor for DCASO, St. Petersburg. There were two meetings. One Captain Lipscomb was involved in.

Mr. PIKE. We are talking about the meeting of March 18. Did you have reason to believe Mr. Curtin had already discussed this with Mr. Frank before the meeting took place?

Mr. BLICKENSTAFF. I had no evidence of this. I could not say whether it was or not, but I would assume there was some discussion.

Mr. PIKE. So you were overruled on your request for closer and tighter inspection procedures?

You went back to the plant, is that correct?

Mr. BLICKENSTAFF. Yes, sir.

Mr. PIKE. What happened next in connection with your job as quality assurance representative?

Mr. BLICKENSTAFF. There wasn't a heck of a lot happened. My hands were more or less tied. I could do very little. All I could do was sit in the office and sign D–250's.

Mr. PIKE. Who told you that you could no longer continue to inspect?

Mr. BLICKENSTAFF. Well, I wasn't exactly told that I couldn't, but under the circumstances I felt I would let my people, Mr. Ickes and Buddy Hathcock, handle the functions on the floor and I would stay on the floor and answer customer complaints and sign the D–250's.

Mr. PIKE. At any time were you given the feeling you were being reprimanded for having insisted on closer inspection?

Mr. BLICKENSTAFF. Yes, sir, I did and there was a meeting with all DCASO personnel involved, that I was more or less criticized for what I did at Aerosonic.

Mr. PIKE. Where did this meeting take place?

Mr. BLICKENSTAFF. At the DCASO St. Petersburg office.

Mr. PIKE. When did that meeting take place?

Mr. BLICKENSTAFF. I believe it was the following month or so. It could have been in April or May.

Mr. PIKE. What happened to precipitate that meeting?

Mr. BLICKENSTAFF. Well, they usually have a meeting every so often between the quality control representatives and the branch supervisors.

Mr. PIKE. That meeting had nothing to do with a letter which was written with your name on it?

Mr. BLICKENSTAFF. The fact was brought up they didn't want anything like this to happen again that happened at Aerosonic and I assume that was part of the reason the meeting was called.

Mr. PIKE. Continue telling us about the rest of your career as quality assurance representative at the Aerosonic plant.

Mr. BLICKENSTAFF. Well, when I first went to Aerosonic I had found what I had already known prior to my going in there that we were getting many customer complaints.

Mr. PIKE. You had known when you first went there in December 1970, that you were getting many customer complaints. Now, by customer complaints you are now talking about the Air Force?

Mr. BLICKENSTAFF. Customer complaints back from the Air Force, or from various customers that the instruments were shipped to.

Mr. PIKE. What was the nature of the complaints you were getting back?

Mr. BLICKENSTAFF. It varied from workmanship items, that they wouldn't function, loose hardware, broken pivots, broken rocker arms, loose pointers. There were various items.

Mr. PIKE. Can you tell us who the most serious complaints came from?

Mr. BLICKENSTAFF. I would say most of them came from the Air Force.

Mr. PIKE. Did they come from the OCAMA operation?

Mr. BLICKENSTAFF. Some of them came from the OCAMA operation.

Mr. PIKE. Did some come directly from Ling-Temco-Vought?

Mr. BLICKENSTAFF. I don't really recall.

Mr. PIKE. Do you recall any of them coming from Hayes?

Mr. BLICKENSTAFF. Yes, sir. We had gotten some from Hayes on the instruments they had up there testing.

Mr. PIKE. Did you get any from McDonnell-Douglas?

Mr. BLICKENSTAFF. Yes, sir.

Mr. PIKE. Did you get any from the Navy?

Mr. BLICKENSTAFF. Not to my knowledge, because I don't think they were buying the instruments at that particular time.

Mr. PIKE. Keep going in narrative form as best you can about what happened with you and your attempts to control quality at the Aerosonic Corp.

Mr. BLICKENSTAFF. When I went there I had set up a system for controlling the UR exhibits, the unsatisfactory reports, and the exhibits that came in from the field. When the instrument came into receiving-inspection, we looked at the box visually to see if there was any damage. This was documented. If there was any damage or not any damage to the box when the instrument came in. When the instrument was taken out of the box, we inspected it to make sure there was no damage to the instrument, or, if it was, this was documented. Then when the contractor tore the instrument down to verify the discrepancy or to test it to verify a discrepancy, I had someone available at this particular time when the instrument was taken apart. It could have been a loose screw; it could have been a loose pointer. There are various things that could have been wrong with the instrument to cause it.

At this time we determined the responsibility. Whether it was Aerosonic's responsibility or whether it was the customer's responsibility. In some cases it was both.

During my tenure it became known that the responsibility was more on the Aerosonic side than it was on the customer side. This was all documented, the reason and so forth. Whether or not it was a quality responsibility.

Mr. PIKE. What efforts did you make to improve the quality at Aerosonic?

Mr. BLICKENSTAFF. Well, the letter that I issued back in March was one step to try to insure that the unit was being tested correctly; that it was being assembled correctly. These were some of the steps that I'd taken.

Mr. PIKE. After you were reprimanded for having written those letters, did you take any additional steps?

Mr. BLICKENSTAFF. No, sir.

Mr. PIKE. Was there ever a letter sent to your superiors over your signature which you did not sign?

Mr. BLICKENSTAFF. Yes, sir.

Mr. PIKE. Would you tell us about that?

Mr. BLICKENSTAFF. This was a letter; it was on Aerosonic paper that was sent to our regional headquarters in Atlanta concerning some D–250's that the region was requesting. If I can find this letter, I can read it to you for the record.

This letter was sent to the disbursing office in Atlanta, Ga., which is our regional office.

Mr. PIKE. That is the boss over the St. Petersburg office, is that correct?

Mr. BLICKENSTAFF. The region is, yes.

Mr. STRATTON. What is the date of this letter?

Mr. BLICKENSTAFF. March 12, 1971.

Attention, H. M. Rosenberg, captain, U.S. Army.

Received a telecon this morning from our local DCASO office in St. Petersburg stating they had received a call from the Disbursing Office, Atlanta, from someone who in turn stated that they had not received their copies of this attached sub D-250. It would be appreciated in the future whenever Atlanta has reason to call our local DCASO office or my office they identify themselves so that if they request that anything be sent to them we will know to whom, what party or parties to address it to.

Just sending anything to Atlanta office in general, or anywhere else for that matter, increases the chances of it being misrouted or never reaching the correct intended party. This is why I am directing the attached to your attention in the hope that you will be able to dispense them to the correct person.

As stated above, no name was given to me. Your assistance is greatly appreciated.

My name is typed in there as the QAR, Aerosonic, and the name was forged.

Mr. PIKE. When did you first find out about this letter?

Mr. BLICKENSTAFF. It must have been the week of the 12th. I don't know the exact date. I was called down to Electronics Communications concerning something else and when I went in Mr. Carter was there and we discussed a few items and then he laid this letter in front of me. I looked at it and I said, "It is not my signature."

He immediately called Major Fringer and I talked to Major Fringer over the phone about this and I informed him that it was not my signature. I understand that the region had gotten handwriting experts to check this and they were convinced that it was my signature. That is how good the forgery was.

Mr. PIKE. They were convinced it was your signature?

Mr. BLICKENSTAFF. Yes, sir.

Mr. PIKE. Did you do anything further in an attempt to find out where this letter came from?

Mr. BLICKENSTAFF. No, sir. After what happened prior to this, I was a little bit leery to do anything.

Mr. PIKE. Do you know whether anyone else ever checked any further?

Mr. BLICKENSTAFF. We had a visit from Mr. Batchelor, who was the security officer in the Orlando District DCASO office. He came to my office at Aerosonic. We discussed this. Larry Ickes was in the presence of Mr. Batchelor and myself. We discussed this.

The only person we could figure out who signed this was Mr. Joe Lynch, who worked for Aerosonic. He had access to my signatures because he was the one typing up the D-250's that I was signing. Harry Ickes called Mr. Lynch into the office and immediately he admitted that he had signed my name to this letter.

Mr. PIKE. Can you give us your judgment as to why this letter had been sent?

Mr. BLICKENSTAFF. Well, the only thing I can say is, it follows the date of the three letters that I had written.

Mr. PIKE. This letter was not contrived to help you with your career as a quality control supervisor, is that correct?

Mr. BLICKENSTAFF. I don't need that kind of help, sir.

Mr. PIKE. That is all I have, Mr. Chairman.

Mr. STRATTON [Presiding]. I think perhaps we should adjourn until 2 o'clock, but before I do that maybe I wasn't listening closely, but I don't quite get the impact of the letter on you. Is this suggesting that your procedures were just a little sloppy, is that the idea?

Mr. BLICKENSTAFF. To which letter do you refer?

Mr. STRATTON. The one you said did not help you with your career. I couldn't understand the impact of it.

Mr. BLICKENSTAFF. It is the way that the letter was worded. The impression that I got from the letter.

Mr. STRATTON. You were telling Atlanta that if somebody requests something they ought to identify themselves, implying that you hadn't been sharp enough to ask them to identify themselves when they were on the phone, is that the idea?

Mr. BLICKENSTAFF. Yes, sir.

Mr. STRATTON. I didn't know whether there was any more subtle item in there that I wasn't aware of.

Mr. DANIEL. Mr. Stratton, I am not sure I can be here this afternoon. May I ask one question?

Mr. STRATTON. Surely.

Mr. DANIELS. Why, in your judgment, did Mr. Curtin rescind your orders to Aerosonic?

Mr. BLICKENSTAFF. Are you asking for a personal opinion?

Mr. DANIEL. A personal opinion.

Mr. BLICKENSTAFF. I feel that the things that I was trying to do to assure that we were getting a good quality item—and this was one way that I felt we could get this quality item, by going this route, by them letting us know when they do certain things so that we can see the—I really don't know why Commander Curtin rescinded these letters other than the fact that maybe I stepped on somebody's toes by pointing out certain things that were wrong, but I don't know why, for sure.

Mr. DANIEL. Whose toes do you think he thought you were stepping on?

Mr. BLICKENSTAFF. I really don't know. This plant had been in operation for many years and I really don't know. It could go on up the ladder.

Mr. STRATTON. We haven't completed with the questioning of you, Mr. Blickenstaff, but we do have a vote coming up so we will ask you to be back here at 2 o'clock so we can continue the questioning.

[Whereupon, at 12:25 p.m., the subcommittee recessed, to reconvene at 2 p.m., the same day.]

AFTERNOON SESSION

Mr. STRATTON. The subcommittee will come to order.

I have just a few questions.

The document which Commander Curtin sent out rescinding your two previous orders but refusing to replace you, which is number 40 of the exhibits (see appendix 12) sets up a couple of alternate procedures with respect to both the final functional tests and Government inspection prior to casing. He does it on the grounds he says, "While such tests are in progress they may be witnessed by the responsible Government CQ personnel," and he says, "Before that, a daily schedule of units expected to be subjected to the final functional tests has to be issued," and the same way with the casing.

How did those work out as substitutes for your proposals?

Mr. BLICKENSTAFF. In Commander Curtin's letter?

Mr. STRATTON. Yes, the changes he recommends in paragraphs (b) and (c). In other words, he doesn't say that there isn't going to be any inspection, but he suggests that, since they issue a schedule of what is going to be tested daily and at least claims that they issue a schedule of what units are going to be boxed or encased daily, that you can be available to take a look at them even though they don't advise you specifically in each case.

Mr. BLICKENSTAFF. As far as the final functional test lists that the contractor gave us, this was a list of instruments that were proposed to be tested during that particular day. Not in all cases would they test all of these items that were on that list.

I may have one or two of my men in another area of the plant doing something else and wouldn't be able to witness the functional test, so all I asked them to do in my letter was to notify us prior to starting of the test so that I could have somebody there to witness the setup, the hookup and the start of the test.

I stated in the second paragraph on each letter if I didn't have someone available that they could go ahead. I wasn't going to hold them up because I didn't have enough people to cover that particular test.

If you will look at items (b) and (c), item (b), the heading is Final Functional Test. Item (c) is Government Inspection Prior to Casing. If you will read those two paragraphs, item (c) is identical to item (b). The paragraph in item (c) has nothing to do with the heading in paragraph (c).

I would like to point out one thing on my letters that I had written and one of the reasons that they were rescinded. One of the reasons was that the wording was wrong on the letters.

Mr. STRATTON. On your letter?

Mr. BLICKENSTAFF. Right. But nobody told me to rewrite them or nobody rewrote them for me.

Another one was that I had selected the wrong time to write the letters. I don't——

Mr. STRATTON. When did they tell you this—at the meeting in St. Petersburg?

Mr. BLICKENSTAFF. Sometime after that the chief of contracts had told me one of the reasons was that the wording was wrong. The letters could have been worded differently.

Mr. STRATTON. Is this chief of contracts Commander Curtin?

Mr. BLICKENSTAFF. No, sir. He is Fritz Mahaun.

Mr. STRATTON. You are quite right. I hadn't noticed that, that paragraph (c) has practically the same wording as paragraph (b).

Mr. BLICKENSTAFF. To my knowledge those haven't been rewritten. I don't have a copy of the rewrite, if there was one.

Mr. STRATTON. Let me ask you this. These two paragraphs, assuming that the second paragraph had been addressed to the subject that it was supposed to have been addressed to instead of the final functional test——

Mr. BLICKENSTAFF. We have got no list of items that were going to be closed or cased up.

Mr. STRATTON. These purport to outline a procedure which would still permit the Government to inspect these items as you want to inspect them, but wouldn't be quite as restrictive as your requirement.

On the basis of what you have just said—that you had people in other parts of the plant and you never knew exactly when they were going to test—presumably you would have to have had somebody standing at each particular bench throughout the day whether they tested or not, which would have been impossible. The actual impact of this change that Commander Curtin has ordered would be to sabotage almost completely the need for any supervision of these tests or casings. Isn't that true?

Mr. BLICKENSTAFF. I agree.

Mr. STRATTON. I think you said, in answer to Mr. Pike's question, that your own response was to sort of throw up your hands and stay in the office and let the other personnel wander around on the floor.

Mr. BLICKENSTAFF. Yes, sir.

Mr. STRATTON. What was Commander Curtin's exact function?

Mr. BLICKENSTAFF. He was the Chief of the DCASO office.

Mr. STRATTON. He was on active duty then?

Mr. BLICKENSTAFF. Yes, sir.

Mr. STRATTON. This is Defense?

Mr. BLICKENSTAFF. Defense Contract Administration Services Office.

Mr. STRATTON. I see. He was not specifically representing the Navy then? He was representing the Department of Defense?

Mr. BLICKENSTAFF. Yes, sir.

Mr. STRATTON. I don't believe, in response to Mr. Pike's questioning, that he got as far as some of these other items mentioned in the summary that we have before us.

Did there not come a time in November where you apparently still were not satisfied with what was going on and still not willing to see the whole operation sabotaged, that you announced an implementation of more stringent plans with regard to the AAU–19 and the AAU–27?

Mr. BLICKENSTAFF. What I did when I went there——

Mr. LALLY. Pardon me. Look at tab 30 (see appendix 13) Mr. Blickenstaff.

Mr. BLICKENSTAFF. This is the 12th of November. This was the sampling plan that the Assistant Chief of DCASO, Mr. Tabor, came up with. We had discussed this testing on the 27–A's and the 19–A's and decided to come up with a sampling inspection.

Mr. Tabor wrote this, which I believe at that time was not allowed. We were not allowed to implement this. I think we did on one lot, on the 19–A's. That lot passed.

Mr. STRATTON. The purpose of this, I gather, is to try to come up with some other procedure that would in effect keep the Government from getting faulty equipment, even though you weren't allowed by Commander Curtin to undertake the inspection procedures that you wanted to undertake?

Mr. BLICKENSTAFF. That is correct, sir.

Mr. STRATTON. You say that your recollection is that you were not allowed to implement even this order to Mr. Frank.

Mr. BLICKENSTAFF. I think we did on one or two lots. One was on the 19–A's and one was on the 27–A's. I believe the one on the 19–A's, the samples that we had taken, had passed the test. I believe on the 27–A's they had failed the test.

Mr. STRATTON. Do you have any recollection as to who it was who ordered you not to implement this?

Mr. BLICKENSTAFF. I would have to say it would come out of the St. Pete office. I think this gets involved to where the Government had to pay him so much money for this additional inspection. I think this came out of the contract change at a later date after I came out.

Mr. STRATTON. This would be Commander Curtin who overrules it?

Mr. BLICKENSTAFF. It's very possible.

Mr. STRATTON. You don't have any recollection of that?

Mr. BLICKENSTAFF. No, sir.

Mr. STRATTON. We have here in our file a letter from Mr. Frank to Commander Curtin, stating that, "Aerosonic is requesting the termination of all Government contracts immediately." Are you familiar with that one? This is item 31 (see appendix 14), in the file. Let me read it: "The U.S. Government by its unilateral action of denying payment to Aerosonic for work done, illegally placing requirements above and beyond the requirements of contracts, and other similar harassments, have so financially affected our corporation that we can no longer continue our operation under these conditions."

Mr. BLICKENSTAFF. I think this letter was generated as a result of this sampling plan, I believe.

Mr. STRATTON. He also says here at the bottom of the first page, "We are further requesting that DCAS records and personnel stationed at our plant be removed as soon as possible so that Aerosonic can continue its normal operation."

I assume they mean the normal facility operation. Do you recall that? Did that occur? Were you removed sometime after December 3?

Mr. BLICKENSTAFF. Yes, sir. I think it was in the latter part of December. I think the records show that I came out of there on January 2, 1972. But I think physically I came out the middle or the latter part of December. I packed my bags and moved.

Mr. STRATTON. Did you have any further conversations with Commander Curtin?

Mr. BLICKENSTAFF. No, sir. I would like to make a statement, if you don't mind.

Mr. STRATTON. We would be happy to have it.

Mr. BLICKENSTAFF. As a result of the letters that I had written, the things that I had tried to do, there was nobody, but nobody, to sit down and talk to me or who would talk to me about what I did and why I did it. The decisions were made above me. I was not consulted as to why I did what I did, and for any reason at all. The decisions were made at a higher level. I wasn't even questioned, to my knowledge, during any meetings that were held that I attended.

Mr. STRATTON. Would this be because these people knew that you were doing the right thing and, therefore, they realized that they couldn't very well criticize you to your face for it?

Mr. BLICKENSTAFF. I guess I had done something that hadn't been done before.

Mr. STRATTON. I understand also that on December 15, apparently as a result of this letter, the Chief Counsel of DCAS at Atlanta found that, "The inspection procedures were beyond the contract provision, that Aerosonic was entitled to compensation for additional costs and was awarded $18,000."

Mr. BLICKENSTAFF. I am not a legal man, sir. But I don't agree that that should have been done.

Mr. STRATTON. Were you ever consulted by the Chief Counsel with regard to the procedures that were in effect before he made that decision?

Mr. BLICKENSTAFF. Not to my knowledge.

Mr. STRATTON. There was never any discussion?

Mr. BLICKENSTAFF. Not to my knowledge.

Mr. STRATTON. He didn't even try to find out from you what procedures you had put into effect?

Mr. BLICKENSTAFF. Not that I can recall, because St. Pete had all the records, and so forth, of what I was trying to do.

Mr. STRATTON. But you would say that any attempt to suggest that they were being required to perform beyond the provisions of the contract to the extent that they should be awarded $18,000 was completely improper, in your judgment?

Mr. BLICKENSTAFF. I am not a legal man, but I don't agree with that. That is the first time I have ever heard of anything that is being done like this. As far as I am concerned, when a contractor gets a contract, he is obligated to comply with that contract, build the item to the specifications and to the drawings, and he is required also to do whatever is necessary to perform and deliver to the Government a quality item.

Mr. STRATTON. That would certainly seem to be my feeling. I would hate to think that we are going to have inspectors in plants to make sure that manufacturers live up to the requirements and then the manufacturer can have the inspector fired at any time he wants to just because he is insisting on actually inspecting the product. We would be in great shape if that were to occur in very many places.

Mr. Blickenstaff, you were transferred from the Aerosonic plant in January 1972, according to this, and assigned to another plant. What other plant did you go to?

Mr. BLICKENSTAFF. This was Aircraft Borious Media, which was a company that made aircraft filters for the Government and commercial. They were a new company in that area. They moved down in 1969 from New York. I was transferred to this facility and I operated out of this facility. I had other contractors that I covered in addition to Aircraft Borious.

I was at that time, and still am now, what they call a nonresident quality assurance representative. I have an office in one plant and I cover other facilities from a quality standpoint. In fact I have 11 right now.

Mr. STRATTON. You are still a quality assurance representative with DCAS?

Mr. BLICKENSTAFF. Yes, sir.

Mr. STRATTON. And you have been since the time you left Aerosonic?

Mr. BLICKENSTAFF. Yes, sir.

Mr. STRATTON. Have you been promoted since 1972?

Mr. BLICKENSTAFF. No, sir.

Mr. STRATTON. How long have you been with DCAS?

Mr. BLICKENSTAFF. Since its inception. I have 22 years, almost 22½ years with the Government now.

Mr. STRATTON. Twenty-two and one-half years with the Government?

Mr. BLICKENSTAFF. Yes.

Mr. STRATTON. You haven't gotten any promotion since 1972?

Mr. BLICKENSTAFF. No, sir.

Mr. STRATTON. Have you had any reprimand?

Mr. BLICKENSTAFF. Yes, sir. As far as I am concerned, it was a reprimand when I got my performance appraisal during that period of time I was in there. It was one of the worst performance appraisals that I had ever gotten.

Mr. STRATTON. Who signed that?

Mr. BLICKENSTAFF. I don't wish that on anybody.

Mr. STRATTON. Who signed that fitness report?

Mr. BLICKENSTAFF. Ray Carter, who was my supervisor at the time, and Major Fringer, who was the chief of the Quality Division at that time.

Mr. STRATTON. Did they ever discuss this with you at any time?

Mr. BLICKENSTAFF. Yes. Ray discussed it with me the day that he asked me to sign it and I refused to sign it because I didn't agree with it. Prior to this I had gotten almost an outstanding performance appraisal and then I tried to do my job and I get almost an unsatisfactory performance appraisal.

Mr. STRATTON. This is a little disturbing. We are trying to find out what happened with one particular contract. That is disturbing enough, but to find that the Defense Contract Administration Services is punishing somebody for doing his job is even more disturbing. That apparently is still underway.

Have the employees who were in your same relative position and same length of time been promoted or rewarded since 1972?

Mr. BLICKENSTAFF. No, sir.

Mr. STRATTON. I have no other questions. Mr. Lally?

Mr. LALLY. No, Mr. Chairman.

Mr. STRATTON. Mr. Pike?

Mr. PIKE. Thank you, Mr. Chairman.

Mr. Blickenstaff, going back to tab 30, which was this letter of November 12 signed by you to Mr. Frank, you stated that this letter was, as far as you can recall, prepared by someone else. Would you tell us who prepared it?

Mr. BLICKENSTAFF. If my memory serves me right, I believe Mr. Tabor.

Mr. PIKE. Was Mr. Tabor your superior?

Mr. BLICKENSTAFF. Not at that time. He was the Deputy Chief to the Quality Chief.

Mr. PIKE. Was he under you?

Mr. BLICKENSTAFF. No, sir.

Mr. PIKE. I don't understand.

Mr. BLICKENSTAFF. He was over my supervisor.

Mr. PIKE. He was over your supervisor?

Mr. BLICKENSTAFF. Yes, sir.

Mr. PIKE. How did it happen that he didn't sign the letter?

Mr. BLICKENSTAFF. I don't know, sir. I was the QAR in the facility and I was the one to give the contractor anything in writing, so I was to sign it.

Mr. PIKE. Who gave you the letter to sign?

Mr. BLICKENSTAFF. It was written in my office at that time.

Mr. PIKE. By Mr. Tabor?

Mr. BLICKENSTAFF. Yes, sir.

Mr. PIKE. He dictated it to a secretary?

Mr. BLICKENSTAFF. No, sir. It was handwritten out. We worked on it together. He had handwritten it and I had it typed up.

Mr. PIKE. Was this the first document you had addressed to Mr. Frank since the three letters for which you were earlier reprimanded?

Mr. BLICKENSTAFF. To my knowledge this is the only one that I wrote since those letters.

Mr. PIKE. After that?

Mr. BLICKENSTAFF. Yes, sir.

Mr. PIKE. How long was it after you wrote this letter, dated November 11, before you got some reaction from Mr. Frank? Did Mr. Frank ever respond to you for this letter?

Mr. BLICKENSTAFF. No, sir.

Mr. PIKE. To the best of your knowledge, the first response from Mr. Frank went over your head to Commander Curtin by letter of December 3.

Mr. BLICKENSTAFF. Yes, sir.

Mr. PIKE. Did Commander Curtin discuss with you this letter of December 3 that he got from Mr. Frank?

Mr. BLICKENSTAFF. No, sir. He was not in the habit of discussing things with me.

Mr. PIKE. The last paragraph of the letter from Mr. Frank to Commander Curtin says:

> The Aerosonic Corp. also wishes to bring to the attention of the U.S. Government through your office the fact that the U.S. Government does not even recognize that these illegal acts did and are taking place through its failure even to acknowledge a dispute letter dated the 11th of November.

It was the 12th of November that you wrote to Mr. Frank. Do you know what this dispute letter of the 11th of November from Mr. Frank was about or who it was to?

Mr. BLICKENSTAFF. At this time I don't remember what it was about. If I could see the letter I may recall.

Mr. PIKE. To the best of my knowledge I haven't seen it myself. You don't know what Mr. Frank was talking about as far as any dispute letter of November 11?

Mr. BLICKENSTAFF. No, sir.

Mr. PIKE. Mr. Frank wrote to Commander Curtin on December 3, 1971, and once again requested "a termination of all Government contracts as listed by exhibit 'A' effective immediately."

Did you have any conversation whatsoever with Commander Curtin after this letter?

Mr. BLICKENSTAFF. No, sir.

Mr. PIKE. Who told you that you were to be removed from the Aerosonic plant?

Mr. BLICKENSTAFF. If I remember correctly, it came from Mr. Carter, who was my immediate supervisor.

Mr. PIKE. Do you remember when you were first notified that you were to be removed from the Aerosonic plant?

Mr. BLICKENSTAFF. It was in the morning. I had to be out by 4:30 I believe it was.

Mr. PIKE. Can you tell us the date?

Mr. BLICKENSTAFF. It was the middle of December, but I can't say the exact date.

Mr. PIKE. You have been in this quality control business, you said, for 22 years.

Mr. BLICKENSTAFF. I have been with the Government for 22½ years. I have been in quality control around 16 years.

Mr. PIKE. To what extent would you say that the deficiencies of the AAU–19 altimeter and the AAU–27 altimeter were in your judgment, caused by poor quality control as opposed to poor engineering?

Mr. BLICKENSTAFF. I would say it would be a combination of both. I think there is a design problem. I think there was an engineering problem, which I tried to work out with Mr. Frank and the Air Force. I had a meeting on two different occasions with Mr. Frank to discuss trying to get Aerosonic engineering and the Air Force engineering together so that they could solve these design problems that were occurring.

There were engineering problems. There were engineering changes. I asked Mr. Frank if he would work with me and I would try to get the Air Force to give them the assistance that was needed to try and solve these problems. This is the way I operated in any plant.

Through phone conversations that I can remember, I found out that there was so much animosity between the Air Force and Mr. Frank that I just gave up in trying to solve this problem.

Mr. PIKE. Animosity between who in the Air Force and Mr. Frank?

Mr. BLICKENSTAFF. I would say engineering.

Mr. PIKE. Can you give us any names?

Mr. BLICKENSTAFF. No, sir, I can't. Mr. Walter Melnick was the engineer at the time that I was involved in the plant. But I just gave up in trying to solve this particular problem.

There were quality problems, as far as I was concerned. There were problems that were not design problems. There were workmanship problems. As far as the shop itself was concerned, in certain areas it wasn't as clean as it should be to build this type of a critical instrument.

Mr. PIKE. Mr. Squires told us this morning about taking some of these altimeters apart and finding varying components in them. He referred I think to the pivot, for example. Was that as a result of poor quality inspection?

Mr. BLICKENSTAFF. Well, things like this could be from rough handling in the field, or it could be in the plant.

Mr. PIKE. The breakage could be from rough handling?

Mr. BLICKENSTAFF. Right.

Mr. PIKE. But not the difference from one pivot to another.

Mr. BLICKENSTAFF. I would say this is not a design problem.

Mr. PIKE. That is pure quality control?

Mr. BLICKENSTAFF. I would say it is.

Mr. PIKE. I have no further questions.

Mr. STRATTON. Mr. Blickenstaff, Mr. Pike has raised a couple of questions in my mind. You said that this letter of the 12th of November was composed by Mr. Tabor?

Mr. BLICKENSTAFF. Yes, sir.

Mr. STRATTON. And that you and he discussed it in your office and then it was typed up. Is it fair to say that these ideas and proposals are essentially his and that they were modified to some extent to come into line with what you wanted?

Mr. BLICKENSTAFF. I would say that they were Mr. Tabor's ideas. I am not a sampling man. I was taught by the Army and I am not a sampling man.

Mr. STRATTON. Mr. Pike may have been implying this—I want to try to draw the inference, if he was—you indicated earlier that somebody had sent a letter and forged your name to it in an effort to try to stir up trouble. Is it conceivable that somebody might have received a letter from Mr. Frank on the 11th of November, which he refers to as the dispute letter, and that in an effort to create further problems for you this letter was proposed for your signature on the 12th of November? Has that ever occurred to you?

Mr. BLICKENSTAFF. It has occurred to me, but I don't know it for a fact.

Mr. STRATTON. Do you think this is conceivable? Or is it just a wild speculation?

Mr. BLICKENSTAFF. It's just a wild speculation on my part. I don't know. I have no evidence of it being done.

Mr. STRATTON. Somebody tried to give it to you once. The idea of somebody coming in and getting you to write a letter with his ideas and sign it with your name strikes me as a little bit odd. We have a missing letter of November 11.

If there are no other questions, thank you very much, Mr. Blickenstaff, for your time and patience and for your efforts, unsuccessful as they were, incidentally, to assure quality control. I hope to heaven that this is not symptomatic of other portions of the Government's quality control machinery.

Mr. BLICKENSTAFF. I appreciate that, sir.

Mr. STRATTON. Mr. Seay.

[The witness is sworn.]

Mr. STRATTON. Please state your name and position.

TESTIMONY OF GEORGE SEAY, DCAS QUALITY ASSURANCE SPECIALIST

Mr. SEAY. My name is George Seay, DCAS quality assurance specialist at Aerosonic Corp.

Mr. STRATTON. Mr. Pike, do you want to begin the questioning?

Mr. PIKE. Mr. Seay, would you tell us what your role was in the Aerosonic plant?

Mr. SEAY. I was Defense Contract Administration quality assurance assistant.

Mr. PIKE. Your boss normally at that time would have been Mr. Blickenstaff?

Mr. SEAY. No, Charlie Akins.

Mr. PIKE. That was before Mr. Blickenstaff got there?

Mr. SEAY. Right.

Mr. PIKE. Tell us when you first got to this job.

Mr. SEAY. It was March 1966 through December 1970 and then I was out for a year and came back in there, let's see, January of 1972 and left in January of 1973.

Mr. PIKE. In the course of your latter stay there, did you ever find any actions being performed by the Aerosonic Corp. which caused you very seriously to question the validity of their testing procedures?

Mr. SEAY. Yes, sir.

Mr. PIKE. Would you tell us in chronological order, if you can, what you observed in the plant?

Mr. SEAY. All right. If I may, could I read it off this paper?

Mr. PIKE. Of course you may.

Mr. SEAY. On or about February 28, 1972, during case leak, it was − 35° on an AAU–27 altimeter, it was noticed by personnel from the DCAS office—this was myself——

Mr. PIKE. Was that you?

Mr. SEAY. Right. When all units on the board were isolated from vacuum source by pinching off all the hoses, seven units leaked in excess of the allowable specification tolerance.

However, when pinched off singularly, units displayed no case leak. Investigation by the QAA and QAR disclosed a manifold.

Mr. PIKE. That is you and who else?

Mr. SEAY. Charlie Akins. It disclosed a manifold built into the equipment in such a manner as to allow any single unit to be supplied with vacuum source even though pinched off on the outside. When this was brought to the contractor's attention, he disclaimed knowledge.

Mr. PIKE. I don't want you to just read any further. I want you to tell me in your own language what you found. You say you found a manifold.

Mr. SEAY. I found a manifold.

Mr. PIKE. What is that? Explain it to a layman who doesn't know anything about what a manifold is.

Mr. SEAY. It's a vacuum container, if that is the proper nomenclature, which has on the outside of the box that they test the instruments in, it has a single inlet for a vacuum source.

Mr. PIKE. To pump the air out; is that correct?

Mr. SEAY. For the vacuum.

Mr. PIKE. To create a vacuum?

Mr. SEAY. All right. And on the opposite side there were 10 exits for the vacuum.

Mr. PIKE. From which you could attach to each of the altimeters?

Mr. SEAY. Right. A hose was connected. When you do the case leak, you pinch these hoses off and your allowable tolerance is 100 feet per minute. With all of them pinched off, there were seven that displayed over this allowable tolerance.

Mr. PIKE. Seven, out of how many?

Mr. SEAY. Out of 10. I thought I had a recollection. We didn't record the names of the people who were testing, but it seems to me that Clarence Ammons was doing the testing, and somebody behind him, which I remember was Lee Trudel, made a remark that they were testing wrong, that they should only pinch off either two or three lines at a time to check these instruments. This was after the 17th had failed.

I suspected something. I told them to go ahead and run the tests, I wanted to see them. So when they pinched off two or three at a time, there were no leaks. We had absolutely no failures whatsoever. I immediately knew something had to be wrong. So I started to trace the lines and I found an additional manifold built inside, between the outer layer and the inner lay of the box.

Mr. PIKE. What did this additional manifold consist of? Was it a piece of rubber hose or two pieces?

Mr. SEAY. It was a plain copper manifold tank, or what have you, that is on the outside. The only thing is it had 12 inlets and 12 out-

lets or 10, I should say, because I think they originally had 12 and they kept 1 of them plugged off that they don't use.

Mr. STRATTON. Will the gentleman yield to me?

Mr. PIKE. Yes.

Mr. STRATTON. So I can understand this, the basic manifold has the 10 outlets attached to 10 what?

Mr. SEAY. Hoses that go to the units themselves.

Mr. STRATTON. Ten altimeters?

Mr. SEAY. Right.

Mr. STRATTON. And when you close off the seven of them, you said you closed off all of them together?

Mr. SEAY. When they closed all 10 of them these 7 displayed a case leak.

Mr. STRATTON. What do you mean by a case leak? Is that after you had induced the vacuum into the altimeter?

Mr. SEAY. Right.

Mr. STRATTON. And then when you closed off the tube, the altimeter itself leaked, it didn't retain the vacuum. Is that it?

Mr. SEAY. That is correct. And at this point my memory is 30,500 feet. I kind of sketched off something here, I am not an artist, if you would like to see it.

Mr. PIKE. I think it might be useful, even though I don't know how we are going to get it in the record. We will try to elicit in words that which you are giving us in a drawing. You found built into the wall this extra manifold?

Mr. SEAY. Yes, sir.

Mr. PIKE. That should not have been there?

Mr. SEAY. That is correct.

Mr. PIKE. Was it attached to the altimeters which were being tested?

Mr. SEAY. That is correct.

Mr. PIKE. Did anyone beside you and Mr. Akins become aware of this extra manifold?

Mr. SEAY. That is correct, yes, sir.

Mr. PIKE. Who became aware of it?

Mr. SEAY. Larry Ickes, another DCAS QAA, and Buddy Hathcock also from DCAS office.

Mr. PIKE. What did you do?

Mr. SEAY. Well, we called the contractor's test foreman, who was Duane Smith, and let him feel it. Incientally, you could not see this. You had to feel it.

Mr. PIKE. You had to reach into the wall?

Mr. SEAY. You had to reach underneath the piece of plywood they built in and feel from the bottom and the top to feel the manifold. But you could definitely feel the outlets. Mr. Akins personally saw the manifold when they tore the plywood out. I had gone home. It was after working hours when they tore it out.

Mr. PIKE. They did tear the plywood out?

Mr. SEAY. It was removed the next morning when I came in.

Mr. PIKE. Who tore the plywood out?

Mr. SEAY. I have no idea. I was gone.

Mr. PIKE. But Mr. Akins saw, with his own eyes, the extra manifold?

Mr. SEAY. This is what I was informed by him, yes, sir.

Mr. PIKE. By him?
Mr. SEAY. Yes.
Mr. PIKE. And he saw that that evening, is that correct?
Mr. SEAY. That is what he inferred to me.
Mr. PIKE. When you returned the next day, what did you find?
Mr. SEAY. I went back to check the plant and the manifold was gone.
Mr. PIKE. Did you discuss it with Mr. Akins?
Mr. SEAY. I don't recall whether I did or not at the time. Yeah, I I think I did ask him.
Mr. PIKE. Did you sign any piece of paper or did you discuss it with anyone else?
Mr. SEAY. No, sir.
Mr. PIKE. That is all I have, Mr. Chairman.
Mr. STRATTON. Did you report it to any of your superiors?
Mr. SEAY. Well, Mr. Akins is who I report to.
Mr. STRATTON. He was with you, was he not?
Mr. SEAY. Well, not in the beginning. I went to the office and got him and brought him to show him the manifold or have him feel the manifold. He in turn had the other two people from the DCAS office do the same.
Mr. STRATTON. There was no question about the fact that he was aware of the duplicate manifold?
Mr. SEAY. That is correct.
Mr. STRATTON. Was there any question about the fact that this was an improper procedure?
Mr. SEAY. In my mind, yes, sir.
Mr. STRATTON. Would there be any question in the mind of anybody who was reasonably conversant with the way these tests were conducted?
Mr. SEAY. I would not think so, no.
Mr. STRATTON. So the responsibility of taking any further action with regard to this would have been Mr. Akins' responsibility?
Mr. SEAY. That is correct. By the way, this is his letter to management downtown that I was reading from to our downtown office.
Mr. STRATTON. Do we have that in the record, Mr. Lally?
Mr. LALLY. Yes.
Mr. SEAY. I think Mr. Warren or somebody made a copy of it.
Mr. STRATTON. There was also another individual, Mr. Duane Smith, the Aerosonic test unit foreman. Was he also called to examine the manifold?
Mr. SEAY. Right, this is correct.
Mr. STRATTON. He is an employee of Aerosonic?
Mr. SEAY. I think that he is not as of this date. He was at the time.
Mr. STRATTON. I mean at that time he was an employee?
Mr. SEAY. Yes, he was. He was the foreman in the test unit there.
Mr. STRATTON. Where did this incident actually occur?
Mr. SEAY. In the test section where they normally tested the 27–A's.
Mr. STRATTON. This incident occurred on February 28, did it not?
Mr. SEAY. That is correct, yes.
Mr. STRATTON. Was there any followup on that in any way that you know of?
Mr. SEAY. Not as I know of. I believe that this fell in that time-frame when Charlie was asked not to give any corrective action to the contractor unless it went through the downtown office.

Mr. STRATTON. What was that, not to give any action?

Mr. SEAY. A corrective action document to the contractor until it had been cleared through the downtown office. I am thinking that it was in this timeframe.

Mr. STRATTON. I am not sure that I understand your words; are you saying that he had been told not to be critical of the contractor without first checking with the downtown office?

Mr. SEAY. Well, normally the QAR, in cases like this, would issue a contractor a quality deficiency report. Due to Mr. Blickenstaff's problem, Charlie had been—this is his message he relayed to me—he had been told not to issue the contractor any corrective action reports without first clearing them with the downtown office through his supervisor, and on down the line, I guess.

Mr. STRATTON. In other words, he had a kind of kid glove treatment directive?

Mr. SEAY. I would say so, yes.

Mr. STRATTON. Would you regard this action, inserting an improper device that would have the effect of covering up a leak, as being just a matter of inadequate quality control?

Mr. SEAY. I don't know exactly how to put that.

Mr. STRATTON. It's a little more than that, isn't it?

Mr. SEAY. Yes. I would think so.

Mr. STRATTON. Isn't that an attempt to influence improperly the results of that test?

Mr. SEAY. That is correct.

Mr. STRATTON. Did you recognize it as such yourself?

Mr. SEAY. Well, I did, yes, sir.

Mr. STRATTON. Did you have a feeling that Mr. Akins was aware of that fact, too?

Mr. SEAY. I would think so, yes.

Mr. STRATTON. I understand that on the 9th of March you had another occurrence that cast some doubt over the effectiveness of the quality control at Aerosonic. Could you tell us something about that?

Mr. SEAY. It was on the 10th of March. I was witnessing tests. We were coming down scale and at the 35,000 foot test point the instrument indicated an out of tolerance of 10 feet. The person performing the test, Mr. Benmayor, was present at this. By the way, Benmayor, vice president of the company, was sitting there. The test operator hesitated to write the reading down. He didn't know what to do with both Mr. Benmayor and me there. Finally, he turned around and looked at Mr. Benmayor and Mr. Benmayor told him to record it as 150 feet. And it was reading 160, what I would call a good solid 160 feet. If anything, it would be between 160 and 165.

Mr. PIKE. Would the gentleman yield?

Mr. STRATTON. Yes.

Mr. PIKE. By 160 feet you mean it registered 160 feet different from what it should have been registered?

Mr. SEAY. No. Your allowable tolerance would be 150 foot. It read 160, which was 10 foot beyond the tolerance.

Mr. STRATTON. That was off from the 35,000 feet that it should have registered, but you are allowing 150 feet?

Mr. SEAY. That is correct.

Mr. STRATTON. Who is Mr. Benmayor?

Mr. SEAY. Vice president of Aerosonic Corp.

Mr. STRATTON. He is the one who told him to put it down as 150?

Mr. SEAY. He told him to record it as 150.

Mr. STRATTON. What did you do?

Mr. SEAY. I just told him that, all right, to give me the number of the units and I would make sure that it didn't get shipped.

Mr. STRATTON. I am sorry, I didn't get the last part.

Mr. SEAY. I told him to give me the number of the unit and I would make sure that it didn't get shipped. To this, he had a temper display and he told me that he had never liked me and for me to leave the plant.

Mr. STRATTON. You mean you were supposed to be harassing him by suggesting they ought to write down the exact figure instead of some other figure?

Mr. SEAY. Evidently.

Mr. STRATTON. Then what did Mr. Benmayor do after that?

Mr. SEAY. I informed him that he meant nothing to me and that I took my directions from Charlie Akins and if he would like for me to leave the plant to contact Charlie and if he said so I would leave.

He had Duane Smith again, the test unit foreman, call Charlie. Charlie asked me to go in the office and he would watch the remainder of the test. The unit failed at two other test points while he was watching.

Mr. STRATTON. In other words, Mr. Akins told you not to continue to watch the tests but let somebody else watch them?

Mr. SEAY. That he would watch them.

Mr. STRATTON. This eventually got to Mr. Frank, as I understand it.

Mr. SEAY. Yes. Mr. Frank was coming down the hallway. I was sitting in the office and I was writing a memo to the effect as to what had happened. He came down the hall and I stopped him and referred it to him and told him what had happened. Consequently, Al Benmayor came in there and Mr. Frank, I don't recall the words, but he admonished him to a certain point. He told him he didn't think what he had done was right.

Mr. STRATTON. Did he apologize to you for what Mr. Benmayor had done?

Mr. SEAY. Mr. Frank did, yes.

Mr. STRATTON. Subsequently, on the 24th of March, something else occurred in connection with quality control.

Mr. SEAY. All right. I don't know whether I have that. Was that——

Mr. STRATTON. With regard to the AAU–19 altimeters that were under test.

Mr. SEAY. Witnesses in resetting altimeters, I was present. The four of us that I had previously mentioned, Larry Akins and Buddy Hathcock and Charlie Akins and myself, were standing in the test area and Mr. Frank was talking with us. And all of us were noticing that two people over at the box and one person was resetting the instruments. This was between the tests, the environmental tests.

Mr. Frank noticed that we were watching them and he turned around and saw what they were doing and he scolded them and asked them didn't they know they weren't supposed to do that. And he stopped them.

Mr. STRATTON. I understand that you had a conversation with a for-

mer employee of Aerosonic at one point who had had some experience along this line. Could you tell the committee about that?

Mr. SEAY. I was discussing this with Mr. Warren. I can't even spell his last name. I know his first name was Will and he worked at Aerosonic a short period of time before I left for the year I was gone and when I got back he wasn't working there and I ran into him in a shopping center. We were talking. I asked him why wasn't he working at Aerosonic any more and he said, Well, he just didn't like what went on.

I am not sure of the exact wording, but I took it to mean he didn't like being a watchdog for Government representatives.

Mr. STRATTON. Watching for Government representatives?

Mr. SEAY. Yes.

Mr. STRATTON. Do you mean to make sure there weren't any around when these tests were going on?

Mr. SEAY. I really don't know what he was referring to. I didn't push the point because it had happened months before and the only thing that alerted me to it was to just look closer in the test area.

Mr. STRATTON. You ran into this fellow before these events we have discussed or after?

Mr. SEAY. I couldn't put a timeframe on it, but I am sure it was after the resetting of the instruments; I feel pretty certain of that.

Mr. STRATTON. Thank you.

Mr. PIKE. Do you know the names of any of the Aerosonic employees who were resetting the altimeters?

Mr. SEAY. Howard Francis was the production foreman. He was the one actually doing it.

Mr. PIKE. He was the foreman and he was the one who was actually doing it?

Mr. SEAY. That is correct.

Mr. LALLY. Precisely what was Mr. Francis doing to the instruments at that time?

Mr. SEAY. Just readjusting the zero setting as previously discussed and the specification definitely states there will be no adjustment to the instrument after tests have been initiated.

Mr. LALLY. You say you thought there were two men there. Do you know who the other man was?

Mr. SEAY. I think Neal Stellmach was the other.

Mr. LALLY. What was his position with the corporation?

Mr. SEAY. Production foreman also.

Mr. LALLY. Did they have any business in the test area?

Mr. SEAY. According to Mr. Frank, they evidently didn't because he gave them a letter indicating they would not do this anymore because it was a quality responsibility.

Mr. LALLY. Thank you, Mr. Chairman.

Mr. PIKE. How about a Mr. Hatchcook, was he there?

Mr. SEAY. Yes, sir.

Mr. PIKE. He was part of the quality assurance group?

Mr. SEAY. Yes, he was quality assurance assistant, yes.

Mr. PIKE. He witnessed this as well?

Mr. SEAY. That is correct.

Mr. PIKE. Thank you very much, Mr. Seay. We appreciate your testimony.

The next witness will be Mr. Charles Akins.

[Witness sworn.]

TESTIMONY OF CHARLES AKINS, DCAS QUALITY ASSURANCE REPRESENTATIVE

Mr. PIKE. Mr. Akins, how long were you the quality assurance representative at the Aerosonic plant?

Mr. AKINS. May I give you a narrative?

Mr. PIKE. We would appreciate your giving us a narrative version of your career at Aerosonic.

Mr. AKINS. I will attempt to, off the top of my head without a prepared statement.

Mr. PIKE. Go ahead.

Mr. AKINS. I first entered the Aerosonic plant in August, 1964 as QAA. Subsequently promoted on a retirement to QAR with primary responsibility, 1967, the middle of the year. I won't venture a date.

I was well cognizant of the beginning and the end of the AAU–19 contract; well cognizant of the 27–A contracts for both the primary and secondary. With the exception of the calendar year 1971, where I was removed from the plant for reasons unbeknown to me, and Mr. Blickenstaff took over my duties and I took over the duties that he now has.

In the calendar year 1972 or between Christmas and New Year's, 1971, we started a cross-training period between the two QAR's to familiarize him with the contractors that I had picked up or deleted from his nonresident job now and he familiarized me with what was going on at Aerosonic.

From that time forward it was very interesting because in that timeframe I was informed by the commander of DCASO at that particular time, Commander Curtin——

Mr. PIKE. What was this particular time?

Mr. AKINS. December 1971.

Mr. PIKE. Commander Curtin advised you what?

Mr. AKINS. Commander Curtin told me, Mr. Tabor, who had subsequently been made a branch chief sometime during this timeframe, he had been made branch chief, rather, than deputy quality control chief; Major Fringer, who was quality control chief at that time, were in Mr. Curtin's office and he pointed his finger at me and stated "Charlie, you are going back into Aerosonic. You will not issue this man"—speaking of Mr. Brune—"anything in writing that does not pass through this office."

Gentlemen, I was thrown into the middle of a fight with both hands tied. We are a fairly tight-knit organization. That is the floor level as we like to say, quality people, we know of problems that other QAR's have. To try to learn by each other's mistakes.

I was not in a good position, I didn't feel like. However, he was chief DCASO and I was a subordinate. I went into Aerosonic Corp. for the second time.

Immediately after I got to Aerosonic Corp. the second time, the—well, if I may use the vernacular, it began to fall apart and I have some notes here. You have copies of this, but I know where this it at, and not in there.

On 24 February—now, I had been in there about a month—upon a review of some records, it was not on 100-percent inspection. I was on the inspection concept of 50 observations once a week, which is—

DCAS at that time was operating under the policy of Government inspection disengagement from the contractor's inspection. The contractor decision verification. You verify the contractor's decision by looking at the records, et cetera.

On the 24th of February it was noted during the review of the records that two groups of 27–A altimeters—this is AAU–27–A altimeters I am speaking of—produced by Aerosonic had been recorded on that date as run minus 35° C and 45° C hot. Cold and hot in that order.

A noted entry was made on the call sheet—as I call it; that is a term—the sheet that Mr. Blickenstaff had generated where the contractor would notify him of tests to be performed. It was not entered on that sheet. That sheet still is in existence, gentlemen. It has never been removed.

Several of Mr. Blickenstaff's good quality procedures that he instituted during his year are still in effect at this time.

No tests were to be performed according to the sheet in my office, Cold test was noted at 1045 hours, on the 24th day of March, and then the sheet hot test was run at 1325 hours; I questioned the reading time on these altimeters but Mr. Benmayor is the vice president and he stated that he, himself, had run the hot test the night before. The 25th of February.

Further questions on the same test brought a response from Mr. Benmayor that he did not run the cold test. A representative of my office at that time had been in the final functional test area since 0650 hours, the 24th of February, 1972, because the contractor started work at 0700 hours on another instrument in production at the same time as the 27–A was being tested. It is still in test also but he was in there for that reason.

Until 1045 hours a.m., on the 24th, no cold test had been done. Gentlemen, remember, I was on one shift operation as far as testing was concerned. Prior to this time I had had all kinds of difficulty with trying to spread the troops that I had at my disposal—that is, Mr. Seay, Mr. Hathcock and Mr. Ickes—over the contractor's testing schedule. I instituted odd hours, we call them, from one QAA, coming in at 7 a.m., another coming in at 7:30, another coming in at 8:00 o'clock with me. We went home at 3:30, 4:00 p.m., and 4:30, to try to cover up as much of the contractor's day as we possibly could because the contractors stayed long after we went home.

Mr. PIKE. Do you mean cover up, or do you mean cover?

Mr. AKINS. I mean cover the entire day.

I even went so far as to go to odd workdays and put a man on the afternoon shift to witness the tests required, or to be in the plant while testing was going on and immediately that I would assign the man to the second shift operation, the contractor would decide that he no longer needed to test on that shift, that he was up to date with his delivery schedules enough that he could knock off second shift testing. And I would have to put that man back on the day shift. This was a constant harassment to my supervisors.

Mr. PIKE. What you are saying is that every time you asked somebody to be present at a test that you had been notified would occur they would cancel the test?

Mr. AKINS. If it was on the second shift, yes, sir. My people would be on there expending overtime with nothing going on.

To go back to where I was before, no cold test had been run by Aerosonic. I will pick it up from right there.

Subsequent retest was conducted for me at my insistence on the two groups of 27–A altimeters that the test results, that I couldn't establish who had run the test results, and the cold test minus 35 degrees centigrade, 13 units, caused five units to be rejected on retest—out of tolerance.

The hot test on 75 degrees centigrade of 7 units, four were rejected. A total of only four units that I felt in my judgment—and it was a judgment call—could be delivered under the contract.

The tests were rerun to assure acceptability. I would not accept the unit until it was rerun and I so stated to the contractor that I would withhold signature if he put it in there.

This was reported to my immediate supervisor, Mr. Reece Tabor at that time, by a telephone conversation, and his remarks to me—and I still remember, and I remembered it all during 1972 by the way: "Charlie, for God's sake, document it."

I could only go to the contractor verbally under orders I had just been issued in December, just past.

Then on thhe 28th of February there was a cold test minus 35 degrees centigrade.

Mr. PIKE. Let's stop right there. When he said document it, he meant put it in writing?

Mr. AKINS. Not put it in writing to the contractor, no, sir.

Mr. PIKE. What did he mean?

Mr. AKINS. Dates, times, places, and numbers, for my own record and for his.

Mr. PIKE. And you did that?

Mr. AKINS. Yes, sir, I did.

In fact the whole document of what happened in the February-March timeframe was transmitted to him in my rough draft on the 15th of March, 1972.

On the 28th of February, Mr. Seay of my office, noticed when all the units were isolated from a vacuum source—and you have been through this with Mr. Seay; I see no use in repeating it, but I will add to Mr. Seay's testimony here if I may.

Following Mr. Seay's discovery and my hands feeling the unit behind the plywood—with Mr. Hathcock and Mr. Ickes and Duane Smith, then testing foreman at Aerosonic, present—I caused Mr. Smith to pull the plywood off of the box and pull back the styrofoam insulation. I found a two-inch copper cylinder with 24 outlets around the diameter of the cylinder inside the test chamber wall with hoses running from the outside chamber, which is a surge source to the hookup that goes to the altimeter, which is built into the inside wall. It is a straight-through connection. Inside that box there were 20 connected hoses and two hoses connecting two points together, which made a total of 20 live connections on that one cylinder.

The next morning——

Mr. PIKE. There wasn't any question in your mind about what you saw?

Mr. AKINS. No, sir.

Mr. PIKE. There wasn't any question in your mind about what it was there for?

Mr. AKINS. I knew what it was.

Mr. PIKE. Any you knew what it was there for?

Mr. AKINS. Yes, sir. It is readily apparent to any man who has been in the instrument business since day before yesterday—and I would like to put mine that way—what the cylinder was there for. If it was used properly, it would not cause any problem whatsover. That is to pinch off every hose on the outside all at the same time. But any one hose left unpinched on the outside to stop the vacuum source would supply vacuum to all the other instruments on the board.

Mr. PIKE. And the result of this extra installation would be that altimeters which in fact had case leaks would indicate no case leaks?

Mr. AKINS. That is right, sir.

And when this was brought to the contractor's attention, Mr. Benmayor disclaimed any knowledge of the manifold being in there whatsoever.

I talked to him on the date it was discovered before I saw it with my own eyes. He disclaimed any knowledge. However, on the 29th of February Mr. Seay went into the area at 0700 hours at the time the contractor went to work to test and the manifold was gone. He came immediately back to the office. It couldn't have been more than 0705—I am one wall removed from the test area; my office faces one wall and then the test area is just over the wall—I walked around the corner, walked into the test area, not more than 5 minutes elapsed and the manifold was indeed missing from the equipment. The outside manifold was hooked directly through to the inside of the box and thence to the altimeters. Which is, in my opinion, the proper manner.

Mr. STRATTON. When you pinch these lines off, where do you pinch them?

Mr. AKINS. You pinch them any place between the third manifold—that is my own term for that—the third manifold on the outside, and the instrument itself.

Mr. STRATTON. Now, in order for this phony manifold to work, you would have to have it continuing to supply vacuum to these altimeters even though one line had been pinched off, right?

Mr. AKINS. It still would supply vacuum to all the instruments on the board.

Mr. STRATTON. If the line to the altimeter goes from the first manifold to the second manifold, to the altimeter and you pinch it off beyond the second manifold——

Mr. AKINS. You are in good shape.

Mr. STRATTON [continuing]. The second manifold isn't going to do any good, is it?

Mr. AKINS. That is right, but you would have to go inside a cold test chamber at minus 35° centigrade, which would freeze up the box so that you couldn't even read the altimeter. Immediately you open that sealed chamber.

Mr. STRATTON. What I am saying is, in order for this thing to—as a practical matter, they must have pinched them off right by the first manifold source?

Mr. AKINS. That is where they were pinched off.

Mr. PIKE. Go on from there and tell us what you did about this situation.

Mr. AKINS. My supervisor, Mr. Tabor, was apprised of this situa-

tion and I got the same response I got from the first situation. "Charlie, for God's sake, document it."

This time I told him, "Mr. Tabor, this is serious. Should I write a QDR or do you think we better leave it alone for right now?"

He said, "Give him just enough rope and then we will write the QDR," and he was speaking in this term of not me but some other gentleman we have under discussion.

On the 9th of March, 1972, one of the QAs that works for me, looking at 27–A altimeter tests, which were undergoing 100 percent inspection in a descending direction at 12,000 feet noticed one test point was recorded by Aerosonic recorder as 90 feet error. The maximum allowed at that point. The QAA, Mr. Buddy Hathcock's reading was 105 feet, which was passed by Mr. Hathcock due to possible QAA reading error. Reading error, gentlemen, is the difference you see in that point looking at it straight on and looking at it like that [indicating]. He was not standing directly behind the Aerosonic reader, and I mean directly over his head to where he could see directly into the face of the instrument so he passed it because he was standing kind of to one side and he was hesitant to call it 105 feet possibly QAA reading error parallex; however, on the 10th of March, 1972, Mr. Seay was witnessing the same test, minus 35° centigrade, coming down scale at 35,000 feet; 150 feet was recorded. The actual reading was 160 feet—beyond the 150 feet.

Gentlemen, this altimeter is marked in 50-foot increments. Anything behind three lines on that altimeter up there is over 150 feet; 150 feet right dead on the line is the tolerance. It was beyond the 150-foot mark and it was recorded as 150 feet though the QAA read it as 160 feet.

Then you are aware of the confrontation that took place between Mr. Benmayor and Mr. Seay and my actions at that time as regards to Mr. Seay: "Please go to the office and I will continue to read."

Mr. Benmayor again stated to me right at that point that George was to leave the plant and I called him by his first name. I said, "Al, there is no way. He still works for me."

He said, "Well, I told my people when it is 10 feet out to read it in."

I said, "Al, you know better than that and I do too. They don't go by me."

And he threw that same altimeter out for 2 points out of tolerance further down the scale. The billet number on that altimeter was 1492.

At 1530 Mr. Seay was supposed to have already gone home. We had a meeting of all concerned in my office. There were some mighty hard words passed in that conversation. I didn't record them all, but the outcome of that conversation was that Mr. Seay was still aboard. He didn't go home and he didn't go to the office.

Again Mr. Tabor was informed by telephone the next morning as to what had taken place and again I got the same admonishment: "Charlie, for God's sake, record it."

That I did.

During and subsequent to the above happenings, Mr. Frank and Mr. Benmayor were constantly either in my office or had me in one of theirs by request, insisting and using strong words of request that the test witness in this final test area cease. I repeatedly pointed out to these two gentlemen—the contractor—to the letters of delegation received by me from the purchasing office, the letters of instruction. We call them QALI's, quality assurance letters instruction, of the type

and amount of inspection that would be performed by my office. I had no recourse. I had defects in the system that I had caught. I could not request that the man come off of 100 percent inspection. Not in my best judgment.

The 14th of March 1972, the contractor called a meeting between me and Mr. Benmayor and—I don't remember anybody else being present—in order to discuss Mr. Ickes' sealing of the 27–A altimeters which was to go into test. The contractor present, Mr. Frank strongly requested authority in my office to seal these units. Having no recourse under the contract or specifications to seal these units, I discontinued this sealing and the practice of this sealing—for an aside, gentlemen—the practice of this sealing was started by my office and my people by questions raised from the representatives of the security agency, an engineer, Mr. Philip Marshall, who has already been in this room, as to why instruments of this type, 27–A's, were not sealed and they were undergoing First Article and prototype testing under this contract. It was a continuing thing.

They questioned me as to why they weren't sealed. Immediately Mr. Frank agreed to seal the prototype and First Article units. However, he raised all these strong objections on the 14th of March about me sealing the units. They were going into sampling plan A tests. I had no authority contractually or in the specifications to do other than discontinue. The instruments still, even though undergoing tests, still belonged to him at that point in time.

At that point in time and in my letter to my supervisor—and I think you have copies—I stated to him that I could no longer attest to the validity of the tests through sampling plans A and B. I think at that point in time my reasons were obvious, as I have testified here.

On the 24th day of March 1972, I took the bit in my teeth and wrote a QDR, the subject of which was the AAU–19A altimeter testing specification DOD AIMS, 64,101–B in which I stated that I had observed—it was observed by other representatives, more than one, of our office—that the Aerosonic production foreman was readjusting AAU–19–A altimeters between test temperatures in violation of the standard test conditions, paragraph 6.3.G of the specifications: "Except as noted herein, no adjustments will be made to the altimeter after the initiation of testing."

Gentlemen, these instruments had just completed room temperature tests, were standing in the chamber during a 6-hour waiting to go into the cold test. The testing had been initiated.

I asked for corrective action as to cause and that corrective action as to cause would be verified by my office and it is so stated in paragraph 3.

I had this document initialled by all those that observed, as Mr. Seay has testified, the three QAA's, and, of course, I signed the document. I initiated it and I signed it. I immediately called Mr. Tabor and told him that I had written a QDR and I was delivering it to him and I read the QDR to him over the phone.

At that same time, the same day, upon telephone request from Mr. Tabor, not to submit this QDR to the contractor, per the Commander DCASO—he says, "I have talked to the Commander and you are not to give that to the contractor, send it to me." and I did, with a letter.

Mr. PIKE. Who was the Commander DCASO?

Mr. AKINS. Commander Curtin.

And I covered it with a letter, my own narrative.

A meeting was held between Mr. Frank and QAS. I am a QAR, however, my job description states, "Quality Assurance Specialist." A meeting was held between Mr. H. Frank and the QAS in which he was advised of the above.

Now, Mr. Frank was standing there. He knew it went on but I went to him and I told him that this won't go. Stronger than that, but that was it essentially.

Mr. Frank told me that action would be taken with the foreman involved and the QC department would take over the setting initially of the AAU–19A's.

On the 27th of March 1972, in response to my verbal contact, Mr. Frank, over his typed signature with a copy to me, addressed a communication to Mr. Ed Lolley—Edward J. Lolley, Director, Quality Control—Howard Francis and Neal Stellmach, the subject "Inspection of 19–A"—that is, AAU 19–A units—as follows:

Effective immediately in accordance with proper quality control procedures, no production people are to touch any 19–A altimeters brought in for inspection. If any adjustments are needed, quality control will make those adjustments.

May I interject a point here, please. If an altimeter has failed to test by a minute number of feet during all the testing it goes through, if it is in the scale error range, it is permissible for the contractor to pull that unit out, reject it, reset it barometrically and run it through all the tests again to determine if he can, by biasing zero within the tolerance line, bring it in all the way down. Now, this is permissible under the specification.

In this memo he had reference to any adjustments being made to the altimeter, that it would be done by the quality control department and not the production foreman.

Immediately after this time—from this time until the 12th of April 1972, the QAA's in my office would—after finishing an altimeter test on the AAU–19A—make a casual observation of where the pointers were alined at the end of test. Sometimes there would be a difference between the pointer alinement, either plus or minus, of 250 feet.

The next morning when we would go in to run the next test in sequence, all the pointers would be in appreciably the same place. Wherever the barometric pressure is for the day. But they would all be appreciably in the same place. This was noticed several times. It began to get to be a source of aggravation more than anything else to me at that time because I hadn't noticed it. I had UR problems. I had visitors from Wright-Patterson Air Force Base and OCAMA. Constantly throughout this period we have been going to one of these test situations that have been attested to, test units—it was all going on in this timeframe.

However, on the 12th of April, or just prior to the 12th of April, I, myself, went out and took a reading just before I went home at 4:30 in the afternoon of the altimeters. The next morning I came in and they were all, sure enough, lined up. Each in the same reference place on the altimeter face.

That day I asked Mr. Buddy Hathcock—James L. is his full name—to meet me at the plant the next morning at 6 o'clock when the gate opens. We can't get overtime, but I told him I would give him an hour

early off if he wanted it if he would meet me at 6 o'clock to see what is going on. I had been doing a lot of reading and had determined from some source of reading that the testimony of two men would establish a fact so I asked Mr. Buddy Hathcock to come and go with me.

He met me and we came in the gate at--I got there about 6:02 and Mr. Hathcock was already there and had parked. I came in and I saw a familiar vehicle already in the parking lot beside Mr. Hathcock's. He was waiting for me at the door. We went in the side door of the plant and walked directly across the plant to my office. Between my office and the test area there is a half-glass door. At 6:05—and I looked at my watch, gentlemen, when I walked up to that glass door—I observed Mr. Neal Stellmach in the process of adjusting AAU-19A altimeters between cold and hot test. Now, they had 6 hours of hot environment at this time. This does not hurt the altimeter to open the box and close it back as long as the temperature of the equipment does not drop below 45° C. He was in the process of adjusting the AAU-19A altimeter. We stood there and observed Mr. Stellmach adjust three altimeters that were on that board.

Gentlemen, I couldn't even speak, I was so angry.

We went immediately into my office, which is next door, as I stated before, and I said, "Buddy, we might as well let Mr. Stellmach know that we have seen him."

We went to the glass door, opened it and walked into the test area and said, "Hey, Neal, what are you doing?" He gave us some sort of answer, but, gentlemen, I cannot for the life of me recall those words because of my anger at that particular time. I recorded that on a QDR dated the same day, April 12, 1972, in rough draft form. I referenced a verbal conversation from the previous QDR that I was not allowed to present to the contractor and a memo from his office dated March 27, and practically restated the previous QDR. However, I added to that one that at 0715 hours the same day QC department personnel concerned with the tests of the same five altimeters continued it.

"Aerosonic control numbers were"—and I have them listed on the QDR.

Gentlemen, Mr. Tabor hit my office, when this thing hit downtown. We speak of downtown as St. Petersburg. When he got this—and it was typed—he brought it out for my signature and it was on the 17th of April. I got a response from Mr. Lolley that personnel involved are apparently not fully aware of the seriousness or the consequences of such actions. I rejected that corrective action. I received a memo from Mr. Frank—a copy of a memo from Mr. Frank, interoffice correspondence addressed to Neal Stellmach and Howard Francis, dated April 13, 1972:

"The next time you are near by production test equipment or found touching any production testing equipment under test by our quality control, you will find yourselves out of jobs.

And this is signed in longhand, H. J. Frank.

I called Mr. Tabor when I got the last corrective action and I told him, "Mr. Tabor, I cannot accept this as corrective action." I said, "The defect has not been corrected. It is a systems defect and it has not been corrected." When I read him the corrective action, he came immediately to my office on the 17th of April. He was there at 10 minutes after

8. He called Major Fringer, the Chief of DCASO at that time, with a request for guidance on this corrective action, as to cause.

Major Fringer stated he would contact the Chief of DCASO and call us back. I read from a handwritten note which I have signed. At 9:20 o'clock the same morning, 1 hour and 10 minutes later, Mr. Tabor called Major Fringer and after a conversation with the major—of course, I could only hear one side—he instructed me to consider the corrective action adequate. This was my direct supervisor talking to me. I requested permission to go over his head and contact Major Fringer and this was denied.

Gentlemen, I went on record at that time in front of his best supervisor. The statement is, "The undersigned QAR at Aerosonic by assignment, DCASO, St. Petersburg, is on record of nonconcurrence." The QDR has yet to be closed.

Mr. PIKE. Mr. Akins, I think that is a very fine narrative statement of the actions which you took. I do want to ask you some questions.

Of all the things that you observed in the quality control deficiency at the Aerosonic plant, would you not deem the extra manifold to be the most severe?

Mr. AKINS. No, sir.

Mr. PIKE. You would not?

Mr. AKINS. No, sir.

Mr. PIKE. Why not?

Mr. AKINS. Because a case leak will come back to you as a field reject. Immediately it is installed in the aircraft the entire system will leak.

Mr. PIKE. Didn't this manifold, however, mean that every altimeter going out of that plant, whether it was going to have to be later rejected in the field or not, was going to go out with the approval of the people there as having no case leaks?

Mr. AKINS. Prior to the discovery of the manifold that would have been the case, yes.

Mr. PIKE. But there it was and it was discovered?

Mr. AKINS. That is right.

Mr. PIKE. Did you ever write a quality deficiency report on that manifold?

Mr. AKINS. No, sir, I did not.

Mr. PIKE. And was that because of the guidance which you had gotten from Commander Curtin when you first went there?

Mr. AKINS. Relatively strong guidance, yes, sir. A direct order.

Mr. PIKE. And as to the situation where the hot and cold test, February 24, 1972, had not, in fact, been performed, did you write a quality deficiency report on that?

Mr. AKINS. No, sir, I did not.

Mr. PIKE. Again for the same reason?

Mr. AKINS. Yes, sir, but because of the lack of ability to follow the procedures that we were operating under in those days, which is, verbal contact with the contractor on the first discovery of a discrepancy. The second discovery——

Mr. PIKE. Was this procedure ever put in writing?

Mr. AKINS. Yes, sir. This is part of the DSA manual. Verbal contact with the contractor is method A. Minor deficiencies in the product.

Method B corrective action is a letter to the contractor's quality control department delivered by the QAR in writing. A QDR.

Mr. PIKE. Just a moment. You would not call a certification of having passed 13 units on hot and cold tests when in fact there had been no hot and cold tests a minor deficiency?

Mr. AKINS. No, sir, that was a QDR type deficiency. In my judgment it was.

Method C corrective action is a letter to the contractor's QC management. These corrective actions were taken away from me at this point in time, sir, by direct order that I would not issue anything to this man in writing.

Mr. PIKE. I want to go back to a period much earlier than 1972. By 1972 the Wright-Patterson people knew that the altimeters didn't work. By 1972 OCAMA knew that the altimeters didn't work, and I want to ask you whether most of the altimeters which were produced at that plant were not produced during the period that you were the QAR at the plant?

Mr. AKINS. Most of those altimeters—now, I don't have a chronological order of delivery. There were several hundred produced up until December 1970.

Mr. PIKE. When you left?

Mr. AKINS. When I left, and there were several units delivered from January through termination, 1972.

Mr. PIKE. What I would like to get at is, during the period from 1967 to December 1970, did you ever reject any instrument from Aerosonic for failure?

Mr. AKINS. It was not necessary for me to reject up until February-March timeframe, 1970, because I was operating under a letter of quality instructions from the purchasing contracting officer himself, that I would concurrently witness with the contractor each and every test performed on production AAU–19A's. Me or my office, that is.

Mr. PIKE. Until February 1970, you or your office did witness all of the tests on the altimeter?

Mr. AKINS. That was performed on the shift we were on, yes, sir.

Mr. PIKE. Can you tell us what proportion of the tests you did witness?

Mr. AKINS. All prototype, all first article, and all production units that were produced on the shifts we were covering. The biggest majority in those days were run on one shift, which is the day shift.

Now, I can't tell you how many were run at night because I was not there.

Mr. PIKE. What I am trying to get at is, how did all of these altimeters get passed out of the plant from 1967 to December 1970, if they subsequently failed all of the tests?

Mr. AKINS. Because they had previously passed every test parameter listed in the specification for individual tests and the ongoing sampling plans A and B as witnessed by my office.

Mr. PIKE. How do you account for the fact that all of the altimeters passed all of the tests at the Aerosonic plant and failed all of the tests when they were subsequently tested at Wright-Patterson?

Mr. AKINS. Sir, that is beyond my expertise. I cannot tell you why I can hand carry one altimeter that I have witnessed, myself, 100 percent through all the test parameters. It was well in toward zero in each one of the test points. I hand carried it myself on the aircraft in the seat beside me, handed it personally to OCAMA test personnel and found it failed miserably.

Mr. PIKE. Did you get the idea perhaps these altimeters shouldn't be carried on aircraft?

Mr. AKINS. I got the opinion that the altimeter maybe shouldn't be. I was not relieved from my responsibility under the contract until termination.

Mr. STRATTON. Did you conduct these tests yourself?

Mr. AKINS. It was by the contractor's personnel with the Government acting as a silent witness. Unless the Government personnel observed a rejectable instrument that the contractor did not reject. The only case of this was on another instrument, and you have record of the immediate fight that took place.

Mr. STRATTON. You have given us a number of instances of witnessing, to say the least, improper testing techniques on the part of Aerosonic during your second tour of duty there. Did you not witness any such deficiencies during your first tour of duty there?

Mr. AKINS. No, sir, I did not.

Mr. STRATTON. And yet as Mr. Pike has just indicated, something must have been wrong, must it not, for these altimeters to have passed these tests and yet to have failed in the field?

Mr. AKINS. Yes, sir, there is something wrong.

Mr. STRATTON. What do you think was wrong?

Mr. AKINS. That would call for an engineering opinion and I will only be able to give you a QAR's opinion. The instrument was lacking in the design parameters.

Mr. STRATTON. Didn't you learn anything from your experience in 1972?

Mr. AKINS. Yes, sir.

Mr. STRATTON. Doesn't that tell you anything about what might have been happening between 1967 and 1970?

Mr. AKINS. Yes, sir.

Mr. STRATTON. What does it tell you?

Mr. AKINS. It taught me a great lesson, I will tell you that.

Mr. STRATTON. What does it tell you?

Mr. AKINS. It tells me that I had to tighten up quality control in the organization to the point where the contractor was almost in daily contact with me about the harrassment that my office was causing.

Mr. STRATTON. I am asking you whether your experience in 1972 at Aerosonic tells you anything about what might have been wrong in Aerosonic between 1967 and 1970?

Mr. AKINS. Yes, sir.

Mr. STRATTON. What was wrong in 1972 that you testified to in great detail in your prepared statement?

Mr. AKINS. Apparently in 1972 the contractor was under production pressure.

Mr. STRATTON. Just answer the question. What is the significance of the events that you have testified to in great detail and on which in some cases you wrote quality inspection reports?

Mr. AKINS. What are those events?

Mr. STRATTON. What are those events? What do they represent? The manifold. The question of whether hot and cold tests were undertaken; the question of whether somebody was writing down different numbers than appeared on the instruments; the question of whether somebody was in there resetting the altimeters during the night. What does

that tell you about what happened in this plant during this period?

Mr. AKINS. I cannot attest to what went on in that plant from 1967 to 1970 while I wasn't there.

Mr. STRATTON. Do these things represent a failure in design?

Mr. AKINS. No, sir, they represent a failure on the part of management of Aerosonic Corp., to control their quality control procedures.

Mr. STRATTON. It represents an attempt to tamper with the testing procedures, does it not?

Mr. AKINS. Yes, sir, their quality control test procedures.

Mr. STRATTON. It represents a tampering with the testing procedures. Would you dispute that?

Mr. AKINS. No, sir, I will not dispute that.

Mr. STRATTON. That is significant, is it not?

Mr. AKINS. That is significant.

Mr. STRATTON. Is that not the reason you testified to them to Mr. Pike?

Mr. AKINS. Yes, sir.

Mr. STRATTON. If that went on in 1972, might it not have gone on between 1967 and 1970?

Mr. AKINS. As strictly conjecture, yes, sir.

Mr. STRATTON. And that might have accounted for the fact that these things tested out in the plant 100 percent but didn't test out when they got out into the field 100 percent, might it not?

Mr. AKINS. It might have, and I state again, sir, that is a personal opinion. I have no definite documented evidence of that fact.

Mr. STRATTON. You sent a letter to the contracting officer on the 24th of February, 1970, asking him to relieve DCAS of the 100-percent inspection requirement.

Mr. AKINS. Yes, sir, I sure did.

Mr. STRATTON. I understand that you told the staff that you didn't personally agree with that decision to relieve the 100-percent inspection requirements. Is that correct?

Mr. AKINS. I did not.

Mr. STRATTON. You didn't agree with it?

Mr. AKINS. That is the reason for the concurrence block on the bottom of it.

Mr. STRATTON. But you sent the letter anyway?

Mr. AKINS. Yes, sir, if the supervisor gives you a direct order, you usually do what he says.

Mr. STRATTON. Who ordered you to make that request?

Mr. AKINS. Mr. Carl Brune. The initials on the letter you have are CB.

Mr. STRATTON. It says C. E. Brune concurred?

Mr. AKINS. Yes, sir.

Mr. STRATTON. He was your superior?

Mr. AKINS. My immediate supervisor at that time, yes, sir.

Mr. STRATTON. Where did he operate out of?

Mr. AKINS. DCASO, St. Petersburg.

Mr. STRATTON. This is a little bit like the previous story that we heard, where Mr. Blickenstaff was ordered to sign something that had been composed by somebody else.

Mr. AKINS. That letter was not composed by Mr. Brune. I was

directed to write the letter and he concurred in the words that I had written.

Mr. STRATTON. You may see a difference there. I fail to see it myself.

Mr. AKINS. But I wrote the letter after many weeks of respectfully questioning his decisions, and I thought at that time that it was his decision, to come off of this 100-percent mandatory inspection. And every time he would call me and ask me to write the letter to get off 100-percent inspection, I would respectfully request the rationale behind the letter. I respectfully argued with the gentleman.

Mr. STRATTON. Did you have anything, any memos?

Mr. AKINS. No, sir, I do not have any memos of that telephone conversation, no, sir.

Mr. STRATTON. What is the impact of relieving a contractor of 100-percent inspection?

Mr. AKINS. At that point in time we were, as I stated before, under the 50 observations once a week concept and that for all practical purposes—

Mr. STRATTON. What is the impact of switching from 100-percent inspection to some lesser arrangement? I am appalled to think that there is some arrangement, but apparently there is, of so-called 50 observations a week.

Mr. AKINS. Yes.

Mr. STRATTON. What is the obvious impact of switching from 100-percent inspection to 50 observations a week?

Mr. AKINS. The impact is—I am looking for a word—the impact would be to the effect to almost release the contractor from any Government witnessing whatsoever.

Mr. STRATTON. It makes it easier to get shoddy material by without detection, does it not?

Mr. AKINS. Yes, sir.

Mr. STRATTON. That is all I have.

Mr. Lally, do you have any questions?

Mr. LALLY. Thank you, Mr. Chairman.

Directing your attention, Mr. Akins, to the February 24, 1972, incident, will you refer to item number 35 in that packet before you, sir? (See appendix 15.)

Mr. AKINS. Yes, sir.

Mr. STRATTON. Is that a test report referring to that date, sir?

Mr. AKINS. Yes, that is the test report.

Mr. LALLY. Does it contain the initials of any Aerosonic representatives?

Mr. AKINS. From this copy, yes, sir.

Mr. LALLY. What are those initials, sir?

Mr. AKINS. CA and LT.

Mr. LALLY. Do you know the gentlemen whose intials they are?

Mr. AKINS. Yes, I do.

Mr. LALLY. Who are they?

Mr. AKINS. CA is normally represented by Mr. Clarence Ammons. The initials LT by Mr. Lee Trudel.

Mr. LALLY. When you were questioning whether these tests had been conducted, did you talk to Mr. Ammons and Mr. Trudel?

Mr. AKINS. I did not.

Mr. LALLY. Did any of your people talk to them?

Mr. AKINS. Yes, they did.

Mr. LALLY. What did they learn?

Mr. AKINS. Mr. Seay and a number of the QA's went to these two individuals at the same time Mr. Ickes and myself were talking to Mr. Benmayor. It was a split operation.

Mr. LALLY. Did they tell you what they learned from Mr. Ammons and Mr. Trudel?

Mr. AKINS. Yes, sir.

Mr. LALLY. What did they learn?

Mr. AKINS. The two gentlemen stated they did not run the cold test; as I previously testified, Mr. Benmayor stated to me that he had himself run the hot test.

Mr. LALLY. They said they did not run the cold test. Did they say anything about the hot test.

Mr. AKINS. They did not say anything about the hot test.

Mr. LALLY. Did they admit having run either the hot or cold test?

Mr. AKINS. No, sir; they did not.

Mr. LALLY. Did they admit having to initial the report?

Mr. AKINS. No, sir; they did not.

Mr. LALLY. Did they relate to your representatives anything about a conversation with Mr. Benmayor?

Mr. AKINS. No, they did not to my knowledge. That is strictly, I am talking about my knowledge now.

Mr. LALLY. Directing your attention now to the February 28, 1972, manifold incident, what, if anything, did you say to Mr. Smith when you discovered the manifold in the wall?

Mr. AKINS. He was the final functional test foreman. I stated to Mr. Smith that he knew better than that.

Mr. LALLY. What did he say?

Mr. AKINS. Mr. Smith was not very articulate in areas where I would speak strongly to him. He only turned and walked away. That is the only answer I got from Mr. Smith and the reason I had to go to Mr. Benmayor, who was the vice president.

Mr. LALLY. Directing your attention to the March 10 incident, in which the error was not correctly reported, who were the test personnel involved in reading and recording the test?

Mr. AKINS. Mr. Trudel and Mr. Ammons again.

Mr. LALLY. The same gentlemen?

Mr. AKINS. The same gentlemen I just mentioned.

Mr. LALLY. Did you have any conversation with those gentlemen relative to this report?

Mr. AKINS. No, sir.

Mr. LALLY. Now, directing your attention to the March 24 incident with the AAU–19 altimeter, what specifically did you see this man do in the test chamber?

Mr. AKINS. May I use the demonstration?

Mr. LALLY. Yes, certainly.

Mr. AKINS. If you will notice, under this stem, where a knob is usually installed, there is a locking device slot. This shaft has a locking slot in it. This device slides up in there and it is screwed in place so that it cannot be inadvertently disturbed. You have to loosen that screw, drop that lock loose, and pull out on this stem to make an adjustment.

Mr. LALLY. Is that what this gentleman was doing?
Mr. AKINS. That is what the gentleman was doing.
Mr. LALLY. Who was this gentleman?
Mr. AKINS. The March 24 incident was Mr. Howard Francis.
Mr. LALLY. I believe you heard Mr. Seay testify before you.
Mr. AKINS. Yes, sir.
Mr. LALLY. He said he thought there was a second Aerosonic representative in the chamber at the time.
Mr. AKINS. This I will not testify to because I do not remember any other person. The man making the actual adjustments was his man—in violation of the specifications.
Mr. LALLY. That was Mr. Francis?
Mr. AKINS. That was Mr. Francis.
Mr. LALLY. Now directing your attention to the April 12 incident, you testified that you saw this gentleman in the chamber at that time adjusting the instrument.
Mr. AKINS. That is right, sir.
Mr. LALLY. Could you describe specifically what you mean by "adjusting the instrument"?
Mr. AKINS. Yes, sir. With the screwdriver, I observed that man take the lock loose and make a barometric adjustment on this altimeter by disengaging, by pulling out on this knob, make adjustment, push the knob back in, and reengage the lock and tighten the screw.
Mr. LALLY. The same procedure you had observed Mr. Francis perform?
Mr. AKINS. The identical procedure.
Mr. LALLY. Thank you, Mr. Chairman.
Mr. STRATTON. Thank you very much.
[The witness is sworn.]
Mr. STRATTON. Please state your name and position.

TESTIMONY OF MR. NEAL STELLMACH, PRODUCTION FOREMAN, AEROSONIC CORP.

Mr. STELLMACH. My name is Neal Stellmach. I am production foreman, Aerosonic Corp.
Mr. STRATTON. Do you have any statement that you want to give?
Mr. STELLMACH. No.
Mr. STRATTON. I will ask Mr. Pike to begin the questioning.
Mr. PIKE. Mr. Stellmach, I believe you have been present all through this hearing. Am I correct?
Mr. STELLMACH. I have been present yesterday morning about 2 hours and all today.
Mr. PIKE. You have then heard the testimony of Mr. Akins and Mr. Seay and Mr. Blickenstaff; is that correct?
Mr. STELLMACH. Yes, I have.
Mr. PIKE. Regarding the testimony of Mr. Seay, on March 24, 1972, were you present with Mr. Howard Francis when he was observed adjusting AAU–19 altimeters during the testing cycle?
Mr. STELLMACH. Yes, I was.
Mr. PIKE. Prior to March 24, had you on other occasions been present with Mr. Francis when he adjusted AAU–19 or AAU–27 altimeters during the testing process?

Mr. STELLMACH. Yes.

Mr. PIKE. Were you aware on those occasions that this procedure was prohibited by both procurement regulations and reasonable quality control practices?

Mr. STELLMACH. No.

Mr. PIKE. How long have you worked for the Aerosonic Corp.?

Mr. STELLMACH. It's 12 years now.

Mr. PIKE. Upon roughly how many occasions from 1972, were you present while altimeters were being adjusted during the test cycle?

Mr. STELLMACH. Many times; it was our job to set instruments.

Mr. PIKE. Was it your job to reset instruments during the course of the testing?

Mr. STELLMACH. We never reset instruments. We made the initial sets on the instruments.

Mr. PIKE. The testimony we have gotten was that, in the middle of the testing, between the hot testing and the cold testing, the altimeters were being reset. Did you ever participate in that kind of setting of the altimeters?

Mr. STELLMACH. There were several times where, even with a Government official there, we would check a setting on an instrument. This was the accepted practice right from the beginning.

Mr. PIKE. What do you mean by "check a setting on an instrument"?

Mr. STELLMACH. There are several examples. One would be this: The numeral 2 or something of a 2992 digit on your barometric pressure would partly be out of the window. When we originally set up the window on the room panel we knew that the numeral was in the window and it was checked by the Government so that they could start running the tests.

Due to heavy vibration or something in the panels, we were permitted to open doors and turn these numerals back to the original position that they were at for testing.

Mr. PIKE. Due to heavy vibrations?

Mr. STELLMACH. Sometimes the panel, if you had a failure unit on the panel and they didn't want it to be broken, they would turn heavier vibration on the panels and get that one unit at least down to a level where it could be rejected. Sometimes this would roll numerals in the windows.

Mr. PIKE. You say this was with Government inspectors present?

Mr. STELLMACH. Many times, yes.

Mr. PIKE. Can you tell us which Government inspectors were present?

Mr. STELLMACH. It could have been Larry Ickes, George Seay or Charlie Akins.

Mr. PIKE. And they approved of these resettings: is that correct?

Mr. STELLMACH. Yes. There is nothing wrong with the setting. It was only restoring it to its original setting.

Mr. PIKE. On March 24, you say that you were present with Mr. Francis when these AAU–19 altimeters were being tested. On March 27, did you get a memo from Mr. Frank to the effect that no production people are to touch any AAU–19/A altimeters that have been brought in for inspection?

Mr. STELLMACH. I received one memo. I know of two, but I only received one.

Mr. PIKE. Did you get the memo that said that?

Mr. STELLMACH. I had one memo and I don't know which one it was.

Mr. PIKE. In the month of March 1972, did anyone tell you that production people were not to be in the testing area during testing?

Mr. STELLMACH. To my knowledge, Ed Lolley received one letter from Herb Frank. Ed Lolley was the quality control man. He said that he had received a letter that no one was to be in the testing area, but he was going to still request that we come in and make the settings on the instruments when they set up the panels because he had no one else to do it. We were to start training someone else to set the panels.

Mr. PIKE. Mr. Frank told Mr. Lolley not to let the production people into the testing area. Mr. Lolley told you about this, but said he was going to ask you to set them up anyway because he had no one else to do it.

Mr. STELLMACH. Yes, we were doing it under this supervision.

Mr. PIKE. You have heard Mr. Akins testify that on April 12, 1972, he and Mr. Hathcock came to the plant and observed you adjusting instruments with a screwdriver on AAU–19 altimeters which were under test. Is that correct?

Mr. STELLMACH. I heard the statement, yes.

Mr. PIKE. Was the statement an accurate statement?

Mr. STELLMACH. No, not completely.

Mr. PIKE. What were you doing at 6:05 a.m. in the plant?

Mr. STELLMACH. Many mornings I would come through the plant that early. I was always in the plant early.

Mr. PIKE. What were you doing? Were you in the test area?

Mr. STELLMACH. Yes. I usually had to walk through the test area to get to my area.

Mr. PIKE. To do what?

Mr. STELLMACH. To get into my work area.

Mr. PIKE. To get into your work area?

Mr. STELLMACH. Right.

Mr. PIKE. But you just passed through it?

Mr. STELLMACH. No. I usually would look at the thermometers at the end of the box. There are thermometers just as you walk past them, big thermometers. We usually knew whether the instruments would be in cold or hot. We would just look at them when we walked past. This particular morning I came in and the thermometer was not reading right.

Mr. PIKE. How do you know the thermometer was not reading right?

Mr. STELLMACH. I could hear the compressors moving. It happened to be a cold and not a hot temperature. The thermometer was not reading cold enough to allow a test even. If they had been at that temperature, they would have been way out of tolerance anyway. It's nowhere near the specifications temperature. I immediately went to the quality control officer and put a note on his desk.

Mr. PIKE. On whose desk?

Mr. STELLMACH. Ed Lolley's desk.

Mr. PIKE. This was at 6 a.m. in the morning?

Mr. STELLMACH. Yes, sir. I walked in there and put a note on his desk to see me as soon as he got in. I went over to the box and I looked

at the box and I noticed that the fan was not working properly. I took a screwdriver off the table, opened up the door and hit the fan blade with the screwdriver. And I played with it until it started working.

At that time I went down like this [indicating] and I had hit one of the knobs. I did physically clean off a window to see the 2992, and it was off and I rotated the knob and put it back on.

About this time Charlie walked in. I was standing there with a screwdriver in my hand and he doesn't remember what I said but I said, "The fan is not working in this box."

Mr. PIKE. Did you, subsequent to that time, get any kind of memorandum in writing?

Mr. STELLMACH. After that I did receive one memorandum, yes. Howard Francis and I both did. We were not even allowed to set the room panels anymore, which is a job we didn't want anyway and we were happy to get the letter.

Mr. PIKE. As pertains to your career at the Aerosonic Corp., what was your position at the time that these incidents took place, in March and April of 1972?

Mr. STELLMACH. I believe I was the production line foreman with Howard Francis. I was in charge of wiring and casing.

Mr. PIKE. What was your salary at that time?

Mr. STELLMACH. I think it's exactly the same as it is now.

Mr. PIKE. You haven't gotten any raise in 2 years?

Mr. STELLMACH. Cost-of-living raises; yes.

Mr. PIKE. Is your title the same?

Mr. STELLMACH. Yes.

Mr. PIKE. Other than cost-of-living raises, you have received no other salary adjustment since that time?

Mr. STELLMACH. I have not received any salary adjustments; no.

Mr. PIKE. Have you received any bonuses?

Mr. STELLMACH. Yes. We were always getting bonuses, based only on production.

Mr. PIKE. Have your bonuses since 1972 increased?

Mr. STELLMACH. No. Definitely not.

Mr. PIKE. Have they decreased?

Mr. STELLMACH. Yes. We are on a different line. When the AIMS line was closed down I took over the wiring on the new digitizers which were coming out. I still have that position. I have the wiring department.

Mr. PIKE. So your resultant salary, because of the lack of bonuses, at the present time is lower than it was in 1972?

Mr. STELLMACH. Yes; to the best of my knowledge it is.

Mr. PIKE. Today in the production of altimeters at the Aerosonic plant, do you have anything whatsoever to do with the testing of those altimeters?

Mr. STELLMACH. No. I have nothing to do with the testing of them. I have been called back to change cables that may have been broken—this is a digitizer commercial instrument—or to check out that test equipment only for those instruments. I do not do any testing of them.

Mr. PIKE. Do you have anything to do with quality control?

Mr. STELLMACH. Yes. When I took over the wiring department, they laid off several people on the AIMS program and we transferred two or three to the wiring department. In that department we were

doing such few units that it did not require a quality inspector for the wiring. There wouldn't be enough to hire a person for it. So I took over that job partly, besides acting as sort of a supervisor and a worker on the line.

Up to this point now, though, we have brought a man in because production has come up. He is being trained. As a matter of fact, he is on vacation in the Cayman Islands. He is doing my job which he will be doing continually, as far as quality inspection is concerned. It's out of my hands.

Mr. PIKE. Until the day when Mr. Akins found you in the testing area with a screwdriver, it was common practice at Aerosonic for you to reset the altimeters to zero, I think you said.

Mr. STELLMACH. Not to reset, no. We made the original adjustments on the instrument to zero.

Mr. PIKE. You would make the original adjustments to zero on the altimeters?

Mr. STELLMACH. Right.

Mr. PIKE. Would you then, during the course of the tests, ever touch them?

Mr. STELLMACH. Not unless it was one of those adjustments I told you about, which we were even asked by the Government to do.

Mr. PIKE. When you say "we were asked", who is "we"?

Mr. STELLMACH. Howard Francis or I were the people they would call in to make this adjustment.

Mr. PIKE. When you say "the Government", who asked you?

Mr. STELLMACH. QAR, which would be Akins or Ickes or Seay, any of these.

Mr. PIKE. I have no further questions.

Mr. STRATTON. Mr. Stellmach, you said earlier in your testimony to Mr. Pike that you were only restoring it to its original setting.

Mr. STELLMACH. Yes.

Mr. STRATTON. This was during the tests that you said certain heavy vibrations had taken place?

Mr. STELLMACH. Yes.

Mr. STRATTON. You were restoring the altimeter to its original setting?

Mr. STELLMACH. Yes.

Mr. STRATTON. Isn't the whole point of a test to see what happens throughout the entire test? And if the altimeter doesn't return to the proper setting, that is the thing you are conducting the test to try to find out, aren't you?

Mr. STELLMACH. The original setting we put into the unit, which was to zero it and put the dial on 2992, is a test without vibration. The setting is already in the unit. It is not changed by merely rotating the knob and putting it back to where it was.

Mr. STRATTON. Who decides whether vibration has or has not occurred?

Mr. STELLMACH. I imagine the QAR did.

Mr. STRATTON. In other words, your testimony is the only time that you would restore it to a different setting from the one that it had ended up at was when the QAR's had decided there was an excess of vibration?

Mr. STELLMACH. This is one time, yes. Another time would be if we

had a problem on a box and we transferred the instruments from one test box to the other, which is the incident that Howard was involved in.

Mr. STRATTON. If you are going to tamper with the setting, that really eliminates the validity of the test, does it not?

Mr. STELLMACH. We were not tampering with the setting.

Mr. STRATTON. You are changing the setting.

Mr. STELLMACH. No.

Mr. STRATTON. Before the test is over?

Mr. STELLMACH. We had readings on a room level which we knew where the unit was set. There is a small amount of backlash in these knobs so that when we transferred them from one test panel to the other, we would merely check the electrical setting, make sure the numerals were in 2992, and touch up the knob a little bit to make sure the electrical was right where it was. Because it was so sensitive.

Mr. STRATTON. The whole point of a test, as I understand it—and I am just a layman in this field—is to find out how the instrument performs after certain actions are taken with regard to the instrument. After the test is over, then you take a look at it and see where it stands. If it stands where it's supposed to, it passes the test. If it doesn't stand where it's supposed to, it fails the test.

Now, if in the middle of the test somebody is going, for any reason, to alter the setting, that is going to destroy the validity of the entire test, isn't it?

Mr. STELLMACH. I would assume so. What we did was common practice right through from the beginning. It was all witnessed usually.

Mr. STRATTON. You suppose so. Namely, you suppose that it is going to destroy the validity of the test, but what you did was common practice.

Mr. STELLMACH. Yes. It had been.

Mr. STRATTON. It had been common practice?

Mr. STELLMACH. We have always checked the setting of 2992 on instruments when they started testing.

Mr. STRATTON. In connection with the incident that occurred on the 12th of April, when Mr. Akins and Mr. Hathcock walked in on you in the Aerosonic plant at 6 in the morning, did I understand you to say that you frequently walked through there in the morning and frequently adjusted these instruments?

Mr. STELLMACH. I did not frequently adjust instruments in the morning, no. I walked through there, yes.

Mr. STRATTON. Had you ever adjusted any of these instruments that were undergoing tests at any other time than the one that Mr. Akins and Mr. Hathcock saw you adjust them?

Mr. STELLMACH. I don't believe I ever had before, no.

Mr. STRATTON. So it's a pure coincidence that the morning that they walked in you just happened, for the reasons that you have indicated, to have a screwdriver and to be adjusting the setting?

Mr. STELLMACH. I had a screwdriver in my hand and I was not adjusting the setting.

Mr. STRATTON. I thought you said you turned the knob.

Mr. STELLMACH. I turned one knob to put it in the window. It does not change the setting on the instrument.

Mr. STRATTON. And the screwdriver was used just for the fan, is that what you are saying?

Mr. STELLMACH. Definitely. That is all I needed it for.

Mr. STRATTON. Thank you.

Mr. PIKE. Mr. Chairman, could I ask one question? You say that at 6 a.m. in the morning you put a notice on Mr. Lolley's desk. What did it say?

Mr. STELLMACH. It said, "Please see me as soon as you get in. Neal."

Mr. PIKE. Did you talk to Mr. Lolley as soon as he got in?

Mr. STELLMACH. Yes, he came right to me.

Mr. PIKE. What did you say to Mr. Lolley and what did Mr. Lolley say to you?

Mr. STELLMACH. I said to Mr. Lolley that—"When I came in this morning the box was not working properly. I opened the door and got the fan running and as I was standing there Charlie Akins came in."

Mr. PIKE. What did Mr. Lolley say to you?

Mr. STELLMACH. Mr. Lolley says, "I'll check it out," and that's all.

Mr. PIKE. And the following day you got a message from Mr. Frank and what did that message say?

Mr. STELLMACH. It merely stated we should not be in the testing area and we were very happy not to be there.

Mr. PIKE. Did it merely say you should not be in the testing area, or did it say if you were found in the testing area again you would be fired?

Mr. STELLMACH. Yes, I think it did.

Mr. PIKE. And it is your testimony that Mr. Frank threatened to fire you just because you were in the testing area trying the fix the fan belt on the compressor?

Mr. STELLMACH. The fan on the evaporator.

I don't believe he knew Mr. Lolley said we could go back in there just to set up the room boards. I don't believe Lolley transferred this information back to Mr. Frank and when I did get a final letter from Mr. Frank I heeded it.

Mr. PIKE. Did you respond?

Mr. STELLMACH. Definitely.

Mr. PIKE. Did you respond in writing?

Mr. STELLMACH. No, just verbally.

Mr. PIKE. What did you say to Mr. Frank?

Mr. STELLMACH. I explained to him that there was no one trained yet to do this job in Quality. He said Mr. Lolley would take over and do the setting. I said "Fine, we really didn't want the job anyway."

Mr. LALLY. Directing your attention to the March 24 incident, who asked you and Mr. Francis to make the adjustments on that occasion?

Mr. STELLMACH. We didn't make any adjustments. We were checking the adjustments.

Mr. LALLY. What does "checking the adjustments" involve? Would you show me with one of the samples?

Mr. STELLMACH. You need a test panel to do it my way. The unit was taken out of a hot panel on one side because the box was not working. There was a bad heating coil in it.

Mr. LALLY. How long before had it been taken from this other box?

Mr. STELLMACH. The box never even came on. The boxes were on

thermostats where they would come on overnight. We came in that day and to my knowledge the thermostat or the heating element was bad in the box. Maintenance took care of the box. We took the units out and transferred them over to the other box, the south box.

Mr. LALLY. How far apart are these boxes?

Mr. STELLMACH. Four or five feet.

We installed all the units in the boxes and we took the original room readings from the day before, and we checked with this knob, because of the backlash, and reset all the electricals to exactly what they were in the room the day before so we could carry on exactly where the units had been tested.

Mr. LALLY. Did you or Mr. Francis use the screwdriver and loosen the screw and release the knob?

Mr. STELLMACH. I never saw Howard Francis use it nor did I. The only reason we had a screwdriver was that these things had to be screwed on the panel. There is a screw right here that has to be screwed to the panel and there was one in this corner. Right next to the clip that Charlie was talking about.

Mr. LALLY. Did you or Mr. Francis release the screw that Charlie Akins was talking about?

Mr. STELLMACH. Definitely not.

Mr. LALLY. Did you pull the knob Mr. Akins was talking about?

Mr. STELLMACH. We did not pull the knob.

Mr. LALLY. Did you or Mr. Francis make any resetting?

Mr. STELLMACH. Yes; we had to do the backlash only——

Mr. LALLY. With this particular knob?

Mr. STELLMACH. With the knob without releasing any settings.

Mr. LALLY. Did you say there were some vibration tests conducted before this incident on the 24th?

Mr. STELLMACH. Which incident?

Mr. LALLY. Before you were resetting these? Isn't that why they were out of adjustment, from vibration?

Mr. STELLMACH. From handling, moving them from one box to the other.

This screw hole here that mounts it is so close to the knob that it is hard to get into the box, but we could hit this knob and rotate it slightly which would throw the numeral out of the window slightly. They had to be in the window to test it.

Mr. LALLY. Were they out of the window?

Mr. STELLMACH. Yes; they were.

Mr. LALLY. Thank you, Mr. Stellmach.

Mr. PIKE. The committee will stand adjourned until 10 o'clock Monday morning and those witnesses who have not yet had an opportunity to testify will be expected to be back here on Monday morning to testify.

[Whereupon, at 4:35 p.m., the subcommittee was adjourned, to reconvene at 10 a.m., Monday, August 5, 1974.]

AIR FORCE PROCUREMENT OF AAU-19/A ALTIMETERS

MONDAY, AUGUST 5, 1974

HOUSE OF REPRESENTATIVES
ARMED SERVICES INVESTIGATING SUBCOMMITTEE
OF THE COMMITTEE ON ARMED SERVICES
Washington, D.C.

The subcommittee met, pursuant to adjournment, at 10 a.m., in room 2337, Rayburn House Office Building, Washington, D.C., Hon. F. Edward Hébert, chairman of the subcommittee, presiding.

Present: Messrs. Hébert, Stratton, Pike, Daniel, and Dickinson.

Also present: John F. Lally, acting counsel and David R. Warren, staff investigator.

The CHAIRMAN. The subcommittee will be in order.

The members of the subcommittee hope to conclude the hearing today. I am informed by counsel for the subcommittee that Mr. Frank does want to appear before the subcommittee to present Aerosonic's position in the matter. As I said, of course, the door is wide open for him to appear. We have asked him to appear in the next week. We understand that he cannot appear next week. The following week I won't be here, so he can't appear the following week. I have a little matter of election in New Orleans which concerns me personally. I have to go down there. So it will be sometime in September before we will be able to get to him if he can't appear this week. Mr. Lally will so inform the counsel for Mr. Frank.

Mr. DICKINSON. Mr. Chairman?

The CHAIRMAN. Yes, Mr. Dickinson?

Mr. DICKINSON. Last week, toward the end of the week I received a letter from the attorneys for Aerosonic in which they objected.

The CHAIRMAN. I read that into the record and I assured them they would have the opportunity to present their case. It's an open field. There is an empty chair at the top side of the table whenever they want to come to it. In connection with that, I would say too, Mr. Dickinson, that the reason I read the letter into the record is because there seemed to be a sort of not open challenge but a semichallenge as to the fairness of the committee in conducting this hearing. Anybody who knows me personally knows the manner in which I conduct hearings, and there are no gray areas—it's either black or white. My reputation for fairness, I think, is shared even by those who do not agree with me. I want to reemphasize that.

Mr. DICKINSON. That is true. What I intended to say, Mr. Chairman, was that it's possible and on reflection, I think perhaps in some of our remarks, we may have categorized some of the acts of Aerosonic as if we had come to a final conclusion as to whether or not they were

fraud or in any other way illegal. I would like permission of the Chair to revise the transcript so as not to have it read as in fact they were guilty of any misdeeds and by prefacing it with "alleged" or "apparent" or something similar to that, if that is agreeable to the Chair.

The CHAIRMAN. Without objection, you can revise it to that extent.

Mr. DICKINSON. Thank you.

The CHAIRMAN. As I explained the other day, Mr. Dickinson, I cannot control, nor do I attempt to control, or will I control, anything that any member says. This committee has come to no conclusion. The questioning is toward an end or conclusion. Comments that are injected in a moment of cross-examination will not make a conclusion until we have heard from Mr. Frank in September when we come back here right after the business in the House is concluded.

Mr. DICKINSON. I had forgotten that there was any litigation pending. Perhaps some of the statements made might be considered prejudicial. For that reason I wanted to correct the record as to what I might have said.

The CHAIRMAN. Any remarks made by the committee are not frivolous. That doesn't mean to say they can say a lot of other things. That is our right, because that is the only chance we have to talk because we can't sue anybody for libel or slander. The courts have held that a man in public life is to stand up and take it, no matter what he is called, or what they throw at him. So we have no comeback at all, except to sit on privilege, and some court would probably rule that is out of order, too.

Mr. Lally?

Mr. LALLY. Commander Curtin.

[The witness is sworn.]

The CHAIRMAN. Do you have a prepared statement?

TESTIMONY OF COMDR. PAT T. CURTIN, U.S. NAVY (RETIRED), CHIEF, DCASO, ST. PETERSBURG

Commander CURTIN. Mr. Chairman, I would like to state that I took the opportunity over the weekend of the recess to prepare a narrative summary of my association with the contractor. I would like to read that.

I am Comdr. Pat Curtin, Supply Corps, U.S. Navy, retired, I was assigned to the office in St. Petersburg from sometime in June 1970 to August 31, 1972, when I retired.

I was responsible for the contract administration of DOD and NASA contracts within several counties on the west coast of Florida. However, in fact, the vast majority of our business centered around the Tampa/St. Petersburg areas.

After reporting, I requested a series of briefings on various aspects of the office problems. One particular briefing had to do with the oldest or the most troublesome contract that we were administering. By either definition, the contract for the AAU–19 qualified as the winner.

In brief, the situation of the contract at that time in June of 1970 was this: This was prepared for me by various functional elements within the office—the contractor, Aerosonic, was delivering to the Government altimeters at the rate of about 66 a month. This was substantially below the required contract delivery schedule. I do not know

what that was precisely but I believe, Mr. Chairman, it was about 100 altimeters per month.

Since inception of the contract, there had been about 28 changes in the design specifications, one of which caused a complete design change.

Three, the contractor had been authorized to ship altimeters without First Article approval, of which you have heard this story.

The total quantity of AAU–19's to be delivered on the contract was approximately 7,400. I believe the original contract was for about 10,000, but that was reduced because the Air Force accepted a substitute altimeter.

There was outstanding at that time a particularly large dollar change order, CCN–8, which changed the specifications to such an extent that the contractor required additional funds.

The DCAS office, of which I was now in charge, had evaluated that proposal, gentlemen, in November of 1968 and forwarded it to the procurement contracting officer, Mr. Wood.

In December of 1969, 1 year later, Mr. Wood notified the DCASO that he had finally completed negotiations for the change and had agreed at a price of approximately $1.2 million.

Funds were not available and were not incorporated into the contract, despite the fact that Aerosonic was proceeding with the changes. Thus, after almost 2 years of incorporation of the change and after almost 1 year of completed negotiations, the Air Force had not provided the necessary funds.

In view of the incredulous state of the contract, I requested Mr. Wood to visit my office. He subsequently did in the fall of 1970. I wanted to know why the contract could not be terminated. Mr. Wood indicated an impossibility of this action because of the urgent need for the altimeter. He did promise, however, to renegotiate the delivery schedule to a more palatable number and to provide the additional $1.2 million in funds. As best as I can recall, both actions were subsequently taken, but certainly several months elapsed before this occurred.

The modification of the delivery schedule was prepared in such a way that if Aerosonic did not deliver according to the new schedule, a termination of several hundred units would take place at no cost to the Government. So that I presume these units could be added to the Bendix or Kollsman contract. That did in fact occur in the spring of 1971.

The next significant action with Aerosonic took place in December of 1970, when Mr. Blickenstaff was rotated into the plant and Mr. Akins rotated out. Both actions were the result of DCAS policy to rotate personnel at the end of 5 years in a contractor's plant.

You may recall that Mr. Akins indicated he had been in the plant since 1964. I believe also that at least one additional quality personnel was rotated into Aerosonic and one experienced man left so that we might insure continuity of actions.

In March of 1971 Mr. Frank issued a letter stating that several actions of the quality assurance representative, Mr. Blickenstaff, constituted a threat to his operation and he wanted Mr. Blickenstaff removed. Obviously, this threat was unacceptable, but it was necessary to ascertain the facts of the situation.

Accordingly, about the middle of March, a meeting was held in my

office about this situation and at least the following personnel were present: Mr. Wood, the PCOA, had been invited to attend; Lieutenant Colonel Brown, was the deputy for quality control from the region in Atlanta—that is the DCAS Atlanta—a Mr. Joe Guida, who was from the quality staff in Orlando; Mr. Mahaun, the ACO for the contract; Mr. Blickenstaff; Major Fringer, who was my chief of quality; Mr. Frank; Mr. Benmayor; and myself.

As to the result of the discussions and visit that I received from the quality assurance personnel, I made the following decisions: The actions of Mr. Blickenstaff were unreasonable and arbitrary. While the action might have been legal, it did not make sense to apply his actions against every item being produced by the Aerosonic Corp. In the first place, we didn't have the people to do what Mr. Blickenstaff demanded. In the second place, the basic quality assurance philosophy of DCAS is one of sampling, not 100-percent inspection.

As a result, I told Mr. Frank that Mr. Blickenstaff would not be removed but that I would modify his quality assurance directives. Mr. Blickenstaff was privately and personally informed of these actions by myself. That Mr. Blickenstaff chooses to put a connotation of a personal reprimand on my decision is of his making.

Shortly after this situation, the office—that is the general office—was visited by the Air Force representatives who alleged a quality problem with the 19 at Hayes. I did not participate in these meetings but did receive an exit briefing, the gist of which has been made known to you. In short, however, of the 18 altimeters examined, only 4 defective altimeters were attributed to quality control. This type of information was in general agreement with our own records regarding quality control for the 19.

I am now quoting from a letter from Captain Lipscomb, the regional Commander of DCAS, to ASD regarding the Hayes problem.

> As of 28 June 1971 and since 6 August 1968, the Government accepted 1,937 of these units. For this entire period, the completed investigation of 112 altimeters reported as defective via established customer complaint channels reveals that only 15 of this number could properly be attributed to quality deficiencies. Based on the quantity shipped, this represents a 0.77 percent defective rate.
>
> It appears, therefore, that the units are being accepted and placed in storage for a lengthy period of time prior to service, thus preventing disclosure of latent defects.
>
> I do not mean to minimize the seriousness of latent quality deficiencies. I am suggesting that quality control may be most effectively achieved when there is a prompt feedback of information relating to such conditions.

The letter was drafted in my office and sent out over the signature of Captain Lipscomb.

Also included in this letter was a commitment to reevaluate our quality control procedures for the 19. It was as a direct result of the commitment that a sampling inspection plan was drawn up and levied on the contractor in November 1971. That plan was not the product of Mr. Blickenstaff, nor Mr. Tabor. It represented the combined efforts of many expert quality assurance personnel, but especially those with specialized training in the preparation and execution of sampling plans.

I believe it was as a result of this effort that the contractor placed the contract in dispute. I am not certain of that fact, however. I do believe that a detailed search of the contract files would determine that

the cause of Mr. Frank's action. In any event, the contractor objected to implementing the plan unless he received compensation for it.

In December of 1971 Mr. L. H. Adams, the counsel for DCAS Atlanta, ruled that the plan was beyond the scope of the contract and that, if the Government insisted on its continuance in the contract, we would have to pay for it.

Action was initiated, I believe, in December of 1971 to have both ESD and ASD incorporate the sampling plan in the respective contracts for the 19 and 27. I simply don't recall the outcome of that request.

Within the same timeframe that is, December of 1971—ESD, their representatives, informed me of a potentially more serious quality control problem with the 19. This was as a result of the forthcoming OCAMA letter to ESD.

It was this notification that really alerted us to the serious nature of the problem.

At the same time or approximately so, Mr. Frank again demanded the removal of Mr. Blickenstaff and gave me notice that the entire operation would be closed down.

As I recall, I did two things. First, I talked to Mr. Frank, and he remained adamant in his position. Second, I phoned my boss, Captain Lipscomb, in Atlanta. He was not present and I discussed the situation with Mr. Patterson, his Chief Deputy. Mr. Patterson then called Mr. Frank directly and then he, Patterson, returned a call to me. The gist of his massage was that Mr. Frank would not close down, but that he, Patterson, was sending down a team to investigate the situation and allegations of Mr. Frank.

During these subsequent meetings, Mr. Frank persisted in the demand for the removal of Blickenstaff. Subsequently, after conferring with Lieutenant Colonel Brown, Quality from Atlanta representing Captain Lipscomb, and Mr. Guida from the district and Major Fringer, I did elect to remove Mr. Blickenstaff. It was obvious that the Government would not tolerate the cessation of activities by the contractor. Therefore, as objectionable as it might have been to me, personally, I made the decision to remove Mr. Blickenstaff.

I was then confronted with the problem of how to replace Mr. Blickenstaff. I knew I had a potentially serious quality control problem and I wanted the individual most capable of responding to the situation. I elected to send Mr. Akins back into the plant.

Mr. Akins states that I told him not to issue to the contractor any piece of paper or corrective actions. Gentlemen, I may have, but certainly my intent in doing so was not to tie the hands of the quality control people but rather to insure myself that I knew precisely what was happening in the plant, particularly as far as the 19 was concerned.

You see, it was obvious that Mr. Frank would take the most simple Government action and make it appear that this was some act of harassment or some illegal step. You will recall that we had just been burned, so to speak, with our attempt to levy a sampling plan on the contractor. So you see my direction to make me a focal point for decisions was not intended to restrict quality personnel but to insure that if such actions were contemplated, they would at least be with my knowledge and with my concurrence.

As a result of the previous ESD visit to St. Petersburg in December

of 1971, we convened at St. Petersburg in January of 1972 a meeting of representatives from ESD, OCAMA, and St. Petersburg, of course, to review the OCAMA report.

At least two major actions took place as a result of this meeting. First, the DCAS Quality Assurance procedures were completely evaluated. The results of this review indicated that all of our actions were proper and in accord with DCAS guidance.

The second action was to establish ground rules for a comparability study. Specifically, Mr. Frank continually alleged that OCAMA did not know how to test his instruments. It was a this point that instruments were subsequently hand-carried to OCAMA where, as you know, they failed to pass.

As per Mr. Frank's allegation, we did in fact discover differences in the test procedures at OCAMA, but the Government personnel did not attribute the failures to this inconsistency.

As a result of that review, I signed a letter to ESD on February 23, 1972, with the results of that review. I would like to quote the last paragraph of that letter.

> As a result of this study, it is apparent that the testing procedures at the contractor's facility and OCAMA do not account for the wide variance in test results. Accordingly, it is recommended that a complete engineering review be conducted to isolate the cause of the failures.
>
> As I stated in reference (b), which occurred sometime previous to 23 February, it is further recommended that the contractor be requested to make his own analysis of the failures and pending conclusions of these studies, a plan be coordinated with the contractor to cease production without cost to the Government, to preclude altimeters of questionable utility being distributed to the field.

I furnished copies of that recommendation to OCAMA, to the region in Atlanta, and my district office in Orlando.

I would like to inject that all during this time of establishing ground rules for the comparability study and the ongoing review of DCAS procedures, Mr. Frank repeatedly alleged that the review seriously interfered with his efforts to produce the required quantity of altimeters per month. I do not recall the actual numbers produced from January 1972 to termination of the contract, but I am sure that each month's production numbers never exceeded 12 or more.

I believe, and I said so many times, that Mr. Frank made a decision to force the Government to terminate, hoping to recover actual or potential losses from the contract disputes avenue available to him.

Further, and if I may skip ahead, Mr. Frank visited the ESD in April of 1972, where an agreement was made for a second comparability study or test at OCAMA. I do not recall if such a study actually took place.

I would now like to return to the instances of alleged fraud. Please recall what I said about my intentions of controlling documentation between the quality people and Mr. Frank. No. 1, I wanted to be sure of what those actions were, and I wanted the actions to be absolutely legitimate.

Sometime after March 20, Major Fringer, my Chief of Quality Control, informed me of the incident involving the AAU-27. That is, gentlemen, the manifold problem.

It is pointed out that the thrust of Mr. Tabor's memo, which was to Major Fringer, is a request for implementation of a sampling plan,

not a call for an investigation of fraud. Nonetheless, Major Fringer informed Mr. Tabor to be alert for further instances of this type and that the sampling plan questions were in the hands of ESD and ASD. I am certain that I concurred in Major Fringer's actions.

Toward the end of March, the incident regarding the resetting of altimeters took place. Documentation that I had been shown indicates that I said, "Don't put it in writing." I don't recall, gentlemen, why I said that. But in any event, I was aware that action had already been taken between Mr. Akins and Mr. Frank. I knew and concurred in that action.

In the early part of April, the early morning incident regarding the hot test, cold test took place. Mr. Akins did write that up. It was forwarded to me. You may observe the results of my actions on that documentation. I personally called Mr. Frank and received his assurance that corrective action would be taken. That documentation and action was conveyed to Mr. Lolley on the paper prepared by Mr. Akins.

In addition to this action, Major Fringer discussed this specific incident with Mr. Mahaun, the ACO, and Mr. Adams, the DCAS Counsel, on April 13. The results of Major Fringer's conversation are documented in his memo of April 13. The actions that he took are as follows: One. (a), a method—the initials "CAE issued" are on there and I am sure what Major Fringer meant is that this is a form of notification to the control contractor; (b), acceptance to be continued as long as test parameters are met; (c), the contractor will not be requested by Quality Assurance personnel to seal the units in the test chamber. The QAR was advised to be alert for a recurrence of the above action.

Two. The ACO, Mr. Mahaun, will discuss the readjustment problem with Mr. Frank.

I reiterate that was as a result of conversation with Mr. Mahaun and the Counsel.

On April 18, 5 days after that telephone conversation, I forwarded the documentation of March 20 and April 12 to Mr. Adams for his review. I understand that these documents were in turn furnished to Colonel Burns, counsel at ESD, and to DCAS counsel here at Cameron Station.

I do recall that I was subsequently informed that the irregularities did not constitute sufficient proof to substantiate action against the contractor. It was on this basis that I subsequently replied to an ESD inquiry concerning these instances.

Now, leaving this, I continued to press the ESD for termination action. I am sure that a search of the contract files will reveal this fact, that I personally drafted and sent it to ESD. In effect, it said do something or get off the pot. The contract was subsequently terminated shortly before my retirement.

However, one additional action took place. That was to prepare a summary of the entire Aerosonic defense contracts posture and to recommend to the Air Force that they be included on the Air Force contractor's experience list. It is this list which serves as a flag to all DOD contracting officers contemplating business with a particular firm. Gentlemen, I do not know what the final results of that action were.

Thank you, Mr. Chairman.

The CHAIRMAN. Thank you very much.

Mr. Pike?

Mr. PIKE. Thank you, Mr. Chairman.

Commander Curtin, you took office in the St. Petersburg office in June of 1970 and you said that shortly after that, you were briefed on what was the oldest and most troublesome contract within that office.

Commander CURTIN. Yes, sir.

Mr. PIKE. Who gave you that briefing?

Commander CURTIN. It was a combined briefing. It would have consisted of individuals from Production, Quality Assurance, and Contracts. In fact, the piece of paper that I have was prepared by a gentleman from Production whose function it was to observe that the contract was proceeding on time.

Mr. PIKE. Can you tell us who that gentleman was? Was this a man in your office?

Commander CURTIN. Yes, sir. Yes, sir. He worked——

Mr. PIKE. For you?

Commander CURTIN. For me.

Mr. PIKE. He prepared a paper telling you whether it was proceeding on time and on quality?

Commander CURTIN. Yes, sir. Excuse me. Mr. George Walters was his name.

Mr. PIKE. When was that briefing, roughly?

Commander CURTIN. Roughly it would have been perhaps August–September timeframe, sir.

Mr. PIKE. From June 1970, until August or September 1970 you learned nothing about the worst and most troublesome contract in your office, is that correct?

Commander CURTIN. Nothing of any substance. That would be correct, yes, sir.

Mr. PIKE. It just kept rolling along and nobody ever troubled you with it and you didn't take any action on it? Is that correct?

Commander CURTIN. Yes, sir.

Mr. PIKE. When did you first have your first communication, either phone call or telegram, or communication of any kind from Mr. Frank?

Commander CURTIN. I simply don't know, sir.

Mr. PIKE. Did you have any communication from him between the time you took office in June of 1970 until March 1971, when Mr. Blickenstaff issued these three letters?

Commander CURTIN. It's highly unlikely that I would not have had communication with him, sir, because, No. 1, he personally gave me a tour of his plant after I assumed the office.

Mr. PIKE. When was that?

Commander CURTIN. I can't tell you, sir. But in taking over the responsibilities of the office, I was, of course, provided with the opportunity to visit all the contract facilities.

Mr. PIKE. You can't give us any idea when you first visited the plant where the oldest and most troublesome contract was being carried out?

Commander CURTIN. No, sir.

Mr. PIKE. When did you first make your first communication to Mr. Frank?

Commander CURTIN. Mr. Pike, do you mean specifically with regard to the 19 or in general?

Mr. PIKE. The 19 or 27, or in general?

Commander CURTIN. I can't answer that.

Mr. PIKE. You don't know when you first went down there and you don't know what the nature of your communications with Mr. Frank were until March of 1971?

Commander CURTIN. No, sir; I didn't say that. I said I cannot recall what the first communique would have been in the most general sense. Certainly in the fall of 1970, when we invited Mr. Wood down to my office to discuss that contract, I am sure that I accompanied Mr. Wood to Mr. Frank's plant.

Mr. PIKE. Had you talked with Mr. Frank before you accompanied Mr. Wood to the plant in the fall of 1970?

Commander CURTIN. I am sure that I did, Mr. Pike.

Mr. PIKE. You stated in your narrative, "I wanted to know why the contract could not be terminated." This was your conversation with Mr. Wood in the fall of 1970?

Commander CURTIN. Yes, sir.

Mr. PIKE. Did you recommend that the contract be terminated?

Commander CURTIN. Yes, sir.

Mr. PIKE. Did you ever put that recommendation in writing?

Commander CURTIN. Many times.

Mr. PIKE. I am talking about in the fall of 1970.

Commander CURTIN. No, sir.

Mr. PIKE. When did you first recommend in writing that the contract be terminated?

Commander CURTIN. I simply don't recall, sir.

Mr. PIKE. When did you first orally recommend that the contract be terminated?

Commander CURTIN. It would have been in my conversation with Mr. Wood.

Mr. PIKE. That would have been the first time?

Commander CURTIN. Yes, sir.

Mr. STRATTON. What was that date?

Commander CURTIN. It would have been in the fall of 1970, sir.

Mr. PIKE. You stated that at the time you took over they were producing altimeters at the rate of 66 per month against a modified contract delivery schedule which you believe was 100 a month.

Commander CURTIN. I think so.

Mr. PIKE. What happened to that delivery schedule after you took over?

Commander CURTIN. It was subsequently modified, of course, by Mr. Wood to what was considered to be a jointly agreeable number, quite obviously.

Mr. PIKE. You mean after June of 1970?

Commander CURTIN. It was modified again, yes, sir.

Mr. PIKE. It was further modified down?

Commander CURTIN. Oh, yes, sir, with the provision that if the contractor did not satisfy the monthly requirements—and there was a stipulation in there for perhaps 2 or 3 consecutive months—then the Air Force reserved the right to unilaterally terminate *x* quantity.

Mr. PIKE. They could have done that when you first took over just on failure of nondelivery, could they not?

Commander CURTIN. No, sir. In my opinion they could not.

Mr. PIKE. If the contract called for a delivery of 100 a month and they were only delivering 66 a month, why couldn't the Air Force terminate for failure to perform?

Commander CURTIN. Because from contractual standpoint—well, from a contractual standpoint, by the Government's failure to take action against the contractor, we were in effect acquiescing to his schedule.

Mr. PIKE. What action could the Government take besides telling them they were going to cancel the contract for failure to perform?

Commander CURTIN. But they didn't, you see, Mr. Pike.

Mr. PIKE. Yes, but didn't you have the power to do that?

Commander CURTIN. No, sir. To terminate?

Mr. PIKE. Yes.

Commander CURTIN. No, sir. That is Air Force.

Mr. PIKE. Didn't Mr. Wood have the power to terminate?

Commander CURTIN. He had the power. I am certain, Mr. Pike, that his counsel would not have agreed to that action until the contract was set in proper perspective. What I am saying is that the Government, by condoning delinquent deliveries, was not in a position to take that action.

Mr. PIKE. Suppose the delinquent deliveries had continued for 20 years. At some point the Government could have taken that action, could they not?

Commander CURTIN. Mr. Pike, the Government could have taken that action in the summer of 1970 had all the Government actions been timely and proper. Our actions were not timely and proper, Mr. Pike.

Mr. PIKE. I couldn't agree with you more as to that statement.

Commander CURTIN. What I meant was, to amplify that, number one, we condoned in the most general sense this failure to deliver on time. Second, there were outstanding questions regarding the specifications which the Air Force had not answered promptly. In fact, they had gone for months unanswered. It would have made the legal position to terminate quite unacceptable.

Mr. PIKE. Are you telling me that in the position in which you found this contract there was no way that it could be terminated in June of 1970?

Commander CURTIN. Absolutely, it could have been terminated for the convenience of the Government, Mr. Pike, but not for default. Obviously in a convenience situation, the Government thereby agrees to pick up certain costs of the contract. In my opinion, the Air Force was unwilling to make a convenience termination and risk paying more funds.

Mr. PIKE. Mr. Frank obviously wanted the contract terminated for the convenience of the Government all through this proceeding, didn't he?

Commander CURTIN. In my opinion, he did, yes, sir.

Mr. PIKE. He put that in writing, did he not?

Commander CURTIN. He may have. I don't recall, sir.

Mr. PIKE. What did you envisage your role as being in the supervision of this contract if you had no power to terminate it for nonperformance? What was your job?

Commander CURTIN. The job is to insure that the contracts in the area are administered in accordance with the terms of the contract, quite simply.

Mr. PIKE. Didn't you say that earlier it consisted of seeing that the material was delivered on scheduled and that the material was satisfactory?

Commander CURTIN. Yes, sir.

Mr. PIKE. Was the material delivered on schedule?

Commander CURTIN. No, sir.

Mr. PIKE. Was the material satisfactory?

Commander CURTIN. In June 1970?

Mr. PIKE. Yes.

Commander CURTIN. Yes, sir.

Mr. PIKE. It was?

Commander CURTIN. Yes, sir.

Mr. PIKE. Were you made aware that the Navy had rejected the altimeters completely?

Commander CURTIN. I don't know that I knew that at that time, Mr. Pike. Obviously I have heard that. I don't know if I was aware of that in June of 1970.

Mr. PIKE. When did the Hayes Company first complain about the altimeter?

Commander CURTIN. In the spring of 1971, sir.

Mr. PIKE. Not until the spring of 1971?

Commander CURTIN. We were visited, I believe, in April or May of 1971, yes, sir, by ASD people.

Mr. PIKE. And until then you had no knowledge whatsoever that the altimeters were not performing satisfactorily?

Commander CURTIN. We had, Mr. Pike, and that is why I included it in my testimony, the information of established customer complaint channels, in which, if an instrument or any item goes to the field and is subsequently found to be defective, it provides for reporting, notification back to us and the contractor.

Mr. PIKE. When did you get your first customer complaint?

Commander CURTIN. It would have been, I am sure, years before I ever reported to the office, Mr. Pike. I can't answer that.

Mr. PIKE. And there continued to be customer complaints, as you call them?

Commander CURTIN. Yes, sir.

Mr. PIKE. During all the years before you reported to the office, is that corerct?

Commander CURTIN. That is correct, sir.

Mr. PIKE. Did the customer complaints continue to come in after June of 1970 when you took over?

Commander CURTIN. Certainly.

Mr. PIKE. Did you feel that these customer complaints were invalid?

Commander CURTIN. Some of them, absolutely, sir, sir.

Mr. PIKE. Did you feel that any of them were not invalid?

Commander CURTIN. Absolutely, yes, sir.

Mr. PIKE. What percentage would you say were valid?

Commander CURTIN. May I again quote from Captain Lipscomb's letter to ASD regarding the Hayes visit?

Mr. PIKE. What is the date of this letter?

Commander CURTIN. I can't give you that, sir, but the opening sentence is, "As of 28 June 1971," so it had to be within that immediate timeframe. We said this:

From 6 August 1968 to 28 June 1971 we, the Government, had accepted 1,937 AAU-19's. For that period, only 112 units were reported via this customer complaint channel. Of the 112, only 15 were properly attributed to quality deficiencies.

I believe we heard last week that ASD people themselves recognized that there were a portion of deficiencies due to design changes, the packaging problem, which was subsequently resolved. That is what makes this numbering from 112 reported to only 15 chargeable to quality control.

Mr. PIKE. You said that when you first discussed this with Mr. Wood in the fall of 1970—and you recommended that the contract be terminated—he said it couldn't be done because the only alternative source was Kollsman. Is that correct?

Commander CURTIN. Yes, sir. I don't believe the Bendix contract was then in existence.

Mr. PIKE. Did you find out how fast Kollsman was producing?

Commander CURTIN. I am sure I did, but I don't have that number, sir. I am sure Mr. Wood would have said Kollsman is producing x number a month.

Mr. PIKE. And Mr. Wood said x number is not enough, is that correct?

Commander CURTIN. Correct.

Mr. PIKE. Now let's go to the first documents that we have in writing covering your timeframe. This is exhibit No. 26 (see appendix 16) in that list of exhibits, which I believe you have there. It was from Mr. Blickenstaff. This is one of the three letters?

Commander CURTIN. Yes, sir.

Mr. PIKE. It said:

1. Effective this date, you are requested to notify this office prior to all units being cased. This is so that we may perform a visual inspection.
2. Should this office not be able to have someone present to perform the above, you will be so notified.
3. Your cooperation in carrying out the above will be appreciated.

What is wrong with that?

Commander CURTIN. As I stated before, Mr. Pike, No. 1, I am sure we didn't have the people to do what Mr. Blickenstaff wanted. Second, you will notice——

Mr. PIKE. Well, he took care of that in No. 2 there, didn't he—"If we don't have the people available?"

Commander CURTIN. But then it renders this meaningless if we don't have the people. But if I may continue, please notice that this is applicable. He made the decision to apply this to every contract item being produced at Aerosonic, every one, all contracts, all purchase orders. Mr. Pike, that was, and I am sure still is, contrary to policy. We did not operate then, I am sure they don't operate now, on a philosophy that says we will inspect everything.

Mr. PIKE. Wasn't the situation in the Aerosonic plant such that this was a reasonable requirement?

Commander CURTIN. In my opinion, no, sir.

Mr. PIKE. Let's look at the next one (see appendix 17) "Effective this

date you are requested to notify this office prior to start of final functional test on the above units. This is so we may verify that contractual requirements are being met."

That is dated March 10. The next two paragraphs are the same as the one of March 4. What is the matter with having the DCAS representative on the plant present when the tests are being conducted?

Commander CURTIN. Nothing whatsoever, sir, except again the decision was made to apply this notice against one, two, three, four, five, six separate items being produced by the contractor. I am certain that for many of these items the contractor had produced those for years with absolutely, I won't say no quality control deficiencies, but certainly minimum quality control deficiencies. Therefore, to impose a requirement that all of a sudden we examine them all simply was not consistent with policy.

Mr. PIKE. What is the difference between the AAU-16 and the AAU-19/A?

Commander CURTIN. I don't know, sir. I couldn't tell you the difference between any of them.

Mr. PIKE. Do you know the difference between the AAU–19 and the AAU-19/A?

Commander CURTIN. No, sir, I don't.

Mr. PIKE. Those are three of the six altimeters that you are talking about and you have just assumed that the contractor has been producing two out of those three for years. Is that correct?

Commander CURTIN. No, sir; I didn't say I assumed that. I didn't say I assumed that at all. I said——

Mr. PIKE. You said he imposed it on six different altimeters.

Commander CURTIN. Yes.

Mr. PIKE. You thought this was too rough because, as far as you knew, the contractor had been producing some of these for years.

Commander CURTIN. Not as far as I knew.

Mr. PIKE. Had he been producing the AAU–19/A for years?

Commander CURTIN. Mr. Pike, I can't tell you today, but at the time this incident occurred, which ultimately led to my decision to modify Mr. Blickenstaff's instructions, it was a simple matter to find out how long Mr. Frank had been producing these items and what the rejection rate was.

Mr. PIKE. You found out that Mr. Frank had been successfully producing all of these items and that the rejection rate was very low. Is that correct?

Commander CURTIN. Yes, sir. I will accept that.

Mr. PIKE. Let's look at the other document (see appendix 18). Again, this applied to all items in the plant?

Commander CURTIN. Yes, sir.

Mr. PIKE. "Effective this date you are requested to notify this office prior to packaging and after packaging any and all spare and/or repair parts. This is so that we may perform Government inspection as required by contract and/or delegation."

Would you tell us your reasons for opposing that?

Commander CURTIN. Yes, sir. It would be precisely the same that applied to the other instruments. It was a blanket decision on Mr. Blickenstaff's part. Quite obviously at the top of the document it says, "All Government contracts or purchase orders." We are talking

about spare and repair parts, the cost of which might range from pennies to hundreds of dollars. It was simply not consistent with established policy. Established policy, Mr. Pike, is to conduct quality assurance on a sampling basis.

Mr. PIKE. On the date of those last two letters, which were hand delivered, I presume, to Mr. Lolley, his quality control supervisor, on that same date you got a phone call from Mr. Frank. Is that correct?

Commander CURTIN. I don't recall, sir.

Mr. PIKE. You don't recall?

Commander CURTIN. No, sir.

Mr. PIKE. Did you eventually get a letter from Mr. Frank dated that same date?

Commander CURTIN. Yes, sir. No, excuse me. Excuse me. I see you are looking at the next exhibit (see appendix 11). That is actually addressed to Mr. Blickenstaff.

Mr. PIKE. Mr. Frank, on the same day, stated:

> We are notifying all of our Government offices that we are not going to comply with the two letters dated 10 March and the one dated 4 March, and until these letters are rescinded or other arrangements made, no further shipments will be made on any Government contract since we consider these letters a threat and discrimination against our organization caused by you and your group.
>
> Therefore, you and your quality control representatives will not be needed or admitted on the premises after 4:30 p.m. today until further notice.

How did you first find out that all of your people had been kicked out of the Aerosonic plant?

Commander CURTIN. I would assume, Mr. Pike, it would have been by a phone call.

Mr. PIKE. From whom?

Commander CURTIN. That is difficult to recall. It could have come from——

Mr. PIKE. You mean here every person you have working for you is kicked out of the plant and you can't remember how you found out about it?

Commander CURTIN. No, sir, I didn't say that. I said I didn't recall who telephoned me.

Mr. PIKE. You weren't even sure that you got a phone call. You said, "I would assume I got a phone call." Did you or didn't you get a phone call?

Commander CURTIN. I believe I did, Mr. Pike.

Mr. PIKE. And you don't know who called you?

Commander CURTIN. No, sir.

Mr. PIKE. Then I assume you don't remember what the conversation was. You don't know who you were talking to. Do you know what the conversation was?

Commander CURTIN. Certainly, the conversation would have had to center around this action of Mr. Frank.

Mr. PIKE. But you don't remember what anybody said. You don't remember who you talked to. Do you remember what he said to you?

Commander CURTIN. Specifically, no, sir.

Mr. PIKE. Do you remember what you said to him?

Commander CURTIN. Specifically, no, sir.

Mr. PIKE. Do you remember how you happened to meet with Mr. Frank on the 15th of March?

Commander CURTIN. Yes, sir.

Mr. PIKE. Did you go to him or did he come to you?

Commander CURTIN. No, sir. As I stated before, the meeting was held in my office.

Mr. PIKE. Do you remember how that meeting was set up? Did you call him and invite him to your office?

Commander CURTIN. I don't recall, Mr. Pike, definitely doing that. I am sure that I probably did.

Mr. STRATTON. What was that answer? You probably did invite him to your office?

Commander CURTIN. I probably did; yes, sir.

Mr. PIKE. When you met with Mr. Frank on March 15 and 16, was Mr. Blickenstaff with you and Mr. Frank at all times?

Commander CURTIN. I would hesitate to say all times, Mr. Pike. Certainly he was there when we discussed the specific problem that led to the meeting.

Mr. PIKE. Did Mr. Blickenstaff say anything about the need for closer inspection at the Aerosonic plant?

Commander CURTIN. I am sure he did, sir.

Mr. PIKE. Did he tell you that, if they had told him in advance that certain inspections would be conducted at certain hours when they went to watch those inspections, they would suddenly find they didn't need those inspections at those hours?

Commander CURTIN. No, sir.

Mr. PIKE. He didn't tell you?

Commander CURTIN. No, sir.

Mr. PIKE. Did you tell him that the reason that you were going to cancel all of these letters of his was because they were too broad and applied to all Government contracts?

Commander CURTIN. Absolutely.

Mr. PIKE. Did you suggest to him that if he made them even apply to the AAU–19 and the AAU–27, you would not object to them?

Commander CURTIN. I don't recall that that conversation took place, Mr. Pike.

Mr. PIKE. If they had only applied to the AAU–19 and the AAU–27, would you have canceled those letters?

Commander CURTIN. Probably not, no, sir.

Mr. PIKE. So it didn't matter what the contents of these letters were as far as the totality of the items to be inspected. You would not have approved of them anyway?

Commander CURTIN. That is correct. In the blanket action that he took, I would not have approved and did not approve.

Mr. PIKE. So on the 18th of March, 2 days later, you wrote a letter to whom, canceling these letters of Mr. Blickenstaff? Did you write that to Mr. Blickenstaff or to Mr. Frank?

Mr. LALLY. It's exhibit No. 40 (see appendix 12), Mr. Curtin.

Commander CURTIN. It's addressed to Mr. Frank, Mr. Pike. Quite obviously copies of that went internally to various people in our organization.

Mr. PIKE. It may be obvious to you, but I don't see anything on the letter that indicates that any copies went to anybody. Is there anything on this letter that indicates that the copies went to anybody?

Commander CURTIN. No, sir, but you wouldn't indicate that on a letter to contractor in any event, internal distribution.

Mr. PIKE. Did a copy go to Mr. Blickenstaff?

Commander CURTIN. Directly I don't know, Mr. Pike. It certainly would have gone to his supervisor. That would have been Mr. Carter at this time.

Mr. PIKE. You are writing a letter to the president of the corporation overruling your own subordinate working in the plant, and you don't know whether your own subordinate got a copy of the letter or not?

Commander CURTIN. Mr. Pike, he got a copy of that letter.

Mr. PIKE. You don't know whether you sent him one or not?

Commander CURTIN. No, sir, I don't.

Mr. PIKE. How do you know he got a copy of that letter?

Commander CURTIN. It's my understanding, if you look at page 2, Mr. Pike, which is underlined with the exclamation, "ha-ha", that that is Mr. Blickenstaff's doing.

Mr. PIKE. This is Mr. Blickenstaff's "ha-ha"? Let's read what he said "ha-ha" about. This is on page 2 and the subject is "Resident QAR." That was Mr. Blickenstaff; is that correct?

Commander CURTIN. Yes, sir.

Mr. PIKE [reading]:

> Your desire to replace Mr. E. F. Blickenstaff will not be agreed to at this time. I expect Mr. E. F. Blickenstaff to perform his duties in such a manner that the Government receives a quality product. He has received explicit guidance in the performance of his duties.

That is what you said Mr. Blickenstaff wrote "ha-ha" to?

Commander CURTIN. That is my understanding, sir.

Mr. PIKE. Did you give him explicit guidance in the performance of his duties?

Commander CURTIN. I will say this to answer your question, sir, that when I made the decision, Mr. Blickenstaff was personally informed of that decision by me and the reason I made it.

Mr. PIKE. That was a decision to cancel these three letters?

Commander CURTIN. Yes, sir.

Mr. PIKE. I am asking you whether you gave him personal guidance in the performance of his duties.

Commander CURTIN. I did not give him specific guidance in how to conduct his day-to-day operations, no, sir. This man was an experienced employee.

Mr. PIKE. When you wrote to Mr. Frank and said, "He has received explicit guidance in the performance of his duties," you did not mean that you had given him any such guidance, is that correct?

Commander CURTIN. That would be a correct interpretation, yes, sir.

Mr. PIKE. Let's get to the incident of the extra manifold that was found in the plant. How did you learn about the extra manifold?

Commander CURTIN. I was informed by Major Fringer, who was the Chief of Quality Operations.

Mr. Pike. How were you informed, by a telephone call?

Commander CURTIN. No, sir. I am sure that Major Fringer walked in and told me.

Mr. PIKE. Major Fringer walked into your office and told you that

Mr. Akins and Mr. Seay, I guess it was, had found this extra manifold. Is that correct?

Commander CURTIN. Yes, sir.

Mr. PIKE. Did he tell you that Mr. Akins wanted to write up a deficiency report on it?

Commander CURTIN. I don't remember, sir.

Mr. PIKE. In your judgment, should not a deficiency report have been written up on it?

Commander CURTIN. Yes, sir.

Mr. PIKE. Did you recommend to anyone that a deficiency report be written up on it?

Commander CURTIN. I would have to assume, Mr. Pike, that since there wasn't, I didn't take that action.

Mr. PIKE. Did you have the power yourself to write up a deficiency report on it?

Commander CURTIN. Yes, sir, I am sure I did.

Mr. PIKE. And you could have done that yourself?

Commander CURTIN. Yes.

Mr. PIKE. Personally?

Commander CURTIN. I am sure I could have.

Mr. PIKE. And in your judgment it should have been done.

Commander CURTIN. Yes, sir, in retrospect.

Mr. PIKE. And neither you nor anyone subordinate to you wrote up such a deficiency report; is that correct?

Commander CURTIN. Apparently not, Mr. Pike; no, sir.

Mr. PIKE. I think that is all I have at this time, Mr. Chairman. I have gone on for a long time.

The CHAIRMAN. Mr. Dickinson?

Mr. DICKINSON. Thank you, Mr. Chairman.

Commander, you said, if I remember correctly, that in your meeting with Mr. Wood in the fall of 1970, right after you had come on board——

Commander CURTIN. Yes.

Mr. DICKINSON. You came in in June, and then it took you some time to get the briefing on this oldest and most outstanding problem that affected your shop and this was given to you sometime in August, as you recall?

Commander CURTIN. As I recall, yes, sir.

Mr. DICKINSON. Subsequent to that, a matter of a month or two, I assume, you had the meeting with Mr. Wood.

Commander CURTIN. Yes, sir.

Mr. DICKINSON. What prompted the meeting with Mr. Wood? Was this as a result of what you learned from the briefing?

Commander CURTIN. Yes, sir, it was as a result of my review. Because as far as I was concerned, getting into the legal aspects of the contract we didn't, in fact, have a contract. We did not have an enforceable document.

Mr. DICKINSON. This is what your legal beagles told you; is that right?

Commander CURTIN. No, sir.

Mr. DICKINSON. Was this your own judgment?

Commander CURTIN. Not a legal opinion. This was a result of my

knowledge of the procurement regulations, that we did not have a legally enforceable, contractual document.

Mr. DICKINSON. Did Mr. Frank have a legal, enforceable, contractual document?

Commander CURTIN. No, sir. Neither side, really, when we got down to the nitty-gritty of the legalities of the situation, was in a good, viable, legal position.

Mr. DICKINSON. You arrived at this conclusion on your own, and not as a matter of what JAG or the legal officers, told you.

Commander CURTIN. That is correct.

Mr. DICKINSON. Just so that I am sure I understand, would you explain why you felt this was the case?

Commander CURTIN. Yes, sir. There were two reasons. First of all, we had the almost unpalatable situation of the first article, wherein the Government had waived its rights, as I recall, years before; we are still at 17's and 19's without that clause being acted upon.

Second of all——

Mr. DICKINSON. Wait just a minute. Before we go through that door No. 2, what do you mean by the Government having waived its rights? You mean just by noncompliance or nonenforcing, or had technically and legally waived its rights?

Commander CURTIN. As far as I was concerned, we had technically and legally given away any rights in the First Article clause by accepting well over 1,000 of these instruments and as far as we were concerned, putting them into service. It was beyond my comprehension then that subsequent to that date we could go back to the contractor and claim any moneys as a result of deficiencies.

Mr. DICKINSON. Even though a subsequent contract or clause in the contract between the Government and Aerosonic spelled this out?

Commander CURTIN. But that was subsequent, sir.

Mr. DICKINSON. Subsequent to the time you are talking about?

Commander CURTIN. The First Article deletion?

Mr. DICKINSON. Yes.

Commander CURTIN. The First Article deletion didn't occur until 1971. Are we talking the same——

Mr. DICKINSON. That is when they formally waived it; right?

Commander CURTIN. Yes, sir.

Mr. DICKINSON. You said they had, in fact, already waived it.

Commander CURTIN. In my opinion, they had.

Mr. DICKINSON. In your opinion.

Commander CURTIN. Yes, sir.

Mr. DICKINSON. Were you aware that a contract or a clause in the contract existed prior to this to enable them to go to production and again spelled out they weren't waiving the First Article inspection?

Commander CURTIN. Yes, sir.

Mr. DICKINSON. But that still didn't make any difference in your mind.

Commander CURTIN. No, sir, it didn't.

Mr. DICKINSON. Go on to No. 2, please.

Commander CURTIN. No. 2 was the fact of the contractor's failure to deliver on schedule. It is a rather well-established fact that in Government contracts that if the Government acquiesces to a delinquent schedule; that is, doesn't take some affirmative action to cure

it, that we then cannot claim a termination by reason of default, and we hadn't done that, you see. The contractor would slip a month. Let's assume he was to deliver 100. He delivered 80. Well, the proper thing, of course, to do, and timely thing, is to issue the contractor a show cause letter: "Show cause where you should not be terminated." We hadn't done that, so in my opinion, again, we were not in a defensible position.

Mr. DICKINSON. You are talking about over a period of 2 years?

Commander CURTIN. Yes, sir.

Mr. DICKINSON. And they had been delinquent, or late, or failed to deliver on time habitually?

Commander CURTIN. Habitually, yes, sir.

Mr. DICKINSON. Over a period of 2 years?

Commander CURTIN. Habitually.

Mr. DICKINSON. And you felt at that time that this precluded you from terminating the contract for failure to deliver?

Commander CURTIN. It precluded anyone in the Government from terminating that contract for default, sir, for default.

Mr. DICKINSON. What was your third ground?

Commander CURTIN. The third one was the fact that the contractor had been producing an item to a contract change, specification change, since 1968, and this was 1970, and yet the final modification of the contract, this $1.2 million still had not been incorporated into the contract. I found that, let me say, undesirable, to put it mildly. I couldn't see how the Government could ask the contractor to do something and not pay him or reimburse him for it for a period of 2 years. I wanted Mr. Wood to correct that situation.

Mr. DICKINSON. You met with Mr. Wood and what was the result of that?

Commander CURTIN. I suggested, recommended the contract be terminated. He said "No, we can't."

Mr. DICKINSON. Did he tell you why it couldn't be?

Commander CURTIN. Yes, sir, that there was an urgent need for these items; that the other contractor, Kollsman could not satisfy their requirements.

Mr. DICKINSON. That was the only grounds Mr. Woods had as to why it could not be terminated, or did he go into the same 1, 2, 3, grounds you just enumerated to me?

Commander CURTIN. We certainly discussed the 1 and 2 grounds, yes, sir, because as a result of his visit, the contract was subsequently modified to reflect a new delivery schedule. The funding was further provided, this $1.2 million was subsequently provided, and again the modification that changed the delivery schedule was done so that the Government could unilaterally, if he again became delinquent, delete a quantity of altimeters and place them with Kollsman. That actually was done. So you see even after the contract was modified to a new delivery schedule, the contractor did not adhere to it.

Mr. DICKINSON. After that meeting, and when there was a modification of the contract, did you then have a viable, legal, enforceable contract? After you got the $1.2 million, then you set up a new delivery schedule, yes?

Commander CURTIN. We were much closer to it, yes, sir, much closer to it. The reason I hedge that answer is because throughout

the life of that contract it was constant action between Air Force and the contractor to modify or change specifications.

Now as inconsequential as some of those actions really may have been, Air Force was interminably slow in responding to those requests. I felt that was a big plus on the contractor's side in any termination action, but to more directly answer your question, we were in a far better position to terminate that contract in December–January time frame, that would be 1970–1971, then we were the previous summer.

Mr. DICKINSON. Why did you recommend at your meeting with Wood that you terminate the contract, if only 1.5 percent of the altimeters you had received were found to be deficient by your quality control?

Commander CURTIN. The history of the contract, as far as delivering end items, was so unsatisfactory, and the projection of the people working for me was such that Mr. Frank was never going to cure this satisfactorily. It was my opinion that we should terminate the contract and get out.

Mr. DICKINSON. And this was not as a result of quality control but his inability to perform; is that correct, sir.

Commander CURTIN. That is correct, sir.

Mr. DICKINSON. You discussed with Mr. Blickentstaff the complaint, the very adamant stand that Mr. Frank took in regard to his removal, and I asume that you explained why you were rescinding his three letters putting certain additional requirements on Frank; is this correct?

Commander CURTIN. That is correct, sir.

Mr. DICKINSON. Then you later removed Mr. Blickenstaff. Why was this?

Commander CURTIN. Of course that action took place in December of 1970, so that would be 6, 7, 8 months later, but several things had transpired or were obviously going on with respect to the 19. Most noticeable was the action we took in November to implement a sampling plan which we found out was illegal and had to rescind.

Mr. DICKINSON. Whose sampling plan?

Commander CURTIN. We implemented, Mr. Dickinson, a sampling plan on the 19 as a result of the Hayes——

Mr. DICKINSON. What you refer to as being an illegal sampling plan?

Commander CURTIN. That sampling plan. We levied contractually a requirement of Aerosonic for a 100-percent sampling.

Mr. DICKINSON. Your office did this?

Commander CURTIN. We did that, yes, sir, Mr. Mahaun, ACO, did that, as a result of many discussions with various quality assurance personnel. Mr. Frank said, "You cannot do that. It is beyond the scope of the contract." We went to Mr. Adams, our counsel in Atlanta, for a rule, and he agreed with the contractor, so subsequent to his decision, the office, Mr. Mahaun, the ACO, made a recommendation to both ASD and ESD to contractually incorporate the sampling plan. I do not recall that they did or did not, sir.

Mr. DICKINSON. You don't know whether or not this was done?

Commander CURTIN. No, sir, I don't.

Mr. DICKINSON. You had to back off of the requirement just levied?

Commander CURTIN. We didn't want to back off. We reimbursed him for the sampling plan that was actually implemented for a small period of time.

Mr. DICKINSON. Let's get down to why Mr. Blickenstaff was——

Commander CURTIN. What I was trying to do was set the stage for the environment. Again, Mr. Frank is the type of individual who can see the worst side of any action. He places some very strange interpretations on our actions. He saw the sampling plan, for example, as another means of harassing him, being prejudiced against his company. I knew that he and Mr. Blickenstaff did not see eye to eye. Mr. Blickenstaff has testified here that he actually sat in his office for months apparently.

Mr. DICKINSON. Sat in whose office; Mr. Frank's office?

Commander CURTIN. No, sir, sat in his own, and Mr. Frank in December came in, I am sure it was in December, again with the threat to close down or cease operations. Coupled with this threat was this demand for removal of Blickenstaff. That was the action, or Mr. Frank's action, was the one that prompted me to talk to Mr. Patterson in Atlanta, which ultimately resulted in a second meeting, if you will, in my office with Mr. Frank, with the various quality people, in which I made the decision to take Mr. Blickenstaff out.

Certainly the removal of any Government person is not taken lightly, nor is it confined or was it confined in my tour in St. Petersburg to Aerosonic. Other contractors have demanded removal of people. You simply don't take that lightly, nor did I take it lightly then, but it was obvious to me that the Government wasn't going to tolerate the shutting down of that facility, and all the instruments that he was producing for the Army and Air Force, so I took the personnel action.

Mr. DICKINSON. You said Mr. Blickenstaff sat in his office for months, but then you don't follow up on that statement, and I still don't know what Mr. Blickenstaff was doing that was so repugnant to Mr. Frank that he would be so adamant that he would close his plant if he was not removed.

You had already levied three requirements on him that subsequently had been removed by you. What was he doing, if anything, besides watching him?

Commander CURTIN. Mr. Dickinson, I can't answer that. Anything that I might say to you would be hearsay.

Mr. DICKINSON. All right, let's say it is hearsay, but you had certain information and input to you that prompted you to make this decision, whether it is hearsay or not. I want to know on what you based your decision to remove the man.

Commander CURTIN. My decision was based on Mr. Frank's position.

Now as unpalatable as you might find that, a decision had already been made by Government to acquiesce to Frank.

Mr. DICKINSON. You mean you got the word from someone else?

Commander CURTIN. What I am saying is that when I talked to Frank and Frank said "I am going to shut down," and I reported this to my bosses, Mr. Patterson specificially, and Mr. Patterson said—and I can't quote him, but the gist of it would be: "Pat, that is an unacceptable action. Let me see what we can do to resolve it." He picked up the phone and talked to Mr. Frank, and the next thing I

knew we were convening a meeting in my office with Atlanta people, Mr. Frank, people from Orlando staff and myself.

As a result of that meeting, and reviewing the entire situation, I took Mr. Blickenstaff out.

Mr. DICKINSON. Can you recall what Mr. Frank said at that meeting or prior to that meeting as to actions Blickenstaff was taking, his demeanor, or what he was doing that was so repugnant and objectionable to Frank that he would make this threat?

I am trying to find out what Mr. Blickenstaff was doing that was so bad.

Commander CURTIN. Yes, sir, I know you are, and I wish I could, you know, go 1, 2, 3, 4 for you. I can't.

Mr. DICKINSON. You don't know what he told you he was doing?

Commander CURTIN. No, sir, but that is not unusual in a conversation with Mr. Frank.

Mr. DICKINSON. I don't know Mr. Frank.

Commander CURTIN. I know you don't, but Mr. Frank did not need, as far as I was concerned, factual basis to make allegations.

Mr. DICKINSON. Now one final subject and I will yield my time. After the extra manifold was discovered, you were aware of this?

Commander CURTIN. Yes, sir, I was informed of that.

Mr. DICKINSON. And you were informed of the circumstances around the extra manifold?

Commander CURTIN. Yes, sir.

Mr. DICKINSON. That it was concealed?

Commander CURTIN. Yes, sir.

Mr. DICKINSON. And that it did in fact affect the testing of the instruments?

Commander CURTIN. Yes, sir.

Mr. DICKINSON. What, if anything, did you do as a result of acquiring this information, and what did the Government do?

Take whatever time you need. I want you to be accurate.

Commander CURTIN. I want to be accurate too.

In my testimony that I prepared for you, sir, I told you that Major Fringer, my quality assurance man, was the gentleman who told me of this action. Major Fringer said to me "I told Mr. Tabor," who was then Mr. Blickenstaff's supervisor——

Mr. DICKINSON. In the plant or was he elsewhere?

Commander CURTIN. He was physically located elsewhere, sir.

Major Fringer told Mr. Tabor words to the effect. "OK, I understand what you are saying. Be alert for further instances of this kind." Mr. Tabor was also saying to us: "Let's implement a sampling plan."

That is really what the thrust of Mr. Tabor's memo was. Tabor was told that "No, we would not until the ESD or ASD did it."

What you are asking me is did I take any further action after Major Fringer told me?

Mr. DICKINSON. You or the Government.

Commander CURTIN. No, sir, I did not.

Mr. DICKINSON. You didn't feel that this was such an extraordinary act on the part of the contractor that it would merit any action on your part or on the part of the Government either by way of reprimand or canceling the contract or any penalty whatever?

Commander CURTIN. Mr. Dickinson, I wish I could give you in retrospect what I thought at that time. I simply can't any more than I have done.

Mr. DICKINSON. Based on your years of experience and the job that you had, what is your feeling about it now? You don't think this was so extraordinary, sort of like a fifth ace in the deck, it seems to me. I don't want to play in that game.

Was it not that unusual? Is that the only game in town?

Commander CURTIN. No, sir. I felt as personally troublesome as Mr. Frank was, as much trouble as he had caused the Government, in my opinion he still was the president of that organization. He was informed of what had taken place. Mr. Frank said "As President of this corporation, I will do such and such."

Now if you want to interpret that as me saying to Mr. Frank, "OK, I'll walk an extra mile with you," that is what I did.

Mr. DICKINSON. Was this before or after the quality control people had found employees of the corporation after hours in the testing chamber adjusting the dials?

Commander CURTIN. I am sure it is before.

Mr. DICKINSON. This was before?

Commander CURTIN. I am sure before, Mr. Dickinson.

Mr. DICKINSON. When this occurred, what remedial action, punitive action, or whatever, did you or the Government take when two employees were subsequently found there?

Commander CURTIN. As I recall, this is the action which Mr. Akins subsequently wrote up. Again he had already informed Mr. Frank of the incident. The paper was forwarded to me. The documentation was forwarded to me. I personally called Mr. Frank. Mr. Frank told me the action he was going to take, and, as I recall, this is the one that he said "I'll fire you if you are in that area," to his production people.

Mr. DICKINSON. In effect he said "Don't do it any more."

Commander CURTIN. Yes, sir. Subsequently that documentation was given to our counsel in Atlanta.

Mr. PIKE. Would the gentleman yield?

Mr. DICKINSON. Yes.

Mr. PIKE. How much subsequently?

Commander CURTIN. As I recall, Mr. Pike, it would have been from the latter part of March to the middle of April.

Mr. DICKINSON. I have no further questions, Mr. Chairman.

The CHAIRMAN. Mr. Stratton?

Mr. STRATTON. Thank you, Mr. Chairman.

Mr. HUNT. Mr. Stratton, before you start, will you yield to me for just one question?

Mr. STRATTON. Sure.

Mr. HUNT. Commander, I want to be very blunt with this question.

Listening to all this testimony, at the time all these instances were occurring, did you form an opinion that the product being produced by Aerosonic was of an inferior quality but that due to the attitude of Mr. Frank, the Government was condoning the continued purchase of them? In other words, I am asking you a direct question. Were you intimidated by Mr. Frank?

Commander CURTIN. Me, personally, Government, Air Force?
Mr. HUNT. All the Government employees?
Commander CURTIN. Absolutely, yes, sir.
Mr. HUNT. That is all.
Mr. STRATTON. What was the answer to that question?
Commander CURTIN. Yes, sir, absolutely.
Mr. STRATTON. You were intimidated?
Commander CURTIN. Yes, sir. I felt not only that incident, but——
Mr. STRATTON. How were you intimidated?
Commander CURTIN. I think these threats to close down were just that—threats.
Mr. STRATTON. Why should you be intimidated about his closing down? Was this going to look bad on your record?
Commander CURTIN. No, sir, it wouldn't have affected my record one way or the other.
Mr. STRATTON. Then why were you intimidated? You were the representative of the U. S. Government, weren't you?
Commander CURTIN. Yes, sir.
Mr. STRATTON. This guy is a contractor working for the Government, being paid for it by the taxpayers.
Commander CURTIN. Yes.
Mr. STRATTON. He comes in and pounds on the table and you get scared?
Commander CURTIN. No, he came in and pounded on the table. We took an action which we——
Mr. STRATTON. Why should you get scared if he pounds on the table?
Commander CURTIN. Excuse me. I didn't say I got scared.
Mr. STRATTON. That is what intimidated means.
Commander CURTIN. Let me rephrase my answer, if I may.
What I am saying is that time after time after time, Mr. Stratton, the Government did something and the action got reversed.
Mr. STRATTON. Got reversed where?
Commander CURTIN. By counsel, by PCO's.
Mr. STRATTON. What do you mean the "Government did something?" Give me one example of what you are talking about.
Commander CURTIN. We imposed the sampling plan on him in November of 1971.
Mr. STRATTON. And it got reversed by him?
Commander CURTIN. No, sir. Well, he appealed it.
Mr. STRATTON. He appealed it. He went to you and you fired Mr. Blickenstaff.
Commander CURTIN. No, sir, that is not true. The sampling plan action was appealed by Mr. Frank.
Mr. STRATTON. To whom?
Commander CURTIN. To my office.
Mr. STRATTON. To your office.
Commander CURTIN. Yes, sir.
Mr. STRATTON. That is right. He appealed it to you and you said therefore you would fire Blickenstaff.
Commander CURTIN. No, sir.
Mr. STRATTON. It didn't go beyond your office, did it?

Commander CURTIN. No, sir, I didn't say that. I said that we took the action of Mr. Frank, turned it over to a counsel.

Mr. STRATTON. What counsel?

Commander CURTIN. Mr. Adams.

Mr. STRATTON. Mr. Adams.

Commander CURTIN. In Atlanta.

Mr. STRATTON. He is the counsel of what?

Commander CURTIN. DCAS, the region.

Mr. STRATTON. DCAS.

Commander CURTIN. Yes, sir.

Mr. STRATTON. He is over you?

Commander CURTIN. He is the counsel to my boss.

Mr. STRATTON. He is the counsel to your boss.

Commander CURTIN. Yes, sir.

Mr. STRATTON. What happened then?

Commander CURTIN. Mr. Adams agreed with the contractor. He said it was beyond the scope of the contract.

Mr. STRATTON. He agreed with the contractor.

Commander CURTIN. Yes, sir.

Mr. STRATTON. And so who did he make that recommendation to?

Commander CURTIN. Back to my office.

Mr. STRATTON. Back to your office.

Commander CURTIN. Yes, sir.

Mr. STRATTON. I thought you said he was the counsel to your boss.

Commander CURTIN. Well, he is.

Mr. STRATTON. Did your boss order you to fire Mr. Blickenstaff or was that your decision?

Commander CURTIN. That was my decision.

Mr. STRATTON. That was your decision.

Commander CURTIN. It had nothing to do with the sampling plan.

Mr. STRATTON. You are the representative of the Government. You are the one who made the decision. Mr. Adams didn't make the decision. He is just a counsel. He gave you advice.

Commander CURTIN. But the two are not——

Mr. STRATTON. You are the man who reversed the action, aren't you? You are the man who said, "Yes, sir, Mr. Frank. You are right. I will fire Mr. Blickenstaff."

Commander CURTIN. No, sir, Mr. Stratton.

Mr. STRATTON. Mr. Adams advised you. Who was it that decided to wipe out the requirement for sampling?

Commander CURTIN. The counsel.

Mr. STRATTON. The counsel is not in the chain of command. The counsel is a legal adviser——

Commander CURTIN. Yes.

Mr. STRATTON [continuing]. To you. You made the decision. You just testified that it didn't go to your superior.

Commander CURTIN. Mr. Stratton, the counsel said that the action we took was illegal, was illegal.

Mr. STRATTON. Where did he say that?

Commander CURTIN. I am sure that your staff has the documentation to that effect.

Mr. STRATTON. Do we have a document on that?

Mr. LALLY. There was such an opinion.

Mr. STRATTON. The opinion still is not the operating decision.

Commander CURTIN. Yes, sir. We are talking about a legal contractual document and a legal opinion that an action was not proper. We had no choice but to reverse ourselves.

Mr. STRATTON. And you took the action.

Mr. DICKINSON. Could I ask a clarifying question, if you will yield?

Mr. STRATTON. Go ahead, yes.

Mr. DICKINSON. Was there any connection between reversing the decision on the testing of 100 percent of the items and the removal of Mr. Blickenstaff.

Commander CURTIN. No, sir.

Mr. DICKINSON. Would you clarify that for me?

Commander CURTIN. The only connection is that they were occurring in the same timeframe, the same environment.

Mr. STRATTON. Commander Curtin, you have already said that the action that Mr. Blickenstaff took in proposing the sampling procedure was in line with the policy of DCAS.

Commander CURTIN. No, sir. I said it was not in line with it.

Mr. STRATTON. Mr. Blickenstaff has already testified that this letter was not drafted by himself. It was drafted by somebody else. It was worked out in his office, and you have already told the staff that this action was not initiated by Blickenstaff. He was implementing a DCAS policy.

Commander CURTIN. Excuse me, Mr. Stratton. You lost me now on which letter you have reference to.

Mr. STRATTON. I am talking about the sampling request contained in the letter to Mr. Frank from Mr. Blickenstaff of November 12, 1971.

Commander CURTIN. Those requirements, that sampling plan requirement, originated as a combined effort, as a combined effort.

Mr. STRATTON. Combined effort by whom?

Commander CURTIN. Various quality assurance people.

Mr. STRATTON. Who?

Commander CURTIN. Major Fringer from my office would have been involved. Mr. Carter would have been involved.

Mr. STRATTON. Were you involved?

Commander CURTIN. Not directly, no, sir. I didn't sit down—— and——

Mr. STRATTON. Not directly?

Commander CURTIN [continuing]. In the sense that I drafted the plan; no, sir.

Mr. STRATTON. Did you approve this action?

Commander CURTIN. I knew it was going forward, yes. You see, all those documents, Mr. Stratton, if I can clarify one thing, contractual documents, would go forward to the contractor over the signature of the administrative contracting officer.

Mr. STRATTON. That is right, but this document was not his idea. He has so testified that this was developed in your office by the people who were under you; correct?

Commander CURTIN. People who were under me and staff advisors to our office, yes, sir.

Mr. STRATTON. To your office, all right.

Now what about this policy not being in accord with the details of

the contract? What is there in the item of the 12th of November that is in violation of the contract, that there shall be sampling testing?

Commander CURTIN. Specifically——

Mr. STRATTON. Did this contract prove that Mr. Frank could produce anything that he wanted without ever having it tested at all? Is that part of the contract?

Commander CURTIN. No, sir, but the thing that was important about that, was the action was not consistent with the terms of the contract.

Mr. STRATTON. Isn't that fairly important, since you said there is no direct connection between this and letting Mr. Blickenstaff go, but I think there is clearly an indirect connection. Mr. Lally has just given me this opinion of Thomas E. Powell, chief counsel, DCAS, Atlanta region, which is very, very informative.

He is of the opinion that the sampling plan imposed on the contractor is outside of the scope of the contract because the contract calls for 100 percent inspection and does not provide for the sampling plan required by the above cited letter.

In other words, this is less severe than——

Commander CURTIN. No.

Mr. STRATTON [continuing]. Than what the contract requires.

Commander CURTIN. No, sir. You see, it doesn't matter, I think from a legal standpoint, whether it was less severe or more severe. The point was that it was not in the basic terms and conditions of the instrument.

Mr. STRATTON. All right.

Commander, let me begin here. I got into this because I am a little appalled at the way you handled your job.

How long were you with the Defense Contract Administration Service?

Commander CURTIN. From June of 1970 until August of 1972.

Mr. STRATTON. What?

Commander CURTIN. From June of 1970 to—excuse me——

Mr. STRATTON. I am not talking about your connection with this particular one. In the Defense Contract Administration Service all together, when did you first enter it?

Commander CURTIN. You don't mean DCAS then. You mean Navy experience?

Mr. STRATTON. This is the Defense Contract Agency, isn't it? I don't know what DCAS stands for.

Commander CURTIN. Yes, sir.

The CHAIRMAN. When did you go to work for the Government?

Commander CURTIN. I graduated from the Naval Academy in 19——

The CHAIRMAN. Never mind that. After you got out. That is what Mr. Stratton is asking.

Mr. STRATTON. I am interested in how much duty you spent——

The CHAIRMAN. In Defense.

Mr. STRATTON [continuing]. In being a Defense Contract Officer for the Defense Department.

Commander CURTIN. Approximately 10 years, sir.

Mr. STRATTON. When did you start?

Commander CURTIN. My first tour of duty at the job would have been in 1957.

Mr. STRATTON. In 1957?

Commander CURTIN. I think, 1957, yes, sir.

Mr. STRATTON. What is the purpose of this Defense Contract Administration Service?

Commander CURTIN. To assure that contracts placed with contractors in a specific geographical area are administered in accordance with the terms of the contract.

Mr. STRATTON. And you are supposed to be interested in promoting what?

Commander CURTIN. The only thing you can promote is to assure that the terms of the contract are satisfied. That is your sole function.

Mr. STRATTON. You testified earlier, didn't you, that you are trying to assure that you get delivery on time; is that right?

Commander CURTIN. Yes, sir.

Mr. STRATTON. And that you get quality products; is that right?

Commander CURTIN. Yes, sir.

Mr. STRATTON. When did you leave the Navy?

Commander CURTIN. August 31, 1972.

Mr. STRATTON. Where are you employed now?

Commander CURTIN. I will be employed this fall at a junior college.

Mr. STRATTON. At a junior college.

Commander CURTIN. Yes, sir.

Mr. STRATTON. Where are you employed now?

Commander CURTIN. I am not.

Mr. STRATTON. You are not employed now.

Commander CURTIN. No, sir. I have been in school, if I can answer that.

Mr. STRATTON. A Defense Contract Officer is supposed to be on whose side, Commander? Which side are you supposed to be representing?

Commander CURTIN. Quite obviously the Government.

Mr. STRATTON. You are supposed to be representing the Government.

Commander CURTIN. Yes, sir.

Mr. STRATTON. You are not supposed to be representing the contractor, are you?

Commander CURTIN. No, sir.

Mr. STRATTON. How do you account for the fact that every time in this proceeding, and this stands out like a sore thumb, that when any issue comes up between the requirements of the Government and the wishes of Mr. Frank, you always come down on Mr. Frank's side? How do you account for that?

Commander CURTIN. Well, I hope that in the previous testimony I have tried to give you the rationale for the actions I took.

Mr. STRATTON. I haven't been able to catch it, if you did, and I am amazed that in every one of these cases you come down on the side of the contractor. You started out by saying that you were explaining about how badly the Air Force had done, how they had waived their right to have any control over the contract. I was surprised to hear you say that, because I thought you were on the Air Force's side. I thought you were on the side of the Government?

Commander CURTIN. Do you want me to answer that, sir?

Mr. STRATTON. If you would like to comment, I would be interested in your comments.

Commander CURTIN. Certainly being on the Government's side doesn't mean that you necessarily condone all that has occurred in the contractual situation, and I didn't, I couldn't agree from my review that what the Air Force had done was proper.

Mr. STRATTON. But you seem to find difficulty criticizing what the contractor was doing. That is the thing that surprises me.

Commander CURTIN. I don't think so at all, sir.

Mr. STRATTON. Don't you recognize that in this relation when a Government contract is being carried out, and there are Government inspectors to insure proper performance, that you are engaged in an adversary proceeding? The contractor would like to cut corners, and the reason we have inspectors in Governement plants is to make sure that they don't cut corners, and to make sure that the Government gets what it has contracted for in the contract.

Isn't that the arrangement?

Commander CURTIN. Absolutely.

Mr. STRATTON. And you have to be on your toes to make sure that this fellow doesn't cut any corners; isn't that true?

Commander CURTIN. That is so, but I also have a responsibility to insure myself that the actions of the people working for me are proper and are within the terms of the contract.

Mr. STRATTON. What is your primary interest and concern? What are you trying to protect?

Commander CURTIN. The interests of the Government.

Mr. STRATTON. All right, and one of the interests of the Government is to get a quality product; isn't it?

Commander CURTIN. Yes, sir.

Mr. STRATTON. I have run into this kind of thing. Suppose, for example, we have a meat inspection arrangement, and every meat plant has Government inspectors in there, to make sure that when they prepare the sausages and the meat, that you get proper quality products, that you don't get dust, dirt, and contamination. Suppose somebody comes to you and says: "Look, this inspector in my plant is giving me a bad time. He is harassing me. He is always complaining because we have got some paint dripping off the ceiling or something of that kind. I am trying to do business but this guy is giving me a bad time. I want you to fire him."

What would be your feeling if somebody came in and said that about an inspector in a meat plant?

Commander CURTIN. I would want to see if the allegations were correct. I would want to see if the paint were falling off overhead.

Mr. STRATTON. If you were a Government official, which side would you be inclined to support?

Commander CURTIN. As a general question——

Mr. STRATTON. If you were a Government official and you had somebody working under you as an inspector in a meat plant, whose side would you tend to support to begin with?

Commander CURTIN. The Government's, of course.

Mr. STRATTON. The Government's side.

Commander CURTIN. Of course.

Mr. STRATTON. And that includes your subordinates, doesn't it?

Commander CURTIN. Yes, but——

Mr. STRATTON. So if this fellow was working for you, and the owner came in and complained that he was harassing him, what would be your immediate reaction?

Commander CURTIN. Find out what the story was.

Mr. STRATTON. That maybe the fellow wasn't letting him cut corners the way he wanted to. Wouldn't that be your immediate reaction, if you are interested in the Government?

Commander CURTIN. No, sir, it wouldn't.

Mr. STRATTON. It wouldn't?

Commander CURTIN. No, sir.

Mr. STRATTON. You regard your job as kind of a judicial one?

Commander CURTIN. Yes, sir.

Mr. STRATTON. Trying to adjudicate both sides, and not give the Government any break any more than anybody else?

Commander CURTIN. It certainly is inherent in the position to ascertain the facts.

Mr. STRATTON. Commander, as I understand it, you said that you were intimidated by Mr. Frank and disturbed by him because he was threatening to close down production, threatening to terminate the contract; is that right?

Commander CURTIN. I absolutely did, yes, sir.

Mr. STRATTON. How could you be intimidated by that when you have just testified that when you first came in there you were urging that the contract be terminated yourself?

Commander CURTIN. But the action of Mr. Frank wasn't applicable only to the 19, Mr. Stratton. His action affected the whole galaxy of contracts.

Mr. STRATTON. If a fellow is putting out poor quality material, it is better that the Air Force not get that material than it get poor quality, isn't it?

Commander CURTIN. You want to make an assumption that I can't support, that all of the material produced by Aerosonic was of inferior quality.

Mr. STRATTON. You got evidence that there was a good deal of it that was of inferior quality, did you not, from Hayes, from the Air Force, from the Navy, from LTV?

Commander CURTIN. No, sir, we didn't. That is the point I think that is important that Mr. Pike asked.

Mr.. STRATTON. You are representing the Government, but you never heard of any of this information; is that right?

Commander CURTIN. I didn't say that I had not heard of it. I said that we had acquired, over a perod of years, as I recall, approximately 1,400, 1,500, 1,600 instruments, of which only approximately 100 had been reported as defective.

Mr. STRATTON. Let me ask you one other question, Commander.

What did you ever do during your period with this contract to help the side of getting better quality control? Can you recall anything you did to support better quality control?

Commander CURTIN. Certainly the action in November to implement the sampling plan was one step in that direction.

Second of all, most important I think were the actions that we

collectively took in the January-February timeframes to try to determine precisely what the matter was, that is, this comparability study. It didn't prove a thing, unfortunately.

Mr. STRATTON. Did you ever check with your counsel to see whether the inspections that Mr. Blickenstaff requested were illegal?

Commander CURTIN. You are talking about his first actions, Mr. Stratton?

Mr. STRATTON. That is right, yes.

Commander CURTIN. No, I am sure I did not.

Mr. STRATTON. That is all I have, Mr. Chairman.

The CHAIRMAN. Mr. Daniel?

Mr. DANIEL. Commander Curtin, were you ever harassed by any of your superiors in connection with this contract?

Commander CURTIN. No, sir. It was pretty evident that again we, the Government, were not going to let Mr. Frank carry out his threat to shut down.

Mr. DANIEL From where did those orders come? They weren't orders I am sure, but how did you arrive at this conclusion?

Commander CURTIN. We are talking now, Mr. Daniel, please, about the November-December timeframe?

Mr. DANIEL. No, I am talking about this delivery of inferior quality, and yet there was an order apparently from Mr. Wood, or someone, that in spite of the unacceptable altimeters that you were getting, you still were not going to terminate the contract. Why? Where did that pressure come from?

Commander CURTIN. With respect to Air Force and the contract, they made a decision, they, Mr. Wood representing Air Force, in 1970.

Mr. DANIEL. Then your actions, if I understand you correctly, were caused to some extent by pressure from Mr. Wood.

Commander CURTIN. Pressure to the extent that it was apparent that the contract was not going to be terminated.

Mr. DANIEL. Yes.

Commander CURTIN. That decision was very evident from the Air Force side of the House, from the ASD side of the House. I would suggest to you, Mr. Daniel, that as far as I was concerned, the environment shifted radically when the contract was transferred from ASD to ESD at Hanscom, Mass. There the environment, as best I can recall, shifted from just letting this guy go on at his own pace to one of let's get the contract in shape contractually and take a termination action, which ESD eventually did, so I think there are two different environments here.

Mr. DANIEL. What caused the change in the environment?

Commander CURTIN. Change of personnel, change of attitude, I would suspect, more than anything, Mr. Daniel. Mr. Wood would no longer be the PCO. I do not recall the new PCO's name at Hanscom, but it was evident that those people, those managers at ESD, were not going to tolerate the same conditions that existed at ASD.

Mr. DANIEL. What you are saying then is that as soon as you changed your contract officer, some action was taken.

Commander CURTIN. Yes, sir.

Mr. DANIEL. During the first part of your testimony, you talked about design changes. You put emphasis on design changes.

Let me ask you this: How did this affect the government? How did it affect the contractor, and did it have anything to do with the contractor's failure to perform?

Commander CURTIN. Certainly any substantive design change in any product is going to affect the contractor. It is going to affect the learning technique of the people on the line. It is going to affect materials acquisition. Absolutely, a major design change will generally cause a contractor to become delinquent, or to slip his schedule somewhat.

Also, as we have heard here, as I have heard here, the frequent design changes caused instruments to get into the field which looked the same externally, but in fact were different internally. In other words, this constant design change resulted in repair parts problems, repairing the instrument itself, a whole host of problems.

Mr. DANIEL. The point I want to try to make, Mr. Curtin, is: Is it your opinion that the constant change of the design resulted in the contractor's failure to perform satisfactorily?

Commander CURTIN. It certainly would have contributed to it, yes, sir.

Mr. DANIEL. One other thing you said that I want to ask you about. You said that you didn't know one altimeter from another. That is what I understood you to say.

Commander CURTIN. Yes, sir, that is correct.

Mr. DANIEL. How could you supervise inspectors of altimeters if you don't know what an altimeter is? I have been in that position so I want to see what your answer is.

Commander CURTIN. You are not placed in that position to be in charge of an organization and expected to have all the technical expertise that goes with the components in the area. For example, we have instruments such as the 19. Honeywell is in the area producing very sophisticated equipment for our space program. That is not my responsibility, to be able to know the inner——

Mr. DANIEL. You would have to have some working knowledge of it though, wouldn't you?

Commander CURTIN. No, sir.

Mr. DANIEL. You don't think so?

Commander CURTIN. No, sir, I don't.

Mr. DANIEL. I came out of industry and I have had a lot of experience with Government inspectors and I think it would be quite helpful if you knew something about it.

Commander CURTIN. Excuse me, Mr. Daniel. The inspectors, the quality assurance personnel obviously have to have that expertise. The president of the corporation does not.

Mr. DANIEL. All right.

One final question.

It is my understanding that you advised against a criminal investigation, and I believe you gave this advice to Mr. Adams' counsel. Is that a correct statement?

Commander CURTIN. No, sir, it is not correct.

Mr. DANIEL. It is not correct?

Commander CURTIN. What is correct is that the documentation was forwarded to Mr. Adams for his review.

Mr. DANIEL. What was your recommendation to Mr. Adams?

Commander CURTIN. It was not substantive as to yes or no on an investigation. I think the advice I gave to Mr. Adams was, "Whatever you do, do so discreetly." I want to emphasize that, because again I didn't want the information coming back to Mr. Frank that this action had been taken, because I am certain that he would have then used it as another example of prejudice and harassment, et cetera.

Mr. DANIEL. Mr. Curtin, I want you to search your conscience carefully, because this is in conflict with information that we have. Our information is that you did recommend against.

Is that not a fair statement?

Commander CURTIN. I think what you have reference to, Mr. Daniel, is the fact that in the June–July timeframe of 1972 the people at ESD, it would have been the procurement contracting officer, wrote down to me and said "Should we initiate an investigation?" Well, by that time I had already received information from counsel that we didn't have a basis for it, and so told the ESD.

Mr. DANIEL. Thank you, Mr. Chairman.

The CHAIRMAN. Mr. Mollohan?

Mr. MOLLOHAN. I have no questions.

Mr. PIKE. Mr. Chairman, could I ask a couple more?

The CHAIRMAN. Mr. Pike?

Mr. PIKE. You said in response to a question from Mr. Daniel that the documentation was forwarded to the attorney. Earlier in response to a question from me you said that no deficiency report was ever made on the subject of the extra manifold put in.

Commander CURTIN. Yes, sir.

Mr. PIKE. What documentation was there about this extra manifold?

Commander CURTIN. As I recall, Mr. Pike, I answered your previous question in the sense of a deficiency report, meaning one going to the contractor.

Mr. PIKE. What documentation was forwarded to the attorney about this extra manifold so he could render a judgment as to whether any criminal prosecution was deserved or not?

Commander CURTIN. I believe, Mr. Pike, it was a memorandum from Mr. Tabor to Major Fringer which outlined the circumstances.

Mr. PIKE. Which outlined the circumstances.

Don't you think that the fact that no deficiency report had ever been filed in this instance might have some effect on the counsel's opinion?

Commander CURTIN. Yes, sir.

Mr. PIKE. How many times while you were in charge of this contract did Mr. Frank threaten to close down his production line?

Commander CURTIN. Oh, boy. Obviously at least two. I think three, Mr. Pike.

Mr. PIKE. Was there a letter from Mr. Frank in August, to be specific, I believe August 2, 1971, threatening to close down? No, not threatening to close down his production line but requesting that the AAU–19 altimeter procurement be canceled for the convenience of the government?

Commander CURTIN. I don't recall, Mr. Pike. There may well have been.

You say this was 1971?

Mr. PIKE. 1971, yes. You don't recall?

Commander CURTIN. I don't recall.

Mr. PIKE. Were you aware of the rejection rate of these AAU altimeters in the plant in the spring of 1971?

Commander CURTIN. I don't recall specifically, Mr. Pike. I am sure that I had access to that data.

Mr. PIKE. You had access to Mr. Tabor's memorandum, did you not?

Commander CURTIN. In the spring of 1971?

Mr. PIKE. Yes.

Commander CURTIN. Yes, sir.

Mr. PIKE. And on June 30 he prepared a memorandum which contained the following information, did he not? From March 11 to June 7, 1971, DCAS witnessed 306–19 units being tested of which 136 were contractor rejected for a defective rate of 44.4 percent. Major Fringer stated that these statistics do not represent new units and that of the 306 total, many were the same units being rejected one or more times. There was also an ASD letter of June 17 stating that 30 percent of the instruments were found to be unserviceable in the field.

Were you aware of those statistics?

Commander CURTIN. Yes, sir; and the ASD letter I assume, Mr. Pike, must have been a result of the Hayes incident. It was as a result of the ASD letter in fact that we drafted and Captain Lipscomb subsequently signed off to the ASD the letter saying "Air Force, of all the units in the field, we have only had 112 reported bad to us."

Now the matter of internal rejections obviously is a separate issue.

Mr. PIKE. Let me get on.

In November of 1971 you instituted this higher level of testing, and Mr. Frank objected to that. He objected, as I recall, by a letter dated December 3, is that correct, 1971?

Commander CURTIN. I believe so, sir.

Mr. PIKE. When was Mr. Blickenstaff given instructions to leave the plant?

Commander CURTIN. He testified the other day, and I have no reason to doubt it, that it also was in December of '71.

Mr. PIKE. When did you get your legal opinion from the legal advisor to your superior stating that you could not do this, that you could not impose the higher inspection requirements?

Commander CURTIN. Yes; I understand what you are saying.

Excuse me, Mr. Lally, is that document in here?

Mr. LALLY. It is not in that package.

Commander CURTIN. Mr. Pike, as I recall, it would have been in the early December timeframe.

Mr. PIKE. I think it is rather significant as to whether it was before or after you got the letter from Mr. Frank, dated December 3, threatening to close down the plant.

Commander CURTIN. Yes, sir.

Is that before or after Mr. Blickenstaff's removal?

Mr. PIKE. No.

Was it before or after Mr. Frank, by letter of December 3, said he was going to close down the plant?

Commander CURTIN. This is after, of course.

Mr. PIKE. What is the date on it?

Commander CURTIN. December 15, 1971.

Mr. PIKE. So after Mr. Frank threatened to close down the plant, then the legal advisor said that the reqiurements you put on were not legal.

Commander CURTIN. That is correct.

Mr. PIKE. Was the legal advisor made aware that Mr. Frank had threatened to close down the plant?

Commander CURTIN. Absolutely, because, Mr. Pike, subsequent to my conversation with Mr. Patterson saying that this was the action Mr. Frank intended, we were visited by various representatives of the region in Atlanta.

Mr. PIKE. Do you think that the legal advice you got may have been influenced in any manner by Mr. Frank's threatening to close down the plant?

Commander CURTIN. I would like to think not, sir.

Mr. PIKE. I would like to think not too, but I don't. That is all I have, Mr. Chairman.

The CHAIRMAN. Members of the committee, as you know, we have three bills on the Floor, so we will recess until 3 o'clock this afternoon.

Your testimony is completed.

Commander CURTIN. Thank you, sir.

Mr. LALLY. Mr. Chairman, may I ask a couple of questions?

Mr. Curtin, when you submitted the information about the incidents to Atlanta, was it this memorandum of Major Fringer's dated March 20, that was submitted, which is No. 36 (see appendix 19) in the packet, sir?

Commander CURTIN. Do you have, Mr. Lally, the memorandum that I sent to counsel here?

Mr. LALLY. No, I don't, sir.

Commander CURTIN. I thought that would identify the documents.

Mr. LALLY. I have a memorandum from Mr. Tabor to Major Fringer dated March 20.

Commander CURTIN. Yes, sir, that one was forwarded.

Mr. LALLY. Was there anything more than that forwarded?

Commander CURTIN. Excuse me just a minute, please.

Yes, sir.

Mr. LALLY. Thank you, sir.

One further question.

Were Mr. Blickenstaff's three instructions of March 1971 within the scope of his authority as a quality assurance representative?

Commander CURTIN. Within the scope, but I would modify that by saying that in my opinion it was beyond reasonable and good judgment.

Mr. LALLY. Mr. Curtin, whose responsibility was it to issue a show cause letter for failure to satisfy the delivery schedule?

Commander CURTIN. It could come from two places, Mr. Lally. Either the PCO could make that decision himself, or he could delegate, as they frequently did, that authority to the ACO.

Mr. LALLY. The PCO was Mr. Wood?

Commander CURTIN. Yes, sir.

Mr. LALLY. Who was the ACO?

Commander CURTIN. Mr. Mahaun.

Mr. LALLY. Was there any such delegation to Mr. Mahaun?

Commander CURTIN. Yes. Mr. Mahaun issued at least one show cause letter after the contract was transferred to ESD, and I don't recall if he issued them before.

Mr. LALLY. Was there a delegation before the transfer to ESD.

Commander CURTIN. That is what I don't recall, sir.

Mr. LALLY. Thank you, Mr. Chairman.

The Chairman. Thank you very much, Mr. Curtin. You are excused from the stand.

The committee stands in recess until 3 o'clock.

[Whereupon, at 12:10 p.m., the subcommittee was recessed, to reconvene at 3 p.m., this same day.]

AFTERNOON SESSION

The CHAIRMAN. The Committee will be in order.

Mr. LALLY?

Mr. LALLY. Mr. Lee Trudel.

[The witness is sworn.]

The CHAIRMAN. Please state your name and position.

TESTIMONY OF LEE TRUDEL, QUALITY INSPECTOR, AEROSONIC CORP.

Mr. TRUDEL. My name is Lee Trudel. I am a quality inspector, Aerosonic Corp.

The CHAIRMAN. Do you have a prepared statement?

Mr. TRUDEL. No, I don't.

The CHAIRMAN. Mr. Pike?

Mr. PIKE. Thank you very much, Mr. Chairman.

Mr. Trudel, you have been present here during the testimony of Mr. Akins. Is that correct?

Mr. TRUDEL. Yes.

Mr. PIKE. Do you know who Mr. Akins is?

Mr. TRUDEL. Yes.

Mr. PIKE. You heard Mr. Akins talking about a test report made on February 24, 1972. I believe that in that file of documents on the table in front of you, that particular test report is Item 35 (see appendix 15). It had to do with a hot test, plus 45-degrees centigrade, conducted on several altimeters apparently on the date of February 24. The inspections in question were signed with the initials "CA" and "LT". Do you have that document in front of you?

Mr. TRUDEL. I have, sir.

Mr. PIKE. Are you familiar with that document?

Mr. TRUDEL. No, it's not mine.

Mr. PIKE. You didn't put those initials on there?

Mr. TRUDEL. No.

Mr. PIKE. You did not inspect that particular series of tests?

Mr. TRUDEL. No. That would all have to be my writing and it's not my writing and it's not my initials. My initials are signed "LLT."

Mr. PIKE. When you put your initials on, you sign them "LLT," so

every page where there is just an "LT" in this document—and it goes on for four pages with one column on the first page and two columns on each of the last three pages—is that true in every instance?

Mr. TRUDEL. It's not my writing.

Mr. PIKE. You didn't do the writing?

Mr. TRUDEL. No, I did not.

Mr. PIKE. And you did not initial the document?

Mr. TRUDEL. No, I did not.

Mr. PIKE. Do you know who did initial the document?

Mr. TRUDEL. No, I do not. I don't know whose writing that is.

Mr. PIKE. Is there anybody else in the plant, to the best of your knowledge, with the power to inspect who has the initials "LT"?

Mr. TRUDEL. No; not that I know of.

Mr. PIKE. So when this was called to your attention by Mr. Akins, did you tell him at that time that you had not made this inspection?

Mr. TRUDEL. No. He never brought it up to me until I heard it just a short while ago before coming up here.

Mr. PIKE. Before coming up here?

Mr. TRUDEL. Yes.

Mr. PIKE. Somebody, perhaps our own investigator from this subcommittee, talked to you about it?

Mr. TRUDEL. No; Mr. Ammons told me about it, that Mr. Akins said these were the ones. But when we were talking up here, Mr. Akins said that he told somebody else to come see me, which they never did.

Mr. PIKE. Nobody ever came to see you?

Mr. TRUDEL. Nobody.

Mr. PIKE. You did not tell anybody that these were not your initials because nobody ever asked you?

Mr. TRUDEL. No, I didn't. Nobody ever asked me.

Mr. PIKE. So you have no idea then how many other inspection certificates or inspection reports could have gone out of that plant with your initials on them——

Mr. TRUDEL. No; I don't.

Mr. PIKE [continuing]. That you did not personally witness the inspection of?

Mr. TRUDEL. That is right.

Mr. PIKE. Were you present when the incident occurred—and I have forgotten the date—that had to do with the extra manifold in the testing board?

Mr. TRUDEL. No; I wasn't.

Mr. PIKE. Were you here when Mr. Seay was testifying?

Mr. TRUDEL. Yes; I was.

Mr. PIKE. Do you recall Mr. Seay saying this—and I am now reading from page 519 of the official record—"We didn't record the names of the people who were testing. But it seems to me that Clarence Ammons was doing the testing. And somebody behind him, which I remember was Lee Trudel, made a remark they were testing wrong, that they should only pinch off either two or three lines at a time to check these instruments. This was after the seventh had failed."

Do you still say you were not present on that day?

Mr. TRUDEL. I was not present. I believe I was working the night shift then.

Mr. PIKE. You believe you were working the night shift on the date in question?

Mr. TRUDEL. I don't remember the date I went on the night shift, but I know I wasn't there for that.

Mr. PIKE. You were not there when this happened. Did you discuss it with Mr. Ammons?

Mr. TRUDEL. Well, I had generally come into work early. That was my old department. I worked in a different department when I worked nights. And I went in there and they were talking about it, but that is all I know.

Mr. PIKE. Was this the same day that this discovery of the extra manifold was made?

Mr. TRUDEL. No; I couldn't say. I don't remember whether it was the same day or the next day.

Mr. PIKE. Were you present there on the following day?

Mr. TRUDEL. No; I only came into work at 3 o'clock in the afternoon.

Mr. PIKE. On the following day?

Mr. TRUDEL. My shift was 3:30 to 12.

Mr. PIKE. 3:30 to 12?

Mr. TRUDEL. Yes.

Mr. PIKE. Do you know what time this had been discovered on the day before?

Mr. TRUDEL. No, I don't.

Mr. PIKE. You were working there from 3:30 to 12 that night?

Mr. TRUDEL. In a different department.

Mr. PIKE. In a different department?

Mr. TRUDEL. Yes.

Mr. PIKE. You don't know how the manifold happened to disappear; is that correct?

Mr. TRUDEL. No; I don't.

Mr. PIKE. Do you remember Mr. Akins talking about an incident on the 10th of March in which, in measuring the amount of altimeter variance as they went up the scale or down the scale—I have forgotten which it was—where an error was not accurately noted on the report of the testing filed? Do you remember that testimony last week?

Mr. TRUDEL. Is that the one where Mr. Benmayor and Mr. Seay got into verbal words?

Mr. PIKE. That is correct.

Mr. TRUDEL. Yeah; I remember that.

Mr. PIKE. You remember that?

Mr. TRUDEL. I was the reader.

Mr. PIKE. And you were kind of caught in the middle, weren't you?

Mr. TRUDEL. I guess I was.

Mr. PIKE. Because you had the Government inspector looking over one shoulder and the vice president of the corporation looking over the other. Is that correct?

Mr. TRUDEL. That is right.

Mr. PIKE. What did you do when you saw what the altimeter read?

Mr. TRUDEL. Well, when we got down to that certain point I kind of hesitated and Mr. Benmayor says to put down a certain figure. I don't remember what it was right now. And Mr. Seay said, "No, that is something else." And then they got into an argument and so I put down what Mr. Benmayor said.

Mr. PIKE. You were working for Mr. Benmayor; is that correct?

Mr. TRUDEL. Yes.

Mr. PIKE. You were not working for the Government inspector?

Mr. TRUDEL. That is right.

Mr. PIKE. So you put down what Mr. Benmayor told you to?

Mr. TRUDEL. This is right.

Mr. PIKE. And was what Mr. Benmayor told you to put down the figure that you read?

Mr. TRUDEL. Well, it was a little bit less, just enough to save it. Mine would have been——

Mr. PIKE. It was a difference between yes and no, wasn't it?

Mr. TRUDEL. Yes.

Mr. PIKE. I have no further questions.

Mr. TRUDEL. The instrument was later rejected further down.

Mr. PIKE. It was rejected because of the fact that the Government inspector said: "You can put it down that way if you want, but it's not going out of the plant."

He asked for the serial number on it, didn't he?

Mr. TRUDEL. It was a lot further down on the testing, which would have thrown it out anyway.

Mr. PIKE. That is all I have, Mr. Chairman.

The CHAIRMAN. Mr. Stratton?

Mr. STRATTON. Mr. Trudel, do you remember what figure you put down?

Mr. TRUDEL. No; I don't. I don't know what it was.

Mr. STRATTON. But the figure you put down in response to Mr. Benmayor was different from the figure that you actually read?

Mr. TRUDEL. Well, it could have been either way. Sometimes it's kind of rough when you are reading them, reading a lot of instruments. But it was not out that much.

Mr. STRATTON. But it was out?

Mr. TRUDEL. It was out.

Mr. STRATTON. Did you discuss with anybody in the Aerosonic Corp., before you came up here or since you have been here prior to the time you have taken the witness stand, the testimony that you were to give here?

Mr. TRUDEL. No.

Mr. STRATTON. You didn't discuss it with anybody?

Mr. TRUDEL. I mean just the men who came up with me. We worked together. We are neighbors, almost neighbors. And Mr. Ammons. We talked together. We generally stay together.

Mr. STRATTON. Did anybody suggest what you ought to say in response to questions?

Mr. TRUDEL. No: not a word.

Mr. STRATTON. That is all I have, Mr. Chairman.

The CHAIRMAN. Mr. Lally?

Mr. LALLY. Mr. Trudel, who else conducted inspections and tests at the Aerosonic plant, other than yourself?

Mr. TRUDEL. Mr. Ammons and a woman. I can't think of her name now. Miss Scerbo. Mr. Dodson. It was different instruments, but they all did the tests.

Mr. LALLY. On the AAU–19, who else conducted tests?

Mr. TRUDEL. On the 19, Mr. Dodson was the only one who did the

test. I did the recording along with other people too. I wasn't the only one recording.

Mr. LALLY. Did you know that an extra manifold had been built into the test chamber?

Mr. TRUDEL. No; I didn't.

Mr. LALLY. When did you learn that?

Mr. TRUDEL. Only when I heard it.

Mr. LALLY. You never heard that at the plant?

Mr. TRUDEL. No.

Mr. LALLY. You never heard it when they took it out?

Mr. TRUDEL. No. I was on the night shift and I didn't bother too much. Once in a while I went in there, but not that often. When they were talking about it, they were all done talking about it. They were working and doing other work.

Mr. LALLY. When were you subpenaed to appear here?

Mr. TRUDEL. About 3 weeks ago I believe.

Mr. LALLY. Did you talk to Mr. Frank after you got your subpena?

Mr. TRUDEL. Not about—well, I talked to him but——

Mr. LALLY. Did you tell him you were subpenaed?

Mr. TRUDEL. Yes.

Mr. LALLY. That is not what you told Mr. Stratton a few minutes ago.

Mr. TRUDEL. I don't remember saying. He must have had a word different and I didn't take it that way.

Mr. LALLY. Did you ask him why you were subpenaed up here?

Mr. TRUDEL. I told him I was subpenaed to come up here. We didn't talk about what I was coming up here for.

Mr. LALLY. Did you know what you were coming up here for?

Mr. TRUDEL. No; I didn't.

The CHAIRMAN. Mr Frank didn't mention that?

Mr. TRUDEL. Did he tell me what I was coming up here for? No, sir.

The CHAIRMAN. What intrigues me is how differently Mr. Frank has been described by the witnesses on the stand. He passed over it. There was nothing to it?

Mr. TRUDEL. I am next to nothing.

The CHAIRMAN. You are subpenaed before a congressional committee and he was investigating this thing and he didn't mention it at all, is that what happened?

Mr. TRUDEL. No. He knew. He probably knew it before I did that I was getting a subpena. I didn't know.

The CHAIRMAN. But he didn't say anything about it?

Mr. TRUDEL. He just says, "Go up there and answer the questions they ask you."

The CHAIRMAN. Then he did tell you something?

Mr. TRUDEL. That is it.

The CHAIRMAN. You said you didn't discuss it.

Mr. TRUDEL. He didn't tell me what to say.

The CHAIRMAN. Before you said you didn't discuss it.

Mr. TRUDEL. I wouldn't call that a discussion. The owner of a plant has to know. He is probably going to pay most of these bills up here.

Mr. LALLY. Mr. Trudel, Mr. Pike referred you to exhibit No. 35

with these initials. As I recall your testimony, you said you were not aware of this report previously.

Mr. TRUDEL. No. I had never seen it. This is the first time I saw it.

Mr. LALLY. Now that you see it, do you know who wrote those initials on it?

Mr. TRUDEL. No, I don't.

Mr. LALLY. Do you know anybody in the plant who made a practice of writing your initials on test reports?

Mr. TRUDEL. No. Not unless they were copied over by the girls when they were making test sheets. But I don't think it would be on this. It would be on little cards.

Mr. LALLY. I have no further questions, Mr. Chairman.

The CHAIRMAN. Thank you very much. The witness is excused.

Mr. LALLY. Mr. Clarence Ammons.

[The witness is sworn]

The CHAIRMAN. Identify yourself.

TESTIMONY OF CLARENCE AMMONS, QUALITY INSPECTOR, AEROSONIC CORP.

Mr. AMMONS. I am Clarence Leslie Ammons.

The CHAIRMAN. Do you have a statement here which you care to make? You have no prepared statement?

Mr. AMMONS. No, sir.

The CHAIRMAN. Mr. Pike?

Mr. PIKE. Thank you, Mr. Chairman.

Mr. Ammons, you have heard Mr. Seay's testimony and Mr. Akins' testimony and just now Mr. Trudel's testimony. I direct your attention to the situation of the exhibit which is No. 35 in that file before you. There are four pages worth of purported hot and cold test reports. They have, in addition to the initials "LT," the initials "CA."

Mr. AMMONS. Yes, sir.

Mr. PIKE. Did you prepare that report?

Mr. AMMONS. No, sir.

Mr. PIKE. Is that your handwriting?

Mr. AMMONS. No, sir.

Mr. PIKE. Are those your initials?

Mr. AMMONS. Yes, sir.

Mr. PIKE. Are those your initials in your handwriting?

Mr. AMMONS. No, sir.

Mr. PIKE. You didn't initial them?

Mr. AMMONS. No, sir. The inspectors, whenever they signed these things like this, CA would be the barometer operator and LT or LLT or LT would be the recorder and reader.

Mr. PIKE. All of these barometer readings and test point scale errors you did not participate in? Is that correct?

Mr. AMMONS. Not with this.

Mr. PIKE. Take your time and look at all of them, just to make sure none of them are in your handwriting.

Mr. AMMONS. No, sir, they are not in my handwriting.

Mr. PIKE. Normally they would be in whose handwriting, the recorder or the barometer reader?

Mr. AMMONS. The recorder.

Mr. PIKE. The recorder?

Mr. AMMONS. Yes.

Mr. PIKE. Normally, if Mr. Trudel had in fact been participating in these tests, they would be in his handwriting?

Mr. AMMONS. Yes, sir.

Mr. PIKE. You would have called off the numbers, is that correct, and he would have written them down?

Mr. AMMONS. No, sir. On 8 or 10 instruments out of 27, that is of the 27-A's, the reader does the recording on the instruments. He does his own recording.

Mr. PIKE. I see. He does his own recording?

Mr. AMMONS. Yes.

Mr. PIKE. But you don't know who prepared these reports and you only know that it wasn't you and you didn't initial them?

Mr. AMMONS. No, sir.

Mr. PIKE. On the question of February 28, were you present when Mr. Seay testified that he found this extra manifold?

Mr. AMMONS. I was present, sir. Yes, sir.

Mr. PIKE. Were you conducting the tests yourself?

Mr. AMMONS. I was running the barometer, sir.

Mr. PIKE. You were running the barometer?

Mr. AMMONS. Yes, sir.

Mr. PIKE. At the time you were running the barometers, did anyone tell you that you were not conducting the tests properly?

Mr. AMMONS. I don't think so, sir.

Mr. PIKE. What caused Mr. Seay to look behind the plywood and find anything different from what he expected to find?

Mr. AMMONS. I don't know, sir. This lady was recording for me and I can't remember whether it was Miss Scerbo or Mrs. Anderson, but when I blocked the hoses off—we have a 1 minute time period for a case leak—there was about 4 instruments, 3 or 4 out of the 10 that were over the 100 feet. They were 110 or 115 feet. I walked around and I said, "Well, I will reblock them off again," you know, "and we will give them another chance for 1 minute." He walks around and opens this door on the side of the cold box where the hoses went through and he started feeling around in there and the hoses and styrofoam and he felt up underneath the edge of the box and around the corner like and he said, "What have I found here"?

Mr. PIKE. What did you say?

Mr. AMMONS. I said, "I don't know." So I felt around the edge and back up there and I felt something, too, back there. So George, he turned around and he went out of the room.

Mr. PIKE. George is who?

Mr. AMMONS. Mr. Seay.

Mr. PIKE. George Seay?

Mr. AMMONS. Yes, sir. He turned around and went out of the room. So he had our instruments there, the ones that were, you know, 115 or 120 feet, and he come back in a little while later and we were finishing our test and I never seen the manifold. I went home at 3:30 in the afternoon. He said this happened at 4 or 4:30.

Mr. PIKE. But you did feel them?

Mr. AMMONS. I felt something back there, sir, yes, sir.

Mr. PIKE. Did he ask you what it was?

Mr. AMMONS. No, sir, he didn't ask me.

Mr. PIKE. Did you volunteer anything as to what it was?

Mr. AMMONS. No, sir.

Mr. PIKE. What did you think it was when you felt it?

Mr. AMMONS. I didn't know, sir.

Mr. PIKE. You knew it was an extra manifold that had no part in this testing procedure; is that correct?

Mr. AMMONS. I didn't know that it was a manifold because I couldn't see it. But I know what a manifold looks like because we had one on the outside of the chamber there.

Mr. PIKE. And you could feel all the various pieces of tubing, could you not?

Mr. AMMONS. No, sir. I could just feel up in there with fingers around the corner, the end of it, where there was hoses.

Mr. PIKE. Who else was present when this took place?

Mr. AMMONS. My recorder.

Mr. PIKE. And Mr. Seay?

Mr. AMMONS. Yes, sir.

Mr. PIKE. And then Mr. Akins came?

Mr. AMMONS. Not during the time of working hours.

Mr. PIKE. So when 3:30 came you just went home; is that right?

Mr. AMMONS. Yes, sir.

Mr. PIKE. You didn't report this incident to your boss?

Mr. AMMONS. No, sir. Well, he knew it. He was sitting up there at the desk.

Mr. PIKE. Who was your boss?

Mr. Ammons. Mr. Smith.

Mr. PIKE. How do you know he knew it, if he wasn't there?

Mr. AMMONS. He wasn't back with us, but it was logical that he had found something because everybody, you know, works in that little, small area.

Mr. PIKE. Everybody started milling around, is that it?

Mr. AMMONS. Yes, sir.

Mr. PIKE. And came to see what was going on at the test site?

Mr. AMMONS. Yes, sir.

Mr. PIKE. You didn't report it to Mr. Smith because you know that Mr. Smith knew about it; is that it?

Mr. AMMONS. He knew about it, yes, sir.

Mr. PIKE. When you came back to work the next day, what was the situation at this site?

Mr. AMMONS. Nothing was said to me. There was instruments in the room. There was instruments in cold and instruments in hot.

Mr. PIKE. Did you check to see whether that manifold was there?

Mr. AMMONS. No, sir.

Mr. PIKE. You didn't even care?

Mr. AMMONS. Mr. Seay and them said it had been removed the night before.

Mr. PIKE. Mr. Seay told you that it had been removed?

Mr. AMMONS. Yes, sir.

Mr. PIKE. And that is how you found out that it had been removed?

Mr. AMMONS. Yes, sir.

Mr. PIKE. And you didn't check it yourself at all?

Mr. AMMONS. No, sir.

Mr. PIKE. That is all I have, Mr. Chairman.

The CHAIRMAN. Mr. Stratton?

Mr. STRATTON. Thank you very much, Mr. Chairman.

Mr. Ammons, were you and Mr. Trudel usually associated together on testing?

Mr. AMMONS. Well, he runs air speeds and I run rate of climb and in between these other tests on 27–A's, yes, sir. We worked together. I mean I had recorded for him on air speeds and he has recorded for me on rate of climb and vice versa.

Mr. STRATTON. So that the fact that your initials would appear together on a test report would be a fairly common situation in the Aerosonic Corp.?

Mr. AMMONS. Yes, sir.

Mr. STRATTON. Was there anybody else that you would ordinarily work with on testing where somebody else's initials might appear with yours?

Mr. AMMONS. Eighteen or 20 people in my department, yes, sir.

Mr. STRATTON. Eighteen or 20 people. In other words, you two didn't constitute a team that usually worked together?

Mr. AMMONS. No, sir.

Mr. STRATTON. I see. Would you recognize his initials if you saw them?

Mr. AMMONS. Yes, sir.

Mr. STRATTON. I think you said originally, in answer to Mr. Pike, that "CA" represented yourself and "LT" represented Mr. Trudel, and then you corrected yourself and said "LLT".

Mr. AMMONS. Yes, sir.

Mr. STRATTON. How did his name usually appear?

Mr. AMMONS. LLT, his initials.

Mr. STRATTON. LLT?

Mr. AMMONS. Yes, sir.

Mr. STRATTON. Did it appear as LT occasionally, too?

Mr. AMMONS. I have never seen it like that before, sir.

Mr. STRATTON. Does Mr. Trudel always work nights?

Mr. AMMONS. He wasn't at this time, but later he went on nights, yes, sir.

Mr. STRATTON. Was he always on nights during this period?

Mr. AMMONS. No, sir. He worked days. But there was an opening for a janitorial job and he took the janitorial service.

Mr. STRATTON. I got the impression from his testimony that he wasn't aware of any of these events because he was always on the night shift.

Mr. AMMONS. Not during this time, sir.

Mr. STRATTON. When the manifold situation came up, he wasn't working nights then?

Mr. AMMONS. Before he worked in there, but during this time here Mr. Akins came to me and said, "Hey, Les, you worked last night." I said, "No, sir." He said, "Are you sure?" I said, "Yes." He said, "Well, how come I have some papers here from"—I thought it was cold but he said, "How come I have some papers here with your initials on them that were run last night?" And I said, "I don't know, sir." And he said, "Are you absolutely certain that you didn't work last night?" Well, I was riding with Mr. Trudel at this time to and from work,

and I said, "No, sir. You can go check my time card if you want to or see my supervisor", you know. I said, "I didn't work last night." And so he turned around with the papers and said, "OK." He never said nothing else to me about it.

Mr. STRATTON. Who constructed the area, or whatever you call it? I mean the area where this leakage test took place. Who was responsible for building this structure where the excess manifold was found?

Mr. AMMONS. I wouldn't know, sir.

Mr. STRATTON. This was a regular testing area, was it not?

Mr. AMMONS. Yes, sir. Well, the boxes were in there, see. We have three or four boxes inside and three or four boxes where the 19–A's were being run.

Mr. STRATTON. Don't you have certain construction people there at the plant who are responsible for installing whatever boxes, or machinery, or whatever you need for tests?

Mr. AMMONS. I guess that would be maintenance, sir.

Mr. STRATTON. That would be maintenance?

Mr. AMMONS. I guess.

Mr. STRATTON. The person who built the manifold that was supposed to be there, the visible one, would presumably be the same person who built the other manifold, is that a fair assumption?

Mr. AMMONS. I guess, sir.

Mr. STRATTON. Was Mr. Trudel there at the time of the discovery of that extra manifold, to your recollection?

Mr. AMMONS. No, sir; not to my recollection.

Mr. STRATTON. I will ask you the same question I asked Mr. Trudel. Have you discussed your testimony with anybody from the time you got subpenaed until you have taken the witness chair, here?

Mr. AMMONS. Well, Mr. Frank was in the plant. I guess the same thing that happened to him. He came in. I got a subpena from a U.S. marshal from Tampa. I brought it to the plant where I work, up front in the office. And Mr. Stellmach was in the outer office. The secretary came back and told me there was a man who wanted to see me in the lobby. And I went up front and this U.S. marshal made himself known. He said, "I have a subpena for you to be in Washington." So I was discussing it with people I worked with. I said, "I got a subpena to go to Washington, D.C." They said, "For what?" I said, "I don't know. And so I guess Mr. Frank heard about it and he said, "Just tell what you know."

Mr. STRATTON. Is that all that he said?

Mr. AMMONS. Yes, sir.

Mr. STRATTON. Where did he tell you that?

Mr. AMMONS. He came back to Final where I was working.

Mr. STRATTON. And he just said, "Tell all you know", and didn't say anything more than that?

Mr. AMMONS. He said, "Tell what you know of incidents or whatever they ask you."

Mr. STRATTON. Did you discuss what incidents might be coming up?

Mr. AMMONS. Mr. Akins told me that the reason I was coming to Washington was about a test in cold, where some instruments had failed and a manifold was found. And he said also about some papers that he had showed me earlier, a couple of years ago, and I had told him that they were not my initials, that I did not work that night.

Mr. STRATTON. Was your conversation with Mr. Akins before or after your conversation with Mr. Frank?

Mr. AMMONS. I think it was after, sir.

Mr. STRATTON. After?

Mr. AMMONS. Yes, sir.

Mr. STRATTON. Mr. Frank did not discuss anything about these papers?

Mr. AMMONS. No, sir.

Mr. STRATTON. Did he have anything to say about the committee?

Mr. AMMONS. No, sir.

Mr. STRATTON. As the Chairman said earlier, judging from the testimony that we have had with regard to him, it's a little hard to believe that he limited himself just to that one comment.

Mr. AMMONS. He was just back a few minutes and he said, "Just tell what you know." I said, "OK, sir."

Mr. STRATTON. I have no further questions, Mr. Chairman.

The CHAIRMAN. Mr. Lally?

Mr. LALLY. Thank you, Mr. Chairman.

How long have you worked at Aerosonic, Mr. Ammons?

Mr. AMMONS. I started there on April 15, 1961, sir.

Mr. LALLY. How long have you been involved in the testing and inspection?

Mr. AMMONS. I worked in the machine shop for 2 years and went in service and I came back there on April 20 of 1965, sir. And I came back and asked for a job back at Aerosonic and about 5 days after I was out of service.

So they said, "Well, would you like to go back to the machine shop or would you like to try another job?" I said, "Well, I will try anything." And they said, "Well, we would like to try you in Final Inspection. If you work out in 2 or 3 months, if you can read instruments or learn, then we want you to work in Final Inspection."

Mr. LALLY. And you worked in there ever since that time?

Mr. AMMONS. Yes, sir.

Mr. LALLY. Was this test chamber that the AAU–27's were being tested in at that time something new or had it been in the plant for some time?

Mr. AMMONS. The box?

Mr. LALLY. Yes.

Mr. AMMONS. It had been there for, I guess, a couple of years.

Mr. LALLY. Had there been any work done on it recently before the discovery of this manifold?

Mr. AMMONS. Where the door was they installed these pipes to go through for this contract. They installed these pipes with the hoses going through the wall there into the inside of the chamber.

Mr. LALLY. When had that been done?

Mr. AMMONS. After, sir.

Mr. LALLY. After what?

Mr. AMMONS. After we started running these instruments.

Mr. LALLY. What year would that be, sir?

Mr. AMMONS. I wouldn't know.

Mr. LALLY. As I understand it, this manifold was covered by a piece of plywood. Is that correct, sir?

Mr. AMMONS. Yes, sir.

Mr. LALLY. How long had that piece of plywood been there?

Mr. AMMONS. I wouldn't know, sir.

Mr. LALLY. You wouldn't know?

Mr. AMMONS. No, sir.

Mr. LALLY. As I understood your testimony earlier, you said that Mr. Akins had showed you this test report.

Mr. AMMONS. Yes, sir.

Mr. LALLY. He showed you that some time ago?

Mr. AMMONS. A couple of years ago, yes, sir.

Mr. LALLY. At that time he asked you if they were your initials?

Mr. AMMONS. He stopped me one day going down the hall, sir, and he says, "Hey, Les, I want to ask you a question." I said, "Yes, sir." He said, "Did you work last night?" And I said, "No, sir." And he said, "Are you sure?" and I said, "Yeah." He said, "I have some papers here with your initials and Lee's initials"—Mr. Trudel's initials—"on them, where you worked last night." And I said, "No, sir." He said, "Are you absolutely certain?" I said, "Well, Charlie"—Mr. Akins—"you can check my time card if you don't believe me, or you can see my supervisor."

Mr. LALLY. Did he ask you who put the initials on?

Mr. AMMONS. No, sir.

Mr. LALLY. Did you know who put them on?

Mr. AMMONS. No, sir.

Mr. LALLY. Did you ask any of your fellow employees whether they had put your initials on the test report?

Mr. AMMONS. No, sir. I figured he would go see my supervisor.

Mr. LALLY. Who was your supervisor then?

Mr. AMMONS. Mr. Smith was in charge of Final Inspection and Mr. Lolley was in charge of Quality Control, which is over Final.

Mr. LALLY. Did you normally conduct this case leak test with the vacuum manifold?

Mr. AMMONS. Yes, sir.

Mr. LALLY. You were familiar with it?

Mr. AMMONS. Room hot and cold, yes, sir.

Mr. LALLY. You were familiar with the matter of pinching off the instruments?

Mr. AMMONS. Yes, sir.

Mr. LALLY. Was it done any differently on this February 28 than it had been done any other day?

Mr. AMMONS. No, sir. Sometimes other people are running other tests and they are case-leaking instruments. And the clamps that we have in Final Inspection, I think there is only maybe 20 clamps and maybe somebody would have 10 or 15 clamps. So you would go around and pick up five. And if you had five you would use them, do five of them at one time, and then after 1 minute take them off and do the other five. But if you had 10 clamps you would do 10 instruments.

Mr. LALLY. After feeling the manifold that day, did you ask Mr. Smith what it was?

Mr. AMMONS. No, sir.

Mr. LALLY. You didn't have any conversation with Mr. Smith at all?

Mr. AMMONS. No, sir. I think he got up and he came back too, back where the manifold was found.

Mr. LALLY. Did he feel it?

Mr. AMMONS. I wouldn't know, sir.

Mr. LALLY. You just left it that way?

Mr. AMMONS. It wasn't nothing to me, sir. I didn't know what it was.

Mr. LALLY. When you came back the next day, did you look for it?

Mr. AMMONS. No, sir.

Mr. LALLY. Did you ask anybody what happened to it?

Mr. AMMONS. No, sir.

Mr. LALLY. It wasn't that important?

Mr. AMMONS. I didnt' know what it was, sir.

Mr. LALLY. Did anybody else at Aerosonic say anything to you about the manifold?

Mr. AMMONS. No, sir.

Mr. LALLY. Mr. Frank didn't?

Mr. AMMONS. No, sir.

Mr. LALLY. Mr. Benmayor didn't?

Mr. AMMONS. No, sir.

Mr. LALLY. Nor Mr. Smith?

Mr. AMMONS. No, sir.

Mr. LALLY. Did you hear Mr. Akins testify on Friday about the March 10th incident of reading the error on the instruments?

Mr. AMMONS. Yes, sir.

Mr. LALLY. Were you present at that time?

Mr. AMMONS. Yes, sir.

Mr. LALLY. What was your job that day?

Mr. AMMONS. I was barometer operator, sir.

Mr. LALLY. You were reading it?

Mr. AMMONS. Running the barometer.

Mr. LALLY. And Mr. Trudel was recording, was he?

Mr. AMMONS. Recorder and reader, yes, sir.

Mr. LALLY. So that you did not have any part in calling off the numbers; is that right?

Mr. AMMONS. No, sir.

Mr. LALLY. Was it a practice to call off these numbers within the tolerance rather than the actual deviation they showed?

Mr. AMMONS. No, sir.

Mr. LALLY. It was just done this one time?

Mr. AMMONS. I wouldn't know whether the instrument would be out or not, sir. I was not reading them. I was running the barometer. And I sat off to the side and I have an indicator box there which I keep on zero with a set of valves. He was sitting there and he looked at me like this and I looked over and we have about 5 minutes in between each one of these readings while you wait for the instrument to come back to its original reading.

Mr. Benmayor happened to be there and so was George. So they go into it. Mr. Benmayor said to say it's one thing and George said it was another, which was none of my business. I was just the barometer operator.

The CHAIRMAN. Identify George.

Mr. AMMONS. Mr. Seay, sir.

Mr. LALLY. Thank you, Mr. Chairman.

The CHAIRMAN Mr. Daniel?

Mr. DANIEL. I have no questions, Mr. Chairman.

Mr. STRATTON Could I ask one more question, Mr. Chairman.

The CHAIRMAN. Yes.

Mr. STRATTON. Mr. Ammons, in this leakage test, were you the one who was shutting off the tubes?

Mr. AMMONS. Yes, sir.

Mr. STRATTON. It's my understanding that in this particular test you shut off all ten of the tubes together.

Mr. AMMONS. Yes, sir.

Mr. STRATTON. Then there was leakage?

Mr. AMMONS. Yes, sir.

Mr. STRATTON. Then you shut off just two or three of them?

Mr. AMMONS. I think I took the clamps off and clamped off, I think, all 10 of them again, sir. I am not sure, but there was 3 or 4 over the limit of 100 feet.

Mr. STRATTON. Well, it's my understanding that the reason is that somebody looked around for something that turned out to be the extra manifold.

Mr. AMMONS. Well, they didn't read the same as they did the first time that we read them.

Mr. STRATTON. As I understand, the reason for that was that in the first place you cut off all of them and, in the second place, you have only cut off some of them.

Mr. AMMONS. I don't remember whether I did or whether I didn't cut off just 4 or 5, sir.

Mr. STRATTON. What is your usual experience in these tests? How do you go about it?

Mr. AMMONS. You mean blocking off the hoses, sir?

Mr. STRATTON. When you conduct a leakage test, do you cut off all of them to begin with and then take each one in turn to see which barometers are leaking and which ones are not?

Mr. AMMONS. No, sir, just 10 at a time. But this day we had—usually we didn't have, you know, 3 or 4 leakers like this, and we did at this one time. So George knew that there was something wrong and I knew that there was something wrong. Either it would have been a hole in a hose or something or other, and the manifold, so we were just experimenting, sort of. We didn't come up with the same readings that we did before.

Mr. STRATTON. If you got no leakage when you had all 10 of them turned off and you got leakage under other arrangements——

Mr. AMMONS. We had leakage, sir, over the 100 foot with all 10 blocked off.

Mr. STRATTON. You had some leakage?

Mr. AMMONS. Yes, sir. There was leakage.

Mr. STRATTON. That is all I have, Mr. Chairman.

The CHAIRMAN. Thank you very much, Mr. Ammons.

Mr. LALLY. Mr. Howard Francis.

[The witness is sworn.]

The CHAIRMAN. Identify yourself.

TESTIMONY OF HOWARD FRANCIS, PRODUCTION FOREMAN, AEROSONIC CORP.

Mr. FRANCIS. My name is Howard Francis.

The CHAIRMAN. Do you have any statement you want to make prior to questioning?

Mr. FRANCIS. No, sir.

The CHAIRMAN. Mr. Pike?

Mr. PIKE. Mr. Francis, on the 24th of March 1972, what was your position and title with the Aerosonic Corp?

Mr. FRANCIS. I was in charge of mechanical calibration on the 19–A.

Mr. PIKE. You were in charge of mechanical calibration?

Mr. FRANCIS. Yes, sir.

Mr. PIKE. Was this in the production side of the operation, or was this in the testing side of the operation?

Mr. FRANCIS. Production side, sir.

Mr. PIKE. So you were a production man for the AAU–19 altimeter?

Mr. FRANCIS. Yes, sir.

Mr. PIKE. You have heard the testimony of Mr. Akins and others to the effect that on March 24, 1972, you were in the test chamber adjusting AAU–19 altimeters. Would you give us your version of what happened on that day?

Mr. FRANCIS. Yes, sir. I was called in to transfer the units from the south box to the north box.

Mr. PIKE. Called in by whom?

Mr. FRANCIS. By our QC department.

Mr. PIKE. Who called you?

Mr. FRANCIS. Mr. Lolley.

Mr. PIKE. Mr. Lolley called you?

Mr. FRANCIS. Yes.

Mr. PIKE. And he told you to go into this area and move certain units from one box to the other box?

Mr. FRANCIS. Yes, for reasons that the south box would not get cold enough to run cold tests. In these particular units I think there were seven or eight accepted. They were finished in room, so I transferred them. When I hooked them up—the electrical portion—I always checked them out because the sync rules were different on either side. They could be different. I checked the electrical zero on each one. I compared it to the readings they had just taken. I found one that was 5 feet more or minus. This has been minus 15 and now was reading minus 20, which was borderline. I picked up a screwdriver and was going to set it back because I considered it, you know—boy, everybody jumped all over me. There were DCAS men and Mr. Frank standing off to my left, closer than Mr. Daniel. I was not trying to be deceptive.

Mr. PIKE. Were you not aware that as a production employee you were not supposed to adjust any instrument being tested?

Mr. FRANCIS. Yes, sir. May I make a comment, sir?

Mr. PIKE. Certainly.

Mr. FRANCIS. I feel if I had talked to Mr. Akins alone he would have permitted that. He was very helpful. They all were, really. But because I hadn't asked him and he was there with Mr. Frank, plus three other guys he worked with, it blew up.

Mr. PIKE. Who was that, Mr. Seay?

Mr. FRANCIS. Mr. Seay and Mr.——

Mr. PIKE. Hathcock?

Mr. FRANCIS. Hathcock and Charlie Akins.

Mr. PIKE. And you say they all jumped all over you; is that correct?

Mr. FRANCIS. Oh, yes.

Mr. PIKE. What did they do? Did they say, "What are you doing?"

Mr. FRANCIS. Yes, sir.

Mr. PIKE. Did they put anything in writing?

Mr. FRANCIS. No. Well, Mr. Frank was standing there. So I didn't feel I needed to.

Mr. PIKE. He didn't put out any document in writing as a result of that incident?

Mr. FRANCIS. I don't recall receiving one, sir. I think perhaps Mr. Lolley got one.

Mr. PIKE. What is your present job title?

Mr. FRANCIS. I am general manager of the Wichita Division of Aerosonic Corp., in Wichita, sir.

Mr. PIKE. What is the name of the plant?

Mr. FRANCIS. Aerosonic's Wichita Division.

Mr. PIKE. It's a subsidiary, is that it, of Aerosonic?

Mr. FRANCIS. Yes, sir. I have nine people. It's commercial. We deal with the commercial out there.

Mr. PIKE. Is that a better job than the one you had on March 24, 1972?

Mr. FRANCIS. Any job would be better than that job, sir. Yes, it's better.

Mr. PIKE. That is all, Mr. Chairman.

The CHAIRMAN. You say everybody jumped over you. Did Mr. Frank jump over you with the rest of them?

Mr. FRANCIS. Yes.

The CHAIRMAN. He did?

Mr. FRANCIS. He said, "You know better than that." I said, "Well, I guess I do now, sir."

The CHAIRMAN. Mr. Stratton?

Mr. STRATTON. Mr. Francis, when you say the plant at Wichita is commercial, do you mean that it's producing for private enterprise rather than for Government contracts?

Mr. FRANCIS. Yes, sir. Cessna, Aerobeech, Aero Commander, you know, those.

Mr. STRATTON. You said that these people jumped all over you when you started to adjust the altimeters with a screwdriver. I take it that, when you say that, you are implying that this was something that you normally did and you didn't expect any reaction but, strangely enough, at this particular time there was a big reaction.

Mr. FRANCIS. It wasn't anything normal, sir. But it's something I am sure that DCAS would have permitted me to do had I asked them.

Mr. STRATTON. This was the first time you ever adjusted an altimeter in the middle of a test?

Mr. FRANCIS. Without their permission, yes, sir.

Mr. STRATTON. Without their permission.

Mr. FRANCIS. And I assume with them standing there, you know, I was wrong, I guess.

Mr. STRATTON. Why did you have to get their permission?

Mr. FRANCIS. Because you weren't supposed to do it.

Mr. STRATTON. You weren't supposed to do it?

Mr. FRANCIS. Personally, sir, I didn't think I was doing anything wrong because the unit had been accepted.

Mr. STRATTON. We had testimony from Mr. Stellmach here the other day that this was a normal thing to do.

Do you have it there, John?

Mr. FRANCIS. Sir, this is room temperature.

Mr. STRATTON. I don't know what temperature it was, but according to Mr. Stellmach, if you had any vibration or something of that kind, you were supposed to set the indices back to the proper position, according to him. As I understand it, he worked with you on this thing and this was just a normal procedure.

Mr. FRANCIS. It was, if you asked the Government first. They would permit you to go in and turn the barrel back to its normal position, yes.

Mr. STRATTON. If you had the Government there, how would you dare to turn it without asking them?

Mr. FRANCIS. I assume that switching boxes, since the electrical boxes were different, the synchro readings were different, which means they had to be calibrated, which means they had air too. I assumed it would be all right. I had to check each one out to make sure the cables were working. I was talking 5 feet and it was reading minus 20, which is borderline. I was going to set it back to the minus 15 reading.

Mr. STRATTON. And after this happened, Mr. Frank issued an order that nobody was to do this at all, period; isn't that correct?

Mr. FRANCIS. I think so. I was glad to hear that.

Mr. STRATTON. If it was the proper procedure previously to set them back provided you checked with the Government representative, why would he issue an order to tell you not to set them back at all?

Mr. FRANCIS. Leave it up to the inspection to do the adjusting. I was to stay out of the area.

Mr. STRATTON. Leave it up to the what?

Mr. FRANCIS. Our quality control would handle all those sorts of things.

Mr. STRATTON. I understand that the quality control people weren't able to do anything in that plant; that Mr. Frank had intimidated the head of the quality control operation so that there was no quality control at all.

Mr. FRANCIS. Are you talking of DCAS, that they were restricted in some way?

Mr. STRATTON. Yes.

Mr. FRANCIS. That is what it appears to me too, sir. I didn't know nothing about their internal problems.

Mr. STRATTON. Who was it that you checked with when you undertook to get this permission? Was it Aerosonic quality control or the Department of Defense quality control?

Mr. FRANCIS. DCAS, one of the four DCAS personnel.

Mr. STRATTON. Let me just read some of the testimony here that Mr. Stellmach gave on Friday, I believe, in response to a question from Mr. Pike [reading:]

Mr. PIKE. Upon roughly how many occasions from 1972 were you present while altimeters were being adjusted during the test cycle?

Mr. STELLMACH. Many times. It was our job to set instruments.

Mr. PIKE. Was it your job to reset instruments during the course of the testing?

Mr. STELLMACH. We never reset instruments. We made the initial sets on the instruments.

Mr. PIKE. The testimony we have gotten was that in the middle of the testing between the hot testing and the cold testing the altimeters were being reset. Did you ever participate in that kind of setting of the altimeters?

Mr. STELLMACH. There were several times where even with a government official there we would check a setting on an instrument. This was the accepted practice right from the beginning.

This doesn't quite square with what you have said, does it?

Mr. FRANCIS. That is how I dealt with the matter. I would always go to DCAS or they would call me in occasionally and say "You have got a unit off 29.92 now. You want to set that?" I would say, "Yes, sir," and I really appreciated that because they could have thrown it out.

Mr. STRATTON. That is all I have, Mr. Chairman.

The CHAIRMAN. Mr. Lally?

Mr. LALLY. Thank you, Mr. Chairman.

Mr. Francis, when were you subpenaed to appear here?

Mr. FRANCIS. I think the subpena read the 24th, which was supposedly on Wednesday, and it was the Wednesday before that, I think, I got the subpena.

Mr. LALLY. After you were subpenaed, did you call me?

Mr. FRANCIS. Yes, I did, sir. It stated so on the subpena, to call you.

Mr. LALLY. And during our conversation, did I tell you that we were interested in talking about resetting these instruments and did you tell me that you had never reset any instruments?

Mr. FRANCIS. Yes, sir.

Mr. LALLY. So when did you have this recall of what happened since our telephone conversation of July 17?

Mr. FRANCIS. When I heard Charlie Akins testify the other day, sir.

Mr. LALLY. Up until that time, you had completely forgotten that you had reset this instrument; is that correct?

Mr. FRANCIS. Except for the fact that they jumped all over me; I thought it would just go by, you know.

Mr. LALLY. It is your testimony that nothing was ever said to you after the incident that day at the box?

Mr. FRANCIS. I don't think I got anything in writing, sir.

Mr. LALLY. Let me direct your attention to tab No. 38 (see appendix 20) in that packet in front of you, sir. I believe you are on the wrong one.

Mr. FRANCIS. I am sorry.

Mr. LALLY. That is a memorandum dated March 27, 1972, from Mr. Herb Frank.

Are you one of the addressees of that memorandum?

Mr. FRANCIS. Yes, sir.

Mr. LALLY. Is it your testimony that you did not receive that memorandum?

Mr. FRANCIS. I received it obviously.

Mr. LALLY. Do you recall it now?

Mr. FRANCIS. Yes; I recall it.

Does this refer to the instance that I was seen in the box adjusting? I don't really know.

Mr. LALLY. This memorandum is 3 days after that incident, so I would have to assume that it refers to that one.

Mr. FRANCIS. OK.

Mr. LALLY. But you had no recollection of it.

Mr. FRANCIS. I do now, sir.

Mr. LALLY. But 2 weeks ago you didn't have any recollection of it.

Mr. FRANCIS. I didn't even—no, sir, I didn't. I didn't recall the incident until Charlie Akins mentioned it the other day. It wasn't on my mind, that is for sure.

Mr. LALLY. After you got your subpena, did you contact Mr. Frank?

Mr. FRANCIS. Yes; I did.

Mr. LALLY. And what conversation did you and Mr. Frank have at that time?

Mr. FRANCIS. I called him up. He was in Dallas at the time and I said "Mr. Frank, I got a subpena by the U.S. Government." He says "Well?" I said "What does it pertain to?" "The 19–A" he said.

Mr. LALLY. He said that?

Mr. FRANCIS. Yes; he said "I would assume it pertains to the 19–A." He said "You are going to have to go," obviously. He said "It boils down to somebody was seen in the testing area." He said "Either you or Neal was seen in the testing area. Just go up there and answer their questions."

Mr. LALLY. Didn't you tell him that you had never adjusted an instrument?

Mr. FRANCIS. It was common practice for me to adjust the room board, sir.

Mr. LALLY. But when you talked to me and told me you had never reset one, didn't you tell Mr. Frank you had never reset an instrument?

Mr. FRANCIS. I don't think I told him I had never reset an instrument. I don't think he asked me that.

Mr. LALLY. Yet he told you it related to resetting instruments?

Mr. FRANCIS. Yes, sir; related to an incident of somebody seen in the cold box.

Mr. LALLY. Did you tell him that I told you that you were the guy seen in the cold box?

Mr. FRANCIS. You didn't tell me that I was the guy. You asked me if I had been in there, as I recall, sir.

Mr. LALLY. Thank you, Mr. Chairman.

The CHAIRMAN. Mr. Dickinson?

Mr. DICKINSON. Mr. Chairman, I apologize. I have been all this time trying to give testimony before the Rules Committee and I was late in getting here and didn't hear any of the testimony so I will refrain from asking any questions.

Thank you.

The CHAIRMAN. Gentlemen, this concludes the committee's side of the presentation of the testimony which we have been hearing for over a week now.

The committee will be recessed subject to the call of the Chair at which time the Chair will then be available to Mr. Frank and the presentation that he cares to make for his company.

Mr. DICKINSON. May I ask just as a matter of information, the Chair mentioned this morning that if we couldn't hear it this week or the next week, it would have to go over until after the conclusion of whatever we do on impeachment; is that right?

The CHAIRMAN. That is correct.

Mr. DICKINSON. So we are talking about now?

The CHAIRMAN. September.

Mr. DICKINSON. Sometime in September.

Thank you.

The CHAIRMAN. The committee stands recessed subject to the call of the Chair.

[Whereupon, at 4:10 p.m., the subcommittee was recessed, subject to the call of the Chair.]

AIR FORCE PROCUREMENT OF AAU-19/A ALTIMETERS

THURSDAY, SEPTEMBER 12, 1974

HOUSE OF REPRESENTATIVES,
COMMITTEE ON ARMED SERVICES,
ARMED SERVICES INVESTIGATING SUBCOMMITTEE,
Washington, D.C.

The subcommittee met, pursuant to recess, at 10:15 a.m. in room 2337, Rayburn House Office Building, Hon. F. Edward Hébert (chairman of the subcommittee) presiding.

Present: Messrs. Hébert, Stratton, Arends, Bray, Pike, Mollohan, Dan Daniel, Dickinson, and Hunt.

Also present: John F. Lally, acting counsel, and David R. Warren, staff investigator.

The CHAIRMAN. We welcome you here.

Will you rise and take the oath.

[Witness sworn.]

The CHAIRMAN. Mr. Frank, you have a 64-page statement here, and you have a summary of about 10 pages. You may read the entire 64-page statement in the record, or read your summarization of 10 pages, whichever you prefer. This is your choice. I am not suggesting either one or the other. Do whatever you consider to be to your advantage, not to our advantage, to your advantage. You are perfectly free to do it.

TESTIMONY OF HERBERT J. FRANK, PRESIDENT, AEROSONIC CORP.

Mr. FRANK. Mr. Chairman, I believe the longer statement would be to the advantage of both the hearers, the committee members themselves, and to me, because it goes into much more detail than the summary, and I would like to have permission to read the full text.

The CHAIRMAN. Certainly. Whatever you want.

Mr. FRANK. Thank you, sir.

The CHAIRMAN. Identify yourself.

Mr. FRANK. Herbert J. Frank.

May I begin, Mr. Chairman?

The CHAIRMAN. Certainly.

Mr. FRANK. Thank you, sir.

The CHAIRMAN. We will not interrupt you until you finish your statement.

Mr. FRANK. Mr. Chairman and members of the subcommittee, my name is Herbert J. Frank. I am president and chairman of the board of Aerosonic Corp. of Clearwater, Fla. I appreciate the opportunity to present Aerosonic's view concerning the matters under investigation by this subcommittee. I apologize for the length of my statement, but

the charges that have been raised against my company are too serious to be dealt with lightly. Because of the complexity of the subject, I would like to present my prepared statement without interruption, as you have so agreed. Afterward I will, of course, be happy to entertain any questions that you may have to ask.

As you know, the contract under investigation called for 10,500 AAU–19/A altimeters at a unit price of $845, plus 495 altimeters of a different type, for a total contract price of $9,374,550. The earlier testimony indicates that the contract was a disaster for the Air Force. It was also a disaster for the Aerosonic Corp., although we disagree with the Air Force's conclusion that we were responsible for the disaster.

During the course of performing this contract we delivered 2,669 altimeters and were paid $2,666,223 for those units. We spent between $6 million and $7 million—we are still trying to determine the precise number—in the process of delivering that $2.7 million worth of instruments, and therefore lost between $3.3 million and $4.3 million on the contract.

I will not attempt to present all of the facts and issues bearing upon Aerosonic's AAU–19/A altimeter contract. Those facts and issues will be fully detailed in our pending case before the Armed Services Board of Contract Appeals. That case arises from the Air Force's termination of the contract for default, which Aerosonic is challenging. The Air Force terminated that contract solely on the grounds that Aerosonic failed to meet the delivery schedule. The Air Force never alleged that the Aerosonic 19/A altimeter was of poor quality or otherwise deficient in connection with that termination. Moreover, we were not aware of the Air Force's serious concern with our quality and design until February 1972, when the Air Force advised us that Oklahoma City Air Materiel Area (OCAMA), or Tinker Air Force Base, was unable to obtain correlation with our final test results. We believed that concern was resolved in April 1972, by successful comparative testing of more instruments and by official Air Force approval of Aerosonic's quality control procedures.

Some of the testimony presented by earlier witnesses questions Aerosonic's expertise in altimetry, its record for quality, and, above all, its integrity. I hope to confront all of those questions. However, I am unable to confront the references to certain Army and Air Force OSI confidential reports. I requested this material from the Subcommittee so that I might respond to the allegations in these reports. The subcommittee refused to release the reports because of its policy not to disclose investigative files.

With that exception, I am prepared to rebut the charges that have been raised in the prior testimony. The facts demonstrate that neither Aerosonic nor its employees engaged in any fraudulent or illegal conduct during performance of this or any other contract. The facts also disprove the charges that Aerosonic's expertise, quality and design were unsatisfactory.

[Mr. Frank continued reading his statement as follows:]

AEROSONIC'S EXPERTISE AND EXPERIENCE

Although Aerosonic is a relatively small company, it is one of the acknowledged leaders in the field of aircraft instrumentation. We employ some 350 employees in four plants located in Florida, Arkansas, Kansas and Texas. We manufacture

44 different aircraft instruments, including altimeters, rate-of-climb indicators, air-speed indicators, clocks and cabin-pressure indicators for both military and commercial application. Our present product mix is 60% commercial and 40% military. Virtually every aircraft now flying in commercial aviation has at least one Aerosonic instrument on the aircraft. Since 1957 Aerosonic has delivered approximately 65,0000 altimeters to the U. S. Government and has performed 388 U. S. Government contracts for prime aircraft instruments. Since Aerosonic was organized, we have delivered approximately 150,000 instruments of all types to the U. S. Government. Our reputation for designing and manufacturing instruments of the highest quality and reliability at reasonable prices is acknowledged throughout the aviation community in the United States and abroad. The Swiss Air Force, for example, utilizes an instrumentation system for altitude reporting designed by us; 400 to 600 of those systems are currently in their inventory and they are fully satisfied with them.

The Air Force's experience with the Aerosonic AAU–27/A altimeter, which has been the subject of some testimony in these hearings, illustrates our capabilities. Under the contract in question, we delivered 2,800 27/A's to the Air Force and of that number only 30 have been returned to us for malfunctitons. Of that number, only 18 were determined to be our responsibility, which amounts to a rate of less than one percent. We know that our 27/A meets the Air Force's desire for a 1,000-hour MTBF (mean time between failures) and we have been told by Air Force representatives that the incidence of repairs on the Aerosonic 27/A is the lowest of any altimeter in the Air Force inventory. The significance of the 1,000-hour MTBF realized with respect to our 27/A is illustrated by the fact that our competitor Kollsman's 19/A has achieved only a 350-hour MTBF.

Testimony presented to this Subcommittee confirms Aerosonic's history of manufacturing reliable, quality instruments. For example, General Stewart testified that he learned through his own investigation that Aerosonic had delivered acceptable hardware at much lower prices than its competitors over the ten years preceding 1966.

THE CONTRACT AWARD

Some Air Force representatives apparently had reservations about contracting with Aerosonic to design and manufacture the 19/A. Those reservations did not extend to Aerosonic's ability to design and manufacture an acceptable 19/A, but rather its ability to do so within the very tight time limits contemplated by the contract. Air Force records examined by us in the course of preparation for the Armed Services Board of Contract Appeals trial demonstrate that time, and not ability, was the focus of concern. The Air Force Engineering team unanimously concluded that Aerosonic had the capability to design and manuacture the 19/A, as reflected by a number of Air Force documents, including a 16 September 1965 memorandum signed by the five team members. In that memorandum Mr. Melnick, who has been critical of the award, noted in his own hand the comment, "As stated, this memo only serves to highlight critical design areas and point out that Aerosonic is capable of designing said units."

Further, a 1 September 1965 memorandum prepared by Mr. Lingard of Air Force Engineering discloses that Air Force Engineering had no doubt about Aerosonic's ability to manufacture pneumatic altimeters, because we had been "the sole supplier of pneumatic type altimeters since 1958." Aerosonic's acknowledged expertise in the field of pneumatic altimeters stands in sharp contrast to the Air Force's claim that the pneumatic, or mechanical, mode of the instrument was unsatisfactory.

It has been suggested that the Air Force should have been reluctant to award this contract to Aerosonic because of the Navy's dissatisfaction with our performance of contracts prior to 1965. The Navy terminated four Aerosonic contracts and I assume that the references to the Navy experience concern those terminations. Those terminations have no bearing upon Aerosonic's capacity to perform the 19/A contract. Two of those terminations were resolved in Aerosonic's favor. In one case the Armed Services Board of Contract Appeals opinion absolved Aerosonic of responsibility (and found the Navy to be at fault) and in the other case the Navy settled the matter favorably to Aerosonic before trial. The third case did not even involve aviation instruments. It was a termination for default for failure to deliver catapult arresting gear hardware, and is not relevant. The fourth case concerned Aeosonic's failure to deliver samples for test equipment. Under these circumstances it would have been improper for the Air

Force to boycott Aerosonic on the grounds of Navy attitudes. If the Navy does not have a high regard for our instruments, it stands alone in disagreement with the rest of the aviation community.

The 19/A Altimeter and Its Specifications

The AAU–19/A altimeter was a new instrument combining a normal pneumatic altimeter with an electrical computer-directed mode. The electrical, or servo, mode was intended to be the primary mode of operation. Its purpose was to correct for built-in error experienced in normal pneumatic altimeters due to the buildup of static pressure around the aircraft at supersonic speeds. The penumatic mode was operative at all times so that it would be functional in the event of electrical failure.

As suggested by Mr. Melnick and Mr. Squires, the concept of the AAU–19/A bordered on the state of the art in altimetry. Even with its deficiencies, the Air Force regards the Aerosonic 19/A to be more accurate than the AAU–7/A, which was the basic Air Force altimeter until development of the 19/A. As Mr. Melnick testified:

> This instrument is the first of its kind as far as the Armed Forces are concerned. It is a different instrument to handle, it is a very accurate instrument, by specification. Even with its deficiencies in, let's say, the standby mode; when we say deficiencies and it could not pass tests, we must remember that we are talking about a much tighter specification and that, even with some of these deficiencies in the standby mode, this instrument was more accurate than its predecessor, the AAU-7, which was in wholesale use at the time.

The AAU-19/A bid specification was based upon several research and development contracts issued by the Air Force to Kollsman Instrument Corporation during the period 1960 through 1964. It has been suggested in the testimony that Aerosonic copied Kollsman's 19/A design after Aerosonic's original proposal was rejected. This allegation is untrue. Our original proposal included a servo drive system for the electrical function. Although the request for proposals contained no limitations in this area, Air Force representatives advised us over our objection that the only acceptable drive system would be a drag cup system of the type which Kollsman had been working on in its research and development efforts. In short, we had to adopt the Kollsman drag cup concept in order even to be considered for award of the contract. I reject the idea that the forced requirement that we adopt a particular component for our 19/A is tantamount to copying a design.

I do not intend to use this forum to downgrade our competition. However, prior testimony has repeatedly compared our 19/A with the Kollsman 19/A. It is significant that we were denied access to the data developed under the Kollsman research and development contracts both before and *after* award of our contract, even though that data was developed at public expense and should have been in the public domain under the terms of the Armed Services Procurement Regulation. Not only did Kollsman have the exclusive use of the data and experience resulting from its research and development contracts, but it also had the advantage of commencing performance of its 19/A contract after most of the Air Force changes in the 19/A concept had surfaced. Kollsman's first contract was awarded to it sometime in 1967 at a basic unit price of $1,482, over $600, or 65%, higher than our original price. The current Kollsman price has risen to $2,240, as compared to our latest price in 1972 of $998.

Prior testimony suggests that the 19/A ultimately was completely unacceptable—that it did not operate properly, endangered flight safety and was not maintainable. I disagree with those conclusions. To understand why those conclusions are invalid, you should be aware of the background concerning Aerosonic's actual performance of the contract.

First, I will acknowledge that the ultimate design of the Aerosonic 19/A is marginal. By the term "marginal design" I mean that the altimeter performed close to the outer limits of the tolerances specified, rather than close to the nominals which were established as the ideal for performance. For example, at exactly 25,000 feet where obviously the ideal altimeter reading is 25,000 feet, the specifications required the AAU 19/A to read between tolerances of 24,845 and 25,155 feet at room temperature. Our 19/A often tended to read closer to one of the tolerance extremes, rather than to the ideal 25,000 feet. Nevertheless, such readings were completely acceptable under the terms of the contract. I can assure

you that Aerosonic did not knowingly ship any instrument that failed any test by even so much as ten feet, even though some of the tolerances range up to plus or minus 1,800 feet at the upper altitudes. Most importantly, none of these tolerances can even be remotely described as involving any type of flight safety hazard. The Air Force flight manuals permit pilots to fly an aircraft even though the AAU 19/A altimeter shows an error greater than twice the tolerances specified by our 19/A contract at ground level. In summary, the term "marginal" used in the technical context does not in any way indicate a failure of Aerosonic 19/A to function properly and safely in accordance with Air Force requirements.

Aerosonic did not begin performance of the contract with a view towards designing or manufacturing a marginal instrument. We hoped to build the best altimeter that could be made available both to the Air Force and to commercial aviation. However, it proved impossible to do so under the circumstances which controlled our performance.

The 19/A contract specifications detailed performance requirements rather than design requirements. That is, the Air Force told us what they wanted the instrument to do but not how to do it. As I stated earlier, we were even denied access to the 19/A research and development data developed for the Air Force at public expense. Aerosonic was prepared, of course, to design and manufacture the 19/A altimeter which would meet the performance requirements of the bid specification.

However, the Air Force kept changing its mind about what performance characteristics it wanted *after* we commenced performance under the contract. The contract was awarded to us in February 1966 and required deliveries to commence by late 1966. To achieve that schedule we would have to perfect our design concept in a very short time, and the design would have to remain fixed. But this procedure was precluded by major changes in performance and design attributes required by the Air Force beginning in August 1966 and continuing through early 1968.

I will not bore you with the details of the many performance changes that were insisted upon by the Air Force or of the many design changes that we had to institute in order to meet every new performance requirement. Those changes will be documented comprehensively in our Armed Services Board of Contract Appeals proceeding. Suffice to say that the changes came in serial fashion throughout the period August 1966 through early 1968 although the design and performance characteristics should have been completely fixed before August of 1966. Some of these changes were major ones. For example, one of the earliest changes concerned a design feature which has been referred to during these hearings—the so-called "mechanical arm" that was intended to dampen oscillation of the pointer in the electrical mode and load the bearings to prolong jewel life. After our basic design concept was fixed and had been validated by an Air Force preliminary design review meeting in March 1966. Air Force Engineering insisted in August 1966 that we delete this major design feature and find an acceptable substitute. This action was taken despite the fact that a professor of mechanical engineering at MIT had studied the "mechanical arm" design and found it to be an acceptable means of achieving its purpose and permissible within the limitations of the specification.

In addition to the direct disruption caused by changes in any design effort, the changes imposed by the Air Force under this contract were particularly troublesome because the change in one component often had an adverse impact on performance of another component, requiring still another change. We were constantly forced to sacrifice optimum performance in one area to satisfy changed performance requirements in another area.

Without oversimplifying or overstating this entire situation, we bid on a contract requiring the performance characteristics of a passenger car, only to find that the Air Force later required the performance characteristics of a Ferrari.

Our difficulties in adjusting to the ever-changing performance specifications were compounded by the Air Force's constant exertion of pressure for deliveries as soon as possible, and threats of drastic action if we failed to make those deliveries. For example, throughout the period from late 1966 through 1967 the Air Force was threatening us with the prospect of assessing liquidated damages for late delivery at the rate of $4.00 per day per unit. That translates into $44,000 per day, $1,320,000 for 30 days, and over $16 million for one year's delay on the contract quantity. Given the magnitude of these penalties, we did not have the luxury of implementing the imposed changes within the context of a planned,

coherent approach, but rather were in the position of having to meet crisis after crisis under extraordinary time pressure.

Finally, many of the changes that were imposed by the Air Force were characterized as being contract requirements despite the fact that nothing in the contract required them. We were twice required to repeat extensive First Article test programs, requiring some 4½ months to complete, on the pretext that earlier Air Force sanctioned and supervised testing demonstrated unsatisfactory performance in pre-existing required performance areas. Actually the repeat testing was desired by the Air Force to test the 19/A for parameters which were not then specification requirements and which therefore did not justify a repeat testing. These new tests included subjecting the instruments to temperature and electrical power/frequency extremes not to be tested for under the specifications. Another example was the Air Force's insistence that our 19/A meet certain limits for RFI (radio frequency interference) limitations which were not called for under the specifications. Our specifications set no particular limit on RFI emanating from the altimeter reset switch because it would ordinarily be activated only once during flight operations. Nevertheless the Air Force rejected our third series of First Article testing on the basis of RFI deviation. We were actually meeting a deviation of about 55db. It is significant that the 19/A specifications of the two other 19/A manufacturers, Kollsman and Bendix, permit an RFI level of 60db deviation.

First Article Approval and Air Force Contract Administration

The Air Force refused repeatedly to approve our First Articles. It is extraordinary for any Government activity to permit and indeed require production for four years without First Article approval, since the refusal to grant First Article approval normally indicates dissatisfaction with the product. The issue of First Article approval was a constant source of concern to us. We believe that the Aerosonic AAU 19/A was entitled to such approval on the basis of the contractually specified testing that was undertaken. We repeatedly discussed this subject with the Air Force and urged that either we be given First Article approval or be given some specific guidance as to the steps necessary to secure such approval. We never received such guidance and the matter was left on the basis that while the Air Force needed and wanted our 19/A, we were not entitled to First Article approval.

As we later discovered, Aerosonic never had any possibility of receiving First Article approval. We were told by Mr. Melnick in 1971 that we would never receive such approval because our altimeter incorporated a magnetic dampener to eliminate servo oscillation of the pointer. This advice is confirmed by an internal Air Force document dated 15 September 1971, which we obtained during the course of pre-trial discovery in our ASBCA proceeding. I find it shocking that not only were the First Articles never formally *disapproved* on account of the magnetic dampener, but in fact that design feature was incorporated by us under great time pressure only after Mr. Melnick himself insisted that we eliminate the so-called mechanical arm, which we considered to be a much more desirable engineering approach and which was clearly permitted by the specifications. In short, while the Air Force continued to withhold First Article approval for over four years, thus at least tacitly indicating disapproval of our 19/A, it continued throughout that period to apply pressure for Aerosonic to deliver its 19/A as quickly as possible, thereby indicating that our 19/A was acceptable.

In addition to the difficulties involving the Air Force's extraordinary treatment of First Article approval, Aerosonic was plagued by the Air Force's arbitrary and inefficient administration of our 19/A contract. For example, the Air Force once interrupted progress payments to Aerosonic on the premise that we were not making sufficient progress to warrant those payments. But at that time (late 1967) our failure to make progress was attributable to the constant changes in design and performance requirements being insisted upon by Air Force Engineering. Later the Air Force refused to permit payment of approximately $150,000 due and owing to us for past deliveries. This failure to make payments was due solely to the Air Force's internal accounting errors concerning the number of altimeter deliveries made under the contract, but it took us several months to resolve that very simple Air Force accounting problem.

Throughout our performance we experienced great difficulty in obtaining timely responses from the Air Force on a wide variety of important matters. For example, in late 1967 we had to wait three weeks beyond the date promised

for a decision on whether to grant us First Article approval. During that time our entire production line was standing ready (and idle) awaiting a definitive answer. You have heard the testimony that we had to wait over two years to be paid for certain changes after we had agreed on the pricing for the changes; the delay was occasioned solely by the Air Force's inability to locate the funds necessary to pay us.

Finally, we were forced repeatedly to wait extraordinary lengths of time for Air Force action on Engineering Change Proposals made by us to improve the design of the 19/A. For example, on 20 July 1971 we first submitted an ECP to eliminate a second vibrator that had been incorporated at Air Force insistence on the aft end of the instrument. We had proposed that ECP at the suggestion of OCAMA because it was their view, which we shared, that the second vibrator was not only superfluous, but also damaged the gear train. We never received a definitive action on that ECP prior to the date of the termination for default in July 1972, one year later. Parenthetically I might note that the independent ARINC laboratory report, which analyzes the adequacy of our 19/A design, also recommended deletion of the second vibrator. The delay in Air Force action on this ECP is characteristic of the delays experienced on a large number of the ECP's that we submitted during the course of the contract.

Maintainability and Suitability of the 19/A

As stated previously, Aerosonic disagrees with prior testimony to the effect that the Aerosonic 19/A did not perform satisfactorily and was not maintainable. The conclusion that our 19/A cannot be maintained is based upon the inability of OCAMA to repair the instrument. The conclusion that our 19/A is not suitable is based upon certain rejections experienced at Hayes International Corporation, various test programs undertaken by OCAMA, and two studies conducted at the request of the Air Force by ARINC (an independent laboratory) and the Air Force Flight Dynamics Laboratory (an Air Force activity).

With respect to the maintainability of our 19/A, we believe that OCAMA is incompetent to repair our 19/A. OCAMA's incompetency does not, of course, justify the conclusion that the instrument is not maintainable. Our contract expressly required us to demonstrate that our 19/A altimeter could be maintained, and the Air Force devised a test to measure its maintainability. That test involved the teardown and repair of a sample instrument by Aerosonic production personnel in respect to certain specified malfunctions. Aerosonic passed that test in the presence of OCAMA personnel, who formally accepted the results on behalf of that activity. The demonstration was conducted during the period 3 June through 7 June 1968. By letter dated 21 June 1968, signed by Col. G. N. Blair, Jr., Chief of the Instrument Systems Division at OCAMA, the Air Force determined that the Aerosonic AAU–19/A was maintainable on the basis of that demonstration. The letter recites the fact that the demonstration included a representative sample of simple and complex repair conditions and states: "It may be stated without reservations that maintainability improvements made since July 1967 have been very progressive and beneficial." We received formal certification of maintainability during the course of the Air Force-conducted First Article configuration inspection which took place during the period 8–12 July 1969.

It is pertinent to note that we had earlier conducted a maintainability demonstration in mid-1967, but the Air Force rejected that demonstration even though we did effect the required repairs within the required eight-hour period. That rejection was based upon the Air Force's conclusion that Air Force repair personnel were not as competent as the Aerosonic production personnel and would therefore require about twice the time to accomplish the same tasks.

I do not believe that Aerosonic should be held accountable for the incompetence of OCAMA repair personnel. In this connection both Gen. Stewart and Mr. Squires acknowledged that OCAMA did not even have the expertise to repair the AAU–27/A, but has had to contract with the Navy for AAU–27/A repairs. The 27/A is a relatively simple instrument which any FAA-certified repair shop in the United States can repair. Mr. Squires testified that he sent his two most highly qualified repairmen to Aerosonic in March 1972, but that they were unsuccessful in repairing two 19/A altimeters. He also testified that Aerosonic personnel were unsuccessful in repairing one unit. Mr. Squires' testimony is incorrect. We have the test data for the altimeter we repaired and it establishes that Aerosonic was able to repair its unit. The unit passed all tests with the exception of one reading

which was five feet out of tolerance. Hence, it was contractually acceptable since we were allowed two out of tolerance readings of up to 15 feet in each sale error test.

Aerosonic's 19/A was officially certified as maintainable, and indeed Aerosonic has successfully repaired about 300 19/A's under two repair contracts awarded by the Air Force, at an average price of $350 per unit. These facts contrast vividly with OCAMA's record of incompetency, and it would be unfair and unjustified to judge the maintainability of our 19/A on the basis of OCAMA's record.

We also disagree with the Air Force's conclusion regarding the suitability of our 19/A. We are not in a position to evaluate OCAMA's testing of 102 instruments during the period 9 August through 9 November 1971 referred to by Mr. Squires. Aerosonic did not participate in that testing and has no means of evaluating the results because we have been unable to obtain the data generated by OCAMA during that test program. For the same reason we do not have the means of evaluating Mr. Squires' testimony concerning OCAMA's testing of the 56 units repaired by us and referred to by Mr. Squires.

However, we did participate in a joint Aerosonic/Air Force evaluation of the Hayes Aircraft failures referred to by various Air Force witnesses. Some of the prior testimony implies that the failures reported by Hayes in March 1971 were a watershed; that only then did the Air Force reach the conclusion that there were serious deficiencies with this Aerosonic 19/A. There is, however, no basis for treating the Hayes incident as conclusive evidence that our 19/A was unsuitable. As Mr. Squires testified, the Hayes incident involved the failure of 21 of 58 units. But of 16 failed instruments plus 2 other units retested and analyzed jointly by the Air Force and Aerosonic, only 3 were attributable to poor quality control. Two of the instruments tested acceptably and were not failures after all. The remaining instruments failed because they were produced prior to the introduction of certain Engineering Change Proposals or because they had been damaged from improper testing or handling.

The test results from the only true comparability test program carried out by the Air Force demonstrate that the design and manufacture of the Aerosonic 19/A were satisfactory. That program, which was conducted in late March and April 1972, consisted of comparing the results obtained from the testing of ten units initially at Aerosonic, again at Tinker Air Force Base, or OCAMA, and once again at Aerosonic. The testing was conducted under strict Air Force supervision at Aerosonic and the units thereafter were placed in the control of the Air Force.

The ten altimeters passed all of the required tests initially at Aerosonic. When the same ten units were tested at OCAMA, five failed mechanical scale error testing at room temperature, two failed at cold temperature, and seven failed at hot temperature. Most of the failures were in the range of 5 to 20 feet and none exceeded 20 feet in room, 45 feet in cold and 60 feet in hot. Subsequent retesting of the same instruments at Aerosonic yielded results comparable to the OCAMA testing. However, we then rezeroed the instruments at Aerosonic to determine if they had sustained any permanent damage or shift. After the rezeroing, which is a very simple adjustment involving correction factors of only 10 to 30 feet, we discovered that all but one of the instruments tested within specification tolerances. The remaining altimeter failed room and hot temperature testing at four test points each, with failures ranging from 5 to 15 feet. No one can fairly characterize a 15-foot failure as a safety of flight condition, since no pilot attempts to read an altimeter that closely. Indeed, the dial configuration of the 19/A (consisting of 50-foot increments) makes it impractical to attempt such fine readings. In short, the retesting after rezeroing demonstrated that the instruments could be easily brought within tolerance by a simple maintenance function and that the instruments were not unreliable or unsafe to fly.

The question remains how the same units could have completely passed testing initially at Aerosonic and then failed upon retesting at OCAMA within a short time thereafter. We cannot definitively answer that question because we were not present at the OCAMA testing and are not certain how OCAMA handled the instruments. However, we believe it is highly probable that OCAMA handled the instruments in such a way that their initial calibration as shipped from Aerosonic was distorted. My reasons for that conclusion are as follows.

First, it is possible that OCAMA rezeroed the instruments, which would itself explain the discrepancy in test readings. Mr. Squires in his testimony stated that the instruments were rezeroed at OCAMA during this particular testing and we know it was the normal practice of OCAMA to rezero our instru-

ments upon receipt. However, we have since learned that he may have been mistaken in this testimony. My attorneys specifically questioned the Air Force attorneys on this subject and were advised that Mr. Squires was mistaken. We have no way of knowing how extensively the Air Force attorneys investigated this subject and we will not be able to pursue the matter further until we have had the opportunity to cross examine the OCAMA personnel who actually conducted the testing.

In view of our uncertainty concerning rezeroing, I do not want to belabor the point. However, I should explain that if OCAMA did rezero the instruments their calibration would be distorted from its condition at Aerosonic. This distortion would occur because OCAMA's test equipment was calibrated differently from our own, and because OCAMA ignored the calibration cards shipped with each Aerosonic altimeter in earlier rezeroing of our instruments.

With respect to the differences in calibration, an Air Force calibration team undertook a formal study of our test equipment and also of that of OCAMA shortly after the testing in question. The team's report of 31 May 1972 notes that they found our test equipment to be in calibration and to correlate closely with their own standard. The team was critical of conditions at OCAMA in that test conditions were "less than ideal" and because OCAMA's primary testing equipment (quartz gauges) performed very erratically. The calibration team found that meaningful readings could be obtained only by frequent zero checks with their own standard and concluded that the OCAMA working standards should be recalibrated. The OCAMA test equipment consistently read higher than our own.

As to OCAMA's failure to consider the calibration cards in rezeroing, it would be impossible to obtain satisfactory results without reference to those cards. The calibration cards were the key to zeroing our instruments because we frequently found it necessary in calibrating the altimeters initially to set the pointer to one side of zero or the other in order to compensate for the interaction of cold and hot testing. For example, one altimeter might have to be set at minus 15 feet at ideal zero to pass successfully all temperature testing, while another might have to be set at plus 10 feet to achieve the same acceptable results. These calibrations were permitted under our contract specifications, and were noted on cards intended to accompany the instrument. If OCAMA rezeroed the altimeters without reference to their initial calibration recorded on the cards, out of tolerance readings could be anticipated. I might note at this point that we have never had any difficulty in achieving acceptable test results at room temperature (which is the normal operating temperature of the altimeter)—our problems arose in trying to reconcile the conflicting reactions of the altimeter to hot and cold temperature conditions.

The explanation that discrepancies between the initial Aerosonic testing and the OCAMA comparability testing of the same altimeters was due to differences in calibration of test equipment and/or to rezeroing by OCAMA is far more persuasive than the explanation given in prior testimony before this Subcommittee that the discrepancies were due to the unstable design of the 19/A. An unstable design would be likely to yield erratic test results. Yet the results of the OCAMA testing and of the subsequent retesting at Aerosonic were in close correlation. Of the ten altimeters retested, seven read 5 to 20 feet lower at zero in room temperature testing than they had read at OCAMA. This falls about in the 10 to 15-foot range of differences in the test equipment calibration at the two facilities. The three remaining instruments read 5 to 10 feet higher. The correlation between these two series of tests certainly does not suggest erratic performance caused by unstable design.

The second factor which explains the discrepancy between our initial readings and those obtained later at OCAMA is that the OCAMA test personnel made it a practice to handle the instruments abusively. Specifically, it was their practice to slap the instruments forcefully as a sort of "visual test" before any other testing, apparently to see if the altimeters had excessive friction. This "test" is nowhere specified in the contract. It is certainly unnecessary because the specifications provide for scientific measurement of friction. More importantly, it was simply physical abuse of the instrument which almost certainly would affect the calibration of the altimeter and could also result in permanent damage to the delicate mechanism. The force used by OCAMA personnel in slapping the instruments was sufficient to cause deflection of the surface of the metal table upon which the altimeters were resting.

Anyone familiar with aircraft instruments of the accuracy of the 19/A should be aware that they are extremely sensitive and must be handled carefully. Their sensitivity is such that a movement of 1/10,000th of an inch in the gear train will introduce a movement of 30 feet in the pointer. The fact that OCAMA was not properly handling the instruments in this regard is confirmed by the report of an Air Force survey team dated 22 February 1972, which observed the practice and concluded that it should be eliminated because it "could conceivably cause internal damage" and because there was "no value in this procedure."

In discussing the comparability testing, I have concentrated on scale error testing, which was the primary focus of concern. I should add in passing that OCAMA noted some failures of other altimeter attributes, notably in static friction and stop/jump friction with the vibrator off. We know these failures were the result of improper OCAMA testing technique and therefore are not indicative of poor quality. OCAMA tested for static friction at a different rate of pressure change than utilized by Aerosonic, and that difference accounts for the difference in test results. The failures noted by OCAMA in stop/jump fricition testing occurred in the ascending direction, and the specifications contain no such test. In short, the facts disclose that OCAMA testing is unreliable and that its judgment concerning the quality of our instruments is incorrect.

With respect to the unreliability of OCAMA testing, it is pertinent to note that we have experienced similar difficulties with OCAMA in testing our AAU–27/A altimeters. Specifically, in late 1972 OCAMA reported that a large number of our AAU–27/A's failed receiving inspection when tested by them. The very same instruments had been tested by a different Air Force maintenance activity, the Sacramento Air Material Area, which had markedly different results. OCAMA criticized performance in the scale error and static friction areas, while Sacramento found performance in those areas to be within specification but believed that certain other areas of performance were unsatisfactory. An Air Force investigation revealed that Saeramento's criticism of the instruments' performance was unfounded because it was testing those particular attributes improperly. However, Sacramento's test results in scale error were closely in correlation with our own. We do not know the results of the investigation with respect to OCAMA's scale error testing, but we suspect that the Air Force found OCAMA to be testing improperly. We understand that an Air Force calibration team judged the OCAMA test equipment to be substantially out of calibration shortly after this incident. OCAMA no longer conducts receiving inspection of our 27/A altimeters and we have had virtually no complaints about those instruments from Air Force activities since that time.

There are additional factors which demonstrate OCAMA's lack of expertise in the field of the AAU 19/A altimeter and 19/A testing. For example, OCAMA did not test our instruments in the sequence prescribed by the specifications, a fact noted by the Air Force survey team memorandum of 22 February 1972 referred to earlier. The effect of the out-of-sequence testing was minimized by the team. I am not presently prepared to comment upon the effect of such testing. We intend to anlyze that matter later in our preparation for the ASBCA proceedings. Nevertheless, I consider it to be significant because Air Force Engineering was adamant in its insistence that we test the instruments strictly in the prescribed sequence.

OCAMA's expertise may be further questioned in terms of Mr. Squire's testimony that OCAMA was concerned with the fact that the Aerosonic 19/A's were not uniform in construction. He noted that they contained different sized cross shafts and gears. Differences in components should have been expected, since during the course of performance of this contract we instituted approximately 500 engineering changes in order to improve productivity and performance. These engineering changes were relatively minor, such as changes in dimensions and configurations of individual piece parts. But more importantly, they were proper and permissible under our contract and the Air Force had notice of them. OCAMA should have been aware of those permissible changes. Although we cannot analyze Mr. Squires' allegations in this area in detail because they are so imprecise, it is significant that eight Engineering Change Orders were instituted with respect to the cross shaft, which he mentioned, and 81 Engineering Change Orders were issued with respect to the gears.

The Air Force has pointed to the evaluations of two laboratories as evidence of the unsatisfactory nature of our 19/A's. We have reviewed the reports from the Air Force Flight Dynamics Laboratory and ARINC. As far as we can de-

termine, the Air Force Flight Dynamics Laboratory did not engage in an independent analysis of the design, but rather relied upon interviews with various Government personnel for its conclusion that the instrument is unsatisfactory. The ARINC report is based upon an actual physical analysis of our 19/A and does recommend redesign of the instrument. I note incidentally that the study involved instruments which had been subjected to field use and were not new.

On the basis of its analysis, ARINC concluded that our 19/A should be redesigned in respect to the crown gear and rocker shaft assembly. The most notable recommendation in the ARINC report concerns redesign of the crown gear, a critical component in the gear train, which became excessively worn with use, thereby introducing changes in the response of the instrument in scale error. We had recognized this particular problem and had undertaken experimentation with use of a stainless steel (harder) crown gear in order to determine if the difficulty could be cured by that means. Our testing revealed that such a change would effectively eliminate the problem. We were about to propose such a change to the Air Force when it decided to terminate the contract for default.

The ARINC report also suggests elimination of a second vibrator mounted in the aft end of this instrument. Interestingly, the Air Force is responsible for the existence of that second vibrator, since Air Force engineers insisted that it be added to the design. Moreover, Aerosonic had proposed elimination of that second vibrator by formal Engineering Change Proposal channels in July 1971 because Air Force maintenance reports indicated that it was causing unnecessary corrosion and wear to the crown gear. Our own testing confirmed the adverse effect of the second vibrator on the crown gear and revealed that the performance of our 19/A was considerably enhanced by elimination of the second vibrator. The Air Force engineers had not acted on that ECP by the time the contract was terminated for default.

We do not disagree with the findings of ARINC that the design of our 19/A could be improved, although we do not believe that the modifications need be as extensive as those suggested by that company. The essential point is that the ARINC report does not support (or rebut) the OCAMA findings, since it is relevant only to the condition of instruments after extensive usage and since the OCAMA findings are promised upon the performance of the instruments.

In summary, the record establishes that the Air Force decision that our 19/A altimeter is unsuitable is based solely on the opinion of OCAMA, and we believe that OCAMA's judgment is demonstrably questionable. Aside from its improper testing techniques, improperly calibrated test equipment, and mishandling of altimeters there are several other factors which cannot be reconciled with OCAMA's opinion. The record establishes that the Air Force had 600 to 700 of our 19/A's installed in aircraft and operating satisfactorily. Moreover, our 19/A's were manufactured and tested under the constant surveillance of Air Force inspectors. I have never experienced such intensive Government inspection in performing a Government contract before or since. The effectiveness of the Quality Assurance surveillance and of our own internal Quality Assurance procedures was verified in late January and early February 1972 by a team of Air Force quality experts, who certified that the procedures complied with Air Force standards and were being followed. As late as 22 December 1971 the St. Petersburg DCAS office responded to an inquiry from ESD that—that's Hanscom Field, up in Boston—"to the best of our knowledge contractor in strict compliance with contr [act] terms and conditions—and no contractual deviations exist in reference to the 19/A contract." The ASD engineers, who constantly shepherded this program from its inception through September 1971, were unaware of any major problems according to the testimony of Mr. Lyon, Col. Zeine and Mr. Melnick. Mr. Melnick testified that as of 1971 the most serious problem seemed to be in the area of servo oscillation, but the record is clear that OCAMA's difficulties, and the Air Force decision to scrap our instrument, centered upon the mechanical mode of the instrument. Finally, there exists the remarkable discrepancy between the testing of AAU-27/A's by OCAMA and Sacramento, which at least suggests that one of those two activities can be wrong about its testing of altimeters. I cannot help but be of the firm conviction that the evidence demonstrates that OCAMA's judgment concerning the quality, reliability, and maintainability of Aerosonic 19/A altimeter was clearly erroneous.

Impossibility of Falsification of Test Results

Earlier testimony implies that Aerosonic was engaged in a widespread and pervasive scheme to falsify the test results at our plant. No such scheme was

ever initiated or implemented at Aerosonic Corporation with respect to any of the instruments which we manufacture. I intend to address myself to the specific incidents related in prior testimony implying that Aerosonic employees were endeavoring to manipulate tests or test results. But first, let me point to some circumstances which in and of themselves demonstrate the absurdity of the premise that any such scheme existed.

As I noted earlier, Aerosonic was subjected to intensive Air Force inspection from the inception through the termination of the 19/A contract. During the period June 1968 through February 1970 we were not permitted to ship any instrument unless our testing of the instrument was completely witnessed and verified by DCAS inspection. In fact, during that period we were not even permitted to move an instrument from one assembly point to another unless the Government approved each and every move. We had never been subjected to such intensive inspection in our history of delivering 65,000 altimeters to the Armed Services and we frankly did not understand why the Air Force was making an exception to its normal procedure in this particular case. Normally the Government undertakes intensive inspection only for a short time at the initial stages of production and then relies upon random spot checking of a contractor's testing.

The intensity of the inspection in this contract did cause us concern because it had the effect of slowing production and reducing productivity. No one performs as efficiently when someone in a position of authority is contantly looking over his shoulder to insure that he is doing his job properly. That is precisely what occurred with respect to the testing of every 19/A produced during the period June 1968 through February 1970. If you want to get an idea of how such inspection can reduce efficiency, try standing behind your secretary's back for an eight-hour day while she is trying to do her work.

Even after the 100% inspection was discontinued, the level of inspection on the 19/A contract was abnormally extensive. Under these circumstances, with the pervasive presence of Air Force inspectors throughout the plant, it would have been impossible to undertake a wideranging scheme of fraudulent activity. Nor could we have tampered with the instruments during the night or early morning to obtain more favorable test results. The altimeters were frequently subjected to both cold and hot testing on the same day without being removed from the test chamber. It would be impossible to manipulate the instruments for favorable readings in cold temperature testing and also yield favorable readings in hot temperature testing because the two temperature conditions have an opposite effect upon the response of the altimeters. That is, if an instrument were adjusted so that it would read better in cold than would normally be possible, then it would necessarily read out of tolerance in hot. No adjustment could be made prior to hot testing given the practice of testing under both conditions during the same day in the same test chamber with the constant presence of the Air Force inspectors.

Another circumstance which demonstrates the absurdity of the premise is the fact that we, ourselves, had a very high rejection rate in final testing throughout performance of this contract. Specifically, we experienced rejection rates of 59.7% in 1968, 56.5% in 1969, 54% in 1970 and 48.4% in 1971. We have no meaningful data for 1972 because of the very minimal production during that year, but the rates definitely did not improve that year. While these rejection rates confirm the marginal nature of the instrument from the production standpoint, they rebut the suggestion that we were manipulating the testing or test data. Still another circumstance which rebuts the premise is the fact that we did not experience a remarkable rate of 19/A returns for quality deficiencies. As disclosed by DCAS' letter of 7 July 1971 to ASD, our record for returns was as follows:

> As of 28 June 1971, and since 6 August 1968, the Government has accepted 1,937 of these units. For this entire period, completed investigation of 112 altimeters reported as defective via established customer complaint channels reveals that only 15 of this number could properly be attributed to qualify deficiencies.

One would expect a considerably larger volume of quality deficiencies if we had been manipulating or tampering with testing or test results.

Attitude Toward Quality Control; the Blickenstaff Incidents

Some of the prior testimony indicated that Aerosonic's attitude toward quality control was poor. Our Quality Assurance procedures were thoroughly reviewed

and approved by an extensive Government audit in February 1972. However, Mr. Blickenstaff has testified to the effect that Aerosonic was non-cooperative in his efforts to improve upon quality. To put the events into perspective, it must be understood that we had been subjected to extraordinary inspection procedures for nearly three years prior to Mr. Blickenstaff's arrival at our plant as the Chief Inspector. The intensity of that inspection had seriously compromised our productivity and we had just undertaken a program to accelerate production by adding employees and making other improvements in our production process.

When Mr. Blickenstaff imposed his revised inspection procedures in March 1971, we had just executed a contract amendment by which we agreed to build up our production rate from the less than 100 per month theretofore realized to 200 units and we were just beginning to realize the increased production required by that contract amendment. We would suffer a serious loss if we failed to meet the volume of deliveries required of that contract amendment. The amendment included an extraordinary provision to the effect that the Air Force could cancel approximately 3,500 of the 19/A's under our contract if Aerosonic failed to meet the new delivery schedule in any two consecutive months, regardless of whether or not we were responsible for the failure. This provision was unique in our experience and without precedent in the Armed Services Procurement Regulations. Ordinarily the Government can terminate a contract only for convenience (in which case it must bear the expenses of the termination) or for default where the contractor is responsible for the failure to deliver.

Under these circumstances it would have been less than human for me to fail to react to Mr. Blickenstaff's March 10 changes in inspection procedures, which I believe to be excessive and unnecessary. At that time there was no indication that extraordinary quality difficulties were being experienced in the field. Moreover, the March 10 changes in inspection procedures were applied across-the-board to all instruments and we knew that the Air Force had no cause for concern with any instrument but the 19/A. Finally, the inspection procedures demanded by Mr. Blickenstaff were conceived by us to be extremely disruptive of our production efforts because we interpreted his demands as prohibiting our own inspection unless an Air Force inspector was present to witness the testing. Although Mr. Blickenstaff testified that his revised inspection procedure would not impede progress because he intended to permit us to undertake testing without Air Force supervision if an Air Force inspector could not be present, he never indicated that position to us at the time, and his letter was not clear on the point. It states, "Should this office not be able to have someone available to perform the above you will be so notified."

It is important to note that I did not object to Mr. Blickenstaff's March 4 change in procedures until he added the March 10 changes. Mr. Blickenstaff's superiors agreed with my concern by revising Mr. Blickenstaff's inspection procedures, so that we only had the obligation to notify the Air Force of expected testing and the inspectors had the responsibility of being present if they wanted to witness the tests.

The other incident concerning my differences with Mr. Blickenstaff concerned his imposition of an extracontractual sampling plan in the latter part of 1971. Mr. Blickenstaff first proposed that sampling plan by memorandum dated 27 September 1971. He explained that its purpose was to check for certain instrument characteristics which had been the subject of excessive complaints by using activities. Those instrument characteristics were static friction, standby and servo scale error in cold, and case leak in cold. Under that plan, production was to be segregated into lots of 26 to 50 instruments and 100% tested. From those lots, eight instruments each were to be selected and retested. If even one of the eight units was out of tolerance upon retest, the entire lot of instruments would be rejected. Because of the marginal nature of the design, we would have to reduce substantially our production tolerances, thereby expending considerably more production time, in order to avoid that risk.

By letter dated 1 October 1971, I advised DCAS of Mr. Blickenstaff's proposed sampling plan and stated:

> This is to advise you that Aerosonic Corporation has absolutely no objection to fulfill the obligations of the specific memorandum provided that we receive a CCN [Contract Change Notice] to include this requirement in the contracts for the AAU–27/A and the AAU–19/A, and that an increase in costs and a change in delivery schedule will be included in the CCN to cover this new requirement.

I took that position because there was no provision express or implied in my contract for the additional sampling plan inspection and because such inspection would necessarily involve substantial additional expense to Aerosonic. My position that Mr. Blickenstaff's proposed sampling plan was extracontractual was later confirmed by the Air Force's own lawyers.

At the time Mr. Blickenstaff originally proposed the sampling plan I thought it was unnecessary because I was not aware that there were excessive complaints about the performance of the Aerosonic 19/A from field users. In fact, I assumed exactly the opposite since I had been advised by the Contracting Officer in early 1971 that our record for satisfactory operation in the field was superior to that of the other producer of the 19/A. Accordingly, I told Mr. Blickenstaff that I thought the sampling plan was unnecessary and asked for verification that there was an excessive number of field complaints concerning the instrument characteristics which were to be the subject of the sampling inspection. Interestingly enough, when the sampling plan was formally imposed upon us by DCAS on 10 November 1971, most of the instrument characteristics to be sampled were changed from the ones covered by Mr. Blickenstaff's proposal. The DCAS sampling plan retained only the static friction attribute and required sampling for room servo and standby scale error rather than the cold proposed by Mr. Blickenstaff.

It is significant that the Air Force did not feel that Mr. Blickenstaff's sampling plan was important enough to pay Aerosonic for the extra work which would have been occasioned by it. The Air Force decided not to continue the Blickenstaff sampling plan after the contract administrators learned that it was not within the scope of the contract and would have to be paid for separately if implemented.

I wish I had the opportunity to confront directly Mr. Blickenstaff's testimony that one of my employees forged a letter in his name. The incident was not raised with me at the time it was supposed to have taken place. I have talked with the employee in question, Joe Lynch, to determine if he ever did such a thing. He was certain that he did not and I believe his word is supported by the fact that the letter itself can hardly have been calculated either to help Aerosonic or to discredit Mr. Blickenstaff. I have been unable to investigate the matter further; but I understand that it was the subject of an Air Force OSI investigation. As you know, we requested that the Subcommittee furnish us with copies of the OSI reports, but the Subcommittee refused to do so. The purpose of that request was to follow up leads to information concerning these events that happened so long ago and permit us to confront unsubstantiated allegations.

This entire episode is most puzzling to me. In the first place. Mr. Lynch categorically denies having forged Mr. Blickenstaff's signature. Secondly, if someone wanted to discredit Mr. Blickenstaff by forging a letter under his signature, it would be most peculiar for him to author a letter as confusing and apparently innocuous as the one in question. Finally, I certainly know of no employee of mine who is so expert a forger that he could completely fool Air Force handwriting experts who concluded, according to Mr. Blickenstaff's own testimony, that the signature was Mr. Blickenstaff's own signature.

Much has been made of my demand that Mr. Blickenstaff be removed as Chief Inspector from my plant. I believe you should be aware that he was removed only after he violated his superiors' instructions to stop imposing sampling plan inspections because they were beyond the scope of the contract. Specifically, on 7 December 1971 DCAS wrote me a letter confirming that the sampling plan that had been imposed in November was beyond the scope of the contract and that I would be paid for the costs which I incurred in attempting to comply with it. I was orally informed by Commander Curtin that no further sampling plans would be imposed without formal Contract Change Notification. That was Dec. 7, 1971. However, on 9 December 1971 Mr. Blickenstaff again attempted to impose a new sampling plan, this time restricted to the AAU–27/A contract (his earlier plan covered both the 27/A and the 19/A). I immediately advised Mr. Mahaun, the DCAS Administrative Contracting Officer, of this fact and Mr. Mahaun replied that he did not believe me. I told him that I had the document to prove it in my hand and he responded that he would get back to me. Shortly thereafter, Mr. Blickenstaff came to my office and asked me to return the document to him and I refused. Later in the day I received a second memorandum from Mr. Blickenstaff rescinding his earlier memorandum. On the next day (10 December) I received a letter from Commander Curtin advising me that Mr. Blickenstaff would be removed as Chief Inspector.

SPECIFIC INCIDENTS

The evidence establishes the impossibility of any broad scheme on the part of Aerosonic to manipulate or falsify testing and test results. There remain for consideration several isolated specific events which took place in early 1972 and may be misconstrued as evidence of fraud or misconduct. In summary, there were five incidents as follows:

1. Mr. Benmayor's alleged direction to an Aerosonic employee to misread a test point in Mr. Seay's presence.
2. Mr. Francis' alleged tampering with altimeters.
3. Mr. Stellmach's alleged tampering with altimeters.
4. Alleged forgeries of initials on certain test data sheets.
5. The alleged use of an extra manifold to improperly affect testing of the 27/A altimeter.

As I said earlier in my testimony, I have been hampered in my efforts to confront these particular charges because the events took place two years ago and because the Air Force did not make a major issue of them at that time. I have been particularly hampered in part of my investigation because Al Benmayor, who is the focus of two of the five incidents, died late last year. Nevertheless, the facts which I have been able to discover demonstrate that there was no fraud or wrongdoing on the part of Aerosonic or any of its employees. The only possible impropriety on the part of Aerosonic personnel might concern the incident in which Mr. Benmayor and Mr. Seay became involved in an altercation over a ten-foot difference in a test reading.

Mr. Seay testified that on 10 March 1972, during the testing of a single altimeter at the 35,000-foot test point (incidentally, that is one of over 200 test points which each instrument must pass), Mr. Benmayor, in Mr. Seay's presence, instructed the test recorder to record a reading 10 feet lower than Mr. Seay thought it should be. It is significant that in four years of testing involving millions of readings under Government supervision, Mr. Seay's testimony is the only charge that any officer or employee of Aerosonic ever directed a test recorder to record false reading.

The incident related by Mr. Seay obviously did not involve any fraud by Aerosonic. Mr. Seay was present to protect the Air Force's interests and Mr. Benmayor's disagreement with Mr. Seay was direct and overt. Because I was not present during the episode I do not know which of those gentlemen was correct. As Mr. Seay testified, when he told me his side of the story I indicated that it would be wrong for anyone at Aerosonic to direct the misreading of a test and, because relations with Mr. Seay were strained, I apologized to him. I directed Mr. Benmayor to avoid any future disputes.

I will not attempt to excuse Mr. Benmayor's conduct if he was wrong. My own belief is that the incident was the result of a personality conflict between Mr. Benmayor and Mr. Seay. Mr. Benmayor was particularly incensed by Mr. Seay's frequent practice of standing to the side during instrument testing, rather than directly in front of the instrument dial. A reading made from the side was often erroneous because of the parallax effect. Mr. Benmayor may well have believed Mr. Seay was incorrect and became further incensed when Mr. Seay told Mr. Benmayor that he would make sure the instrument was not shipped.

Mr. Akins and Mr. Seay testified that on 24 March 1972 our employee, Howard Francis, was observed allegedly tampering with 19/A altimeters undergoing final testing. Mr. Akins also testified that on 12 April 1972 he observed our employee, Neal Stellmach, making allegedly improper adjustments to the 19/A's early in the morning. Mr. Stellmach and Mr. Francis both testified before this Subcommittee that they were not making improper adjustments to the instruments and that Mr. Akins and Mr. Seay misinterpreted what they observed. A number of important facts support the testimony of my employees and indicate that Mr. Akins and Mr. Seay erred in their conclusions concerning these incidents.

Before presenting those facts, however, I would like to describe the adjustments to instruments which are permitted to be made to 19/A's prior to and during testing. Scale error testing simulates the actual operation of the altimeter to determine the accuracy of its readings. The testing is conducted in both the servo and pneumatic modes at 58 test points in each of three temperature conditions—room, cold and hot, in that order. The instruments are mounted on a panel installed in a test chamber which is capable of maintaining steady temperatures ranging from very hot to very cold, and are then exposed to the specified altitude conditions by means of external test equipment. Changes in altitude for the pneumatic mode are induced by an external vacuum source connected to each

altimeter by a rubber or silicone hose. Changes in altitude for the servo mode are induced by an external synchro simulating operation of the computer which drives the servo mode in actual aircraft operations.

Thus, before scale error testing could begin, the altimeters had to be mounted in the test chambers and connected to the external test equipment. The instruments then had to be initially zeroed in both the pneumatic and electrical modes. The initial zero setting for both modes was effected by movement of the baroknob mounted on the exterior front of the altimeter, which adjusts the relative position of the pointer to the servo and pneumatic mechanisms. That (indicating) would be this knob here we are talking about.

Zero setting in the penumatic mode was accomplished by positioning the barometric pressure counter at 29.92 inches of mercury (the specified zero point in the testing) and positioning the pointer at true zero. A brief test of each altimeter's response to changes in barometric pressure would then be conducted to determine whether the pointer should be positioned slightly to the left or right of zero in order to meet all of the tests. This positioning was permitted by the contract specifications. The pointer was then set within the tolerance range specified for true zero in order to accommodate the response of the particular instrument.

Essentially the same procedure was followed for zero setting in the servo mode. However, in addition to setting the pointer to accommodate the response of each instrument at true zero, this setting also had to account for inherent error in the synchro, the exterior test equipment. In testing the 19/A we utilized two test chambers, which we referred to as the "north box" and the "south box", and therefore needed two synchros. Each synchro has an inherent error unique to it. Hence the instruments had to be rezeroed to account for that error depending upon which test chamber and synchro was being utilized.

Because the initial zero setting procedure was a sophisticated and complex one, Mr. Francis and Mr. Stellmach, two of our most competent employees, were responsible for the procedure. The Air Force inspectors were aware of this and never registered any objections.

The entire procedure for setting up the test board and zeroing the AAU 19/A altimeters took from one to one-and-one-half hours to perform. Once the initial zero setting was made, scale error testing could commence and no one was permitted to touch or adjust the instruments except in the following circumstances:

(1) It was permissible to adjust the barometric pressure counter setting if it changed from 29.92 as reflected on the dial face during the course of testing. Such changes could and did occur with some frequency because of the vibration which was applied to the instruments undergoing testing.

Gentlemen, what I am saying, there is a series of numbers 29.92 on the instrument. I will bring it up to you if you wish. These numbers by contract and specification must appear in the window at all times. Sometimes through vibration one of the numbers, as you can see, will disappear out, and by specification we were not permitted to test it until that number was back at 29.92. So all you did is we put the number back to 29.92 and continue the testing.

[Mr. Frank continued reading his statement as follows:]

The adjustment was not only permissible but necessary to restore the barometric pressure setting to 29.92 in such instances, since the specification stipulated that the testing was to be conducted at that setting. Indeed, the Government inspectors themselves frequently adjusted the seting back to 29.92 during testing when they noticed that it had changed. The adjustment merely involved turning the baroknob and had no effect whatever on the zero setting of the instrument. Therefore, that adjustment could have no effect on the validity of the test results.

(2) It was also permissible to adjust the electrical zero setting of the altimeters in the event they had to be removed from one test chamber and placed in another because of occasional test chamber malfunctions in hot or cold testing. In that event the test in progress at the time of the malfunction would be repeated in the other test chamber and the electrical zeroing would have to be adjusted to account for the individual inherent synchro error for the new test chamber to avoid distortion of readings. This adjustment involved resetting the electrical zero to correspond to that which was reflected during testing in the malfunctioning test chamber and did not affect the validity of the test results.

The two incidents involving Mr. Francis and Mr. Stellmach fell within the area of the permissible adjustments I have just described. On 24 March 1972 Howard Francis was observed adjusting 19/A's in a test chamber. I was present when this incident occurred, as were four Air Force inspectors. There was nothing secretive about Mr. Francis' activity.

Mr. Francis testified that he had been requested by Ed Lolley, who is Aerosonic's Quality Control Supervisor, to transfer the 19/A's undergoing testing in the south box to the north box because the south box had malfunctioned. Mr. Francis explained that after doing so he was checking the servo zero settings of the altimeters in the north box to determine that they corresponded to the last zero reading taken in the south box. This checking and adjustment is necessary, as I previously explained, because of the differences in the inherent synchro error to be expected in the different test chamber.

I have confirmed through Mr. Lolley that he did request Mr. Francis to transfer the instruments to the north box because the south box had malfunctioned. Mr. Lolley recalls that it was his intention to repeat all scale error testing (room, cold and hot) on those instruments because of the malfunction. Under these circumstances Mr. Francis' actions were proper and permissible. In fact, because the altimeters were to be completely retested, it was even permissible to adjust their zero setting. These altimeters were in fact completely retested for scale error at all temperature conditions.

I believe these facts demonstrate that Mr. Francis was not tampering with the instruments. The circumstances suggest that his motives were clearly not improper, for he carried on his activities in plain view during normal working hours when Air Force inspectors were constantly present, and in fact were observing him.

Mr. Akins believed he observed Neal Stellmach tampering with 19/A's under test at six o'clock in the morning on 12 April 1972. Mr. Stellmach's testimony requires no explanation. He stated that he had opened the test box to attempt to repair the fan, which had malfunctioned during cold soaking of the altimeters. He also testified that he adjusted the baroknob of one instrument back to 29.92, because he had inadvertently hit that knob during the process of pulling himself out of the test chamber. As I explained previously, such an adjustment is both proper and necessary. He further testified that he did not loosen the locking screw, which would have been necessary to rezero the instrument, nor did he touch any of the other instruments in the chamber.

I have investigated the facts surrounding this incident to the full extent of my ability. My investigation confirms that the cold box had malfunctioned on that day. Mr. Lolley recalls receiving a note from Mr. Stellmach to that effect. Mr. Lolley also recalls that the box in question was set for cold testing on that day and that the tests which had been scheduled were not conducted because of the malfunction. Mr. Lolley's corroboration of these facts calls into question Mr. Akins' observation during this incident, because Mr. Akins believed that the test box was undergoing a hot soak, rather than preparation for cold testing. Indeed, Mr. Akins insisted later in the day that we repeat hot testing of five other instruments which had been under test because of his belief that Mr. Stellmach had tampered with the instruments.

I can only conclude that Mr. Akins really interpreted more than he observed on this particular occasion. It is physically impossible for Mr. Akins to have observed all he said he observed. Mr. Akins testified that he saw Mr. Stellmach adjusting instruments in the test chamber while Mr. Akins was standing behind the half glass door that separates the corridor leading between his office and the 19/A test area. He stated that he saw Mr. Stellmach loosen the locking screw and reset three of the instruments. Given his position and the location of the test box, Mr. Akins could not possibly have seen what he testified he saw. I have with me a drawing depicting the layout of the 19/A test area, the location of the DCAS offices, the corridor, the test box area and the exact placement of the two test boxes in the test area. The box involved in this incident was the south box, which is farthest removed from the corridor. Its front door faced that corridor. The back of the other test box, which was nearer the corridor, faced the corridor. The test boxes are in the same locations and face the same directions now as they did on 12 April 1972. As the drawing discloses, the front of the south box, where Mr. Stellmach was working, was virtually totally obscured from Mr. Akins' line of vision by the north box, which has a solid side facing the corridor.

The impossibility of Mr. Akins' alleged observation is more clearly demonstrated by photographs which I have with me. These photographs were taken

from the most advantageous position which Mr. Akins could have had in the location he described. They demonstrate that Mr. Akins could not possibly have seen what Mr. Stellmach was doing in the south box. He could only have been speculating.

I would like to show, if I can—Mr. Chairman, would you like me to stand?

The CHAIRMAN. We can see it.

Mr. FRANK. All right. This is a picture of the hallway which Mr. Akins mentioned. This is the DCAS office here and this is the half-door that goes into the testing area. (See page 390.)

The second picture (see page 391) that I am showing you is myself looking through the door from the closet side here. As you will see the picture taken from this position, you will see Mr. Lolley, who is the chief of quality control, is standing behind, looking at test instruments in the box.

The third picture (see page 391) is showing a front view, this being the north box [pointing], this being the south box [pointing]. I would like to point out that the box that originally was there had been changed to this box [pointing] but that was several years ago, but we moved it in the exact same position it was because the size is the same. The other box, in fact, is a little larger, but there are lines in the linoleum which have been impressed in, and we just slipped them back on into these same impressed lines in the linoleum for the location.

This next picture (see page 392) is now the picture that a camera would see, standing in this position looking at the test box. We are now looking at this box, Mr. Chairman and members, from the north box. If you are interested in knowing, Mr. Lolley is still standing behind that box when this picture was taken.

Now, if you were to move yourself from this side of the window, and move over to the opposite side of the window, you would see a different sight, and that is depicted in picture No. 5. Picture No. 5 (see page 392) depicts, this being the north box [pointing] and in the side you see, that is me standing in front of the south box, reading instruments.

There isn't really any way a person looking through this door, as described, could see anything taking place that in any way could be construed as anything other than he could have seen somebody there at the box. Mr. Stellmach admits he was at the box.

No. 6 (see page 393) and it is just because we are going on to the next subject in a minute, is a picture of the box with the exterior manifold—this is a permanent, fixed manifold on all our test chambers, and it is attached to the box. It has 24 outlets.

The last picture (see page 394) is just to show you gentlemen how the instruments would look being tested in a chamber. This is a group of instruments in the test chamber.

I don't have that much more, so if you will be a little patient with me.

The Chairman. That is all right.

[Mr. Frank continued reading his statement as follows:]

The five instruments which were rejected pursuant to Mr. Akins' instructions were completely retested. Four of the five passed all of the testing (room, cold and hot scale error). Incidentally, we had no alternative but to repeat that test-

ing, since Mr. Akins was adamant in his decision to reject them despite the fact that they could not possibly have been involved in this incident. The altimeters which were actually in the test chamber at the time of the incident undergoing cold soak were not tested for cold as scheduled because of the equipment malfunction. Instead they were tested at room that day and for cold on the following day. Four of those instruments failed cold scale error testing according to our records. This casts further doubt on Mr. Akins' interpretation that Mr. Stellmach was tampering with those instruments, since one would expect the instruments to pass testing if he had actually been tampering with them.

I find one other aspect of Mr. Akins' testimony puzzling. He testified that he became suspicious that Aerosonic personnel were tampering with the instruments because he noted discrepancies in the relative positions of the pointers of instruments undergoing testing in the test chamber between the time he left in the evening and the time he returned the following morning. He said that he noticed as much as a 250-foot difference in the position of the pointers at the end of testing upon leaving the plant in the evening, but that all the pointers would be aligned in basically the same position the next morning. He suggested that this was indicative of something suspicious.

It would be impossible to have such a large difference in the pointer positions immediately after a test since the tests are concluded at the minus 1000-foot level. The tolerance at that level ranges from plus or minus 30 feet at room to a maximum plus or minus 45 feet at cold. Thus, if Mr. Akins observed such 250-foot discrepancies immediately after testing, it would have been cause for immediate rejection of the instruments.

Mr. Akins should have known too much about altimeters to have been misled by this phenomenon. Such difference in the position of the pointers could only have been caused by the heating of instruments during the transition from cold to hot testing or by a change in the barometric pressure. Under these conditions pointer position will vary substantially from one instrument to another because of differing reactions to the temperature change or barometric pressure. However, once the instruments have stabilized at a particular temperature or the vibrator is applied, the pointers will all return to the same basic position.

An obvious question the Subcommittee may have concerning the two incidents of alleged tampering is why I reprimanded Mr. Stellmach and Mr. Francis. I issued those reprimands because I was concerned with the inference of impropriety that was drawn by DCAS and not because I believed the inference was properly drawn. At the time our relations with the Air Force were obviously very strained because of the status of the 19/A contract. We had already been warned that a default termination was being considered, and the contract was actually terminated some two months later. I was therefore most concerned that we avoid any action that could be interpreted adversely. The most important point, however is, that neither Aerosonic nor any of its employees, in the specific incidents referred to or otherwise, ever improperly tampered with any instruments during testing.

The fourth incident, which was related by Mr. Akins, suggests that Aerosonic personnel fabricated certain test data. Mr. Akins testified that on 25 February 1972 he reviewed test papers dated 24 February 1972 for seven AAU–27/A altimeters that had been subjected to hot testing and for thirteen that had been subjected to cold testing. His testimony does not indicate whether these instruments had been presented to him for final acceptance, nor does it explain how he obtained the data. In fact, those altimeters were in the process of testing and had not been presented to the Air Force.

Mr. Akins presented the Subcommittee with the test data on the seven altimeters which had been subjected to hot testing, but he is unable even to identify the instrument numbers of the thirteen units which had been subjected to cold testing. He testified that he was suspicious about the source of the data because he was unaware that any hot or cold testing had been carried out on February 24 and because the Air Force inspector who was present in the test area during the morning of that day had not observed such testing. His testimony does not disclose whether he discussed this subject with any other Air Force representative who might have been present in the test area, nor does it explain why no Air Force inspectors were present after 10:45 a.m. on that day.

The test data recording sheets in question contained the initials "CA" and "LT", which ordinarily would indicate that Clarence Ammons and Lee Trudel had been responsible for the data. Mr. Akins testified that he discovered that neither Mr. Ammons nor Mr. Trudel had taken the data, that he therefore asked Mr.

Benmayor about it, and that Mr. Benmayor advised him that he had run the hot tests the night before but not the cold tests. Mr. Akins demanded a retesting of the units and, according to his testimony, four out of the seven units which were said to have been tested in hot failed that retest and five of the thirteen units tested in cold failed upon retest. The inference seems to be that Aerosonic fabricated test data on instruments which were not subjected to testing and forged the initials of authorized testers to the fabricated test data sheets.

I have investigated this incident to the extent possible given the limited information available. I am unable to comment on Mr. Akins' testimony concerning the thirteen instruments that are said to have been tested in cold because he is unable to identify the instruments and I therefore cannot trace the data. No one at Aerosonic recalls anything about thirteen altimeters or any similar number being the subject of any problem in the time period referred to by Mr. Akins.

The Subcommittee has, however, furnished me with copies of the test data sheets on the seven units that were tested in hot. I have located the test sheets concerning the repeat testing of three of those instruments on February 25. I am unable to locate the test sheets for the repeat tesing of the remaining four altimeters, and therefore assume that they were shipped to commercial customers rather than to the Air Force, since it was our practice to retain all of the test data for instruments shipped to the Air Force but to discard data for those shipped to commercial customers. The absence of data for the four units may confirm Mr. Akins' testimony that they failed repeat testing, because we ordinarily delivered altimeters 100% within the tolerances prescribed under our Air Force contracts to the Air Force and shipped others, which were subjected to less stringent test requirements (no hot and cold testing), to our commercial customers.

Of course, even if these four units did fail repeat testing in hot, that would not be evidence that the initial tests were fabricated. Differences in test readings of the same altimeters on the same test equipment within a period of only a few days will often appear in the 5- to 15-foot range at low altitudes and even more at higher altitudes. The instruments are so sensitive that a mere two degree difference in temperature in the hot or cold boxes or a slight difference in barometric pressure will produce these slightly varied results. Our analysis of the original February 24 test data on the four altimeters shows that readings were close to the edge of acceptable tolerances at several test points. The slight differences to be expected to occur upon retesting could easily have been sufficient to result in failures at a number of test points.

The critical importance of the retest data is to determine if the retest results correlate with the original test results. A close correlation would indicate that the original test data is genuine, because it is impossible to predict the test readings for an altimeter at various points without actually performing the tests. As stated, we do have the original *and* the retest data for three of the altimeters in question. That data proves that the February 24 tests were not fabricated. The retest data is closely correlated with the original test data. In other words, the pattern of readings in the original test data is the same as in the retest data. Because test readings for an individual altimeter at various test points are impossible to predict, the chances of a fabricated test report for an instrument being in correlation with later actual test results is extraordinarily remote. The odds of such a correlation occurring with three instruments are incalculable. I am therefore convinced beyond the shadow of a doubt that the February 24 test data was not fabricated and that the tests must actually have been performed.

As to how this particular data was generated, I can only speculate. Mr. Benmayor occasionally worked in final testing when we were short-handed. Although he was completely competent to test instruments, he was not authorized to sign test data sheets because he was not in quality control. In fact, the initialing of the test data sheets was not the critical evidence that an instrument had passed the test. That evidence of certification was a rubber stamp, which was in the possession only of our authorized quality control personnel, and Mr. Benmayor did not have such a stamp .The February 24 test sheets bear that stamp, indicating that the tests were legitimate. Mr. Benmayor must therefore have recorded the tests results conducted by one of our QC people, whose presence would be indicated by the fact that the test data is stamped. I assume that at some time someone placed the initials "CA" and "LT" on the test sheets in question because Clarence Ammons and Lee Trudel were authorized to sign test papers and he was not. Incidentally, I have tried, but have been unable to ascertain which of our CQ personnel might have been with Mr. Benmayor during those tests.

I might add that occasionally our test data sheets turn up without the appropriate initials. My employees are under strict instructions to properly initial the test data sheets. But we handle a volume of between 3000 and 4000 test sheets per month, and unfortunately lapses do occur in the paperwork. At times test sheets which may be messy in appearance are recopied, including the initials of the test personnel, but only with their authorization. I am not aware of any incident involving the unauthorized initialing of test data sheets other than the apparent action by Mr. Benmayor in this case. Such an action would be improper and I regret it. But the facts prove that the test data is nevertheless authentic and could not have been fabricated.

Finally, let me note that my efforts to investigate this incident were seriously impaired by the Air Force's failure to make an issue of the matter at the time it occurred. I was not personally aware of the incident until I read Mr. Akins' testimony during these proceedings and therefore was in no position to get the facts first hand. I cannot now discover all of the relevant information because Mr. Benmayor is dead and because Mr. Akins is a Government employee whom I am unable to confront directly because of our opposing interests in the pending ASBCA litigation.

The final incident of alleged wrongdoing concerns the so-called "extra manifold" which Mr. Seay discovered in one of the AAU–27/A test boxes. Both Mr. Seay and Mr. Akins testified concerning this incident to the effect that the extra manifold had no legitimate purpose and was designed to falsify case leak testing. That charge is absurd. The facts demonstrate that the component found by Mr. Seay was not a manifold, but rather a temperature compensating device. That component was not used during the testing in question. Most importantly, that component could not possibly have the effect on the case leakage test suggested by Mr. Seay and Mr. Akins.

When Mr. Seay and Mr. Akins testified about the so-called extra manifold I had no idea what they were speaking about. They did not raise their suspicions with me when that component was discovered and I was not personally involved in its manufacture and use. Even now I only vaguely recall Al Benmayor mentioning something to me about Mr. Seay being upset about a piece of equipment discovered in our AAU–27/A test box. However, I have now completed an investigation of the episode which shows that the allegations of wrongdoing are completely groundless.

I believe that the so-called extra manifold is the component I have with me, which was discovered in the maintenance area of our plant.

I would like to read and we can question it afterward, if that is all right, Mr. Chairman.

The Chairman. Finish your statement.

Mr. Frank. Yes, sir, thank you.

[Mr. Frank continued reading his statement as follows:]

If this is not the exact device in question, it is for all practical purposes identical to it. It consists of a 15-inch-long copper pipe 2 inches in diameter, capped at both ends and having 48 hose connections for attachment to 24 instruments. The 48 hose connections consist of 24 six-inch lengths of ¼-inch copper tubing driven completely through, each one of these pieces of tubing is a solid piece of tubing, and protruding about 2 inches beyond each side of the main cylinder. There is no opening between the inside of the main cylinder and the copper connection tubing.

Because the individual hose connections consist of solid copper tubing from one side of the cylinder to the other, this device simply cannot achieve the purpose ascribed to it by Mr. Seay and Mr. Akins. They assumed or implied that its purpose was to supply a constant atmospheric pressure or secondary vacuum source to an instrument being tested for case leak, even when the exterior hose designated for that instrument was pinched off from the exterior manifold. But such a purpose could be achieved only if the pressure from other external hoses could find its way to the instrument under test. Obviously, that is impossible with this device because the hose connections consist of solid copper tubing from one side (the inlet for the external hose) to the other (the outlet for the hose leading to the individual altimeter). The pressure from the exterior manifold through the tubes which were not pinched off could not possibly enter the hollow main cylinder and find its way to the instrument with its hose pinched off.

As I mentioned previously, we found this so-called "manifold" in our plant

during the course of an exhaustive search I instituted following the testimony of Mr. Akins and Mr. Seay. It had not been used since the day of the incident in question, when Mr. Seay demanded it be removed from the test box. It was filthy and corroded when discovered. It has since been soaked in a chemical cleaning solution, but has not otherwise been altered since its discovery.

I can verify that this is either the particular device in question, or is so closely identical in construction and purpose as to be indistinguishable. Mr. Tom Ammons, who now works in Aerosonic's Newport, Arkansas plant, has identified it to be nearly identical to the component he fabricated in early 1972 on the instructions of Al Benmayor.

Mr. Ammons, who incidentally is Clarence Ammons' cousin, worked in the Clearwater facility's maintenance department at the time in question. He did most of the brazing and welding work for us. According to Mr. Ammons, Al Benmayor asked him to build this device by describing and sketching its construction. Mr. Benmayor explained that he wanted to use the device in an experiment to chill the incoming air before it actually entered the instruments undergoing case leak testing under cold temperature conditions. The use of unchilled air in cold testing has presented problems in the past because the cold instruments in the test box necessarily react to the warmth of the air introduced from the outside, and that reaction causes distortion of readings if taken immediately. We have, incidentally, finally been successful in persuading the Air Force of this fact and they have since approved a revised test procedure for case leak testing of our 27/A's under temperature. The new procedure provides for a one-minute delay in taking any readings, which allows the incoming air time to cool down (or heat up) within the instruments, thereby eliminating the distortion. It is pertinent that the Armed Services themselves have attemped ways of chilling incoming air for cold testing. I personally saw Navy engineers at NADC (the Naval Air Development Center) using buckets of dry ice and alcohol to cool the exterior pressure hoses in testing of altimeters and rate of climb indicators as early as 1964.

As far as Mr. Ammons can determine (he viewed this device on Monday, 9 September 1974, for the first time since early 1972), this particular device is identical to the one he fabricated for Mr. Benmayor, with the exception that he recalls the latter had a fitting installed on top of one of the caps so that the main cylinder could be charged with freon for cooling purposes. Mr. Ammons believes that this device may be the very one he fabricated, and may have been altered later to remove the cap that had the fitting. It would be a simple matter to effect this alteration.

Mr. Ammons is certain that he fabricated only one such device. He believes that he personally installed it in the north test box, where it was found by Mr. Seay, in the cavity between its inner and outer walls.

On the day of the incident Mr. Ammons recalls that Mr. Benmayor told him that a Government inspector was disturbed about the presence of the device in the test box and directed him (Mr. Ammons) to remove it. Mr. Ammons then went to the test area to remove the device. When he arrived there he recalls being asked by one of the inspectors (he believes it was Mr. Seay or Mr. Akins) if there was something in the box. Mr. Ammons responded in the affirmative and the inspector told him it had to be removed. Mr. Ammons responded that he had been ordered to do so and he did remove it.

I do not understand the suggestions by Mr. Akins and Mr. Seay that the device was removed from the test chamber mysteriously and under suspicious circumstances. There was no mystery. A Government inspector directed that it be removed. We obviously had no choice in the matter, and the component was promptly removed. We would be unlikely to object to the removal of this harmless device in any event because we were not using it. Although Mr. Seay testified otherwise, the device was not operative at the time of the incident. Clarence Ammons was present during the incident. He has told me that the hoses from the exterior manifold ran directly to the hose connections mounted on the interior wall of the chamber, and not to the device. Duane Smith confirms this fact. It is significant that Mr. Akins did not comment one way or the other on this point.

Mr. Seay's testimony is further compromised by the fact that he observed a device having ten outlets. He further described the manifold as having ten outlets. It is obvious that the device in question had 48 hose connections and every altimeter manifold has 24 outlets for connection to 24 instruments. I have one of these too—Mr. Seay also testified that Mr. Trudel was working with Clarence Ammons at the time of this incident. Mr. Trudel testified that he had no re-

collection of the incident and our records show that he was not working with Mr. Ammons that afternoon because he had left work early because of an earache. Mr. Seay also testified that Mr. Ickes, another Government inspector, was at the plant when the device was discovered by Mr. Seay and was then aware of the incident. However, I understand that Mr. Ickes was on vacation at that time and thus could not have been present.

If any additional proof is needed that Aerosonic did not manipulate the case leakage test, it lies in the performance of the 27/A altimeter. Case leak was never a serious problem on the 27/A. In delivering 2,834 units under the 27/A contract, we ourselves, rejected only 47 units for excessive case leak in all temperature conditions. It is therefore ridiculous to suggest that we would go to the extent of criminal or unethical activity to tamper with test results in this area. This conclusion is reinforced by the fact that, as Mr. Akins himself stated, any instruments shipped with excessive case leak would be easily isolated upon receiving inspection and returned to us for repair. As of July 31, 1974, we had shipped over 3,000 AAU–27/A's to the Air Force and less than 30, or less than 1 percent, had been returned to us for repair under our warranty. None have been returned for excessive case leak.

In conclusion, I wish to repeat that my efforts to discover the true facts behind these charges of wrongdoing by Aerosonic employees have been seriously impeded by the Government's failure to confront me with its concerns at the times they arose. The passage of time has hampered me in my investigation. However, I believe that the facts I have been able to discover, now that the charges are out in the open, demonstrate that neither Aerosonic nor its employees engaged in any fraudulent, illegal or wrongful activities.

Thank you for your attention to these remarks and the courtesy yon have extended to me in permitting me to make this rather lengthy statement.

I thought it was necessary for me to bring out all the facts I have, and I certainly appreciate this opportunity.

The Chairman. The subcommittee will recess until 2 o'clock.

[Whereupon, at 12:18 p.m. the subcommittee recessed, to reconvene at 2 p.m.]

AFTERNOON SESSION

The CHAIRMAN. The committee will be in order.

Members of the committee, Mr. Frank had finished his complete statement without interruption when we recessed, and now we will begin, Mr. Frank, asking you questions relating to the statement you made, and the other pertinent matters before the committee.

Mr. Pike.

Mr. PIKE. Thank you, Mr. Chairman.

Mr. Frank, I find your lengthy statement quite interesting. I know that you have on other occasions testified before other committees of Congress.

How often have you done this? Have you testified more than one other time before a congressional committee?

Mr. FRANK. No, sir.

Mr. PIKE. And that was before the Senate subcommittee, Committee on Priorities and Economy in Government; is that correct?

Mr. FRANK. Yes, sir.

Mr. PIKE. Mr. Frank, on the first page of your statement you talk about how much you have lost, in performing this contract, and you say you spent between $6 million and $7 million in delivering these altimeters, but you don't know the precise amount.

How is it that this long after the termination of the contract you don't know how much it cost you to produce them?

Mr. FRANK. Congressman Pike, we are a very small company and we don't have what large companies have, computers and methods, and

innovative systems for calculating price, other than looking at time cards, calculating hours and things such as that.

We recently took—during this last summer, Congressman, we recently took on some young people to go through each individual worker's record by time card, by operation, to see if we could determine what the cost of this operation was. This is the only way we had of determining our cost.

Mr. PIKE. When you produce an altimeter, how much of the cost of that altimeter is in the design area and how much of it is in other things—the actual hardware and materials and labor and production?

Mr. FRANK. Once again, Congressman Pike, I think it would depend on the type of altimeter you are talking about.

Mr. PIKE. I am talking about the AAU–19/A altimeter.

Mr. FRANK. All right. I would say, if I understand what you are saying, probably 15 or 25 percent of our costs would be in engineering and design.

Mr. PIKE. Fifteen to 25 percent in engineering and the balance in the actual production.

Now, the contract originally was for 10,500 AAU–19 altimeters, of which eventually you delivered 2,669, and you said it cost you to produce them somewhere between $6 million and $7 million for the 2,669 altimeters which you produced.

You then come to the conclusion that you lost between $3.3 million and $4.3 million out of your total contract price of $9,374,550.

Well, in order to have made that money, wouldn't you have had to produce the other 7,000-and-some altimeters for about $300 apiece?

Mr. FRANK. No, sir. The figures you have are correct, but the assumptions that you have taken are incorrect.

Mr. PIKE. Well, I asked you how much of the actual cost of production was in your design and engineering, and how much was in your actual manufacture, and you say from three-quarters to 85 percent of it is in the actual manufacture of it. Presumably your design and engineering was over when the contract was terminated, wasn't it?

Mr. FRANK. Yes, sir.

Mr. PIKE. So how much would it have cost you to produce the remaining 7,000 altimeters?

Mr. FRANK. I had never been given, Congressman Pike, an order for 10,000 altimeters, although——

Mr. PIKE. That was the original contract, was it not?

Mr. FRANK. Yes, sir.

Mr. PIKE. I am reading from your testimony. "The contract called for 10,500 AAU–19 altimeters."

Mr. FRANK. That is what the contract called for, but the U.S. Government never gave me that order. It gave me a contract for this amount, but they gave me each year a portion——

Mr. PIKE. I know that, but the original contract was for 10,500 of these altimeters, 495 other altimeters, and the total price was $9,374,550, right?

Mr. FRANK. That is correct.

Mr. PIKE. Now, you are saying that although it cost you from $6 to $7 million to deliver only 2,669, because the Air Force cut off this delivery, you lost $3 to $4 million. My point is, it seems to me you were losing money on every altimeter you produced.

Mr. FRANK. I would agree with you.

Mr. PIKE. So how did it cost you anything when they cut it off? They saved you money when they cut it off, didn't they?

Mr. FRANK. No, sir. When the original specification was submitted to us, and we bid on an original specification, we bid based on the fact that we were going to get an order for 10,500 units. We calculated our costs. We went to our subcontractors and to our contractors. We asked for quotations of that amount so that we could get a better price base. The Government then didn't give us the total amount of parts, or the amount they had promised to give us, so initially we had to change our original contracts with a number of our subcontractors to a much lesser amount, which amounted to an increase in our cost per item from them.

Second, the Government was supposed to get deliveries in 1966.

Mr. PIKE. Right.

Mr. FRANK. With the major things that they kept on throwing at the Aerosonic Corp. in engineering changes and requirements, it brought our costs soaring higher than we had originally started with.

Mr. PIKE. Mr. Frank, under the contract could the Government order a change in the basic contract to which you did not agree without compensating you for it——

The CHAIRMAN. We will have to recess for 15 minutes.

[A short recess was taken.]

The CHAIRMAN. The committee will be in order.

Mr. Pike.

Mr. PIKE. Mr. Frank, when we had the recess for that vote, I think I had just asked you whether the Government could change the terms of the contract with a change order without your agreement and without your getting compensated for that change?

Mr. FRANK. I'm not a lawyer, Congressman Pike. I can only say that the Government did change the terms of the contract and we were not paid for it.

Mr. PIKE. Well, weren't most of these changes by mutual agreement to try to enable you to work out the technical difficulties you were involved in?

Mr. FRANK. Some of the agreements were by mutual agreement, others were not, sir.

Mr. PIKE. On page 2 of your statement, you say, "Moreover, we were not aware of the Air Force's serious concern with our quality and design until February 1972."

In the meantime, hadn't there been some 500 of these so-called changes in the design of the altimeter?

Mr. FRANK. Congressman, are you talking about engineering changes?

Mr. PIKE. Well, what were you talking about when you referred to these 500 changes?

Mr. FRANK. Yes, sir, I'm talking about engineering changes.

Mr. PIKE. Yes, engineering change proposals.

Mr. FRANK. That is correct.

Mr. PIKE. And 500 changes didn't give you any idea that the Air Force was concerned with the design of this altimeter?

Mr. FRANK. Those changes, Congressman, were of a minute amount of tolerances which would help us in productivity for the remaining parts of the instruments. If we found an instrument worked better with

a closer tolerance, we would go back and ask for a change making the tolerance, shall we say from two-ten thousandths to one-ten thousandths. The 500 changes we are talking about are strictly what we would call production changes to enable us to manufacture a more productive and better item.

Mr. PIKE. Well, if you produced 2,669 altimeters and during the course of the production there were 500 changes, what is the most number of altimeters built alike?

Mr. FRANK. Probably around 1,500, possibly.

Mr. PIKE. There would have been 1,000 built without any changes?

Mr. FRANK. No, sir. I didn't say that, sir.

Mr. PIKE. No, but I mean 1,000 built between one change and the next change?

Mr. FRANK. It could possibly be, yes, sir.

Mr. PIKE. So, you had 1,667 altimeters then with 499 changes in them; would that be correct?

Mr. FRANK. Yes, sir.

Mr. PIKE. Is it not true that as early as 1966, the Aerosonic Corp. got a show-cause letter stating that they had 30 days to show cause why they should not be deemed in default under the contract for failure to deliver the First Article item?

Mr. FRANK. That could be. If there is such a letter, if I could be referred to it in some document, I'm not arguing with you, Congressman—if there is such a document I will agree it exists.

Mr. PIKE. I would be happy to——

Mr. FRANK. If you are reading it from a document, Congressman, I agree.

Mr. PIKE. I will show you the letter. (See appendix 21.)

Mr. FRANK. No, that is good enough.

Mr. PIKE. Wouldn't it have made some impression on you that the DCAS wrote to you and said you have 30 days to show why you shouldn't be held in default on the contract?

Mr. FRANK. Yes, sir.

Mr. PIKE. And you responded to that letter, did you not?

Mr. FRANK. Yes, sir.

Mr. PIKE. And in that response dated October 25, 1966, you say that the reason for the failure of the Aerosonic Corp. to deliver was because of these change orders.

Mr. FRANK. I would like to see the record if I may, sir.

Mr. PIKE. Certainly. (The witness was handed a copy of the document.) (See appendix 22.)

Mr. LALLY. There is a better copy of that.

Mr. FRANK. That is all right.

Mr. PIKE. I'm talking about the letter you just read, the one from you back to the Air Force, or the Defense contractor. You didn't mention it was these changes which had caused the delay did you?

Mr. FRANK. No, sir.

Mr. PIKE. You simply state that you would try to get the First Articles delivered as soon as you could, and that in the meantime you would provide a substitute altimeter to, as you worded it, quote, "fill holes in the panels so the aircraft can properly fly in the event there is a delay in scheduling on the AAU–19–A altimeter"; is that correct?

Mr. FRANK. That is correct, sir.

Mr. PIKE. So, when did the Air Force first advise you that your proposed altimeter had failed its First Article testing?

Mr. FRANK. Sometime in 1967.

Mr. PIKE. Well, wouldn't that indicate the Air Force's serious concern over your quality in design?

Mr. FRANK. No, sir.

Mr. PIKE. No?

Mr. FRANK. I don't think a report of a qualification test is an indication of a failure concerning a design or production unit.

Mr. PIKE. Well, in your own testimony, on page 16, you said, "The Air Force once interrupted progress payments to Aerosonic on the premise that we were not making sufficient progress to warrant those payments." And that was late 1967.

Wouldn't that indicate when the Air Force says they are not going to give you any money because you are not making sufficient progress, that they were unhappy with your quality in design?

Mr. FRANK. No, sir, that was a unilateral decision made by the Air Force.

Mr. PIKE. It didn't tell you anything when the Air Force said they weren't going to give you any money?

Mr. FRANK. No, sir. It was another unilateral decision on the part of the Air Force.

Mr. PIKE. Well, it was a unilateral decision, but didn't it make you aware they were unhappy in your quality in design?

Mr. FRANK. No, sir.

Mr. PIKE. It didn't?

Mr. FRANK. No, sir.

Mr. PIKE. On page 15 of your testimony, you say, you were told by Mr. Melnick in 1971 that "we would never receive such approval because our altimeter incorporated a magnetic dampener to eliminate servo oscillation of the pointer." When Mr. Melnick told you in 1971 that your design would never be approved, didn't that make you aware that the Air Force had some reservations about your design?

Mr. FRANK. Mr. Melnick's testimony was in an internal Air Force document, Congressman, a document we had no knowledge of until we obtained the document under discovery before ASBCA.

Mr. PIKE. I see. Were you aware that in 1969, the Navy had said it would not accept any of your AAU–19 altimeters?

Mr. FRANK. Yes, sir.

Mr. PIKE. Did you have a meeting with General Stewart in August of 1971?

Mr. FRANK. I did, sir.

Mr. PIKE. Didn't General Stewart hear from you at that meeting that you had been told that your altimeter would never be qualified? Didn't you tell General Stewart at that meeting that you had been told that your altimeter would never be qualified?

Mr. FRANK. I might have mentioned that to General Stewart.

Mr. PIKE. Well, a moment ago you said you didn't know about this until the pretrial examination. How did you find out before your meeting with General Stewart that your altimeter would never be qualified?

Mr. FRANK. I was told by somebody in the Air Force that such was the case.

Mr. PIKE. Who?

Mr. FRANK. I don't recall who at the time. And, so I mentioned it to the general at that time.

Mr. PIKE. So you did know that the Air Force had reservations about your design before 1972, didn't you?

Mr. FRANK. That was just somebody telling me something, Congressman. I told it to General Stewart just as I heard it.

Mr. PIKE. At your own initiative, did you not in 1971 recommend that the contract be terminated for the convenience of the Government?

Mr. FRANK. Congressman, to what reference are you talking about, to whom did I say this?

Mr. PIKE. You wrote a letter to the DCAS office in St. Petersburg, on August 2, 1971. Didn't you yourself recommend that the contract be terminated for the convenience of the Government?

Mr. FRANK. If you could show me the letter, sir, I would like to see it because there may be other extenuating circumstances.

Mr. PIKE. Certainly.

You don't remember writing a letter saying this contract which was, I presume, one of your major contracts should be terminated?

Mr. FRANK. That is correct sir, until I see the letter. I would only be too happy to answer the question. (The letter was given to Mr. Frank.) (See appendix 93).

Mr. FRANK. Yes, sir, I do remember the letter.

Mr. PIKE. And you did, in 1971, yourself recommend that the contract be terminated for the convenience of the Government, is that not correct?

Mr. FRANK. Yes, sir.

Mr. PIKE. Now, at the top of page 36 of your statement there is what I deem to be the most important part of your statement, and I think, Mr. Chairman, that is what most of this is about.

The question is, whether the contract should be terminated for default, in which case Aerosonic bears the cost of the termination, or whether it should be terminated for the convenience of the Government, in which case the Government bears the cost of the termination.

When did you first decide that it would be a good idea to terminate this contract for the convenience of the Government?

Mr. FRANK. I had also asked the Government to cooperate with the Aerosonic Corporation in meeting its obligations to the Aerosonic Corporation in, (1) giving us qualification if this was necessary, and (2) answering questions where we have requested engineering change notices that the Government had to approve, and (3) giving us delivery schedules——

Mr. PIKE Mr. Frank, honestly, we listened all morning while you read your statement. I just asked you for a date. When did you decide this contract should be terminated for the convenience of the Government?

Mr. FRANK. 1972.

Mr. PIKE. But you wrote a letter requesting it in 1971?

Mr. FRANK. Yes, sir.

Congressman, you have to understand that the Government does not react to letters, if you just write a nice letter to them and ask them. The only way you can get the Government sometimes to react is to let them make a decision for you. And in this instance here, it was

necessary for the Government to make a decision. This is the only terminology sometimes that you must use, Congressman, in order to get the Government to make a decision.

Mr. PIKE. Oh well, Mr. Frank, how many times did you tell the Government you were going to stop your production line during the course of this contract?

Mr. FRANK. At least 2 or 3 times.

Mr. PIKE. That didn't get their attention?

Mr. FRANK. Yes, sir, it did.

Mr. PIKE. So you didn't really have to say that you were going to terminate the contract for the convenience of the Government in order to get their attention?

Mr. FRANK. Congressman, in each instance that is exactly what I had to do.

Mr. PIKE. And the fact of the matter is that you were losing money with every altimeter you produced, is that not correct?

Mr. FRANK. I would agree with that.

Mr. PIKE. Now, you stated that the Air Force told you—this is on page 9 of your statement—"we had to adopt the Kollsman drag cup concept in order even to be considered for award of the contract."

Who said that?

Mr. FRANK. The engineering division.

Mr. PIKE. Don't give me a division, give me a person.

Mr. FRANK. It would be one of three people. It would be Mr. Nash, Mr. Rosenbaum, or Mr. Marshall.

Mr. PIKE. Did they ever put that in writing?

Mr. FRANK. I don't recall, Congressman.

Mr. PIKE. Did you ever request them to put that in writing?

Mr. FRANK. It was not necessary, Congressman, because we had been told that the decision had been made to take us off the list for successful technical bidders, and there would be no review of any bidders on that technical bidders, where you would get a chance to resubmit another proposal to them. So the question was over at the time they wrote us that letter.

Mr. PIKE. On page 13 of you statement you say, "We were twice required to repeat extensive First Article test programs, requiring some 4½ months to complete, on the pretext that earlier Air Force sanctioned and supervised testing demonstrated unsatisfactory performance in pre-existing required performance areas."

Isn't the fact that your instruments failed the First Article testing in October 1967?

Mr. FRANK. No, sir.

Mr. PIKE. They did not fail?

Mr. FRANK. Not according to my judgment, they did not, sir.

Mr. PIKE. Well, under the contract, is it your judgment or the Air Force's judgment that decides whether the instrument passed the test?

Mr. FRANK. It is the Air Force's judgment, but Congressman, in the Air Force's judgment of the same type, on the same contract, for the same items, we would be in good shape. But the judgment factor often varies from contractor to contractor.

Mr. PIKE. Well, what you are saying is the Air Force told you that your articles had failed the testing, but you didn't believe them?

Mr. FRANK. No, sir, I didn't say that.

We had run all the necessary qualification tests on the item, and there were some points that were out of tolerance. I would not disagree with this.

Mr. PIKE. Out of tolerance means they don't pass the test, doesn't it?

Mr. FRANK. Yes, sir. We also have documents from other Air Force testing areas which show that the out of tolerance was considered acceptable. And when we questioned it, it was said it was up to the judgment of the engineer as to whether that tolerance was in or out. In his judgment if he felt that out of tolerance condition was still within a serviceable mode, he could consider it acceptable.

If the Congressman is interested we have paperwork to this effect, sir.

Mr. PIKE. No, I'm trying to limit this not extend it.

Mr. FRANK. I'm sorry.

Mr. PIKE. Your altimeter failed to pass the Air Force's First Article testing again in May 1968, did it not?

Mr. FRANK. That is correct, sir.

Mr. PIKE. And again in October 1968?

Mr. FRANK. That is correct, sir.

Mr. PIKE. You state on page 17 of your statement "a second vibrator that had been incorporated at Air Force insistence"—who was the person who insisted that that second virbator be incorporated?

Mr. FRANK. That was the engineering evaluation team that came down and witnessed the testing at our plant in Clearwater.

Mr. PIKE. Can you give me the name of the person?

Mr. FRANK. I can give you the names of the engineering evaluation staff: Mr. Mellatuca, Mr. Melnick, and Mr. Marshall. There might have been one other but those were the three.

Mr. PIKE. And one of those people told you to do that?

Mr. FRANK. One or the group, I do not recall.

Mr. PIKE. Did they ever make that requirement in writing?

Mr. FRANK. No, sir, they did not.

Mr. PIKE. You say in your statement at one place that you believe the OCAMA personnel are incompetent to repair your altimeters?

Would you explain for the committee how it is that the same personnel are able to repair the Kollsman altimeters but are not able to repair the Aerosonic altimeters?

Mr. FRANK. No, I cannot explain what the competency of a person is on some other person's instrument.

I can only say that we are capable of repairing our own equipment, and other agencies are capable of repairing our equipment. And I would just assume OCAMA could have done the same thing.

Mr. PIKE. You stated on page 19 of your statement, "* * * we did effect the required repairs within the required 8-hour period." That is a direct quote. You did not say, however, what happened when they tested your altimeter after you had repaired it. Did it pass the test?

Mr. FRANK. We received formal certification of that maintainability.

Mr. PIKE. I'm asking you, there was an acceptance test after the repair?

Mr. FRANK. Right.

Mr. PIKE. Did it pass the test?

Mr. FRANK. I would have to assume it would have or the approval for maintainability certainly would not have been given us.

Mr. PIKE. Well, I will just say we have had testimony there to the contrary that after you had repaired it, it did not pass the test.

Mr. Chairman, I think that I have gone on for long enough, and I would like to yield to some other member of the committee who would like to ask questions.

The CHAIRMAN. Mr. Dickinson.

Mr. DICKINSON. Thank you, Mr. Chairman.

Mr. Frank, before I was elected to Congress, I was on the bench. I remember talking to a fellow one time who was in trouble, he was a short-change artist. I asked him, he was in my chambers, and we were just discussing it. I asked him, "How do you do this? How is it you make money going around just short-changing people?"

He said, "Well, you have got to know what you are doing and who you are dealing with. Some people are very easy to short-change, like a college kid, it is not his cash register; he is just working there. This is a college town."

He said, "There are two people you don't fool with, though. You don't fool with old people and you don't fool with ignorant people, because they don't know what went on in between and they don't care. They know how much money they started with and how much money they ended with, and what happened in between just doesn't make any difference." [Laughter.]

I don't want you to misunderstand me, I'm not trying to make a comparison here of any short-changing.

But we start off here with a contract to produce so many altimeters, acceptable and working, and we wind up with 2,600 that don't work. We know where we start and where we stop and we are trying to find out what happened in between. I hope that it will prove profitable and productive.

Now, I was very impressed with your statement, and I think it cleared up—I know it cleared up for me and I think for the committee—some questions that have been lingering from other testimony that has been adduced here.

I think when it all boils down we are going to find that the Air Force "goofed" in several particulars, but I think we will probably find that all the fault is not on the part of the Air Force.

I have just a few questions.

First, just to clear up one point. I think you made a mistake in answering Mr. Pike's question that might be important.

When you attributed 15 to 25 percent for the engineering and development of this, and the balance to production, is overhead included—don't you apportion overhead, and is this separate from what you consider production costs?

Mr. FRANK. No, sir. When the Congressman said that, I assumed he would assume the G. & A. and overhead with the production costs.

Mr. DICKINSON. Well, you know, in trying to figure how much you are going to apportion to each unit, I think it is important that you had other production items in your plant at the same time, and I assume you have to apportion part of your overhead to this contract and part

to other contracts, which makes a substantial difference in the per-unit cost, I would think.

Mr. FRANK. Yes, sir.

Mr. DICKINSON. Perhaps you wanted to clear that up at some other time.

You mention that there were a number of substantial changes in the contract and in the design and the specs. Is this a part of the record anywhere that we have? If not, could you give us some idea of the volume and how substantial these were?

Mr. FRANK. Yes, sir.

I would, if I may, Congressman, go back to your first statement which I sincerely appreciate you making about the fact that you would like to know what happened in the beginning and what happened in the end.

Mr. DICKINSON. That is all we know, we are trying to find out what happened in between.

Mr. FRANK. I would very much like to make that statement first so we get it out of the way. That my corporation offered to take back all these instruments from the U.S. Government and fix them, if the Government would pay us somewhere around $400 a piece.

We did this after the U.S. Government moved the destination or the group that we are talking about from ASD to ESD. That offer was made, I know positively once, and possibly a second time. We did not even get the courtesy of an answer.

We had known from the beginning, Mr. Chairman and Members of the Congress, congressional investigating committee, that we had a marginal instrument. And that we had before finishing this contract, developed and designed an AAU–27/A altimeter with a different type of rear end. I keep on mentioning rear ends, and I hope you can understand it has to do with the back of the instrument. And what we were going to do is attach the back of this new instrument, which proved to be an exceptionally good one, to the front of the other instrument.

We made the offer and it wasn't taken. As far as I am concerned I just want you to know that we had made this offer. It was going to cost the Government money. I would not make any bones about this. But this is what we were going to do. The offer was made right after the transfer.

Mr. DICKINSON. I want to finish clearing that point before we move on to the balance of the question.

Are you saying then the 2,600 altimeters that are stockpiled, are correctable, serviceable, and usable at an additional cost of $400 per unit to the Government?

Mr. FRANK. In 1972 they were, yes, sir.

Mr. DICKINSON. That is when you made the offer?

Mr. FRANK. Yes, sir.

Mr. DICKINSON. So far as we know they are still in storage?

Mr. FRANK. Yes, sir.

Mr. DICKINSON. But the cost wouldn't be the same, I assume?

Mr. FRANK. I don't think it would be quite the same.

Mr. DICKINSON. Do you still think they are correctable and conditioned so they are serviceable?

Mr. FRANK. I have always been of that opinion.

Mr. DICKINSON. The Government didn't turn you down, they just didn't respond?

Mr. FRANK. They never responded. The last response we heard from them, Congressman, was a default letter.

Mr. DICKINSON. All right, go ahead, if you would, with whatever response you care to make.

Mr. FRANK. We were discussing the changes that go in an instrument.

I would like to bring to the attention of the congressional committee without getting too lengthy, that normally when a contractor bids on a contract he is given a design specification or performance specification to bid on.

My corporation, the Aerosonic Corp., was initially involved in the design and development of approximately eight instruments for the U.S. Government. What I am saying, Mr. Chairman and members, that we were the first company in the United States to qualify to receive First Article approval on a new-type instrument.

Throughout every instrument that we have ever done this way, with the exception of the 19/A, we were able to take the specification, as it stood, design the instrument to meet the requirement, pass First Article, on the first go-round, or possibly make some secondary tests, get the instrument into production, and that was the last that we heard of it.

This was time and time again. The AAU–7/A, the AAU–8/A, the AAU–17/A, the AAU–18/A, the AAU–11/A, all of these we were the first producers. So when the 19/A came along and they gave us a specification, we assumed that the Government knew at that point what they wanted, and we were going to design it to those design parameters. We are getting back to your question. As soon as we started with the program, the Government made changes and decided that they didn't want this. I'm not being in any way sarcastic to the people or anything else, but we had, in itself, four dial changes. The Government didn't even know how they wanted to read the dial of the instrument. And they changed colors on the dial, and that may be very immature and may be not very, you know, what I would say important to you, but here we have a specification that everybody has spent tens of thousands of dollars on, and they don't even know what color they want the dial. I don't think it is a big point, but it is just a point I would like to bring up.

Now, these other changes came along. They decided they didn't want to accept our "arm." We had to change the arm, that was one.

They asked us to put a second vibrator on.

They asked us to do a lot of additional work, and by the way, Congressmen, this they paid us for, but in any of these extra parts to the instrument, we started taking an instrument that was basically a fairly good instrument to start with and it became marginal and more marginal until at the last point— and I never made an issue with anybody that our instrument was marginal—and this is one of the problems that we had, that we started out with the basic design and ended up with a monster.

Now, somebody is going to say to me, how come you didn't look at these changes, make these engineering changes, do them properly? It is because at the same time the Government engineers were asking for these changes, the contracting division was asking for instruments to go with instrument panels, and they kept on hammering us, threaten-

ing us with default, threatening us with this oversubsidy, made us give them 800 instruments, promised to pay us for the instruments, or promised to give us back the instruments after they received the others, and then when we got the whole 800 instruments we gave them three. They wrote us a letter and said, "Sorry, you are not getting the instruments back." That cost us $160,000. That is a lot of money. I thought in those instances here this is what we were stuck with on this program.

Mr. DICKINSON. How many substantial changes and modifications were required of you by the Air Force, and were all of these required in writing?

Mr. FRANK. I would say there were at least eight major changes, of which the Government agreed to reimburse us for about four, I believe.

Mr. DICKINSON. Well, I don't know much about contracting, but it has been my experience anytime after you enter into a contract, based on the specs furnished to you, any substantial change thereafter would be at the expense of the Government.

Is this different in your case?

Mr. FRANK. If the Government says to you that that is part of the requirement, then you will do it or else—and I use the words "or else"—you do it "or else".

In some of the requirements they gave us they paid us, we do not argue that, but there are other requirements where they did not.

Mr. DICKINSON. I want to do this as rapidly as we can now.

You say there were eight major changes that you can identify?

Mr. FRANK. Yes, sir.

Mr. DICKINSON. For which you were paid for four—for which you had to sustain a loss on the other four.

Over what period of time did these occur?

Mr. FRANK. Two years, 1966 through 1968.

Mr. DICKINSON. Is this the major reason for your inability to produce on time, in your contention?

Mr. FRANK. Yes, sir, one of the reasons—yes, sir.

Mr. DICKINSON. Well, what else? You say one of them. Was there some other major factor why you could not produce in quantity and in the timeframe?

Mr. FRANK. When you have changes, sir, you have to order different material and different parts, and this also enters into the fact the subcontractors possibly could not meet the delivery of a new part where we had another part on order for maybe 4 months. So all in all——

Mr. DICKINSON. You are still talking about the changes causing the delay.

Was there something else that caused the delay?

Mr. FRANK. Not to my knowledge; no, sir.

Mr. DICKINSON. Now, you mentioned that the tests given the altimeters were different, depending on who did it and where they did it, or where it was done.

Was there not a standard test that was to be applied by all parties testing the altimeter to see if it met whatever requirements were expected of you?

Mr. FRANK. Congressman, you sort of put me in an odd position, because I would have to ask you where you are talking about qualifica-

tion tests, or acceptance tests in accordance with what the contract calls for.

Mr. DICKINSON. I don't know. You told us this. I'm trying to find out what you meant. You were saying they tested one place, and when they were tested later, they used different requirements, and I don't know that much about your business to know what you were talking about.

Mr. FRANK. All right.

Are you talking in reference to what I spoke about with Congressman Pike.

Mr. DICKINSON. No, this is in your statement, I don't know what page it was. I perhaps can find it.

It is my understanding when the Air Force tested it they didn't use the same exact test that you used.

Mr. FRANK. All right, I understand what you are getting at.

Mr. DICKINSON. They passed it at your place, it failed at the Air Force, it came back to your place, it was tested again, and there weren't necessarily standardized tests in the same level or same requirements exactly in both places.

Mr. FRANK. Congressman, every repair station or every manufacturer has a barometer, or many, many barometers. A barometer is a master piece of equipment that is used in telling altitude. This is what you would call the master, like the Naval Observatory time clock. In other words, everybody uses this.

However, if the master that they use is not properly calibrated or not properly checked, then you could take your piece of equipment which tells altitude and walk from one station to another station and come up with two distinct readings of altitudes at the same altitude test point, because one piece of equipment is not calibrated as the first piece of equipment is.

And this was the discussion that we were at concerning the fact that we would test them with our equipment. We felt that our equipment was okay. The Newark Air Force Base group that are in charge of that came back and said that our equipment was okay.

When our instruments went to Tinker Air Force Base, we had variations in reading, certainly not variations that would cause flight safety. We are talking about variation, sir, of 10 feet or 5 feet or 15 feet. But it was enough, since our instrument was on the marginal side, to knock the instrument out. For instance, if our instrument was to have an error of 100 feet and it read 90 feet, this instrument would read 110 feet.

Mr. DICKINSON. Are you telling us the reason, in the second testing it passed your testing but it didn't at Tinker or some other place, is because their equipment was faulty?

Mr. FRANK. Yes, sir, we believe so.

Mr. DICKINSON. Well, does anybody else believe this?

Mr. FRANK. The Newark Air Force group that came down and tested their equipment say the equipment said the same thing. I don't recall the exact statement that was made, but it had to do with—let me see if I can get it for you, sir——

Mr. DICKINSON. That is all right, you can supply that for the record. You can find it later.

Mr. FRANK. I have it here, sir—no, it——

Mr. DICKINSON. Is this the team you were talking about?

Mr. FRANK. Yes, the team report, they had two. One team report is document No. 8 which is dated the 31st of May 1972, and the team was critical of conditions at OCAMA in that test conditions were less than ideal, and because OCAMA's primary testing equipment performed very erratically, the calibration team found that meaningful readings could be obtained only by frequent zero checks with their own standard, and concluded that the OCAMA working standard should be recalibrated.

Mr. DICKINSON. When the altimeter was checked and rejected, what happened to them then? Did you take them back to your plant and rework them?

Mr. FRANK. Yes, sir.

Mr. DICKINSON. You say you had a history of over 50-percent average rejection rate.

What does that mean?

Mr. FRANK. No, sir. That means that in our plant alone.

Mr. DICKINSON. That is what I'm talking about, in your plant.

Mr. FRANK. When we test the instrument, each instrument, Congressman, is tested for approximately 500 test points. And the Government, under most of the circumstances, witnesses every single one of those test points being, you know, documented, or witnesses every one of the readings that we take.

If one instrument falls out by as much as 5 feet, or 10 feet, in a reading, the instrument is then rejected by our quality control and sent back to be redone.

We are saying that 50 percent of the instruments that we tested had to be rejected by our own quality control and sent back for reworking.

Mr. DICKINSON. I knew that. That is the reason I asked the question. I think the last four words answered it.

When it is rejected, it is sent back for reworking——

Mr. FRANK. Yes, sir.

Mr. DICKINSON [continuing]. Within your plant. Then you test them again and once it has been passed, you ship them on to the Air Force?

Mr. FRANK. Yes, sir.

Mr. DICKINSON. That is all for now, Mr. Chairman. Thank you.

The CHAIRMAN. Mr. Daniel.

Mr. DANIEL. Thank you, Mr. Chairman.

Mr. Frank, to what extent were you pushing the state of the art in this development, in the production of the 19/A?

Mr. FRANK. When we first started, Congressman, at the beginning, we were fairly close to the state of the art at that time. I don't mean to say that we had surpassed it. It was a matter of fact that the instrument could be built to those specifications that we were originally given at the time we were given them.

Mr. DANIEL. Did the change required by the Air Force cause you to push the state of the art still further?

Mr. FRANK. Yes.

Mr. DANIEL. Significantly?

Mr. FRANK. To some degree they were, but you have to——

Mr. DANIEL. For example.

Mr. FRANK. Well, for example, the Government asked us in one instance to be sure that when the electrical mode was on—I'm talking

about the electrical motor—and the man switched it, the pointer would stand perfectly still. There is nothing in the specification that said the pointer could not move. But it was interpreted that the pointer had to stand still. When you put it on each time it would have to come within that one spot. We originally designed the instrument to meet that requirement because it was not too difficult.

But when we did it this way, the pointer would sometimes come here [indicating] within the specifications, Congressman, and the next time they put it on, it would be 5 feet to the other side, still within the specification. The Government said they didn't want that, they said they wanted it still. That meant we had to put a backlash gear, a gear that would take up this motion. We added the backlash gear and then found out that that backlash gear caused us friction, because it was rubbing on another gear. I say you can look and solve one problem, Congressman, but then that problem solved gave you another problem. That is exactly what happens. As they added to the requirements, it was not only the requirement you had to look for, it was all the other parameters of the instrument that you had to look for that were affected by this one correction.

And in all seriousness, if we had had the amount of time to spend on properly looking at this, we probably would have ended up with a much better instrument than the marginal instrument we had. I keep on repeating, although production of the Air Force personnel was not involved, they kept on saying, give us 19/A's, give us 19/A's—we have to fill holes. And the engineering department says, we have to get all these things fixed. We were pressured by one group, and the other group was saying we want it.

Mr. DANIEL. What effect did these changes have on your cost figures?

Mr. FRANK. They multiplied them phenomenally. As I said before, Congressman, we spent a lot of extra money. We had to spend a lot of extra time in the development. We had to order a lot of material. Our production capabilities came down. What was once, Congressman, what we considered a fairly good instrument became a marginal instrument, and as I repeated before, where our normal rejection rate on altimetry in our plant runs between 22 and 20 percent, somewhere around that, this ran us to 50 percent, which meant we had to do twice as much rework in our shop, and when you rework an item, Congressman, that means the new item doesn't go out because they have the old item to work on. It was quite a disaster.

Mr. DANIEL. You are saying then, the more work that was performed on this instrument, the less desirable it was; is that what you are saying?

Mr. FRANK. Yes, sir, absolutely, for us. It became a nightmare. Because every item, Congressman, they made another change. It was just not that change, it was all the other parameters that were involved in it.

Mr. DANIEL. Is it your contention that you could have performed satisfactorily under the original specifications had not the Air Force continued to change those specs?

Mr. FRANK. There is no question in my mind, Congressman. There isn't any question in my mind whatsoever. We could have performed, made money on the program, and delivered an item that would have met the specifications.

Mr. DANIEL. The original specifications?

Mr. FRANK. The original specifications.

Mr. DANIEL. Is it your judgment that item would have been satisfactory for the Air Force, for the mission?

Mr. FRANK. You are putting me in an odd position. I'm a pilot, sir. As a pilot I would say it would meet all the parameters I would ever be subjected to. But I do not know what military mission they were planning for this item.

Mr. DANIEL. I'm a little bit bothered by the unit cost that you gave as opposed to your competition. You said you didn't want to say anything unfair about your competition, and I don't want you to do that. But how do you account for the fact you were 65 percent under your closest competitor and you still felt you could have performed satisfactorily?

Mr. FRANK. Congressman, Aerosonic's reputation in the field of altimetry and all other instruments has been in this manner throughout—maybe I'm getting a little mixed up, but I would like to explain it. Our bid price normally runs from 60 percent to 300 percent under our competitors on all items we bid on, whether it be altimeters, rate-of-climb indicators, cabin pressure indicators, et cetera. We recently bid on a contract—I will not say who, what or why, we have been making this item somewhere in the neighborhood of 9 years for the U.S. Government. Our bid was some $700; our closest competitor was either $1,500 or $1,800. We have been making this for the last 9 years for the Government and have never had any trouble. I'm not being critical of who, what, where—the Air Force has been buying 8/A and 7/A altimeters from us. The closest competitor to us in that instance was about 130 percent higher than we were.

We sell aero speed indicators to the Army. We bid some $40 for the item and I guess we furnished somewhere in the neighborhood of 15,000 or 20,000 successfully. One of our competitors bid $126 on the item.

Mr. DANIEL. What do you attribute this to—superior management?

Mr. FRANK. I attribute it to three things.

No. 1, we manufacture every item in our own plant. We do not do very much subcontracting out.

We have automated all or most of our machinery. We even make our own dials and pointers. The only thing we buy outside would be things like glass or electrical components. So we have total control. And we are not paying for somebody's overhead. And we are not paying for somebody's G. & A. in some other area.

No. 2, we have a unique way of a bonus system for our employees. My contention is the workers that work are the ones that deserve the money because they make the money for the company. Maybe people don't think that, but that is my philosophy. And I would say on the whole that each month we pass out bonuses to our employees that range anywhere from $150 to $500 a month over and above the base pay they get. So this gives them an incentive.

Mr. DANIEL. The carrot motivation then.

Mr. FRANK. If I may interrupt, Congressman, the answer is the fact that the instrument must be accepted by the Government, and the person that is responsible for that instrument for 1 year—if it

comes back to the factory for any reason, he must repair it on his own time.

The third thing is the fact that we operate in the South. Now, I don't want to hurt anybody's feelings about this——

Mr. DANIEL. You don't hurt mine, I'm from the South.

The CHAIRMAN. That is fine.

Mr. DICKINSON. I object. [Laughter.]

Mr. FRANK. Our pay scale in Florida is probably 45 to 60 percent lower than in the northern areas, and as you probably know, we have factories in Texas and we have them in Arkansas.

This is what we believe to be the secret of how we can manufacture these items at the cost that we do.

But I think the other thing that is very, very important, and I think it should be brought out if I may, is the fact that we have a record of quality other than the 19/A, because I'm not talking about the 19/A, of less than 1 percent rejection rate for approximately 150,000 instruments that we have delivered to the Government.

I consider that a quality item meeting all the requirements of the Government.

Mr. DANIEL. You made one other statement here on page 25, that bothers me.

You talk about the OCAMA personnel abusing your instrument. Why would the OCAMA personnel abuse your instrument? What would motivate them to do something of this sort?

Mr. FRANK. Congressman, I really cannot answer that, except I believe that the Air Force report also confirms the same thing that I have said. There are specific tests for these instruments. These are extremely sensitive instruments. I don't doubt there are a lot of engineers in back of me who can confirm that.

I don't think anybody realizes, and I would like to say, if you were to put the instrument on the floor and raise it from the floor to the top of the dais, or whatever you would wish to call this, you would actually see a difference in altitude on this instrument. That is how sensitive these instruments are.

Mr. DANIEL. What do you mean by abusing them?

Mr. FRANK. We are talking about the fact they rapped the instrument to see if the pointer is going to move. There are required specifications——

Mr. DANIEL. That is the whole point, it is required in the test in the process?

Mr. FRANK. No, sir. There is a requirement for vibrating the instrument. But there is a vibrator in the instrument and there is an electrical connection in back that says that is the way it will be done.

Mr. DANIEL. Mr. Chairman, I have one other thing to refer to.

During the testimony of Mr. Lyon, I think, Mr. Frank, I'm not quite sure, I made this statement which is rather harsh, and I want to give you an opportunity to respond to it or say whatever you desire to say for the record, and I'm talking about the termination of the contract.

The last sentence of the testimony was that the termination of the contract was for failure to satisfy delivery schedule.

I asked this question, why was the failure not attributed to shoddy work and unsatisfactory performance, rather than failure to meet the delivery schedule?

Mr. FRANK. Congressman, I cannot——

Mr. DANIEL. Is that an unfair statement?

Mr. FRANK. Well, no. I cannot answer why the Air Force took the action they did.

Mr. DANIEL. I'm asking you to respond to what I asked.

I asked them why they did not terminate the contract because of shoddy work and an unsatisfactory performance.

Do you think that is an unfair thing for me to say?

Mr. FRANK. Yes, sir.

Mr. DANIEL. All right, will you go ahead and say what you want to say for the record?

Mr. FRANK. I believe our instrument met all the requirements of the specification, and that the instruments tested in our plant, to the requirements of the specification, and we allowed no instrument to leave our plant that did not pass the necessary tests.

I would also like to point out that although OCAMA has said that these instruments are inoperable, and the question of safety of flight has come up with them, if I may—and I am sure you will permit me to—read this, because I wanted to get it right.

Mr. DANIEL. My time has expired. Maybe you can ask the chairman.

The CHAIRMAN. You can read it.

Mr. DANIEL. All right. Proceed.

Mr. FRANK. There has been prior testimony to the effect that failures by our 19/A's were unacceptable because they endangered flight safety. No such conclusion can be drawn from those test failures even if the OCAMA testing was reliable and accurate. The test at OCAMA, as well as tests at our plant, are conducted in accordance with the specification of our 19/A. A failure only indicates the instrument did not meet the very tight tolerance required by those specifications at one or more of 500 separate test points. Analysis of the test data revealed that the vast majority of such failures were only 25 feet or less out of tolerance. Failures of that magnitude can in no way jeopardize flight safety. Those original——

Mr. DANIEL. Will you pause right there for a minute?

Why wouldn't it? Suppose a plane is flying at 200 feet over some raised wires. Why wouldn't it be a hazard?

Mr. FRANK. All right. It wouldn't be a hazard?

Mr. DANIEL. I say why wouldn't it be a hazard? If you are flying at 200 feet, and you were 25 feet off, you were flying at 175 instead of 200, as your instrument indicated.

Mr. FRANK. All right. Because there is an Air Force document that says that if the instrument is within 75 feet of the actual barometric pressure—not 30 feet, which is two and one-half times—the pilot can still take off and fly that aircraft. That is Air Force documentation.

I would like to finish one other thing, if I may——

Mr. PIKE. Will the gentleman yield right here?

Mr. DANIEL. Yes; certainly.

Mr. PIKE. You stated that most of these were at the 25-foot limit. What was the greatest limit by which the tolerances were exceeded?

Mr. FRANK. We have some, Congressman, that are out as much as 150 feet.

Mr. PIKE. None more than 150 feet?

Mr. FRANK. I don't think we have very many more that were out more than 150 feet, sir.

Mr. PIKE. You said not very many more.

Mr. FRANK. Well——

Mr. PIKE. That were out more than 150 feet. Were there any out more than 150 feet. I asked what the greatest deviation was.

Mr. FRANK. Offhand, from what I can gather, I would say approximately 150 feet.

Now, we are not talking, Congressman, about 150 feet at zero. We are talking about 150 feet now at 50,000 feet or 40,000 feet—I hope you can understand this.

Mr. PIKE. I understand this. I happen to be a pilot myself—for some time.

Mr. FRANK. I understand.

Mr. DANIEL. And I can't fly a kite; that is why I looked over to Mr. Pike.

Mr. FRANK. Congressman, may I continue just one thing, because I think it would be very interesting for you to understand what I'm now going to repeat.

The fact that normal receiving inspection of a 19/A altimeter at any destination in the United States—now we are talking—forgetting OCAMA, we are talking about Northrup, McDonnell-Douglas, or whatever you want, that the receiving specification which controls the acceptance or rejection of an instrument, once shipped from the manufacturers' facility, whether it be Bendix, Kollsman, or Aerosonic, provides for a tolerance 50 percent greater than the tolerance specified in our contract—which means, Congressman——

Mr. PIKE. That allows you something for vibration during shipment.

Mr. FRANK. Right. But what I'm saying, Congressman, even if the instrument is 50 percent beyond your required tolerance at your facility, it still must be accepted and used by the U.S. Government.

Mr. PIKE. Oh, yes. It doesn't have to be accepted and used. It just means that it is acceptable, as far as your contract is concerned.

Mr. FRANK. My contract—no, sir, I don't want to mix you up, please. I'm saying this is the receiving and specification that Northrup would use when the instrument came in. Our tolerance, Congressman, is 30 feet at zero.

Mr. PIKE. They can go to 45.

Mr. FRANK. Yes, sir.

Mr. PIKE. At Northrup?

Mr. FRANK. That is right.

Mr. PIKE. I don't mean to take any more of your time.

Mr. DANIEL. I yield, I have finished.

Mr. PIKE. Well, you have been talking in terms of these tight tolerances and the quality and everything else. I'm going to take you back to an incident in 1971, before you say you were aware of any objections to the quality or performance of your altimeters. And there was a quality deficiency report issued by one of the Government inspectors there named Ickes, I think——

Mr. FRANK. Yes, sir.

Mr. PIKE [continuing]. Involving some front-end supports for the altimeter. It was a part No. 41170, front support.

Are you familiar with that?

Mr. FRANK. I have them right here.

Mr. PIKE. You have them right there?

Mr. FRANK. Yes, sir.

Mr. PIKE. OK.

Now, the Government inspector, according to the testimony we have had, found one of those parts, or maybe more than one of those parts improperly included in the assembly line. It had not been approved. It was what was called "nonconforming material". Is that correct?

Mr. FRANK. Yes, sir.

Mr. PIKE. So the Government inspector wrote up a deficiency report—and you had a quality control director in your company named Edward J. Lolley.

Mr. FRANK. Yes, sir.

Mr. PIKE. On September 18, 1971, he said two lots of 3,500 each of those items have been received and rejected, for what appears to be cracks in the radii; 100 of the castings with suspected cracks were given inspection at Avion Foundry at Tarpon Springs, Fla., and of these 62 were confirmed to be cracked.

Now, so far so good.

Your quality control inspector has found the part to be defective and reported it to be defective.

But then what happened was that the Government inspector found the part getting into the altimeter, and he issued this deficiency report, and he said—he made five points. His first point was, this part is being reworked, and does not meet the requirements.

The second point was parts were found in the production area, and they didn't have any right to be in the production area. The plating for the units is missing in several spots—very rough.

Then he said, it is evident that the inspectors had not rejected this nonconforming material.

Mr. Lolley's response was that, well, essentially they would follow a certain engineering procedure to solder up the cracks that they found in it.

Then he says, the parts had bypassed the inspection, and then he said, the last thing he said was the correction of the cause is beyond the control of the undersigned. And when he was interviewed by the DCAS people, the reason the correction was beyond his control is because you had done it, and you were his boss.

Is that an accurate statement of what happened?

Mr. FRANK. Yes, sir.

Mr. PIKE. OK, that is all.

Mr. FRANK. Can I talk to the issue?

Mr. PIKE. Certainly.

Mr. FRANK. The only way we can decide whether a part can be substituted is to run it through our regular assemblies procedures and ask the Government to approve or disapprove the parts.

Mr. PIKE. Don't you ask the Government to approve before you put it in the altimeter?

Mr. FRANK. No. We have to assemble it first to find out whether it is the type that can be put into the altimeter.

Mr. PIKE. You put it right in the altimeter on the production line without asking the Government?

Mr. FRANK. We didn't put it in the altimeter. It was on the assembly line to be assembled to see if it would work. I'm very happy you brought the point up, because I have the two parts here. When we finally did put the parts together, Congressman—and these are the two parts we are talking about—and soldered them and found they would meet the requirements by placing this solder here, we went to the Government and asked for an engineering change so we could utilize these parts because we were trying to meet a production schedule.

Mr. PIKE. But you didn't do that until after the Government had already filed a quality deficiency report, did you?

Mr. FRANK. I agree with you.

Mr. PIKE. OK.

Mr. FRANK. But I still say we went to the Government.

Mr. PIKE. You went to the Government after they had found the thing being put in the altimeter on the production line?

Mr. FRANK. Yes, sir.

Mr. PIKE. OK.

Mr. FRANK. I'm not arguing.

Then we went to the Government and asked them to approve this little piece.

You know the Government took 1 year to give us an answer as to whether this could be placed in the instrument or not.

Mr. PIKE. Mr. Frank, I could not agree with you more. There I'm on your side. The Government, of which I am a part, responds to my mail the same way they respond to yours. [Laughter.]

Mr. FRANK. But Congressman, I want you to understand that these are production items that we were trying to put through so we could produce instruments. We found nothing wrong with the soldering process and the plating process, and all we asked the Government to do was to give us a decision.

Now, Congressman, if they wanted to say "no" they could have said "no" to us.

Mr. PIKE. You might have saved some time, it seems to me, if you had asked them before you put it into the production line.

Mr. DICKINSON. Will you yield?

Mr. PIKE. I'm finished.

Mr. FRANK. I wouldn't argue.

Mr. DICKINSON. I want to clear up that point. I think I understand what you are saying. You were being pressed for production items.

Mr. FRANK. Yes, sir——

Mr. DICKINSON. Production units.

You had a problem that you identified and you felt the thing you are holding in your hand would answer the problem.

Mr. FRANK. Yes, sir.

Mr. DICKINSON. And you, in fact, requested the Government's approval to use these. It took them a year to respond, and in the meantime you went on and put this into production?

Mr. FRANK. No, sir, we were not permitted to put this in production. Our production problems came because we only ordered so much material. When this material came in we supposedly had the faulty parts, we don't argue this point, we knew a remedy to solve it. We did solve it and we went to the Government and said we have to have an approval

because we have instruments coming down the line and we cannot put any of this part in. The Government won't permit us.

Mr. PIKE. Will the gentleman yield?

Mr. DICKINSON. Yes.

Mr. PIKE. After the year what was the Government's answer?

Mr. FRANK. "No.".

Mr. PIKE. Oh.

Mr. DICKINSON. What was the remedy then? Did you have a remedy?

Mr. FRANK. These parts are still laying in our factory in Clearwater. I mean they are of no use to anybody. Eventually we will scrap them out. But we then had to fall behind on schedule because the supplier of these castings had already delivered us his quantity and he was not going to deliver us any more for 60 days. The result was we fell back on delivery. All we were asking was for the Government to say yes or no, nothing else.

Mr. DICKINSON. When they said no, what did you do then?

Mr. FRANK. A year had gone by, Congressman, and we had already gotten our production back running. We had expected an answer earlier than a year.

Mr. DANIEL. Will the gentleman yield there?

Mr. DICKINSON. Yes.

Mr. DANIEL. Apparently, or obviously this was furnished to you by a subcontractor?

Mr. FRANK. The casting, yes, sir.

Mr. DANIEL. Why wasn't this caught at the subcontractor level? Didn't they have Government inspectors there?

Mr. FRANK. Congressman, the flaw is so insignificant you need a microscope to find it, and I'm not being in any way facetious about this.

Mr. DANIEL. There was a Government contractor that looked at that item, wasn't there?

Mr. FRANK. No.

Mr. DANIEL. There was not?

Mr. FRANK. Our Government inspectors probably would have looked at it when it was received.

Mr. DANIEL. In other words, there was no inspector at the subcontractor level?

Mr. FRANK. No, sir.

Mr. DICKINSON. The flaw was eventually remedied by another method, is that what you are saying?

Mr. FRANK. The subcontractor eventually, Congressman, supplied us with castings that did not have this microscopic crack in it, and we were able to continue with production.

Mr. DICKINSON. So even those in storage now, in inventory don't need a retrofit like that because they have already been remedied?

Mr. FRANK. That is right. They are just laying there.

The CHAIRMAN. I would like to ask a question to clear up something in my mind that you spoke about earlier.

We have 2,600 of these in storage which the Government says they can't use.

Mr. FRANK. Yes, sir.

The CHAIRMAN. That is correct.

Mr. FRANK. Yes, sir.

The CHAIRMAN. Now, when you delivered those 2,600 to the Government, you considered them efficient and proper and able to be used?

Mr. FRANK. Yes, sir.

The CHAIRMAN. As far as you are concerned they were OK?

Mr. FRANK. Yes, sir.

The CHAIRMAN. All right.

It gets to the Government and the Government says they are not OK, is that correct?

Mr. FRANK. No, sir.

The CHAIRMAN. What happened?

Mr. FRANK. Many, many, many of these instruments went into aircraft.

The CHAIRMAN. They have 2,600 that got stored away and they are not putting them in.

Mr. FRANK. Mr. Chairman, I cannot speak for the Government; I can only speak for the record. Our records show that between 600 and 700 of these were installed in aircraft, and flown.

Now, what happened evidently is as the instruments, if you pardon the expression, wore out or came into retrofit or had to be repaired or overhauled, Tinker couldn't repair them. Maybe they felt they were faulty at that time. So as they came in from the aircraft they were taken out of the airplane and put into this storage area. But I do know there were at least 600 or 700 of these instruments that did go in airplanes, and have flown successfully.

The CHAIRMAN. There were 2,000 then that were not flown?

Mr. FRANK. No. 1,400—well, it could be, yes, sir.

The CHAIRMAN. It was 2,600, they used 600, that leaves 2,000 that were not flown. And the reason the Government did not fly them according to, as I recall, the testimony, is because they were not efficient, that is, they did not meet the standard, they were deficient, is that correct?

Mr. FRANK. That is the Government's testimony.

The CHAIRMAN. That is the Government's testimony?

Mr. FRANK. Yes, sir.

The CHAIRMAN. You come along and say I will make them meet your standard if you pay me $400 a copy?

Mr. FRANK. No, Mr. Chairman, yes and no. I would like to go one step further.

Our company, Aerosonic Corp., believes really in integrity. I can name instance after instance where we have gone back to the U.S. Government where we have improved something and not charged the Government for the improvement and given to them at no cost the better item and exchanged the old item at no cost.

In this instance here, Mr. Chairman, our reputation was at stake. We had been doing business with the U.S. Government for many, many years. And here the Government turned around and said we have all these instruments that are no good. That was their opinion, and I was willing to agree to the point that our instruments were marginal. But rather than to make an issue of it, Mr. Chairman, I went back to the U.S. Government and said, if you will return these instruments to us, we will requalify them. We weren't even going to repair them, we were going to take so many, run them through all the tests that were necessary, to prove that the instrument would

work, let the Government approve them, and then go back saying, okay for $400 we will take all these instruments back and we will fix them the way those instruments are.

The CHAIRMAN. All right.

Suppose the Government had said yes, and turned them down, you still would want your $400, wouldn't you? That is what you are saying.

Mr. FRANK. Mr. Chairman, I am saying that prior to the Government saying we will accept them, they would have gone through the necessary qualification test and been approved.

Now, our original 19/A was not qualified. The Government never gave us qualification. The Government said to us the instrument does not meet the requirement, in such. We did not believe this but that is what they said.

In the second instance we are going to send the instruments to the Government and they were going to qualify them.

Now, if they didn't qualify then obviously we weren't going to do anything with the instrument. We said we could make them meet the requirements of the specification, qualify the instrument, show the Government that we meet all the parameters and then take them back and do them over again.

The CHAIRMAN. What you are saying the Government refused to qualify them and refused to take your offer?

Mr. FRANK. The Government refused to take my offer.

The CHAIRMAN. I said the Government refused to qualify them and refused to take your offer?

Mr. FRANK. Yes, sir; the Government refused to qualify our first 19/A, and then refused to take our offer to try and requalify these 2,000-some-odd instruments at Tinker Air Force Base.

The CHAIRMAN. Here is the gavel.

Mr. FRANK. Yes, sir.

The CHAIRMAN. I have 2,000 gavels.

Mr. FRANK. Yes, sir.

The CHAIRMAN. You sell them to me. They are supposed to be exactly what I ordered. I put them there and looked at them and said these things are not the gavel I ordered. You come along and say for $400 I will fix that gavel for you.

Mr. FRANK. That is correct, that is right, yes, sir. That is exactly what I said.

The CHAIRMAN. Then it is an unqualified gavel?

Mr. FRANK. No, sir.

The CHAIRMAN. In your opinion it is a qualified one and in the Government's opinion it is not. Under your contract the Government must accept the qualified gavel?

Mr. FRANK. No, sir. Let's go backward. Take the gavel.

You have an item you don't want, it doesn't meet the requirements. You come back to me and say this is the way I want the item, exactly with the gavel. I will now build the item and prior to delivering any items to you, the Government must approve that gavel or agree it meets it. If you don't agree it meets it we have no deal, then you turn around and say you are handing me the same gavel you gave me 2 years ago.

The CHAIRMAN. Then I don't have to pay the $400.

Mr. FRANK. That is correct.

The CHAIRMAN. The $400 to requalify was supposed to be qualified in the first place.

Mr. FRANK. You have sort of got me.

The CHAIRMAN. I hope I have.

Mr. FRANK. In the sense of the word the Government asked for qualification, we never received the qualification, yet the Government permitted us to ship instruments.

The CHAIRMAN. And accepted the instruments, we have to presume that?

Mr. FRANK. Right. I'm now saying since the instruments were marginal and the integrity of our corporation was at stake, I offered, since the beginning of the contract, we had discovered a better way of manufacturing the rear end of the contract, we were willing to take the instruments back and refit them with the rear end, give them to the U.S. Government for qualification testing. That didn't cost the Government anything, because if they didn't meet the requirement the Government was no different off than before. They still had their same choice of default; or anything else, and the Government refused, and that was the end of it.

The CHAIRMAN. It would not have cost the Government $400?

Mr. FRANK. No, sir.

The CHAIRMAN. If the Government did accept it it would cost them $400 more for something that should have been qualified in the first place?

Mr. FRANK. We felt that it was qualified originally.

The CHAIRMAN. I know what you felt.

Mr. FRANK. Right, correct.

The CHAIRMAN. But the Government didn't.

Mr. FRANK. Correct.

The CHAIRMAN. That is the same with the gavel.

Mr. FRANK. That is correct.

The CHAIRMAN. When I accept the gavel I will see it is acceptable.

Mr. DICKINSON. Asking the Chairman's question another way if I may.

If the Government had maintained its right to insist on First Article inspection——

Mr. FRANK. Yes, sir.

Mr. DICKINSON. What you were offering to do for the additional $400 is what you would have been required to do if the Government could have maintained its position of First Article inspection, is that right?

Mr. FRANK. Congressman, you will have to go—he can read it back. I would like to explain it if I can.

The Government asked for First Article, eventually waived that requirement——

Mr. DICKINSON. I know that. I know about the waiver.

Mr. FRANK. All right.

We are saying at this point, Congressman, we would have taken the instruments back at no cost to the Government at that point. We would have qualified the instrument.

Now, if we didn't qualify the instrument then the whole deal was off, there are no if's and but's, let's forget the rest of it. We said we

would have met the specification requirements and given the instrument back at approximately $400 over and above what they originally paid for it.

Mr. DICKINSON. If the Government had maintained its right to insist on First Article inspection and had not waived it.

Mr. FRANK. Right.

Mr. DICKINSON. And if the Government had not in fact legally waived it, if they still had that right, then what you are offering to do for $400 is what the Government had a right to force you to do under the contract?

Mr. FRANK. Yes, sir, you are correct.

The CHAIRMAN. That is exactly what I was trying to say.

I will use the gavel again.

We will recess until 10 o'clock tomorrow morning.

[Whereupon, at 4:15 p.m., the committee recessed, to reconvene at 10 a.m., Friday, September 13, 1974.]

AIR FORCE PROCUREMENT OF AAU-19/A ALTIMETERS

FRIDAY, SEPTEMBER 13, 1974

HOUSE OF REPRESENTATIVES,
COMMITTEE ON ARMED SERVICES,
ARMED SERVICES INVESTIGATING SUBCOMMITTEE,
Washington, D.C.

The subcommittee met, pursuant to recess, at 10:12 a.m., in room 2337, Rayburn House Office Building, Hon. F. Edward Hébert presiding.

Present: Messrs. Hébert, Stratton, Arends, Bray, Pike, Mollohan, Dan Daniel, Dickinson, and Hunt.

Also present: John F. Lally, acting counsel, and David R. Warren, staff investigator.

The CHAIRMAN. The committee will be in order.

Mr. Daniel, do you have any further questions?

Mr. DANIEL. No further questions, Mr. Chairman.

The CHAIRMAN. Mr. Lally, you proceed until Mr. Stratton arrives. When Mr. Stratton arrives we will let him handle the matter.

Mr. LALLY. Thank you, Mr. Chairman.

TESTIMONY OF HERBERT J. FRANK—Resumed

Mr. LALLY. Mr. Frank, on page 60, you state—you are discussing now this manifold discovered by Mr. Akins:

> I can verify that this is either the particular device in question, or is so closely identical in construction and purpose as to be indistinguishable.

Did you see the manifold when it was found by Mr. Akins in February 1972?

Mr. FRANK. No, sir, I did not.

Mr. LALLY. Did you see it at any time between February 1972 and September of this year?

Mr. FRANK. No, sir, I did not.

Mr. LALLY. Well, then, how can you verify that this particular device is the device seen by Mr. Akins?

Mr. FRANK. Only through Mr. Tommy Ammons, who built the device, who said the device was so constructed, who picked the device out, who installed the device, and who removed the device.

Mr. LALLY. Mr. Ammons built this device?

Mr. FRANK. He built a device that he said is either this device, Mr. Lally, or a similar device which would be identical to it, with the exception of one part.

Mr. LALLY. When was this particular device discovered, Mr. Frank?

Mr. FRANK. Oh, approximately 3 or 4 weeks ago—maybe 5 weeks ago.

Mr. LALLY. Where was it discovered?

Mr. FRANK. It was discovered in our maintenance shop, where we keep all our old boxes, hot and cold boxes, and all our old equipment that has become obsolete.

Mr. LALLY. By whom was it discovered?

Mr. FRANK. It was discovered by myself and one of my maintenance people.

Mr. LALLY. Now, when you found it, did you attempt to see whether this was the device Mr. Akins had found in February 1972?

Mr. FRANK. I did.

Mr. LALLY. Well, did you ask Mr. Akins if it was the device?

Mr. FRANK. No, I did not ask Mr. Akins if that was the device. Mr. Akins is a member of the Air Force, and I assumed he was under oath, and I did not bother to ask Mr. Akins about the device.

Mr. LALLY. There was no one better qualified to identify the device than Mr. Akins, was there?

Mr. FRANK. No, sir. I would agree there isn't anybody better qualified, except the personnel that made it and removed it.

Mr. LALLY. That made this device?

Mr. FRANK. That made the device that was in the box at the time. And this evidently seems to be either that device, Mr. Lally, or a very similar device.

Mr. LALLY. Mr. Akins discovered a device?

Mr. FRANK. Yes, sir.

Mr. LALLY. Who is better qualified to identify the device discovered by Mr. Akins than Mr. Akins?

Mr. FRANK. I would say Mr. Akins would be the one. But this could not be the one Mr. Akins discovered, so in support of his testimony it could not be the one that he purported he saw.

Mr. LALLY. Mr. Frank, I direct your attention in the exhibit folder there on the table, to exhibit No. 19, I believe it is—open to tab 19 (see appendix 24).

It is a letter dated December 15, 1967, to Aerosonic Corp., and it is from Mr. Frederick S. Wood, the contracting officer.

Mr. FRANK. Yes, sir.

Mr. LALLY. This letter sets forth the deficiencies which were revealed in the October 1967 First Article test of the AAU–19; is that correct, sir?

Mr. FRANK. Yes, sir, it does.

Mr. LALLY. Did that report indicate to you that the Air Force felt that there were some deficiencies in the instrument?

Mr. FRANK. Yes. The Air Force felt that there were some deficiencies, but I would like to point out that some of the deficiencies that are pointed out in that are not part of the requirements of the specification. So we didn't feel that we were involved.

Take, for example, "C," monitor trip level. "The monitor circuit was very sensitive to temperatures and power variation. With power input being normal (115 volts, 400 cycles), the monitor of one unit failed to operate at −35° C and −54° C."

This test was incorporated at a later time as part of the specification.

Mr. LALLY. All right, sir.

Did Mr. Wood state in this letter—I direct your attention to the last two lines of paragraph No. 1—"the total performance requirements of the contract specification have not yet been demonstrated to the Government's satisfaction?"

Mr. FRANK. Yes. He states this, but that——

Mr. LALLY. Didn't that indicate to you the Air Force was not satisfied with the instrument at that time?

Mr. FRANK. No, sir, it does not.

Mr. LALLY. It does not?

Mr. FRANK. Because he lists requirements that do not make up part of the specification as his example.

Mr. LALLY. In the final paragraph on page 3, this is not the final paragraph of the letter but the last paragraph on page 3 of that letter, Mr. Wood states that "Individual tests and sample plan A and B tests, as required by the contract, must, of course, be successfully completed."

Now, can you describe, Mr. Frank, what is required under sample plan A?

Mr. FRANK. Sample plan A, you have to take the instrument, you must pass all your individual tests which are part of the acceptance test, and then you subject the instruments to additional tests beyond that—hot, extreme hot, extreme cold, and vibration, and similar type tests such as this.

Mr. LALLY. Is this an instrument or instruments selected from a production lot?

Mr. FRANK. Yes, sir.

Mr. LALLY. How many instruments for sampling?

Mr. FRANK. I think it is 3 out of 100.

Mr. LALLY. Three out of 100?

Mr. FRANK. Yes.

Mr. LALLY. Now will you describe what is required under sample plan B?

Mr. FRANK. Those are qualification tests that are involved which have to do with additional testing beyond that requirement, probably it would be radio frequency requirements. Humidity, possibly. Extreme vibration under extreme conditions. Salt spray, some of the other tests which we would call environmental tests.

Mr. LALLY. These are required above and beyond sample plan A; is that right?

Mr. FRANK. That is right.

Mr. LALLY. Again are these instruments for sample plan B chosen by lot?

Mr. FRANK. Yes.

Mr. LALLY. From a production lot?

Mr. FRANK. Yes.

Mr. LALLY. How many are required to be submitted for the sample plan B testing?

Mr. FRANK. I don't recall, it might be 3 out of 500, 3 out of 1,000. Somewhere around 3 out of 1,000 I believe or maybe 5 out of 1,000.

Mr. LALLY. Now, were sample plan A and B tests performed by Aerosonic as agreed?

Mr. FRANK. In accordance with the contract? Yes, sir.

Mr. LALLY. In accordance with this agreement.

Mr. FRANK. It was part of our obligation under the contract to run sample plans A and B in accordance with the contract.

Mr. LALLY. Did you do that?

Mr. FRANK. We did that, sir.

Mr. LALLY. Your sample plan A tested 3 instruments for each 100 produced and sample plan B tested an additional 3 for each 1,000 produced, is that correct?

Mr. FRANK. If that is the requirement, yes, sir, we did.

Mr. LALLY. Directing your attention to exhibit No. 3, which is General Stewart's letter dated August 30, 1971, to you (see appendix 3).

Mr. FRANK. Yes.

Mr. LALLY. General Stewart indicates that "although Aerosonic has delivered some 2,100 units to date. the required sampling has not yet been completed on the first 1,000 block."

Is that a fact, sir?

Mr. FRANK. No; I don't believe that is a fact.

Mr. LALLY. You don't?

Mr. FRANK. No, sir. I believe that as the 1,000 are produced, we take 3 out of the 1,000, we subject them to tests. The tests take a period of anywhere from 6 to 9 months to complete. And upon the completion of the test data, we forward it in to the general wanting it shipped to him.

While you are undergoing the testing of the instrument, if there is a failure during this testing, the production is stopped, and the remaining instruments must undergo additional testing prior to being accepted by the Government. During the testing of the 1,000-hour test which takes a considerably long time, we had no basic failures so our production continued. You keep on running the tests as it goes.

Now, it could be that we had started the testing when the specification called for it, and we hadn't finished completely every test but we had failed no test at the time, and so we considered ourselves as meeting the requirements of the specification.

Mr. LALLY. You considered yourself as meeting them but General Stewart did not; isn't that correct?

Mr. FRANK. That may be his interpretation.

Mr. LALLY. Had you not completed the test, he concluded you had not satisfied the requirement?

Mr. FRANK. That was his interpretation. I might add, Mr. Lally, if I may, during this time we also have to run sample plan A on these instruments also. In this instance we had run 2,000 instruments, which means out of every 100 you take so many, and you run them through sample plan A.

We have never failed a sampling plan A test in front of Government witnessed inspection throughout that entire contract. That goes beyond the requirements of your individual acceptance test.

Mr. LALLY. Did you complete the sampling plan A of all units required up to the time that the contract had been terminated?

Mr. FRANK. I believe we did, sir—yes, sir.

Mr. LALLY. Now, was the AAU–19 Aerosonic's first manufacturing effort of a servo instrument?

Mr. FRANK. For the U.S. Government, yes, sir.

Mr. LALLY. Well, had you manufactured any for any others?

Mr. FRANK. Boeing Aircraft.

Mr. LALLY. What were the servo units you had manufactured for Boeing?

Mr. FRANK. An altimeter.

Mr. LALLY. What type of altimeter?

Mr. FRANK. Similar to the 19/A; instead of using a dragcup system it used a circle drive system.

Mr. LALLY. Did it combine the pneumatic and servo modes?

Mr. FRANK. Yes, it did.

Mr. LALLY. Have you manufactured any servo instruments since the 19/A?

Mr. FRANK. I can answer that in this way.

During the contract of manufacturing 19/A's for the U.S. Government, we also took a contract to manufacture 19/A's commercially for Lockheed Aircraft. This was during the period of 1972. We did successfully manufacture under their contract 126 19/A's for Lockheed Aircraft, of which one was returned to us as noncompliance. All the other 126 were accepted, and I would have to assume, Mr. Lally, were put in aircraft.

Mr. LALLY. Now, on page 4, you discuss Aerosonic's manufacturing record with the AAU–27.

Do you currently have a contract to manufacture the AAU–27?

Mr. FRANK. Yes, sir, I do.

Mr. LALLY. How many units does that contract call for?

Mr. FRANK. Mr. Lally, somewhere around 500—500 or 600 units.

Mr. LALLY. Are you currently having any inspection problems with the AAU–27?

Mr. FRANK. No, sir, we are not.

Mr. LALLY. Are you currently having any design problems with the AAU–27?

Mr. FRANK. No, sir, we are not.

Mr. LALLY. What was the original delivery schedule provided in this current AAU–27 contract?

Mr. FRANK. What is the present?

Mr. LALLY. No, what was the original delivery schedule?

Mr. FRANK. Offhand I don't know. I presume it was somewhere around 100 a month, Mr. Lally.

Mr. LALLY. What is the current delivery schedule?

Mr. FRANK. Sixty a month.

Mr. LALLY. Are you satisfying the current delivery schedule?

Mr. FRANK. Yes, we are. We just received a change in delivery schedule which puts us on schedule.

Mr. LALLY. What do you mean by change in delivery schedule?

Mr. FRANK. We had a vacation period during the month of August, which we forgot to put into our production scheduling. We went back to the U.S. Government and told the U.S. Government we were having this problem, and they have reconciled it by giving us a change in delivery schedule requiring us to continue with the 60 a month, but deleting the 60 a month for the month of August during the vacation period.

Mr. LALLY. Was the month of August the only month in which you were delinquent in your delivery?

Mr. FRANK. We might have been delinquent a week on other——

Mr. LALLY. Isn't it a fact you were delinquent in July?

Mr. FRANK. It could be that we were delinquent. I don't have the records in front of me. I wouldn't argue the point. But if we were delinquent in July, it was probably by a week, Mr. Lally.

Mr. LALLY. The vacation schedule is the only cause for your current delinquency? It is the only excuse you have given me?

Mr. FRANK. We had a vacation schedule and we had a blowout of our computer which caused us a 14-day delay. But we caught up that 14-day delay by allowing our personnel overtime, and the only problem we have now is the vacation schedule which the Government has granted us the extension for 14 days to meet our delivery schedule.

Mr. LALLY. In your testimony yesterday, Mr. Frank, you mentioned that the Air Force calibration team had twice found the OCAMA test equipment to be out of calibration. Can you identify those reports which so found the equipment to be out of calibration?

Mr. FRANK. Mr. Lally, I did not make such a statement. I said that we have one record that the Air Force made this finding in, and that we assumed since there was a problem on the 27–A the second time, that the second report from Newark Air Force Base was probably the same. We had understood—I have no such report the second time, Mr. Lally. I don't think I ever mentioned I had such a report. We have one report, but we were told verbally by Newark that they had calibration problems the second time, and when I was out at Tinker, myself, and spoke to the personnel people at Tinker when we were testing 27–A's, they had just finished running a recalibration check on their master equipment with the Newark Air Force Base, and Newark had given them a clean bill of health after recalibration of their equipment.

Mr. LALLY. You did identify one report, as I recall it.

Mr. FRANK. I did, sir; yes.

Mr. LALLY. When was it you were told by the Newark people that they thought it was out of calibration and that you assumed there would be a subsequent report?

Mr. FRANK. Oh, no, no. We have the Newark report.

Mr. LALLY. You have the one report?

Mr. FRANK. Correct.

Mr. LALLY. You assumed there was a second report?

Mr. FRANK. I assumed there was a second report only by——

Mr. LALLY. When was that, sir?

Mr. FRANK. Probably a month before I went out to Tinker Air Force Base myself, personally, to supervise it.

Mr. LALLY. When was that?

Mr. FRANK. Whenever I was out there, it was sometime in 1972.

Mr. LALLY. How many people were employed in Aerosonic's engineering effort on the AAU–19?

Mr. FRANK. In what period of time? I would say we started out with 3, and probably ended up with as many as maybe 14.

Mr. LALLY. You started off with three. In what period of time was that, Mr. Frank?

Mr. FRANK. The 1965–66 period. And we expanded to approximately 14, in probably 1967 and 1968.

Mr. LALLY. Who were your three original people on this engineering effort?

Mr. FRANK. There were Mr. Magagnos, another Mr. Frank, and, there would be one of the draftsmen, I wouldn't offhand know his name.

Mr. LALLY. You say you enlarged it to how many?

Mr. FRANK. Fourteen.

Mr. LALLY. When would that have occurred?

Mr. FRANK. It started when we produced the drawings for the production units and continued the work throughout the program of producing the units, tooling it up, and getting it ready for production.

Mr. LALLY. How many of these 14 would be professional engineering people?

Mr. FRANK. Not more than one or two at the most.

Mr. LALLY. The rest of them would be what type of employee?

Mr. FRANK. Draftsmen, technicians that worked out of the engineering department.

Mr. LALLY. Yesterday, Mr. Frank, you testified that there had been eight major specification changes in the AAU–19 specifications. Could you identify those changes which you regard as major changes?

Mr. FRANK. Yes, sir.

In August of 1966 we had an altitude deviation change.

In August of 1966 we had the elimination of the mechanical arm.

In September of 1966 we had the antibacklash gear problem.

In December of 1966, we had the overshoot problem.

In the spring of 1967, we had a drive through requirement.

In the summer of 1967, we had the second vibrator added and the plug-in connectors.

In the summer of 1967 we had altitude deviation and monitor trip, with temperature compensation and frequency variations.

And in October of 1967, we had runaway.

Of those, only the last two, which would be the altitude deviation and the runaway were covered by a contractual document CCN No. 8.

All the other units were placed on us by engineering without any compensation whatsoever.

Mr. LALLY. Directing your attention to page 46 of your statement yesterday, where you state, "Because the initial zero setting procedure was a sophisticated and complex one, Mr. Francis and Mr. Stellmach, two of our most competent employees, were responsible for the procedure."

Could you describe for us, Mr. Frank, this zero setting procedure?

Mr. FRANK. The instruments are first placed in a chamber, and hooked up, both mechanically and electrically with a connector here [pointing] for the mechanical or the altitude, and electrically, which would induce the vibrator operation and the servo operation, so there are two connections on the instrument.

The little tab underneath the screw—would you like me to come forward to show you this?

Mr. LALLY. I can see it from here.

The CHAIRMAN. I can see it.

Mr. FRANK. There is a little tab underneath this which locks the knob so that nobody in the aircraft can inadvertently make an adjustment to either the electrical system or mechanical system other than to correct just barometric change.

What you then do is loosen the screw down this way and pull the tab out. And by pulling the tab out it is a "V" that goes into a locking stud, so that when you pull it out this stud can now move up and down.

To make the correction on altitude, you would then bring the instru-

ment to zero altitude, exactly zero altitude, in the window, by setting the barometer to the correct altitude and bringing the pointer to zero. You would then run the instrument maybe to 2, 3, maybe 5,000 feet, to be sure that the readings still correspond when they get up to 5,000 feet. If the instrument is in, then you would, in turn, eliminate that problem. The locking stud would still be out, but you would do nothing to it.

In the event there had to be a correction on this, you would then physically pull the knob out, which would release the difference between the pointer and the barometric pressure setting. They are in conjunction with each other when you turn—both turn simultaneously.

If I were to pull the knob out, the pointer would move, but the barometric pressure would not. And, thus, you could, therefore, put in a correction of 5 or 10 feet if it was necessary.

The next point would be, you would then set the instrument to the electrical system. You would place the synchro on zero. You would read the instrument at zero. Set it on zero, which is the same way. And in this instance, instead of pulling the knob out, you push the knob in, which disengaged the mechanical system, and engages the electric synchro system. In other words, you are just positioning a synchro. By doing that you can then set your zero to where you think it should be.

You would then run the zero at the various checkpoints up to 10,000 feet. Each checkpoint is checked there to be sure that each one of the readings is within the correct dimension—the correct tolerance.

If you set it at zero, we will say, to start with, exactly at zero, and when you got to 6,000 feet your instrument read "out of tolerance," we will say by 10 feet—in other words, it read 30 feet instead of 20 feet, you would then go back to the zero, push the knob in, and reset the pointer so that it read minus 10 feet at zero.

So then when it finally got up to 6,000 feet it would be within the tolerance. You would then pull the knob back to neutral, insert the tab which is a little difficult to do, lock the screw, and thus the adjustment is finished for the instrument.

Mr. LALLY. That occurs at the outset of the testing procedure, is that correct?

Mr. FRANK. That is correct.

Mr. LALLY. Is that zero setting permissible, then, at any other time during the testing period?

Mr. FRANK. Only in the event of a box failure, where there is a change of the master synchro from one box to the other.

You see, Mr. Lally, we only have one barometer, so even if we run one box or the other, the same barometer is used but we do use two synchros, so there is sometimes an electric difference, and sometimes we would. But in that instance if there was a necessity for such a change, it would have to be authorized by our quality control representative, and somebody from quality control would have to be there when that little adjustment was made.

That isn't a massive adjustment. What they would do there is reset the zero back to its original point it showed on the other box.

Mr. LALLY. You say somebody from quality control has to be there. Does it also require that one of the DCAS representatives be there for this resetting?

Mr. FRANK. It might be we would recall them. I do not know that part of the procedure. If it was 100-percent inspection, Mr. Lally, under 100-percent inspections, yes, sir, it would.

Mr. LALLY. How does the zero setting differ from the adjusting barometric counter setting?

Mr. FRANK. The barometric counter setting works in conjunction with the pointer.

Now, sometimes under vibration on this specific instrument, the barometric counter does move out of the numbers of 29.92. It just vibrates out. This is fact, it is not fiction.

And so, if it does go out of the number, and 29.92 is not in appearance there, the Government or we will note it immediately and we will just take the knob and place it back, and we will place it at 29.92.

Mr. LALLY. This is relatively a simple adjustment?

Mr. FRANK. That is right. This was discovered not only in our instruments but in other instruments, and the Government has now made a new requirement on new instruments, specifically I'm talking about the 27–A which we produce, where there is a test for approximately 1½ hours where the instrument is run under vibration with the number 29.92 showing in the window. This is a separate test. And if, at the end of 1½ hours, the 29.92 disappears, or moves, then the instrument is rejected.

So that problem on all the other instruments in the future will be eliminated. On this one it was the first one and I don't think they realized it was coming out of the window.

This is a very simple device, a very simple adjustment. It would take 2 minutes to make the adjustment.

Mr. LALLY. Have you read the transcript of our earlier proceedings, Mr. Frank?

Mr. FRANK. Some of it.

Mr. LALLY. Obviously, you have in preparation for your statement here. You have analyzed it pretty closely, I would say.

Mr. FRANK. I read some of it, yes, sir.

Mr. LALLY. Have you read the testimony of Mr. Akins relative to the resetting of these instruments?

Mr. FRANK. In which context, I mean was it concerning Mr. ——

Mr. LALLY. Have you read his testimony?

Mr. FRANK. Yes, I read his testimony.

Mr. LALLY. All right.

I am reading now from page 586 of Mr. Akins' testimony, I asked him—

> Directing your attention to the March 24 incident with the AAU 19 altimeter, what specifically did you see this man do in the test chamber?
>
> Mr. AKINS. May I use the demonstration?
>
> Mr. LALLY. Yes, certainly.
>
> Mr. AKINS. If you will notice, under this stem, where a knob is usually installed, there is a locking device slot. This shaft has a locking slot in it. This device slides up in there and it is screwed in place so that it cannot be inadvertently disturbed. You have to loosen that screw, drop that lock loose, and pull out on this stem to make an adjustment.
>
> Mr. LALLY. Is that what this gentleman was doing?
>
> Mr. AKINS. That is what the gentleman was doing.

Now, Mr. Akins' description here is a zero setting of the instrument, is it not, sir?

Mr. FRANK. His description is exactly what I described in how you set the instrument before you start your tests.

Mr. LALLY. That is correct.

Now, Mr. Akins also testified that the instruments had just completed room temperature tests and were standing in the chamber during a 6-hour waiting period to go into the cold test. Now, during a 6-hour waiting period, between room temperature test and cold test, is a rezeroing of the instrument permissible under the specification?

Mr. FRANK. No, sir, it is not.

Mr. LALLY. All right—thank you.

Mr. FRANK. But I do not believe—I am not being critical with your reading of the testimony, but I believe Mr. Akins was talking about a hot test, not about a cold test. Am I right, or wrong about that, Mr. Lally?

Mr. LALLY. Well, I will read you his testimony.

On page 565, and this is in the middle of a long answer—

> On March 24, 1972, I took the bit in my teeth and wrote a QDR, the subject of which was the AAU–19/A altimeter testing specification DOD AIMS 64, 101–B; in which I stated that I had observed—it was observed by other representatives, more than one, of our office—that the aerosonic production foreman was readjusting AAU–19/A altimeters between test temperatures in violation of the standard test conditions, paragraph 6.3.G of the specifications: "Except as noted herein, no adjustments will be made to the altimeter after the initiation of testing."
>
> Gentlemen, those instruments had just completed room temperature tests, were standing in the chamber during a 6-hour waiting to go into the cold test. The testing had been initiated.

That is Mr. Akins' testimony relative to the testing situation which prevailed at the time he made this observation.

Mr. FRANK. Was he referring to Mr. Francis or Mr. Stellmach?

Mr. LALLY. The first line of the quotation I read indicated the 24th day of March 1972. That is the Mr. Francis incident.

Was the zero setting permissible at this stage of the testing, Mr. Frank?

Mr. FRANK. No, sir. It was not.

But I would like to point out, I believe Mr. Francis' testimony was the fact he had just moved the instruments from one box to another box, that he did it on the request of our quality control representative. He placed—if this is Mr. Francis' time.

Mr. LALLY. It is the March 24 incident; Mr. Francis was the one involved in that incident; yes, sir.

Mr. FRANK. He, in turn, took the instruments, placed them in a new box, and in front of everybody—it was the middle of the day—he made the adjustments which he was permitted to do in accordance with the requirements.

The only thing that was not there was a "QR" man standing in back of him, period.

But it was done in broad daylight. I was there.

All the other inspectors were there, including the Government inspectors, and as far as everybody that seemed to be concerned, there was no basic issue against the fact he had done it, except he had done it without somebody standing behind him.

Mr. LALLY. You realize that his testimony is contradicted by Mr. Akins and by Mr. Seay, regarding the movements of the instruments from one test box to another.

Mr. FRANK. No, I didn't know there was a contradiction on that.

Mr. LALLY. There is a contradiction.

Now, Mr. Akins also testified on page 569—and here I am again quoting from the middle of a long answer by Mr. Akins——

> At 6:05—and I looked at my watch, gentlemen, when I walked up to that glass door—I observed Mr. Neal Stellmach in the process of adjusting AAU–19/A altimeters betwen cold and hot test. Now, they had 6 hours of hot environment at this time. This does not hurt the altimeter to open the box and close it back as long as the temperature of the equipment does not drop below 45 degrees centigrade. He was in the process of adjusting the AAU–19/A altimeter. We stood there and observed Mr. Stellmach adjust three altimeters that were on that board.

Now, at page 587, we were discussing the April 12th incident, and I asked Mr. Akins "Could you describe specifically what you mean by 'adjusting the instrument'?"

> Mr. Akins. Yes, sir. With the screwdriver, I observed that man take the lock loose and make a barometric adjustment on this altimeter by disengaging, by pulling out on this knob, make adjustment, push the knob back in, and reengage the lock and tighten the screw.

Now, does this sound like a zero setting as he describes Mr. Stellmach performing at this time?

Mr. FRANK. That is what it sounds like.

Mr. LALLY. Was a zero setting permissible at this stage of the testing described by Mr. Akins?

Mr. FRANK. No, sir.

Mr. LALLY. Between cold and hot tests?

Mr. FRANK. No, it wasn't, nor do I say there was such a setting made.

I think the pictures that I have brought in tend to dispute—I'm not saying Mr. Akins in any way told an untruth—I just think he did not see what he thought he saw, and I am of the opinion it was impossible for Mr. Akins to view what he saw in conjunction with the position that he was standing in the box—in accordance with the position.

No. 2, I think it has been made very clear that Mr. Stellmach has stated that he was making no such adjustments and as far as I understand, the fact that this was reported by Mr. Stellmach, that the instruments were "scrubbed" as far as that test was concerned, the cold test, and that the instruments that Mr. Akins was talking about were the hot instruments that were undergoing hot testing, not the ones that were undergoing cold testing.

I cannot speak for Mr. Akins. Mr. Akins has been in our organization for 9 years. We have never had a problem with Mr. Akins.

Any problem we have had was directly worked out between myself and Mr. Akins without the problem of going elsewhere.

I would like to point out that it seems very peculiar, and I will use the word "peculiar," that for 15 years of doing instruments for the U.S. Government, of which Mr. Akins, I think, represented the Government office for 9 years, we had no basic problems whatsoever on any contracts.

We had a couple of quality deficiencies. Then in a 6-week period which happens to be coincidental with the fact that the Government was planning on terminating our contract, everything went wrong in our facility at that one time.

I might add, if I may, that this had never happened before. All during the time, and certainly we had run thousands of instruments

through this procedure, and I had also considered the fact that nothing like this could have happened in my organization. I don't believe it ever did happen.

And it seemed that after the termination default took place, which was in the middle of 1972, everything seemed to go back to normal again like it was just prior to the time that all these events happened.

All these events that you are talking about, Mr. Lally, occurred in a 6-week period. Up until that time, for 15 years, we had none, in the 6-week period termination of the contract, and all of a sudden we don't have any problems any more.

Mr. LALLY. You said a moment ago, you did not believe the incident happened?

Mr. FRANK. That is correct, sir; I do not believe the incident happened as Mr. Akins said it happened.

Mr. LALLY. Why, then, Mr. Frank, did you, on both occasions, issue a directive to your quality control employees that this practice was not to be repeated?

Mr. FRANK. I think Mr. Akins made it very clear that he did not want any of my production personnel into the testing area during the time of the testing, and I complied with his request.

And I believe I stated in my statement earlier—I don't have the exact page—that I did it because of the fact that I thought there might be some repercussions on not what was done, but the matter that—the drawing of inferences of what might have happened.

Mr. LALLY. Isn't it a fact, Mr. Frank, that on the first incident, the March 24 incident, Mr. Akins didn't even prepare a quality deficiency report on you; he made no issue of it?

Mr. FRANK. It could be.

Mr. LALLY. And yet, you issued a reprimand to your employees?

Mr. FRANK. Because Mr. Akins asked me to. He didn't make an issue of it. You don't seem to understand, Mr. Lally, that I work with these people, day in and day out. I'm not in the office and they are in the other. I'm in that plant 80 percent of the time, walking around.

Charlie and I sit and talk with each other continuously. It isn't necessary, every time something goes wrong, to write somebody a memo.

I have been working with the man for 9 years. Basically he thought something should be done about it, and I wrote a memo—and that is all I did.

Mr. LALLY. Mr. Frank, the history of this contract between Air Force and Aerosonic, is filled with contention. You dispute practically every allegation of the Air Force or the DCAS people almost without exception, except in these two instances here where you issue a reprimand to your employees. It is out of character for you to do this. In this whole contract it is the only admission you have made of wrongdoing on the part of your employees.

Mr. FRANK. Well, that may be your opinion, Mr. Lally, which you are entitled to. But I think in many instances I have reprimanded my employees for doing things. Sometimes, I do it in writing and sometimes I don't do it in writing.

But it's obvious from the quality record that we have had with the Air Force there can't be that much wrong with the quailty that we have at Aerosonic Corp.

Mr. LALLY. On page 43, you testified that Mr. Seay's testimony is the only charge that any officer or employee of Aerosonic ever directed a test recorder to record a false reading.

Now, again did you note in Mr. Akins' testimony that he testified regarding a similar incident which had been observed by Mr. Hathcock on March 9, 1972, again involving Mr. Benmayor?

Mr. FRANK. I believe the incident you are talking about was a difference of opinion of a reading, again. This was not a direction on the part of Mr. Benmayor to tell another individual what to read. It was just the difference of opinion of what the reading should be. There was no direction. And if you will also note the instrument failed later on because it failed other test points.

Mr. LALLY. But you are familiar with Mr. Akins' testimony of his discussion with Mr. Benmayor, in which Mr. Benmayor told him, "Well, I told my people when it is 10 feet out to 'read it in.' "

Are you familiar with that, Mr. Frank?

Mr. FRANK. I am familiar with that statement.

That satement has not been substantiated by the two witnesses that appeared here, nor has it been substantiated by any other personnel I have questioned in my entire plant concerning that incident, or any other incident where they have been told to do what Mr. Akins said they were told to do.

This would encompass, Mr. Lally, approximately 20 some-odd people.

Mr. LALLY. In Aerosonic's technical proposal, was it proposed to use an electrical oscillation dampener in the instrument?

Mr. FRANK. I don't recall, Mr. Lally; that was quite a while ago. If that is what it said, that is what we would probably have said we were going to do.

Mr. LALLY. Well, was the electrical oscillation dampener ever used in the instrument you manufactured?

Mr. FRANK. Yes. We had what you call a feedback system, that we thought would work, but it wasn't as sensitive as we thought it would be. And so we had to add another restraining member to it.

We do have a feedback system in it, which is what you are talking about.

Mr. LALLY. Was the feedback system the electrical oscillation dampener?

Mr. FRANK. Yes, sir.

Mr. LALLY. When was that employed?

Mr. FRANK. That was employed right from the beginning of the program. The only problem the feedback system did not eliminate the total oscillation of the pointer.

Mr. LALLY. Was that the purpose of the mechanical arm insertion in the instrument?

Mr. FRANK. That was the purpose of the mechanical arm insertion, which was to control the pointer so it did not oscillate at all;

And, two, the original purpose of it was to eliminate the vibration of the cam shaft against the jewels, so that the jewels would not disintegrate under this extreme vibration.

Mr. LALLY. Didn't the use of the mechanical arm involve problems with the instrument?

Mr. FRANK. No, sir.

Mr. LALLY. Wasn't the mechanical arm responsible for your failure to complete the prototype test in July 1966?

Mr. FRANK. No. The mechanical arm was removed by request of Mr. Melnick.

Mr. LALLY. When did that occur, sir?

Mr. FRANK. August of 1966.

Mr. LALLY. Well, wasn't that the reason for Mr. Melnick's request that the mechanical arm be eliminated since it had prevented completion of the prototype test in July 1966?

Mr. FRANK. No. The reason that Mr. Melnick told us we could not use the mechanical arm was because he considered it not to be within the scope of the specification.

Mr. LALLY. Well, did you complete the prototype test in July 1966?

Mr. FRANK. No, we were incapable of doing it.

Mr. LALLY. Did you then attempt to complete them in December 1966?

Mr. FRANK. Yes, we did.

Mr. LALLY. Did you complete them at that time?

Mr. FRANK. Yes, we did.

Mr. LALLY. Did you actually complete them at that time?

Mr. FRANK. We supplied prototypes in December of 1966.

Mr. LALLY. Did you satisfy all of the Government test requirements in the December 1966 test program?

Mr. FRANK. I don't—I honestly can't answer to that, Mr. Lally.

Mr. LALLY. The testimony previously was the instrument had failed to satisfy all the tests in the December 1966 test program. Now, didn't the test failures of the prototypes in July and December 1966, indicate Air Force displeasure with the AAU–19?

Mr. FRANK. No, sir. The U.S. Air Force at that time still had not decided on what type of specification they wanted this instrument to fulfill. It was just a matter of change after change after change.

I have listed eight changes, all the way through 1967. The Government was still working as to how they wanted the instrument to operate, and every time we would submit some test data or some testing, they would decide that they wanted to go beyond the specification and find out if the item would work under the additional conditions.

When they didn't work under the additional conditions, then they decided maybe they better add those conditions to the requirements, and in some instances insisted they were part of the requirements and we did not have to have contractual change, you just do it. And on the other hand, they did issue some CCN's which did protect us.

The fact an instrument does not pass a First Article inspection the first time is no indication that the instrument is unsatisfactory.

Mr. LALLY. How about when it fails to pass it the second and third time?

Mr. FRANK. I would say after it fails the third time, there would be not necessarily dissatisfaction; it would mean that the contractor was not meeting all the requirements.

I would like to also point out that each time there was a new requirement added to the First Article, so that the first test was to test the instrument after they found additional tests they wanted to add,

they then asked us to add those tests the second time, and the third time around they asked us to add additional testing to it.

So each time we went to meet a requirement, we were being tested for requirements beyond the specification.

Mr. LALLY. On page 34, Mr. Frank, you testified concerning Aerosonic's rejection rate in the years 1968 through 1971. It appears that your rejection rate dropped in 1971. Now, wasn't this in the period after the 100-percent inspection requirement had been lifted by the contracting officer, or by the DCAS?

Mr. FRANK. Is that the reason?

Mr. LALLY. I said it appears; this occurred after you had been relieved of the 100-percent inspection requirement; is that a fact?

Mr. FRANK. No, it is not a fact.

Mr. LALLY. It is not a fact?

Mr. FRANK. No.

Mr. LALLY. Let me ask this, then: Was the 100-percent inspection requirement lifted in approximately February 1970?

Mr. FRANK. Was it lifted in approximately 1970?

Mr. LALLY. Approximately February 1970; that is the previous testimony we have had here.

Mr. FRANK. Right.

Mr. LALLY. It was then reimposed later in 1972; is that correct, sir?

Mr. FRANK. No, sir.

Mr. LALLY. It was not?

Mr. FRANK. It was imposed twice—once in between at that time.

Mr. LALLY. When was that, sir?

Mr. FRANK. It was imposed in 1971, again.

Mr. LALLY. Could you specify the time in 1971, sir?

Mr. FRANK. The early part of 1971, if I recall, it was imposed the second time.

Mr. LALLY. Was that during Mr. Blickenstaff's administration at the plant?

Mr. FRANK. Yes, sir, it was, I believe.

I would like also to bring to your attention, Mr. Lally, if I may, that when you start off with a new product, specifically new, and you are having your normal production problems—your employees are also new at making the item and their efficiency is quite low. As you continually manufacture the item and you improve your productivity and you improve your tolerances and dimension by engineering changes which help you, and your personnel become more familiar with what they are doing, your rejection rate would normally go down. This is a standard procedure on any instrument we ever made.

Mr. LALLY. Do you have any data regarding the actual numbers of rejections during the 100-percent inspection period, and during the periods when the 100-percent inspection was not in effect?

Mr. FRANK. I don't have them in front of me, Mr. Lally, but I would be only too happy to forward them to the committee. Specifically we keep a monthly tab on every single instrument we do with the Government. And it is tabulated on a monthly basis, of every instrument. And why each item is rejected and the reason for its rejection.

Mr. LALLY. Would you be willing to submit those to the committee?

Mr. FRANK. I would certainly be willing to submit those.

[The following information was subsequently furnished for the record:]

MONTHLY AAU-19/A REJECTION RATES

Month	1968	1969	1970	1971	1972
January:					
Tested		85	126	139	110
Rejected		63	71	72	61
Rate (percent)		74	56	52	55
February:					
Tested		48	175	169	91
Rejected		31	117	67	58
Rate (percent)		65	67	40	64
March:					
Tested		80	155	200	86
Rejected		45	77	89	49
Rate (percent)		56	50	45	57
April:					
Tested		65	186	221	42
Rejected		36	102	136	35
Rate (percent)		55	55	62	83
May:					
Tested		30	211	194	42
Rejected		15	127	127	28
Rate (percent)		50	60	65	67
June:					
Tested		63	204	186	---
Rejected		27	121	104	---
Rate (percent)		43	59	56	---
July:					
Tested		49	128	150	---
Rejected		22	75	59	---
Rate (percent)		45	59	39	---
August:					
Tested	28	132	116	185	---
Rejected	20	70	60	85	---
Rate (percent)	71	53	53	46	---
September:					
Tested	34	152	111	167	---
Rejected	24	83	57	60	---
Rate (percent)	75	55	51	41	---
October:					
Tested	39	116	115	153	---
Rejected	30	52	56	71	---
Rate (percent)	77	45	49	46	---
November:					
Tested	65	128	105	161	---
Rejected	43	76	39	65	---
Rate (percent)	66	59	37	40	---
December:					
Tested	42	148	141	120	---
Rejected	18	96	53	49	---
Rate (percent)	43	65	38	41	---

Mr. LALLY. How much of your costs were related to the rejection of instruments? Or have you been able to compute that?

Mr. FRANK. No, we have not been able to compute that.

Mr. Lally, one of the problems you must understand—if I can explain it as best I can—is the fact that we originally—and I don't want to go over this continuously—we originally took a contract to build an item, and the Government kept on throwing new requirements at us.

I think you understand that, whether they were our requirements or their requirements, it was still the requirement that the Government insisted on. At the same time, the Government was insisting that we produce these instruments and ship them, so we had engineering on one side and production on the other. And as these instruments started running down the line, we ran into these rejections. When you run into rejections, that, in effect, the high rejection rate, affects your production, because the people that are doing the assembly now must stop and do the work over again.

And so I don't have the figures, but I'm sure I can get you those figures if you would like.

Mr. LALLY. Directing your attention, Mr. Frank, to page 50 of your statement, there you state that the test boxes are in the same location, and face the same directions now as they did on April 12, 1972.

Wasn't the box which is now identified as the north box in a different room at the time of the 1972 test program?

Mr. FRANK. Yes, I think I said that in my testimony.

Mr. LALLY. So this statement is not factually correct then?

Mr. FRANK. No. I think I made it very, very clear that we had changed boxes, and that we had just placed another box of very similar dimension, in fact, a little bit larger—the first box was than the second—in the exact position that this box was. And that the boxes were lined up with the linoleum markings in the floor so that the identical position would be there on the second box as the first box.

Mr. LALLY. Do you have linoleum on the floor?

Mr. FRANK. Yes, we do. If you want to call it linoleum. Maybe you don't call it linoleum; maybe you call it plastic—I don't know another word for it, I call it linoleum. But maybe somebody else calls it something else. It is a fiber type, it is not a cement piece. It is something you can indent in.

You put them in squares, Mr. Lally, about 10 inches big vinyl. I am sorry—vinyl tile.

Mr. LALLY. Haven't the positions of the boxes been changed from what they were in April of 1972?

Mr. FRANK. No, sir.

Mr. LALLY. They have not been changed in the least?

Mr. FRANK. In the least, sir.

Mr. LALLY. Mr. Frank, hadn't you decided you wanted out of the AAU–19 contract by August 1971?

Mr. FRANK. No, sir.

Mr. LALLY. You hadn't?

Mr. FRANK. No, sir.

We are going over the subject again.

If I had, then I wouldn't have asked for First Article approval from General Stewart, earlier than that time.

Mr. LALLY. You had requested the termination for the convenience of the Government, hadn't you?

Mr. FRANK. Yes, sir.

Mr. LALLY. What was the reason for that request?

Mr. FRANK. The only way you can get the Government to pay attention to you, when you are in very, very serious trouble, is to, in some way, bring to their attention that you are going to take certain actions that are going to, in some way, affect delivery of items to them which they need.

We have had to resort to that several times during this program. Once during the 27–A, and this is one of the ways a contractor, no matter how efficient or inefficient he may be, this is one of the ways you can draw attention and get an answer, where otherwise you cannot.

Mr. LALLY. How much was it costing you to produce each of these instruments in August 1971?

Mr. FRANK. Oh, somewhere around $900 to $1,000 apiece.

Mr. LALLY. So you were losing money on each instrument you produced at this time, weren't you?

Mr. FRANK. I don't think there is any question about it. We weren't losing much money, but we were losing a few dollars on each instrument; yes sir.

Mr. LALLY. Now, in January 1972, you delivered 54 instruments; in February 1972, you delivered 2 instruments; in March, 13; in April, 3; and in May, you delivered 4 instruments?

Mr. FRANK. Yes, sir.

Mr. LALLY. What was responsible for the drastic reduction in your delivery rate from an average of about 100 a month for most of 1971, down to this 2, 13, 3, and 4, in February to May 1972?

Mr. FRANK. We were having our normal amount of problems with the instrument.

We were under such strict quality requirements by the DCAS, that it was just about impossible to produce instruments.

Our personnel had gotten to the point where they had just sort of given up on the program. In all fairness I would not in any way hide the fact. They were being hindered. They were being abused; they just felt the program was finished and they didn't want to do anything about it. So they just took their time doing their work.

Mr. LALLY. Was it your personnel who had given up, or was it you who made a conscious decision to terminate this program?

Mr. FRANK. Even if I did make the decision, myself, which I did not do at that specific instance, I did not tell my personnel not to go forward and produce instruments.

Mr. LALLY. Had you made a conscious decision sometime before this period to terminate the contract?

Mr. FRANK. No, I would say just about this time, the Government and I were "at ends" as to how we were going to accomplish continuing under the conditions we were going on, and, frankly, it didn't make any difference to me at that time whether the Government terminated me, or we got a termination for the convenience of the Government. It had gotten to the point where it was just impossible to continue under the conditions that we were being forced to work with.

Mr. LALLY. Isn't it a fact, Aerosonic would have been bankrupt if the contract had not been terminated?

Mr. FRANK. No, sir.

Mr. LALLY. It is not?

Mr. FRANK. No, sir; it is not.

Mr. LALLY. If you had to produce 10,000 instruments at the costs you were then experiencing, wouldn't you have been bankrupt?

Mr. FRANK. Mr. Lally, for the fourth time, I would like to make a statement:

At the time that we had our contract canceled, we only had 1,500 additional instruments to deliver—not 8,000 or 10,000.

The Government had already terminated somewhere around 4,000 of our instruments, and the only outstanding amount of instruments we had to deliver was approximately 1,500 more units to meet our requirement of our entire contract.

Mr. LALLY. Could you have afforded to deliver those instruments at the costs you were then experiencing?

Mr. FRANK. Under normal inspection procedures, yes; we would have.

We would have taken a loss, but I'm very happy to say, Mr. Lally, that ours is one of the few companies in the country that has made money in the instrument field consistently every year except one year since our existence. And that was in 1970.

Mr. LALLY. On page 11, of your statement, you stated that the 19–A contract specifications detailed performance requirements rather than design requirements. Now, are the performance requirements of the specification contained in part III of the specification?

Mr. FRANK. Mr. Lally, I could read the spec, if you showed it to me. But there are performance specs throughout the entire contract.

Mr. LALLY. Part IV of the specification is captioned quality assurance program. Is that the test specification of the program?

Mr. FRANK. In all probability, that is the test requirement; that is right.

Mr. LALLY. Isn't it a fact, Mr. Frank, that Aerosonic, in designing the instrument, designed it to satisfy the part IV test requirements rather than the performance requirements in part III of the specifications?

Mr. FRANK. No, sir, we designed the unit and bid on it, based on what the Government wished. And you cannot read into performance requirements, requirements of testing and tolerances that do not exist. If an instrument is supposed to withstand temperatures of minus 65 degrees below zero, without failure, and they don't give you any tolerances whatsoever, and just make that statement, you cannot very well put that instrument in at minus 65 degrees below zero, read it, and then say the instrument does not meet the requirement. This is not possible, Mr. Lally, because there is no requirement other than it be operable at 65 degrees below zero.

Now, the performance requirements that we are talking about do make such statements, but the requirements that you are to test to, and the requirements that you are to meet by testing to assure that you have met the design requirements of the contract, are specified, and that is what you bid on.

Mr. LALLY. Wasn't that why the Air Force continued to insist on additional testing requirements, because the instrument was not satisfying the performance requirements?

Mr. FRANK. No, sir. That is not so.

There were no requirements in the performance requirements for any test requirements specification. And the Government tested them to those, set up their own arbitrary specifications, and said the instrument didn't meet those requirements.

There are no performance requirements for an instrument at −65°. And the Government comes along, puts it in there—I'm just giving you an instance—puts it in the cold box at −65°, reads the instrument, and said it failed.

They said, "Didn't you see the spec; the spec says it has to operate at 65° below zero." We said, "We know; it does operate at 65° below zero; there is no question." But where do you put in the fact it has to be within 10 feet at 65° below zero, or 500 feet?

So there were no basic test requirements, and they just arbitrarily set up basic test requirements in a performance part of the contract where there was none existing.

Mr. LALLY. You stated yesterday that the numerous changes effected by the Government in the specification made the altimeter design marginal. Do you recall that testimony?

Mr. FRANK. Yes, sir.

Mr. LALLY. Aren't you responsible for the end product regardless of the changes in the specifications, whether they are verbal or written, once you agree to those changes?

Mr. FRANK. If you agree to the changes, yes. If you don't agree to the changes, and are forced to make the changes without contractual requirement, I don't believe we are.

Mr. Lally, I would like to point out again, if I may, before the committee, that at the same time that the Government was asking us to make these changes, the production people in the Government were asking for instruments.

And it was an impossibility for anybody to stand and make design changes, reinstitute new parts, go through new requirements, and at the same time try to deliver this hardware to the U.S. Government.

So we had two people. The engineers who were trying to perfect an R. & D. instrument, as far as I was concerned, and the Government on the other side, saying, "When are we going to get these instruments to put in holes; and if we don't get the instruments, we are going to assess you damages of $4 a day," which amounts to some fantastic amount. "We are going to default the contract. We are going to do this and we are going to do that."

The CHAIRMAN. Members of the committee, I have to go down to Pentagon now. Mr. Stratton, will you take the Chair?

Mr. STRATTON. Yes, Mr. Chairman.

Thank you, Mr. Lally.

Let me see if I can pick up the questioning here on some points that possibly may have been responded to before.

First of all, Mr. Frank, you commented in response to Mr. Lally's question that at the same time some people were telling you that your equipment was not meeting the specifications, other people were demanding instruments.

Who were these people that were demanding these instruments?

Mr. FRANK. First of all, Congressman Stratton, I don't think I ever said to Mr. Lally—if I misinterpreted it—that we were not meeting the specifications.

I was saying that the engineering department was requesting changes that we did not think was part of the requirement.

Mr. STRATTON. You just concluded a discussion in which you were faulting the Government for having established requirements which you said had no reasonable basis, and then told you you weren't meeting those requirements.

My question is, who was it that was asking for instruments?

Who wanted this AAU–19 regardless of all the problems that beset it?

Mr. FRANK. Mr. Fred Wood's division.

Mr. STRATTON. Mr. Fred Wood's division?

Mr. FRANK. That is right.

Mr. STRATTON. What division is that?

Mr. FRANK. He is the contracting officer, I believe, of the SPO.

Mr. STRATTON. Is he the project officer?

Mr. FRANK. I assume he is the contracting officer.

Mr. STRATTON. In what way was he demanding them, Mr. Frank? Was he calling you up and telling you he wanted some more?

Mr. FRANK. Yes, sir, continuously.

Mr. STRATTON. Do you have anything in writing to that effect?

Mr. FRANK. We have some letters threatening default because we were not making progress on the contract.

I have had many, many numerous meetings with Mr. Wood on the subject.

Mr. STRATTON. You mean this was a question of default in terms of producing the material on its particular date; is that what you are talking about?

Mr. FRANK. No, sir, Congressman. I am talking about the fact from the start of the program, the SPO office, I think that is the best terminology I can use—was continually asking us to continually update our production so that they could get AAU–19's into the line.

Mr. STRATTON. That is because your production was not up to the required speed in the contract; is that not so?

Mr. FRANK. That is correct. And the reason for that was because the engineers were continually asking for changes, and as each change——

Mr. STRATTON. It was not because anybody out in the field really wanted these instruments; it was just a case of the contracting—the project officer—having a particular tempo that was part of the contract and you weren't keeping up with the tempo?

Mr. FRANK. That is not so, Congressman. There was obviously a need for the instruments in the field.

Mr. STRATTON. How do you know that?

Mr. FRANK. Because we were requested by the SPO Office to supplement the 19A's with a substitute 7A because there weren't any 19A's to put in instrument panels, and we therefore volunteered to give to the Government 800 7A's, so that the holes in instrument panels would be filled.

The end result, Congressman, was the fact that the Government said that they would return the 7A's to us; and after they received them all, they kept them, and we sustained a loss of approximately $180,000.

Mr. STRATTON. You said at the beginning of your testimony, Mr. Frank, that this contract was a disaster—disaster for you, a disaster for the Air Force. That probably is a pretty good description.

As I understand it, you produced, or have produced in toto, about what—2,400 or 2,500 of these altimeters?

Mr. FRANK. Yes, sir.

Mr. STRATTON. About 2,000 of them are sitting in warehouses unable to be used because they don't measure up; is that correct?

Mr. FRANK. That is what the Air Force says; yes, sir.

Mr. STRATTON. So that is something of a disaster; isn't it, that such a substantial proportion of the production simply doesn't measure up and, therefore, cannot be used?

Mr. FRANK. I disagree with that. But that is a matter of personal opinion between my interpretation of use and the Air Force's interpretation of use.

Mr. STRATTON. The user says it doesn't measure up; you don't disagree with that; do you?

Mr. FRANK. The user says it doesn't measure up to the requirements they ask. But the instruments we have seen tested would measure up to the receiving inspections necessary to place these instruments in aircraft.

Mr. STRATTON. As I understand it, there is an instrument that does measure up, which is the Kollsman instrument. And that is in use?

Mr. FRANK. Yes, sir.

Mr. STRATTON. So there must be some difference between your production and the Kollsman production?

Mr. FRANK. Oh, I think there is a difference between our production and the Kollsman production.

Mr. STRATTON. That I think is what this committee is looking into.

I found your statement very interesting, Mr. Frank, because it contrasts very strongly with what we had expected to see when you walked into the room on the basis of previous testimony.

The thing that has intrigued me throughout this hearing has been the fact that you were an individual who somehow, a kind of terrible-tempered Mr. Bang, or something or other, who was able to terrify generals, able to terrify quality control officers. Commander Curtin, long-time commander in the U.S. Navy, testified here under oath that he was terrified by you when you objected to the performance of the quality control standards. And as you have already indicated, you threatened on a number of occasions to terminate the contract, and apparently this all struck home, because we have colonels, generals, commanders, all writing in, saying, "Oh, don't do that; Mr. Frank is going to terminate the contract."

And yet the statement that you make presents a very mild individual who is harassed by all of these changing requirements and doing his best as a small businessman to try to produce, to keep body and soul together.

How do you account for your ability to have so much impact on these officers that you had?

Mr. FRANK. I don't believe I have any more impact, Congressman, on anybody, than anybody else.

Mr. STRATTON. Well, you threatened to terminate the contract, and Mr. Blickenstaff was thrown to the wolves; how do you account for that?

Mr. FRANK. Congressman, in doing business on aircraft instruments, which in itself is a very, very technical type of business, a lot of judgment has to be used, and certainly, a lot of experience is needed; and you are presented with an individual quality control representative who has never seen an instrument in his life, and he has now got the authority to run your plant for you. And I personally do not believe he knew what he was doing; he then——

Mr. STRATTON. Let me explore that.

Mr. FRANK. May I finish, or am I not allowed to finish?

Mr. STRATTON. Let me explore that in some detail.

Mr. FRANK. All right.

Mr. STRATTON. I want to know how you account for your ability to apparently frighten the top inspection officer.

Mr. FRANK. Congressman, I don't want to get into that. You wouldn't even let me finish my sentence.

I was talking about Mr. Blickenstaff.

Mr. STRATTON. How do you account for your ability; that is what I am talking about?

Mr. FRANK. When somebody gives you instructions that are not in accordance with the contract, and are strictly contrary to the rules and regulations of what that man can do, then certainly you have a right to say something to somebody. And I said it once, and he was corrected. After he was corrected once, he turned around and did it a second time.

And the second——

Mr. STRATTON. All right. I want to explore this in some detail later on, Mr. Frank.

You also threatened to default the contract when the Air Force refused to waive First Article inspection; First Article requirement.

How do you account for that? That was a lieutenant general, I think, that was involved there who was apparently terrified.

Mr. FRANK. I don't think, Congressman, there is anybody who can terrify a lieutenant general.

Mr. STRATTON. He looked pretty terrified when he testified on that point.

Mr. FRANK. But he was testifying in front of your committee, not in front of me.

Mr. STRATTON. He wasn't terrified by us, I am sure.

Mr. FRANK. I can only say, Congressman, that the U.S. Government, for 4 years, had been buying the 19–A, had been supposedly using the 19–A, and had never given us First Article approval.

When the final essence came to the fact it was moving out of that jurisdiction, we had to come to a conclusion that we were either going to get First Article approval or we wanted termination. We wanted a decision.

For 4 years we had not been given a decision, and we had come to the conclusion that we deserved a decision.

Mr. STRATTON. How do you account for the fact that your threat to terminate the contract would have such a terrible impact on the Air Force?

Mr. FRANK. I can only give you a supposition that the Air Force needed 19A's at that time.

Mr. STRATTON. How could they need 19A's if the whole record of this is as Mr. Pike recited it to you yesterday. In 1971, which is when these events took place, when you succeeded in getting the Air Force to waive First Article inspection, when you were able to succeed in discharging Mr. Blickenstaff, you testified that you were already aware of the complaints against this instrument; you were aware of the fact that the Navy had rejected it; you were aware of the fact that Hughes Aircraft—Hayes—was it?

Mr. LALLY. Hayes.

Mr. STRATTON. Hayes had had difficulties with it.

Why was this such a hot item that anybody cared whether you continued your production or not?

Mr. FRANK. I can only suppose what the general and his staff thought. I cannot put myself in the place of the general.

I only had 4 years of work with the instrument, Congressman—

Mr. STRATTON. I am not asking you to guess what was in the general's mind.

What can you tell me about yourself that somehow had this impact?

Mr. FRANK. I can't tell you anything about myself, except that we were producing the 19A altimeter under contract with the U.S. Government.

Mr. STRATTON. Did you have any friends in the Air Force that you felt that you could rely on?

Mr. FRANK. No, sir, not one whatsoever.

Mr. STRATTON. Did you have anybody in the Congress that you thought might be able to back you up?

Mr. FRANK. No, sir.

Mr. STRATTON. Let me go back to Mr. Blickenstaff's situation:

You have had a good many Government contracts; haven't you?

Mr. FRANK. Approximately 388.

Mr. STRATTON. And you are aware of the fact that a part of a Government contract involves Government inspection of the quality of the product?

Mr. FRANK. Yes, sir.

Mr. STRATTON. At the time it is produced?

Mr. FRANK. Yes, sir.

Mr. STRATTON. Do you think that is an unreasonable requirement?

Mr. FRANK. No, sir.

Mr. STRATTON. Do you think it is reasonable for the taxpayer to expect somebody should be there to see that a quality product is being produced?

Mr. FRANK. I don't think there is anything wrong with that assumption, sir.

Mr. STRATTON. Would you assume if some manufacturer objected to inspection, that this would be something that ought to be regarded as in the public interest?

Mr. FRANK. It would depend on what the objection was about, Congressman.

Mr. STRATTON. Just the idea of inspection.

If some manufacturer said, "Look, I want to produce my product, I don't want anybody looking over my shoulder, I don't want any inspection." Would you think that was a reasonable position to take?

Mr. FRANK. There are such contracts given by the U.S. Government; yes, sir.

Mr. STRATTON. Would you think that was a reasonable proposal?

Mr. FRANK. If the U.S. Government, in many instances, accepts that type of contract, yes, I would think it was reasonable.

Mr. STRATTON. I'm not talking about the U.S. Government. You said you thought it was reasonable to have inspection on a Government contract; didn't you?

Mr. FRANK. Yes, sir.

Mr. STRATTON. All right. Then if a contractor says: "I don't want any inspection and I want to produce my contract the way I damned please," would you consider that a reasonable attitude, one that the taxpayers ought to support?

Mr. FRANK. No, sir, I would think if the terms of the contract were such that the inspection had to take place, and he refused, the contract would normally have to be terminated.

Mr. STRATTON. Mr. Blickenstaff, when he undertook certain inspection procedures in your plant, testified that he was disturbed by the shop conditions. There was dirt, clutter, mixed parts.

He examined a number of unsatisfactory reports coming in from the field over a period of several months; examined defective instruments; found a large number were chargeable to the contractor. And he concluded that in that situation, somewhat closer inspection of the manufacturing process going on in your plant was necessary.

Are you familiar with that situation?

Mr. FRANK. Partially; yes, sir.

Mr. STRATTON. That is not an unreasonable conclusion for him to come to; is it?

Mr. FRANK. If the conclusion is correct; no, sir, it is not.

Mr. STRATTON. Well, do you dispute the conclusion that there were a large number of defective instruments, dirt, mixed parts, et cetera?

Mr. FRANK. Yes, sir, I do.

Mr. STRATTON. You do?

Mr. FRANK. I can bear it out if you would like me to, Congressman.

Each year, or every 6 months, depending on what period of time you want, the U.S. Air Force sends in a totally independent team to review quality procedures in a plant. They come in unannounced, at any time they wish.

Mr. STRATTON. Well, let's take that up a little later.

You've got somebody in here——

Mr. FRANK. In other words, Congressman, I can't even finish my statement?

Mr. STRATTON. I want you to answer my questions, Mr. Frank.

Mr. FRANK. You asked me a question and I tried to answer.

Mr. STRATTON. If you want to add any material later on, that is okay.

I would like to get answers to specific questions.

Mr. FRANK. Yes, sir.

Mr. STRATTON. You've got an inspector in your plant who concludes certain things on the basis of deficiency reports on the instruments that you produced. He concludes that closer inspection is necessary. And you just testified that you thought that was probably a reasonable conclusion to come to.

Mr. FRANK. If it was his conclusion, it was not our conclusion. I think I also stated that.

Mr. STRATTON. Well, if the Government is undertaking inspection, who is supposed to control that inspection, the contractor or the inspector?

Mr. FRANK. The Government inspector has his job of inspection. The contractor has his job of inspection.

Mr. STRATTON. That is right. This is an adversary proceeding; is it not?

Mr. FRANK. The Government inspects in accordance with the specification and the contractor inspects in accordance with the specification.

Mr. STRATTON. It is an adversary proceeding; isn't it, basically?

Mr. FRANK. You will have to explain more fully.

Mr. STRATTON. The inspection is carried out because the Government wants to make sure that the contractor is doing the proper job, and they are conscious enough of human frailty to assure that if

there isn't an inspector there, maybe the contractor won't do such a good job. So the inspector is riding herd on the contractor.

It is essentially an adversary proceeding; isn't it?

Mr. FRANK. No, sir.

Mr. STRATTON. The contractor is not in charge of his own inspection; is he?

Mr. FRANK. The contractor is in charge of his own inspection.

Mr. STRATTON. He is not in charge of it?

Mr. FRANK. Yes, he is in charge of his own inspection.

Mr. STRATTON. The inspection is in the charge of the Government, isn't it?

You are in charge of the production.

Mr. FRANK. You are wrong, Congressman.

The quality control of the Aerosonic Corp. controls the quality of the instrument going out of the plant.

Mr. STRATTON. And the inspection is to determine whether the product produced by the plant meets the quality control standards set by the Government; isn't that correct?

Mr. FRANK. The Government personnel verify that the quality control representatives of the Aerosonic Corp. are doing their job properly.

Mr. STRATTON. They determine whether the end product produced by the Aerosonic Corp. meets the requirements of quality control; isn't that correct?

Mr. FRANK. They determine that the quality control representatives of Aerosonic are doing their job.

Mr. STRATTON. Are you trying to joust here on the meaning of words?

Mr. FRANK. Congressman, I'm not in any way trying to joust with you, sir.

Mr. STRATTON. The inspecting officer is not an employee of the Aerosonic Corp., is he?

Mr. FRANK. No, sir.

Mr. STRATTON. His job is to determine whether you are doing your job; isn't that right?

Mr. FRANK. Yes, sir.

Mr. STRATTON. All right.

His standards are controlled by the Government and not by you?

Mr. FRANK. That is correct.

Mr. STRATTON. All right.

So you have a kind of adversary proceeding there.

He is a cop who is trying to see whether you are obeying the law; isn't that correct?

Mr. FRANK. He is told to supervise our quality control, and our quality control is set forth by the Government. We must follow the regulations that the Government sets forth by manual.

Mr. STRATTON. And the way that is tested is whether the products you turn out meet the proper requirements; that is what he is there for?

Mr. FRANK. Yes, sir.

Mr. STRATTON. All right.

One of the things that Mr. Blickenstaff and people working with him found was that there were some nonconforming materials in the AAU–19 work area.

And Mr. Lolley, who was your quality control director, was your employee—he was on your side, wasn't he?

Mr. FRANK. He represents us in quality control.

Mr. STRATTON. That is right. He said Mr. Frank had authorized use of these materials as a test. Do you agree to that?

Mr. FRANK. What parts are you talking about there, sir?

Mr. STRATTON. The nonconforming materials that Mr. Ickes found in the AAU–19 work area.

Mr. FRANK. Congressman, you weren't here yesterday, and I don't want to belabor the subject, but Congressman Pike went into detail. I have the parts here. If you would like to go over them again, I would be happy to.

Mr. STRATTON. I don't want to go over it, I want you to answer the question; that is all.

Had you authorized the use of nonconforming materials in that area?

Mr. FRANK. No, sir.

Mr. STRATTON. You had not?

Mr. FRANK. No. I had asked the engineering department to assemble some of these units so that they could be tested, to be sure that they comply with the requirements of the specification, and if they did, we would then go back to the U.S. Government and ask them for an engineering change proposal.

Mr. STRATTON. Apparently, Mr. Lolley wasn't aware of that because he agreed the parts were being used without proper authorization, and they were removed. This was in February of 1971.

Now, Mr. Frank, in view of all of those developments, is it unreasonable that the inspector, the Government inspector, would want to tighten up inspection procedures in your plant?

Mr. FRANK. If he wished to tighten up inspection procedures?

Mr. STRATTON. Is it not unreasonable he would want to tighten up inspection procedures in your plant?

Mr. FRANK. If what he came across was giving the outside facilities problems, I would say he had a right to tighten up the contractual requirements of our contract.

Mr. STRATTON. You say he had a right to tighten up the inspection requirements if he got unsatisfactory reports involving the examination of defective instruments over a period of several months that were found chargeable to the contractor, if he found that the shop conditions were poor, and if he found that even the Aerosonic control director, Mr. Lolley, agreed that certain parts in the area were nonconforming, were being used without proper authorization, and were removed? Then he was sound in requesting tighter inspection requirements?

Mr. FRANK. No, sir.

He would only be entitled to tighter inspection processes if it could be shown that the amount of reject material was beyond a certain acceptable amount of reject which we are permitted.

Mr. STRATTON. That is your opinion. He had responsibility to the Government, and your testimony is that you don't agree?

Mr. FRANK. I agree with you; I do not agree, and neither did the supervision of Mr. Blickenstaff agree.

Mr. STRATTON. Well, that is what we are coming to next, yes.

Mr. Blickenstaff testified before the committee, when he testified that there was "no documentation with the parts—these are the non-conforming parts that I'm talking about—identifying them as being inspected, accepted, or rejected at the time I found them."

If that were the case, that would be unacceptable; would it not, Mr. Frank?

Mr. FRANK. Yes, sir. The parts were experimental, were being assembled by the proper assembly authority in the assembly area, so that they could be tested to see if they complied with the requirements of the specification. If we failed to mark them——

Mr. STRATTON. That is your testimony now?

Mr. FRANK. It has always been my testimony.

Mr. STRATTON. When did you so testify?

Mr. FRANK. Yesterday, to Congressman Pike.

Mr. STRATTON. Yes; that is your testimony before this committee. When did you even take that position prior to this time?

Mr. FRANK. I never had to take a position, other than writing memorandums if they came to my attention in the plant.

Mr. STRATTON. Well, now, Mr. Blickenstaff, on March 10, of 1971, issued instructions that before the start of all final functional tests, on several devices, he should be notified. And you took exception to that.

Mr. FRANK. Yes, sir.

Mr. STRATTON. Why did you take exception to that?

Mr. FRANK. Because he was imposing an inspection requirement that was not consistent with the requirements of the Government's ruling on how you would inspect instruments.

Mr. STRATTON. How were you so knowledgeable about what the rules of the Government inspecting instruments were?

Mr. FRANK. As I have been working with the Government since 1950, on the same similar type instrumentation.

Mr. STRATTON. I thought you testified yesterday, it was unreasonable, it was going to take too much time?

Mr. FRANK. We are talking about Mr. Blickenstaff's statement that we inspect instruments——

Mr. STRATTON. We are talking about Mr. Blickenstaff's memorandum, that in view of the defective instruments that you were turning out, in view of the sloppy condition of the plant, in view of the non-conforming materials in the area, that in the future, before you conducted any test, he was to be notified. Now, what is wrong with that?

Mr. FRANK. The Air Force has full run of the plant at any time they wish.

Mr. STRATTON. You didn't give him full run of the plant at any time he wished.

Mr. FRANK. Mr. Blickenstaff or any quality control represenative has full run of the plant.

Mr. STRATTON. Will you answer the question? What is wrong with his requirement that you should notify him when tests are going to be conducted?

Mr. FRANK. There has to be a reason why a procedure is changed inside the plant.

Mr. Blikenstaff said, according to his testimony that we were getting unsatisfactory reports on instruments.

He never presented——

Mr. STRATTON. In other words, you really wanted to run the inspection procedures, as well as everything else, that is what it boils down to; doesn't it?

Mr. FRANK. The U.S. Government has their set procedures for acceptance testing. We follow those procedures to the letter of the law. There is a manual that describes how it is to be done, and we follow that to the letter of the law.

Mr. STRATTON. You don't run the show; he runs it, and he doesn't answer to you; he answers to somebody else.

And you had to go over his head to his superior and terrify him in order to get him removed; didn't you?

Mr. FRANK. No, I didn't have him removed.

Mr. STRATTON. Oh, yes, you did. You didn't get him removed at first. You went to Commander Curtin, didn't you?

Mr. FRANK. Commander Curtin removed Mr. Blickenstaff.

Mr. STRATTON. And as a result of that, they rescinded the final functional test inspection; didn't they?

Mr. FRANK. Yes, sir.

Mr. STRATTON. But Mr. Blickenstaff stayed?

Mr. FRANK. That is correct.

Mr. STRATTON. But you asked to get him removed; didn't you?

Mr. FRANK. Yes, I requested it.

Mr. STRATTON. Commander Curtin didn't go along?

Mr. FRANK. No, sir.

Mr. STRATTON. That was on March 18; is that right?

Mr. FRANK. Yes, sir; I wrote a letter and asked that Mr. Blickenstaff be removed.

Mr. STRATTON. Finally, on January of 1972, you succeeded in getting him removed?

Mr. FRANK. I believe he was removed in December of 1971, but I won't quibble over a few days, Congressman.

Mr. STRATTON. That was in line with your request, too, was it not?

Mr. FRANK. No, sir; that was the decision of the commander himself.

Mr. STRATTON. Well, that was in response—didn't you have a threat in there to stop production, another one of those threats?

Mr. FRANK. Yes, sir. Would the Congressman like to have an explanation, or can I give an explanation?

Mr. STRATTON. I heard the explanation. I just want to put some of these things together.

Mr. FRANK. You haven't heard my explanation.

Mr. STRATTON. I heard it yesterday.

Mr. FRANK. All right.

Mr. STRATTON. Here we have a plant that is turning out defective instruments; the inspector wants to tighten inspection procedures, and the result is that the contractor goes to his superior, who testified before the committee that he was frightened by your behavior, and after a period of 9 months, the inspector is out of there completely.

Mr. FRANK. I do not agree with the statement that we were making defective instruments.

Our records—and these are records kept by the Air Force, not by us—show that our rejection rate on 150,000 instruments produced for the U.S. Air Force is less than 1 percent. I do not consider that to be a manufacturer making defective instruments.

Mr. STRATTON. We have 2,000 of them in the warehouse that aren't working as I understand it.

I think you just testified in response to Mr. Lally, that when they stopped inspecting, your rejection rate went down very substantially?

Mr. FRANK. I did not testify to that fact. And our rejection rate did not go down substantially.

I explained to Mr. Lally the reason the rejection rate would normally decrease, is because of the proficiency of the people working on the instrument over a time period, when they automatically became more proficient in doing their job.

I also explained to Mr. Lally that we had 100 percent inspection placed on us three times, not twice, as evidently the committee thinks there was.

Mr. STRATTON. You have a letter here to Commander Curtin, in December of 1971, in connection with Mr. Blickenstaff, I assume? [See appendix 14.]

"The U.S. Government, by its unilateral action of denying payment to Aerosonic for work done, illegally placing requirements above and beyond the requirements of contracts, and other similar harassments, have so financially affected our corporation that we can no longer continue our operation under these conditions." * * *

"We are further requesting that the DCAS records and personnel stationed at our plant be removed as soon as possible so that Aerosonic can continue its normal operation."

Your position is that a careful, conscientious inspection is illegal, and you succeeded in convincing Commander Curtin of the fact; is that correct?

Mr. FRANK. That is not true.

I never made that statement.

Mr. STRATTON. Well, you have it right here in the letter.

Mr. FRANK. I made the statement that——

Mr. STRATTON. "Illegally placing requirements above and beyond the requirements of contracts, and other similar harassments."

Mr. FRANK. Did you also read the fact that the Government withheld $150,000 illegally from us unilaterally?

Mr. STRATTON. That is the first sentence.

I'm talking about the "illegally placing requirements above and beyond the requirements of contracts, and other similar harassments."

Mr. FRANK. Would you like me to answer that question, Congressman?

Mr. STRATTON. Yes, go ahead.

Mr. FRANK. As the first part comes, Congressman, U.S. Government withheld $150,000 from us unilaterally without any——

Mr. STRATTON. That is the unilateral action for denying payment to Aerosonic for work done. I'm discussing the second clause there.

Mr. FRANK. I won't discuss it with you, Congressman, because you are reading from a letter. That is one of the points I brought up.

The second point I brought out was that the Government instituted inspection procedures beyond the requirements of the specification.

I think you will read later on the Air Force legal department agreed with that decision.

Now, the reason that we decided we had to shut the plant down is because the Government refused to pay us $150,000 which was owing and coming to us. We are not a big organization. We don't have banks to go to. And this represented payroll and money to pay accounts receivable, or accounts payable. Without that money, we could not continue the operation without having to, in that instance, go into a lot of borrowing of money.

We felt that was the best position to take at that time.

Mr. STRATTON. Is it your testimony that asking the contractor to advise the inspector of when tests are to be conducted is illegal?

Mr. FRANK. It is my contention, Congressman, that the U.S. Government inspectors have the full run of the plant. They can witness any tests they wish to witness.

Mr. STRATTON. Well, then, what was illegal about Mr. Blickenstaff requiring that he be notified when the tests were to take place?

Mr. FRANK. Because I do not believe it was part of my contractual requirement. He was there. He had two, three, or four inspectors at the plant at all times. They could go any place and see anything.

Mr. STRATTON. We had testimony before the committee earlier that prior to the issuance of this directive, that whenever there were any tests conducted, and an inspector happened to be in the plant, the tests were scrubbed.

Mr. FRANK. I don't know of such an incident in the plant, Congressman.

Mr. STRATTON. You don't know of such an incident?

Mr. FRANK. No. I think you are referring to the fact that at some times we attempted to make up time on a night shift.

Mr. STRATTON. This is what was going on; that is why Mr. Blickenstaff wanted to be notified when the tests were going on. You know what happened apparently. But whenever an inspector happened to be around they decided they wouldn't conduct the tests.

Mr. FRANK. I think that is a very untrue statement to make.

Mr. STRATTON. We had sworn testimony to that effect. You are disputing it?

Mr. FRANK. I'm disputing in the testimony the fact that we scrub tests when the Government inspectors were around. The only time I know of instances is during the night shift when we asked Government personnel to come in to see a test, and then we were unable to conduct that test.

Mr. STRATTON. Well, now, you said you didn't know anything about it at first. Then secondly, you said you disputed it. And now you just admitted it.

Mr. FRANK. I have not admitted anything that I have just not stated, Mr. Congressman.

Mr. STRATTON. You have just said that you had a situation in which you asked Government inspectors to come in for a test in the evening, and then the test wasn't run.

Mr. FRANK. That is correct.

Mr. STRATTON. Well, that amounts to scrubbing the test, doesn't it?

Mr. FRANK. Yes, sir. Obviously the test was not then run without the Government witnessing the test.

Mr. STRATTON. That is why Mr. Blickenstaff wanted to be notified when the tests were going to be run, because they couldn't count on the tests being run when they were told they were going to be run.

Mr. FRANK. The U.S. Air Force quality control representatives have full run of the entire plant. They can go any place they wish and witness any tests they wish at any time.

Mr. STRATTON. As a matter of fact, you ordered Mr. Blickenstaff off the premises on a particular date; I have forgotten what the exact date was. You wouldn't deny that, would you?

Mr. FRANK. If that is the letter where we asked the entire Air Force personnel to leave, because we were not going to do any more business because we had no more money. The Government had refused to pay us, yes, I remember that letter.

Mr. STRATTON. That was another one of those threats that you used to get the attention of the people in Washington?

Mr. FRANK. Not Washington, just DCAS, sir.

Mr. STRATTON. "Therefore, you and your quality control representatives will not be needed or admitted on the premises after 4:30 p.m. today until further notice." That is dated March 10, 1971. (See appendix 11.)

Mr. FRANK. That is correct.

Mr. STRATTON. So they didn't have the run of the plant at that time, did they?

Mr. FRANK. They always have had the run of the plant.

Mr. STRATTON. They didn't have the run of the plant at that time, did they?

Mr. FRANK. They had the run of the plant until we told them we were no longer——

Mr. STRATTON. Until you told them they didn't have it.

Mr. FRANK. Congressman, I'm not going to battle words with you. I'm just saying I wrote the letter. The letter stands for itself. And up until the time they received that letter, they had the run of the plant.

Mr. STRATTON. They had the run of the plant as long as they conducted the tests the way you wanted them to, and when they didn't, they didn't have the run of the plant; that is the way it happened, isn't it?

Mr. FRANK. No, sir, that is not the way it happened.

Mr. STRATTON. They don't have the run of the plant when you tell them to get out by 4:30; they didn't have the run of the plant then.

Mr. FRANK. At that point of time that is exactly right. When we told them to get out, they did not have the run of the plant from 4:30 on.

Mr. STRATTON. The reason you told them to get out was because they weren't conducting the inspections the way you wanted them to be conducted, isn't that true?

Mr. FRANK. No, sir, they were asking for legal requirements and the Air Force attorney said the requirements or requests were not a part of the contractual obligation. And they rescinded the orders of Mr. Blickenstaff.

Mr. STRATTON. You have had a good deal of persuasiveness, as I have already indicated.

Let me go to another subject which has intrigued me a little bit.

You say, on page 40 of your statement, that Mr. Blickenstaff—you are referring to your demand that "Mr. Blickenstaff be removed as

chief inspector from my plant. I believe you should be aware that he was removed only after he violated his superiors' instructions to stop imposing sampling plan inspections."

Those sampling plan inspections were not being imposed by him. He was directed to impose them by his superiors, was he not?

Mr. FRANK. No, sir. He was not.

Mr. STRATTON. We had testimony here that the sampling plan was developed by Commander Curtin, and by others, and was given to Mr. Blickenstaff to carry out. It wasn't his plan.

Mr. FRANK. Congressman, which plan are you talking about now?

Mr. STRATTON. I'm talking about the sampling plan that you refer to on page 40 of your statement—the one that was implemented on November 12, and the one which I think you referred to a moment ago as having been illegal, improper, immoral, et cetera.

Mr. FRANK. I recall when Mr. Blickenstaff imposed that plan, I wrote to the U.S. Government, and I would like to quote the quotation——

Mr. STRATTON. I'm not interested in the quotation, I'm interested in the fact that we have testimony that that plan was not "imposed" by Mr. Blickenstaff. It was developed by his superiors, and as a subordinate, when he put it into effect, he was carrying out their instructions.

Mr. FRANK. That is correct.

Mr. STRATTON. Are you aware of that or not?

Mr. FRANK. I am not aware of it, but we had no objection to it.

Mr. STRATTON. You had no objection to what?

Mr. FRANK. To that sampling plan, sir.

Mr. STRATTON. You had no objection to it?

Mr. FRANK. No, sir.

Mr. STRATTON. You claimed it was illegal, did you not?

Mr. FRANK. I did not.

Mr. STRATTON. You claimed——

Mr. FRANK. If you would let me read a letter——

Mr. STRATTON [continuing]. You claimed that it involved costs, and that was the basis of your contention.

Let me read to you here the testimony that I'm referring to. This is Commander Curtin's testimony:

> Also included in this letter was a commitment to reevaluate our quality control procedures for the 19. It was as a direct result of that commitment that a sampling inspection plan was drawn up and levied on the contractor in November, 1971. That plan was not the product of Mr. Blickenstaff nor Mr. Tabor. It represented the combined efforts of many expert Quality Assurance personnel, but especially those with specialized training in the preparation and execution of sampling plans.

I wanted to correct your statement on page 40 that this plan was Mr. Blickenstaff's imposition.

Mr. FRANK. I would like to read a letter into the record if I may. By letter I advised DCAS of Mr. Blickenstaff's proposed sampling plan, and stated, and I quote in the letter: "This is to advise you that Aerosonic Corp. has absolutely no objection to fulfill the obligations of the specific memorandum provided that we receive a CCN, contract change notice, to include this requirement in the contract for the AAU-27/A and the 19/A. And that an increase in costs and a change in delivery schedule will be included in the CCN to cover this new requirement."

Mr. STRATTON. I am familiar with that, and we have that in our file.

Mr. FRANK. Thank you for permitting me to read it, sir.

Mr. STRATTON. You say you approved of this plan, yet your statement says that Mr. Blickenstaff was removed only after he violated his superior's instructions to stop imposing the plan.

Mr. FRANK. Congressman Stratton, in all deference to you, I think you are thinking of a third plan that he instituted above the objections of everybody, and it is not this one.

Mr. STRATTON. I'm reading from your statement, Mr. Frank.

"I believe you should be aware that he was removed only after he violated his superior's instructions to stop imposing sampling plan inspections."

Now what plan are you talking about?

Mr. FRANK. All right.

Mr. STRATTON. I thought you were talking about the one that you just alluded to in your letter.

Mr. FRANK. No, sir; this is another one.

Mr. STRATTON. Oh, this is another one?

Mr. FRANK. Yes, sir. Would you please give me 3 minutes to explain to you?

Mr. STRATTON. I gave you time to read the letter; now you tell me it was another one.

Mr. FRANK. You referred to that one. And I said I had absolutely no objection——

Mr. STRATTON. I'm not referring to it, I'm quoting your statement. It is your statement. I'm trying to find out what your statement means.

Mr. FRANK [continuing]. Mr. Congressman, after the Government ruled that the plans that Mr. Blickenstaff, or his staff, or whoever you say, thought this up, was ruled illegal, the Government offered to do two things: repay us the $150,000, and eliminate that sampling plan. We were advised by Commander Curtin that no additional sampling plans would be initiated in our plant without his approval.

There was a big meeting. We had at least three or four colonels at the meeting from Atlanta, and all over. We sat down. We had contracting officers from Wright-Patterson Air Force Base at that meeting, Mr. Congressman. And the next day, it was after everything had been decided, Mr. Blickenstaff walks in with another sampling plan.

I called up Mr. Mahaun, told Mr. Mahaun who was my ACO at the time. He told me he didn't believe this. It couldn't be. I read the document to him. And the next afternoon Mr. Blickenstaff rescinded his earlier memorandum, and the next day I received a letter back from Commander Curtin.

Now, in all fairness to you, I am sure there is a lot of information in front of you that you are reading, and I just want you to understand that it was the second sampling plan that Mr. Blickenstaff had offered after everybody had agreed that there would be no more sampling plans unless initiated by my contracting officer.

Mr. STRATTON. I'm reading your statement on page 40, and what you have said is what you have in that statement.

I think what you are talking about is probably the same old sampling plan. However, here is the conflicting testimony we have from Commander Curtin.

At the same time—

This is in the December 1971 time frame—

or approximately so, Mr. Frank again demanded the removal of Mr. Blickenstaff and gave me notice that the entire operation would be closed down. As I recall I did two things. First, I talked to Mr. Frank and he remained adamant in his position. Second, I phoned my boss, Captain Lipscomb, in Atlanta. He was not present and I discussed the situation with Mr. Patterson, his chief deputy. Mr. Patterson then called Mr. Frank directly and then he, Patterson, returned a call to me. The gist of his message was that Mr. Frank would not close down, but that he, Patterson, was sending down a team to investigate the situation and allegations of Mr. Frank.

During these subsequent meetings, Mr. Frank persisted in the demand for the removal of Blickenstaff. Subsequently, after conferring with Lieutenant Colonel Brown, quality, from Atlanta representing Captain Lipscomb and Mr. Guida from the district, and Major Fringer, I did elect to remove Mr. Blickenstaff. It was obvious that the Government would not tolerate the cessation of activities by the contractor. Therefore, as objectionable as it might have been to me, personally, I made the decision to remove Mr. Blickenstaff.

That is all the same. It is all the same plan. He makes no mention of any other sampling plan. But I want to try to find that testimony, too—about how he was intimidated. He didn't want to remove him, but you demanded it, and finally he had to give in.

And here is what Commander Curtin says:

"Listening to all this testimony"—this is Mr. Hunt questioning.

"Listening to all this testimony, at the time all these instances were occurring, did you form an opinion that the product being produced by Aerosonic was of an inferior quality but that due to the attitude of Mr. Frank, the Government was condoning the continued purchase of them? In other words, I'm asking you the direct question, Were you intimidated by Mr. Frank?

"Commander CURTIN. Me, personally, Government, Air Force?

"Mr. HUNT. All the Government employees?

"Commander CURTIN. Absolutely; yes, sir.

"Mr. HUNT. That is all.

"Mr. STRATTON. What was the answer to the question?

"Commander CURTIN. Yes, sir, absolutely.

"Mr. STRATTON. You were intimidated?

"Commander CURTIN. Yes, sir; I felt not only in that instance but——

"Mr. STRATTON. How were you intimidated?

"Commander CURTIN [continuing]. I think these threats to close down were just that—threats.

"Mr. STRATTON. Why should you be intimidated by his closing down? Was this going to look bad on your record?

"Commander CURTIN. No, sir; it wouldn't have affected my record one way or the other.

"Mr. STRATTON. Then why were you intimidated? You are the representative of the U.S. Government, aren't you?

"Commander CURTIN. Yes, sir.

"Mr. STRATTON. This guy is a contractor working for the Government, being paid for by the taxpayers.

"Commander CURTIN. Yes.

"Mr. STRATTON. He comes in and pounds on the table and you get scared?

"Commander CURTIN. No, he came in and pounded on the table. We took an action which we——

"Mr. STRATTON. Why should you get scared if he pounds on the table?

"Commander CURTIN [continuing]. Excuse me, I didn't say I got scared.

"Mr. STRATTON. That is what 'intimidated' means."

So that is what we are talking about here with regard to Mr. Blickenstaff.

And the commander, as he, himself, indicated wasn't very happy about it, but somehow, somebody wanted this contract to go on.

Mr. FRANK. Congressman, may I correct your impression?

Mr. STRATTON. Well, we would be glad to have your comments on the record, Mr. Frank; yes.

Mr. FRANK. You keep on mentioning the fact that it is the same old sampling plan.

I want to disagree with you, if I may, and say that the meeting that took place prior to the 10th was the discussion concerning the sampling plan that Mr. Blickenstaff did give us.

Commander Curtin called up and said there would be no further sampling plans or anything else imposed without formal contract change.

Now, I would like to read for the record the next sampling plan that Mr. Blickenstaff offered to me on the 9th of December. It is tab No. 22, Mr. Lally. (See appendix 25.)

Would you like me to read it, where we elect to apply the "Responsibility for Inspection" clause cited in the inspection clause:

It is requested that the Aerosonic Corporation provide the necessary facilities to perform tests outlined under the quality assurance provision of the product specification. Government Quality Assurance personnel will perform the inspections set forth in the specification——

Mr. STRATTON. We are not reading the same thing.

Mr. LALLY. What number did you say, Mr. Frank?

Mr. FRANK. I'm sorry. I am sorry, I am on 20, I apologize.

It is dated the 9th of December.

Mr. LALLY. Over the typed E. F. Blickenstaff name?

Mr. FRANK. To Mr. H. J. Frank, subject: Sampling inspection.

Mr. LALLY. OK.

Mr. FRANK [reading]. "Government Quality Assurance personnel will perform the inspections set forth in the specification they deem necessary to assure supplies conform to prescribed requirements prior to acceptance.

"Our inspection will be performed independent of Aerosonic testing. You or your personnel may participate or witness our performance of inspection in a manner you consider necessary.

"It is suggested that the test equipment be scheduled to assure minimum interference with normal production activity."

Mr. Blickenstaff was at this point asking us to involve ourselves in purchasing approximately $25,000 worth of equipment so.that his people could run independent tests in a separate area.

That was the reason, Congressman, that that part of the program was beyond the first one, and I think it upset quite a few people, and that was the reason for my adamant position in having asked his removal.

Mr. STRATTON. When did you ask his removal?

Mr. FRANK. At that time. Verbally.

Mr. STRATTON. On the 9th of December?

Mr. FRANK. Verbally; yes, sir.

Mr. STRATTON. Verbally?

Mr. FRANK. Yes, sir—again.

Mr. STRATTON. We have a letter here from Commander Curtin the following day, the 10th of December (see appendix 29) in which he says "My review would in no way lead me to a removal of Mr. Blickenstaff because of unsatisfactory improper job performance. On the

contrary, I have the highest regard for the personal integrity of Mr. Blickenstaff and place every confidence in his professional recommendations and decisions. Nonetheless, it is apparent that Mr. Blickenstaff's assignment to your facility will be a continuing source of irritation to you personally which, in turn, could seriously jeopardize the contractual support of your corporation to the Department of Defense. I believe that this latter fact far outweighs any other consideration."

He doesn't say on the 10th of December there is anything that he considered unsatisfactory or improper in what Mr. Blickenstaff has done.

Mr. FRANK. I believe if he did he would be subjected—he and the DCAS and the Air Force would be subjected to additional liabilities for expenses involved once again.

Needless to say, Congressman, and I'm not putting it any way else, Mr. Blickenstaff was removed.

Mr. STRATTON. You didn't like him, that is for sure.

And it is true that he was trying to get some tougher inspection procedures than had been in operation there prior to his taking over.

Mr. FRANK. I would like to make the statement before the committee that there is no evidence that I did not like Mr. Blickenstaff.

It is just an opinion——

Mr. STRATTON. You didn't like what he was doing, did you?

Mr. FRANK. I believe what he was doing, Congressman, was not in accordance with the contract requirements.

Mr. STRATTON. Well, that isn't what Commander Curtin says in his letter that was just read.

Let me come to another affair. You probably have gone over this before, but I would like to go over it again because to me it is a pretty vital aspect of this whole operation.

Now, on page 57, you discuss the case of the extra manifold, and you say it wasn't a manifold.

What is a manifold, Mr. Frank? Why is this not a manifold?

Mr. FRANK. Well, I have one here, Congressman, if you would like to see it.

A manifold is the way we would describe a manifold, it is a basic long piece of——

Mr. STRATTON. Is this the thing you brought out yesterday?

Mr. FRANK. No, sir, I had two. This is a manifold.

Mr. STRATTON. All right. Let me see the other one, then.

Mr. FRANK. Would you like to see it, I would be only too happy to bring it up and show you.

Mr. STRATTON. No, that is all right.

Why is one a manifold and the other isn't a manifold?

Mr. FRANK. In a manifold, sir, all the air goes into the tube from one source or another, and you can take off of any tube that you wish to get the basic source from this main solid piece. So that if you were to blow in here, you would feel air coming out of any one of these positions. By blowing in this one, you would have the air coming in and out of any position, no matter which one you blew on, you would get air throughout the system.

That is a manifold.

Mr. STRATTON. What is the other thing?

Mr. FRANK. Oh, I'm sorry. This is a direct connection of a line, where if you blow through any one hose, the only air you will get will be coming out on the other side of the hose. And if you blew here you would not get air out of any of these other hoses, only you would get it from blowing here, and the air would come out over here on the opposite side.

Mr. STRATTON. There is no entrance or exit at the end, is that correct?

Mr. FRANK. Not on this one.

Mr. STRATTON. If you blow in one side, where does it come out?

Mr. FRANK. It would come out this side. If I were to blow here—the only place the air would come out would be here. If you blew in here, the air is capable of coming out in any one of the 24 fittings in the manifold.

Mr. STRATTON. All right.

Now, is the item that you are just putting down there, the four-pronged affair, is it your testimony that that is the item that was in the wall at the time the test took place on the 28th of February?

Mr. FRANK. Congressman Stratton, I, of my own personal knowledge, do not know, because I was not present. I only know what my foreman or my person that did the job has testified to under oath.

We have an affidavit to that effect that this is the one, or one of a similar nature was used.

Mr. STRATTON. What affidavit is that you are talking about?

Mr. FRANK. We have an affidavit. I would be only too happy to submit it.

Mr. STRATTON. We would like you to supply that for the record.

Mr. FRANK. I would be only too happy to.

Mr. STRATTON. From whom?

Mr. FRANK. The person who built this device——

Mr. STRATTON. I don't think we can strike the word; we just have the testimony as it appears here.

Mr. FRANK. All right. The device Mr. Ammons installed in the box, and removed from the box upon request of the Government.

Mr. STRATTON. This is a statement by Mr. Ammons, is this what you are talking about?

Mr. FRANK. Yes, sir.

Mr. STRATTON. Under oath?

Mr. FRANK. Under oath, sir.

Mr. STRATTON. Which Mr. Ammons is this?

Mr. FRANK. Thomas Ammons, not Clarence, the one that was here before.

Mr. STRATTON. Is he alive?

Mr. FRANK. Tommy?

Mr. STRATTON. Yes.

Mr. FRANK. Very much so.

Mr. STRATTON. Where does he reside?

Mr. FRANK. Newport, Ark.

Mr. STRATTON. Newport, Ark?

Mr. FRANK. Yes, sir.

Mr. STRATTON. He works for your company?

Mr. FRANK. He works for one of our divisions; yes, sir.

[The following affidavit was subsequently furnished for the record:]

District of Columbia

AFFIDAVIT OF THOMAS LOUIS AMMONS

Thomas Louis Ammons, being duly sworn on oath, deposes and says:

I am presently employed as Maintenance Foreman at the Newport, Arkansas, division of Aerosonic Corporation. From early 1958 to 1 March 1974 I was employed as the Maintenance Foreman at the Clearwater, Florida, facility of Aerosonic Corporation.

I remember being asked by Mr. Al Benmayor while I was at the Clearwater facility to make a device to chill the air forced into altimeters under test at extreme cold. I remember Mr. Benmayor telling me at the time that this device would be used solely as an experiment. I do not remember precisely when this occurred, although it happened several years ago. I built this device in accordance with Mr. Benmayor's instructions and also in accordance with a sketch that he gave me.

The device I built consisted of a piece of hard drawn copper tubing with caps at both ends and 24 pieces of quarter-inch copper tubing driven completely through the two-inch tubing with about two inches sticking out on either side of the two-inch tubing. I soldered the quarter-inch tubing at the points where it entered and exited from the main tube and I also soldered the tube end caps. I also recall that one of the end caps had a piece of copper tubing sticking out so that freon could be injected into the two-inch cylinder in order to chill the air as it passed through the quarter-inch tubes to the altimeters. I would not consider this device to be a manifold, as I take the term "manifold' 'to mean a container in which air pressure is either put in or pulled out. I cannot say what the proper engineering term for this device is but I would consider it to be more of a cold sink or heat sink.

I have examined the device which Mr. Herb Frank found at the Clearwater facility. I cannot say with certainty at this time whether it is or is not the device that I built for Mr. Benmayor, because I did not mark it when I built it. However, this looks very similar to that device and the only difference I can see is that there is no tubing on one of the end caps to permit injection of freon. It is possible that someone could have changed the end cap after I built the device. This would not be a very difficult change to make. Although I built the manifolds that Aerosonic used on the outside of the test boxes, I only remember building one device of the kind I have described.

After examining the device found by Mr. Frank and seeing that it was almost exactly like the one I had built for Mr. Benmayor, I scratched my initials into the side of the copper tubing, together with today's date.

To the best of my recollection, I put this device into the north test box in the final inspection area located just off the assembly area. This is the east inspection room as opposed to the west inspection room. It was placed in the box between the outer and inner walls and a little to the left of the door in the outside wall of the test chamber. I do not recall putting in any plywood panel that could hide it from view. I put two lengths of metal strapping on the device to hold it in place. The metal strapping went around the two caps at the ends of the tube and were held in place with wood screws in the inner structure of the test box. I am certain that I did not attach any hoses to this device to hook it up to the outside manifold or the tubing in the inner wall.

I do not remember anything further about this until sometime later when I saw Mr. Benmayor in his office. Mr. Benmayor told me that the Government inspector was making a lot of fuss about the device and that I should remove it. I went back to the test area to remove the device as Mr. Benmayor had told me. When I got there I saw one of the Government inspectors. I think it was George Seay but it could have been Charles Akins or one of the others. He asked me if there was some kind of device in the box and I said yes, there was. He said to me that it would have to be taken out and I told him that that was what I was there for, to remove it. I then took the device out of the box. I did not disconnect the device as it was not hooked up when I took it out. I do not recall taking out any plywood panel. I cannot be sure now but I think that the Government inspector stayed around until I had taken the device out and then he left. I cannot say exactly how

long the device was in the box but I do not think it was there for more than a week or so because I remember being a little irritated at having to take it out just after I had put it in.

Subscribed and sworn to before me this 9th day of September 1974.

THOMAS LOUIS AMMONS,
RENEE GIER,
Notary Public.

My commission expires: July 31, 1976.

Mr. STRATTON. OK. So you weren't there. You didn't see the operation at all, is that correct?

Mr. FRANK. That is correct, sir.

Mr. STRATTON. And you don't know of your own knowledge what was there at all?

Mr. FRANK. No, sir. I do not know what was there.

Mr. STRATTON. Well, now, we have a memorandum of this incident that was prepared by Mr. Tabor, supervisor of quality control, branch 1.

Do you have a copy of that?

Mr. LALLY. It is in the packet you have in front of you; Mr. Frank. It is No. 36.

Mr. STRATTON. No. 36. Do you know Mr. Tabor?

Mr. FRANK. Very, very slightly sir. Did you say 36, sir?

Mr. LALLY. No. 36, yes, sir.

Mr. STRATTON. This is a memorandum—I don't see any date on it.

Mr. LALLY. There is a date in the upper left-hand corner, I believe it is March 20. (see appendix 19)

Mr. STRATTON. Oh, yes, March 20, 1972.

Mr. FRANK. Yes, sir.

Mr. STRATTON. "On February 28, 1972, while performing a case leak test at −55° C, our QAS isolated all units on the test board (normally performed individually) from the vacuum source by pinching off the hoses—7 units failed, leak test. When pinched off individually, no case leak failures occurred."

Now, that situation is apparently unusual, and that is what led to the investigation.

Is it your testimony that situation could occur with the item that you presented to us here?

Mr. FRANK. No. It could not occur with the item that I have presented here under the same conditions as he is describing.

Mr. STRATTON. Well, then, that doesn't really help the situation, does it, because that is the situation he was investigating and if the kind of thing that you say was there wouldn't have produced that result, then it is hard to believe it was actually used.

Mr. FRANK. I must disagree with you on this point, Congressman.

If you will read the test——

Mr. STRATTON. Just a minute, Mr. Frank.

Mr. FRANK. Yes, sir.

Mr. STRATTON. I asked you whether your item would produce that result, and you said it wouldn't.

But that is the situation that caused the investigation.

All right:

Investigation disclosed an additional manifold built into the wall of the test chamber. This manifold was installed in a manner that any single unit would be supplied with a vacuum source when it was pinched off on the outside of the chamber. The contractor disclaimed any knowledge of the existence of the

additional manifold. The additional manifold was removed at 0700, 29 February, 1972.

Now, Mr. Tabor knows the difference between a manifold and the item that you have shown us, a temperature compensation device, is that what you call it?

Mr. FRANK. Yes, sir.

Mr. Tabor wasn't——

Mr. STRATTON. He would know the difference between that, would he not?

Mr. FRANK. Yes, sir, but Mr. Tabor is not assigned to our plant. I don't think I have seen Mr. Tabor in our plant more than two or three times a year.

Mr. STRATTON. Well, this information was based on Mr. Akins' observation. He would know a manifold when he saw it, wouldn't he?

Mr. FRANK. Yes, sir.

Mr. STRATTON. "The contractor disclaimed any knowledge of the existence of the additional manifold."

Is that you?

Mr. FRANK. No, sir. I don't think we ever—that was their testimony, that is not the testimony of Aerosonic or its personnel.

Mr. STRATTON. So you never took any position on it one way or the other until you testified here?

Mr. FRANK. That is correct, sir. Except that what Mr. Akins and what Mr. Seay testified to could not possibly have been in existence at the time.

Mr. STRATTON. Let me read from a summary of material that is available to the staff:

On February 28, Mr. George Seay, quality assurance specialist, discovered an additional manifold built into the test board when he isolated all units on the case leak board simultaneously. The manifold was installed so that, when the units were isolated individually, as was the practice in the test, they were still supplied with a vacuum from the additional manifold. When Mr. Seay ordered all isolated simultaneously, all instruments failed the test.

You say that couldn't have happened, is that your testimony?

Mr. FRANK. Yes, sir, I'm saying it couldn't have happened. I would like the Congressman, if he would, to please read the testimony of Mr. Seay in his testimony before your committee.

Mr. STRATTON. Let me proceed.

Mr. Akins examined the internal manifold and questioned Mr. Benmayor about it. Benmayor disclaimed any knowledge of the internal manifold.

At 7 a.m. on February 29, the next day, the manifold had been removed and Mr. Benmayor wouldn't give any explanation as to what had been done with it.

It doesn't say anything about a temperature compensating device that was found in the wall. It talked about a manifold. How do you account for that?

Mr. FRANK. Congressman, if you would read the testimony of Mr. Seay and Mr. Akins, you will find out that they are describing something that is an impossibility to exist in our plant.

Mr. STRATTON. Let me ask you this, Mr. Frank.

Mr. FRANK. Yes, sir.

Mr. STRATTON. Your testimony is that during this particular test there was a temperature compensation device which looks surprisingly like a manifold but which you pointed out has some differences from a manifold that was concealed in the wall during the test.

Now, what was that temperature compensation doing in there?

Mr. FRANK. First of all, I would like to put on the record that Mr. Ammons, who installed the unit and removed the unit, said that at the time it was removed it was not hooked up to anything.

Second——

Mr. LALLY. Pardon me, Mr. Chairman. When you talk about the unit, you are referring to the unit you produced here today?

Mr. FRANK. That is correct.

Mr. LALLY. All right.

Mr. STRATTON. The temperature compensation device?

Mr. FRANK. We were experimenting with the idea of trying to keep the temperature coming into a cold instrument at a relatively cold condition rather than extreme warm air coming into the instrument which would affect readings, especially case leaks.

Mr. STRATTON. I don't understand that testimony. You say it wasn't hooked up to anything yet you are trying to keep the air cool, or warm, or something or other. You can't have it both ways, Mr. Frank. Which way was it?

Mr. FRANK. Congressman Stratton, we were experimenting. The experiment did not prove satisfactory so we disconnected it.

Mr. STRATTON. Was it rigged up to keep it cool or hot, or was it not rigged up?

Mr. FRANK. The unit was not rigged up and operable at the time the so-called incident occurred.

Mr. STRATTON. What was it doing in there?

Mr. FRANK. It was just there because it had been placed in there to run experiments with.

Mr. STRATTON. What experiments?

Mr. FRANK. To run experiments to see if we could cool the air coming into the altimeter so that we would have less error in the instrument when we took——

Mr. STRATTON. Does that have anything to do with the test involved?

Mr. FRANK. No, sir.

Mr. STRATTON. Why didn't Mr. Benmayor explain that at the time it was found?

Mr. FRANK. Unfortunately, Congressman, everybody knows Mr. Benmayor is dead, and he cannot speak for himself, but I believe that——

Mr. STRATTON. Yes, but I'm asking you why he didn't explain that. Why did we get into a flap, why didn't Mr. Benmayor say, "Well, everybody knows this is one of these temperature compensation devices which we always use, it wasn't hooked up. You can see it wasn't hooked up"?

Mr. FRANK. We don't know Mr. Benmayor ever said anything.

Mr. STRATTON. Well, in other words, you are just giving me a story that is your version of what happened, is that right?

Mr. FRANK. No.

Mr. STRATTON. You don't have any basis for it at all?

Mr. FRANK. I have a basis for it. I would ask the Congressman if he would please read the testimony given by Mr. Akins and Mr. Seay, pertaining to the incident that they testified before the committee.

Mr. STRATTON. All right.

The committee will stand in adjournment until 2 o'clock.

[Whereupon, at 12:38 p.m., the committee recessed, to reconvene at 2 p.m., the same day.]

AFTERNOON SESSION

The CHAIRMAN. The committee will be in order.

When the committee recessed with Mr. Stratton as the chairman, Mr. Stratton, I understand, was examining the witness.

You may continue.

Mr. STRATTON. Thank you, Mr. Chairman.

Mr. Frank, I want to come back to this question of whether you had an extra manifold in connection ith the test incident referred to in your statement there on page 57, or whether you had a kind of heat exchanger or temperature compensation device.

You say that you had nothing—you were not connected with this incident yourself at all?

Mr. FRANK. Yes, sir.

Mr. STRATTON. You were not there?

Mr. FRANK. That is correct.

Mr. STRATTON. When was the first time you heard about it?

Mr. FRANK. Oh, I might have heard about the fact that there was a question about Mr. Akins way back, but it was never brought up by Mr. Akins to me; so the only firsthand information I have about the information, not from Mr. Akins or anybody else, would be the time I read it in the testimony of Akins.

Mr. STRATTON. At the time you read it in the testimony of Mr. Akins?

Mr. FRANK. Yes, sir.

Mr. STRATTON. Before this subcommittee?

Mr. FRANK. Yes, sir.

Mr. STRATTON. You never heard anything about it from anybody else previously?

Mr. FRANK. Not that I could put it to this specific item, Mr. Stratton.

Mr. STRATTON. Mr. Benmayor never mentioned anything to you about it?

Mr. FRANK. No, I don't believe he did.

Mr. STRATTON. Well, then, where did you get the story that this was a heat exchanger?

Mr. FRANK. When I——

Mr. STRATTON. This is 1974. This event occurred in 1972—February 24, 1972, 2 years ago.

How can you describe so accurately and so emphatically what occurred if the first time you heard about it was in the testimony before this subcommittee?

Mr. FRANK. If I have testified, I have testified on what somebody has told me from my plant, and what I have found out in speaking to the employees of my plant, who were involved with this incident.

Mr. STRATTON. This somebody is Mr. Ammons; is it?

Mr. FRANK. No; there were more than one person involved.

There was Mr. Ammons who was one that was involved.

Mr. Thomas Ammons was one.

Mr. Clarence Ammons was one. And Mr. Duane Smith was one.

And Miss Gloria Shivas was one.

Mr. STRATTON. Mr. Clarence Ammons, Mr. Duane Smith, and who else?

Mr. FRANK. Miss Gloria Shivas.

Mr. STRATTON. Miss Gloria Shivas?

Mr. FRANK. Right.

Mr. STRATTON. Is she an expert on heat exchangers?

Mr. FRANK. No; she just is the one reporting the information.

Mr. STRATTON. She was there at the time?

Mr. FRANK. That is correct.

Mr. STRATTON. They all told you this was the type of instrument that you have here?

Mr. FRANK. No; I don't want to leave you with that impression, Congressman.

Mr. STRATTON. This is the thing that I am talking about. You are challenging the testimony that other witnesses have given under oath that this was a manifold.

You say the facts demonstrate that the component found by Mr. Seay was not a manifold. What facts demonstrate that? Where do you get these facts?

Mr. FRANK. No. 1, I received some of the facts from Duane Smith, who was the supervisor of quality control at the time. And Mr. Smith informed me that he was present when the manifold was supposedly discovered.

I'm talking about the manifold that is in question—at least, the terminology the Air Force uses.

Mr. Duane Smith informed me that the manifold, or this heat exchanger device was never connected, or was not connected at the time that the piece of equipment, shall we say, of the heat exchange, was removed from the box.

Mr. STRATTON. When did Mr. Smith tell you that?

Mr. FRANK. He told me that right after I had spoken to him after reading Mr. Akins and Mr. Seay's testimony.

Mr. STRATTON. When would that be approximately?

Mr. FRANK. Two or 3 weeks ago.

Mr. STRATTON. Two or 3 weeks ago?

Mr. FRANK. Yes, sir.

I spoke with Mr. Clarence Ammons, who was also involved, and he also told me the item was not attached directly to the heat exchange, the tubing went directly from this manifold, or a manifold identical to this, directly to the inside of the chamber.

Mr. STRATTON. When did Mr. Ammons tell you that?

Mr. FRANK. When we went over and examined the box, approximately the same time as we had spoken to Mr. Smith, because we wanted to confirm it.

Mr. STRATTON. That was 2 or 3 weeks ago?

Mr. FRANK. That was about that time, then——

Mr. STATTON. You said you got an affidavit from Mr. Ammons?

Mr. FRANK. That is another Mr. Ammons.

We have Mr. Clarence Ammons, who was the person involved in the testing.

Then we went back——

Mr. STRATTON. Mr. Clarence Ammons was actually there on the spot, is that right?

Mr. FRANK. Yes, sir.

Mr. STRATTON. Mr. Duane Smith was there on the spot?

Mr. FRANK. Yes, sir.

Mr. STRATTON. Okay.

Mr. FRANK. Then we had to find out what the piece of equipment was, and I had spoken to Mr. Thomas Ammons. He was the one that told me that he made this device under the direction of Mr. Benmayor as an experiment; that he installed the item in the box; and that he was responsible for removing it from the box.

Mr. STRATTON. He was there at the time it was discovered?

Mr. FRANK. I can't say that he was there at the time it was discovered.

I know he was told to remove it, and evidently it was removed according to Mr. Ammons in the presence of a Government inspector.

Mr. STRATTON. Which Government inspector was that?

Mr. FRANK. He said it was either Mr. Akins or Mr. Seay; he was not sure.

Mr. STRATTON. You say you have an affidavit from him?

Mr. FRANK. Yes, sir; I do.

Mr. STRATTON. Would you submit that to the committee, sir?

Mr. FRANK. I have promised to give that to Mr. Lally.

Mr. STRATTON. Would you give it to him now?

Mr. FRANK. I can't give it to him now; it is in the office.

Mr. STRATTON. Mr. Chairman, I think that should be a matter for the record. (see page 367 of these hearings)

The CHAIRMAN. He said he would give it.

Mr. STRATTON. Why didn't you get, or did you get an affidavit from Mr. Clarence Ammons?

Mr. FRANK. Mr. Clarence Ammons was here testifying and I thought his testimony was sort of clear, but I am sure that we can get an affidavit from Mr. Clarence Ammons, and from Mr. Duane Smith, or the——

Mr. STRATTON. I don't recall either one of them mentioned that this wasn't a manifold, that this was some unique device that was quite different from a manifold.

Mr. FRANK. Mr. Smith never testified to the fact, Congressman.

Mr. Smith never testified before this committee. And Mr. Ammons, when we confronted him with the question, because this had never been questioned before, he told us directly that the item was never connected at the time Mr. Seay had seen it.

It was connected directly through the wall to the copper tubing inside the chamber.

Mr. STRATTON. Which Ammons?

Mr. LALLY. Is that Clarence?

Mr. STRATTON. Clarence Ammons—let me read you some of this testimony.

This is Mr. Ammons' testimony:

> He walks around and opens this door on the side of the cold box where the hoses went through and he started feeling around in there in the hoses and styrofoam and he felt up underneath the edge of the box and around the corner like, and he said, What have I found here?
>
> Mr. PIKE. What did you say?
>
> Mr. AMMONS. I said, I don't know. So I felt around the edge and back up there and I felt something, too, back there. So George, he turned around and went out of the room.
>
> Mr. PIKE. George is who?
>
> Mr. AMMONS. Mr. Seay.

Mr. PIKE. George Seay?

Mr. AMMONS. Yes, sir. He turned around and went out of the room. So he had our instruments there, the ones that were, you know and we were finishing our test and I never seen the manifold. I went home at 3:30 in the afternoon. He said this happened at 4 or 4:30 p.m.

Mr. PIKE. But did you feel them?

Mr. AMMONS. I felt something back there, sir; yes, sir.

Mr. PIKE. Did he ask you what it was?

Mr. AMMONS. No, sir, he didn't ask me.

Mr. PIKE. Did you volunteer anything as to what it was?

Mr. AMMONS. No, sir.

Mr. PIKE. What did you think it was when you felt it?

Mr. AMMONS. I didn't know, sir.

Mr. PIKE. Did you think that it belonged there?

Mr. AMMONS. I wouldn't think so, sir.

Mr. PIKE. You knew it was an extra manifold that had no part in this testing procedure; is that correct?

Mr. AMMONS. I didn't know that it was a manifold because I couldn't see it. But I know what a manifold looks like because we had one on the outside of the chamber there.

Mr. PIKE. You could feel all the various pieces of tubing, could you not?

Mr. AMMONS. No, sir. I could just feel up in there with fingers around the corner, the end of it, where there was hoses.

Mr. PIKE. Who else was present when this took place?

Mr. AMMONS. My recorder.

Mr. PIKE. And Mr. Seay?

Mr. AMMONS. Yes, sir.

Mr. PIKE. And then Mr. Akins came?

Mr. AMMONS. Not during the time of working hours.

Mr. PIKE. So when 3:30 p.m. came you just went home; is that right?

Mr. AMMONS. Yes, sir.

Mr. PIKE. You didn't report this incident to your boss?

Mr. AMMONS. No, sir. Well, he knew it. He was sitting up there at the desk.

Mr. PIKE. Who was your boss?

Mr. AMMONS. Mr. Smith.

Mr. PIKE. How do you know he knew it, if he wasn't there?

Mr. AMMONS. He wasn't back with us, but it was logical that he had found something because everybody, you know, works in that little small area.

Mr. PIKE. Everybody started milling around; is that it?

Mr. AMMONS. Yes, sir.

Mr. PIKE. And came in to see what was going on at the test site?

Mr. AMMONS. Yes, sir.

Mr. STRATTON. Now, Mr. Frank, it would seem to me if this was something that had been made for experimental purposes, as you testified earlier, and was perfectly legitimate, perfectly normal, you wouldn't have had people milling around.

Mr. Smith would have simply said, Well, this is something put in there sometime ago. It wasn't connected up. No particular problem.

Yet that isn't what Mr. Ammons said. He doesn't say—This is something that is completely unrelated.

He apparently was surprised to find it; didn't know anything about it himself.

So that doesn't quite square with your testimony that he said this is obviously a heat exchanger which belonged in there in connection with some other experiment, and had no impact on the test at all.

Mr. FRANK. Are you talking, Congressman, about the testimony of Mr. Clarence Smith or Mr. Thomas—I mean, Mr. Clarence Ammons or Mr. Thomas Ammons?

Mr. STRATTON. I'm talking about the testimony of Mr. Clarence Ammons.

Mr. FRANK. Mr. Ammons is just a recorder and reader, he has nothing to do with maintenance or anything that has to do with installations.

Mr. STRATTON. You just said a moment ago that we had the testimony of Mr. Ammons and he had testified to all of these facts and therefore was supporting your contention.

And I have just read you what his testimony was. It doesn't support your contention at all. It shows there was a great deal of confusion and concern. He didn't know what it was. He knew that it wasn't supposed to be there, and he reported it to Mr. Smith, and there is no evidence that Mr. Smith said, "Of course, that is that heat exchanger we have been testing for high temperature experiments," or something of that kind.

He didn't say that; did he?

Mr. FRANK. I testified to the fact Mr. Thomas Ammons installed the unit at the instruction of Mr. Benmayor.

Mr. STRATTON. That is right.

Mr. FRANK. He removed it at the instruction of Mr. Benmayor, or with the Government inspector there.

I also testified Mr. Clarence Ammons who was before your committee, was involved in the incident where the discovery was made. I spoke to Mr. Ammons, Mr. Clarence Ammons, who was the tester and the person doing the recording, and he said that the device was not connected, and that the tubing went directly from the manifold to the pipe panel.

Mr. STRATTON. But he didn't testify that to us.

I just read you his testimony. Why did he testify to you differently from the way he testified to us under oath?

Mr. FRANK. I don't know what question he was asked.

Mr. STRATTON. I just read you the question.

Mr. FRANK. I don't believe Mr. Ammons was asked whether the unit was connected or not connected.

I don't recall whether Mr. Pike or any other Congressman asked him that question.

Mr. STRATTON. He clearly says it was extraneous; that it didn't belong in there.

He didn't know what it was and everybody was milling around.

He didn't say, "Well, this is obviously something that is not connected—no impact whatsover."

Mr. FRANK. Congressman——

Mr. STRATTON. "I could just feel up there with fingers around the corner, the end of it, where there were hoses."

Mr. FRANK. Congressman, I can only say what Mr. Ammons told me.

If you feel that he could give a different story, and I'm in no way arguing the point, I would suggest you subpena him back here and ask him the question concerning the hose.

But, Congressman——

Mr. STRATTON. But we have.

Mr. FRANK. May I finish my statement?

Mr. STRATTON. I thought you were finished, Mr. Frank.

Mr. FRANK. No.

But I think one of the important facets of the whole program we are talking about is the fact that this specific device was supposed to have falsified in accordance with the Government inspectors certain tests that were performed on instruments.

And I would like to know for the record and place it into the record that out of the 3,000 instruments that were shipped out of the plants for meeting all the requirements, that not one instrument has ever been returned to us for this incident which supposedly could have occurred.

Mr. STRATTON. Mr. Lally has just directed my attention to a fact sheet that comes from the Naval Air Repair Facility at Pensacola, indicating altimeter rework on the AAU–27.

One of the significant work problems is "case leaks at low temperature—minus 35 degrees."

Mr. FRANK. Well, we, Aerosonic is unaware of such an incident. The Navy who is doing the repair has never reported this incident to us. And as far as I am concerned, I know of no such incident.

If the Navy has this problem, they have never contacted Aerosonic Corp. They have never, to my knowledge, contacted the DCAS personnel who are involved. And I know nothing about this. And I would think if this was the problem, they certainly would contact.

May I ask——

Mr. STRATTON. Maybe they are a little bit discouraged because when these things are sent back to your place to get repaired, they still don't pass the tests.

Mr. FRANK. Mr. Stratton, we have never had an instrument sent back to us for repair under the terminology of repair.

We have had 30 instruments returned to us for quality deficiencies out of 3,000, of which approximately 18 have been supposedly made our mistake.

Now, sir, that is a heck of a lot less than 1 percent.

The only other instruments that have been returned to us have been returned to us by our instructions whereby sometime in the middle of the contract, of the first contract, we devised a better system for manufacturing the case, which would make the case a little more—a little stronger, a little better to adapt itself.

And even though we had no responsibility to the U.S. Government, we offered to exchange the old cases at no charge to the U.S. Government, if they would return them to us and we would replace them with the new case.

Mr. STRATTON. You testified a moment ago, that you had never had any repairs made on the AAU–27.

Mr. FRANK. I said that we had never, to our knowledge, other than the program that we have had with the replacement of cases.

Mr. STRATTON. And then you stated that you had replaced the cases?

Mr. FRANK. That is correct.

Mr. STRATTON. You replaced 138 AAU–27 cases at no cost to the Government?

Mr. FRANK. Yes, sir, that is correct.

Mr. STRATTON. This is just out of the generosity of your heart because you had developed a new system?

Mr. FRANK. Yes, sir, it was out of the generosity of our heart, because we had developed a new system.

Mr. STRATTON. Yet you objected to the heavy cost of having to have the inspector conduct inspections in your plant as authorized by Mr. Blickenstaff, and it was the heavy cost of that operation that led you to request his dismissal?

Mr. FRANK. If we are getting back to the subject of Mr. Blickenstaff, Mr. Blickenstaff was dismissed by the DCAS representative, not by us.

Mr. STRATTON. At your demand.

Mr. FRANK. We requested it, because we believed Mr. Blickenstaff went beyond his authority.

Mr. STRATTON. I find it hard to see how you could object to those inspections because of the cost and then say the only reason you replaced these cases was because you wanted to be generous to the Government, Mr. Frank.

Mr. FRANK. Congressman Stratton, would you like to have a list of the other things we have given the Government free during our period of time to show our good naturedness?

Mr. STRATTON. I would be glad to have you submit that for the record, Mr. Frank.

Coming back to this matter of the manifold: We have had sworn testimony before this committee by Mr. Akins, and we had sworn testimony by Mr. Ammons.

You are coming before us now with a story—Mr. Akins, incidentally, was on the spot at the time, 2 years ago. He submitted a report which subsequently was incorporated in a written memorandum by Mr. Tabor, which you have before you, and which the committee has.

You are coming in now, 2 years later, on your own testimony, not having seen any of this at all, and you are giving us a story based on hearsay from a couple of other people, and you are asking us to accept that as the explanation for this event, rather than the sworn testimony that we have.

You understand that, don't you?

Mr. FRANK. I understand that, what I have given are the facts that the people have given to me.

Mr. STRATTON. That is hearsay testimony, 2 years after the fact.

Mr. FRANK. One of these statements is sworn under oath. I can't very well believe that is hearsay.

I'm not an attorney, Mr. Stratton.

Mr. STRATTON. That is hearsay until we get it before us.

Mr. FRANK. I can assure you it will be directed to you at the earliest convenience, I can.

Mr. STRATTON. You ask us to accept as the explanation of this incident in contradiction to what we have in sworn testimony, and in a memorandum written at the time?

Mr. FRANK. The memorandum you see was written by a person who is not involved in the process.

You are reading a memorandum, I assume, from Mr. Reece Tabor. Mr. Reece Tabor is not a part of the Aerosonic DCAS office. He works out of the St. Petersburg branch.

Obviously, Mr. Tabor is giving you secondhand information, also.

Mr. STRATTON. According to our testimony, this matter was discussed with Mr. Benmayor and Mr. Benmayor had no explanation for it at all.

If he had instructed that this thing be made as you claim, and had it removed at his discretion, and it was perfectly open and above board, it is hard for me to see why it wouldn't be in the testimony at some point.

Mr. FRANK. Mr. Congressman, in all fairness to everybody, I cannot defend a dead man. I'm sorry to say I cannot defend a dead man.

Mr. STRATTON. I can't——

Mr. FRANK. I can only go by what I have found in my investigation.

Mr. STRATTON. That is all we can go by, Mr. Frank.

Mr. FRANK. I appreciate that.

Mr. STRATTON. You are coming up with a story 2 years after the fact, that never appeared in any of our testimony, never appeared in any of the documentation; was never referred to by anybody, and if we raise any questions, we are told the principal involved is a dead man.

That is all I have, Mr. Chairman.

Mr. FRANK. Mr. Chairman, may I answer that.

The CHAIRMAN. Certainly you may answer.

Mr. FRANK. Congressman Stratton, in all deference to the committee, I understand what you are trying to do, and I think what you do is a service to the whole country.

But you have to understand one thing in operation. I have operated with Mr. Akins for approximately 9 years as chief of quality control. When Charlie Akins had something to say, he didn't like or something he thought was wrong, Charlie Akins would come up and say something to me and vice versa. It was that type of relationship. It has always been that type of relationship.

Wouldn't you think it would be odd, also, with this very, very serious matter occurring, that Mr. Akins, at no time ever approached me and explained what happened in the plant?

I'm there every day. I'm not asking you to answer the question. I'm only trying to explain the fact that this was there.

You are reading the testimony of Mr. Reece Tabor.

Mr. Reece Tabor was not involved. He was just reporting what somebody told him 2 years ago.

Mr. STRATTON. I don't know what this particular power is you have, Mr. Frank, but judging from the reactions of everybody else connected with the Government side in this operation, they apparently felt they just didn't want to tangle with you, and to report some infraction to you would be tantamount to losing their job.

That is the answer to your comment.

Mr. FRANK. I disagree with you, if I may, on the record.

The CHAIRMAN. Mr. Lally.

Mr. LALLY. Thank you, Mr. Chairman.

Mr. Frank, this morning you mentioned that you offered the Government AAU–7's in lieu of the AAU–19, at one point in the contract; is that correct?

Mr. FRANK. No, sir.

Mr. LALLY. What did you say?

Mr. FRANK. I said that we would give the Government AAU–7 A's to fill holes in instrument panels so airplanes could fly.

Mr. LALLY. Wasn't this because you were delinquent in your AAU–19 deliveries at that time?

Mr. FRANK. We were delinquent.

Mr. LALLY. They would default the contract if you didn't come through in this fashion?

Mr. FRANK. That was the Government's threat; yes sir.

Mr. LALLY. Thank you, sir.

With respect to the soldered casing you discussed with Mr. Stratton this morning, did you have the right to use experimental parts in the AAU–19 without obtaining the Government inspector's approval beforehand?

Mr. FRANK. No, sir, I never did use experimental parts in any of the AAU–19/A altimeters.

Mr. LALLY. Wasn't it a statement of Mr. Lolley, that he had been instructed by you to include them as experimental parts?

Mr. FRANK. That is exactly correct, experimental parts; that is exactly what we used them for.

Mr. LALLY. Now, with respect to Mr. Blickenstaff's request for notification of your testing schedules, does the DCAS quality assurance representative have the right to be notified of the times at which you intend to conduct final functional tests?

Mr. FRANK. It is a very hard question to answer, due to the fact that the DCAS personnel, and I repeat myself, have the full run of the plant at any time they want, and they are there.

Normally speaking, we never scheduled tests; they were there and we ran the tests.

Mr. LALLY. As I understand your testimony, Mr. Frank, it is up to the DCAS representatives to chase down your testing times and to be there when you are conducting tests; is that a fact?

Mr. FRANK. No, sir.

Mr. LALLY. Is that the import of your testimony?

Mr. FRANK. No, sir.

The DCAS office and the three to five representatives that are there——

Mr. LALLY. I think the testimony, Mr. Frank, was that there were never four at the plant at any one time.

Mr. FRANK. Whose testimony?

Mr. LALLY. The testimony of Mr. Akins and Mr. Blickenstaff, who were the DCAS supervisors in the plant; were they not?

Mr. FRANK. I don't want to disagree with them, if they are talking about four, plus themselves——

Mr. LALLY. Three plus themselves?

Mr. FRANK. No, sir, I disagree.

Mr. LALLY. Could you identify the four gentlemen they had working for them?

Mr. FRANK. I can't identify the four gentlemen, but I'm sure the people recall that there was a layoff at some other plant in the area, and rather than put the inspectors out of work for a certain length of time, they were presented to me so that they could be utilized in inspection procedures rather than take what they call TDY, et cetera. And we had as many as five and six in the plant for a considerable length of time.

Mr. LALLY. So, you testify that they had the run of the plant, and they could find out when the tests were being conducted; is that correct?

Mr. FRANK. It is beyond that point, Mr. Lally. They are only five steps away from the door to see the one test area, and approximately 25 steps away to see the other testing area.

Their position in the shop is specifically located directly in the middle of all the testing, and all they had to do was walk out the door, which they continuously did, to see what operations were going on.

Sometimes they would walk over to the machine shop, but the area they are situated physically in, is within 15 steps or 20 steps of all the testing that we do on any instrument for the U.S. Government.

Mr. STRATTON. Would you yield?

Mr. LALLY. Yes.

Mr. STRATTON. Mr. Frank, I don't understand.

Are you saying it is their responsibility to try to be at the place when a test occurs, and that the idea of advising them at what particular time a test will occur is an undue imposition on you, illegal, and unnecessary?

Mr. FRANK. No; I'm not saying that, Congressman.

I am saying that the job of the DCAS personnel, in any organization, is to verify that the quality control of the plant that they are supervising is running in accordance with the military requirements.

Mr. STRATTON. You are suggesting that because they have the run of the plant, then there is no obligation to advise them when tests are going to be conducted?

Mr. FRANK. I don't believe there is any obligation on my part. If they wanted to find out, all they had to do is walk into the room and see the tests.

Mr. STRATTON. What do they do, stand there all day long?

As you visualize it, this is a kind of hide-and-seek procedure. If they are not there at the particular time, that is just too bad for them. They have got to have some kind of extrasensory perception to know that in the test area there is going to be a test at a particular time. They might want to walk over into another area 200 feet away to find out whether some improper materials are being used, in some particular assembly arrangement.

Your idea is that apparently it is unfair to require you to tell them that at 11:30, there is going to be a test. If they want to see what the tests are, they have to stay right in that test room from 6 o'clock in the morning until 9 o'clock at night, and meanwhile, people may be putting all kinds of improper materials over in the northeast corner of the plant because everybody has got to stay in the test area. That is a hard way to expect inspection procedures to be carried out, isn't it?

Mr. FRANK. Congressman Stratton, we have test procedures. We have personnel from DCAS coming in, and I will repeat this, and I will repeat it again without any problem, who come in and advise the contractor and advise the DCAS people whether the contractor is fulfilling all his obligations of his contract.

We have never been told in all the inspections we have had that we have any deficiencies in doing our job or doing what is necessary to meet the requirements of the specifications.

Mr. STRATTON. You said that over 20 times this morning and this afternoon, Mr. Frank, without addressing yourself to the specific question of why it is an unnecessary imposition to advise the inspectors when the tests are going to be conducted.

You can repeat this thing again. But it is not responsive to the question.

And obviously, the answer is that it is not burdensome and you know it is not burdensome and you have no justification for regarding it as burdensome.

You were just trying to get away with as little inspection as you possibly could.

Mr. FRANK. Congressman Stratton, there is no requirement in my specification or my contract that says I have to do that.

Mr. STRATTON. Well, then, it must have been a bad contract, and the Air Force is at fault in this thing, too; there is no question about that.

Mr. FRANK. Congressman Stratton, in all fairness and deference to the Air Force, we have completed 388 such contracts—and if the Air Force has been wrong, they have been wrong 388 times.

Mr. STRATTON. We are not interested in the 388; we are interested in this contract, this is the one we are concerned with.

The CHAIRMAN. Mr. Lally?

Mr. LALLY. Thank you, Mr. Chairman.

Mr. Frank, do you know there was testimony here that the Aerosonic supervisors were playing games with the DCAS employees insofar as scheduling tests and getting the DCAS people to cover those tests?

Mr. FRANK. The only—Mr. Lally, the only incidents that I know of—and I will be as frank as I possibly can—are several times we asked DCAS personnel to come in in the evening to witness tests.

I would like to explain to the committee, if I possibly could, that most of the testing of the 19–A was under 100 percent supervision of the Government. They had to witness every single test.

Sometimes if we ran overtime, we needed overtime, we would ask the Government to please cooperate with us and come in.

And in many instances we had to scrub those tests; I regret it. But Mr. Lally, the tests were not run; when they were run they were run in front of Government inspectors.

Mr. LALLY. Did you ask DCAS to assign people to the second shift testing?

Mr. FRANK. We might have at some time.

Mr. LALLY. You said you did—I'm asking, is it a fact you asked me to come in at that time?

Mr. FRANK. Yes.

Mr. LALLY. Let me read you the testimony of Mr. Akins.

Mr. Akins says:

> Gentlemen, remember I was on one shift operation as far as testing was concerned.
>
> Prior to this time, I had all kinds of difficulty with trying to spread the troops I had at my disposal—that is, Mr. Seay, Mr. Hathcock, and Mr. Ickes—over the contractor's testing schedule. I instituted odd hours, we call them, from one QAA coming in at 7 a.m.; another coming in at 7:30; another coming in at 8 o'clock with me. We went home at 3:30, 4, and 4:30 to try to cover up as much of the contractor's day as we possibly could because the contractor stayed long after we went home.
>
> Mr. PIKE. Do you mean cover up or do you mean cover?
>
> Mr. AKINS. I mean cover the entire day.
>
> I even went so far as to go to odd workdays and put a man on the afternoon shift to witness the tests required, or to be in the plant while testing was going on and immediately that I would assign the man to the second shift operation

the contractor would decide that he no longer needed to test on that shift, that he was up to date with his delivery schedules enough that he could knock off second shift testing. And I would have to put that man back on the day shift. This was a constant harassment to my superiors.

That indicates to me there was game playing with the DCAS people that were assigned to your plant.

Mr. FRANK. Mr. Lally, if that is your interpretation, you are entitled to it, sir.

Mr. LALLY. It is, sir.

Mr. FRANK. I will repeat the thing; there were no tests run without the Government witnessing the tests.

Mr. LALLY. Did you obtain an affidavit from Duane Smith with reference to the discovery of the manifold?

Mr. FRANK. We didn't feel it was necessary.

Mr. LALLY. He was the man on the spot at the time it was discovered, but you didn't think it was necessary to have an affidavit from him?

Mr. FRANK. We didn't think so; we spoke to him.

Mr. LALLY. You thought it was important to get an affidavit from the man in Arkansas, who was not on the scene at the time it occurred?

Mr. FRANK. The person who built the equipment and installed it and removed it, to me was a lot more important and a lot more important to this committee than one of the inspectors who happened to be there when the discovery was made. That is my impression, and if I was wrong, I apologize to the chairman.

Mr. LALLY. You testified this morning you produced a servo instrument for Boeing Aircraft.

When did you produce that instrument, sir?

Mr. FRANK. In 1965.

Mr. LALLY. How many did you produce?

Mr. FRANK. About three.

Mr. LALLY. Do you know what aircraft they are used in?

Mr. FRANK. No, sir, I don't.

Mr. LALLY. When did you manufacture the servo instrument for the Lockheed Corp.?

Mr. FRANK. 1972.

Mr. LALLY. How many of those did you produce?

Mr. FRANK. 128, of which all were accepted—126, all were accepted except one.

Mr. LALLY. Do you know what aircraft they are used in?

Mr. FRANK. I do not know offhand, no, sir.

Mr. LALLY. Now what was the name of the engineer you had at the beginning of the AAU–19 program?

Mr. FRANK. Mr. Magagnos.

Mr. LALLY. How long did he continue with you?

Mr. FRANK. About 2 years—2 or 3 years.

Mr. LALLY. Roughly, what period of time would that cover?

Mr. FRANK. From about around 1965 to about 1968.

Mr. LALLY. Where had Mr. Magagnos come to Aerosonic from?

Mr. FRANK. I believe from Kollsman.

Mr. LALLY. Who succeeded Mr. Magagnos as engineer to this program?

Mr. FRANK. I think it was Richard Frank.

Mr. LALLY. Mr. Richard Frank is still with you?

Mr. FRANK. Yes, sir.

Mr. LALLY. Did you have any other engineer besides Mr. Magagnos and Mr. Richard Frank.

Mr. FRANK. Not to my knowledge.

Mr. LALLY. They are the only two throughout the program?

Mr. FRANK. That is right.

Mr. LALLY. All the other people, I think you mentioned 14, were draftsmen and clerical?

Mr. FRANK. Draftsmen, designers, and production people involved in engineering.

Mr. LALLY. I believe that we discussed the mechanical arm this morning. Was this mechanical arm originally intended as an oscillation dampener?

Mr. FRANK. We initially intended it as a system of stopping the pointer oscillation from dampening the front jewel, which could cause friction.

When the oscillation of the pointer became a factor in accetpance of the instrument, due to the fact that it did jiggle, we also used it to dampen the pointer so that it would not jiggle in the servo mode.

Mr. LALLY. Was it an oscillating dampener then?

Mr. FRANK. In that sense of the word, it was, sir.

Mr. LALLY. Was this fact brought out at the design review in 1966?

Mr. FRANK. I cannot recall whether it was or not. All I can tell you is that we did get or receive approval of our basic design at that time.

Mr. LALLY. Now, I have here, Mr. Frank, a letter to Aerosonic from Mr. Wood, dated May 3, 1966 [see appendix 26], which asks several questions concerning the pressure finger as it is identified here, I guess that is the mechanical arm; is that right?

Mr. FRANK. Yes, sir.

Mr. LALLY. I will have to show this to you because I want to ask you a couple of questions on it.

I direct your attention to subsection (f) of the letter, which requests: "If finger is being used to dampen out oscillation: (1) To what degree will altimeter oscillate without such a fix, when installed in an instrument panel, and under average, reciprocating engine flight conditions?

"(2) What is the estimated effect on the performance of the mechanical finger with accumulation of operating hours, under the various environmental conditions; that is: (high humidity, cold, et cetera)?"

Mr. FRANK. Yes, sir.

Mr. LALLY. You replied to that letter, sir, by letter of June 23, 1966 [see appendix 27], answering each of the questions presented in subsections (a), (b), (c), and (d).

The questions presented in subsections (e) and (f) are ignored. Is there any explanation why you chose to ignore answering those questions at that time, sir?

Mr. FRANK. Yes, because we hadn't had enough time to run the accumulation of operating hours under various environmental conditions.

He was asking for an accumulation of performance, and we didn't have the length of time to answer, and thus we did not answer, because we didn't want to give an answer that we had no idea what it would be.

Mr. LALLY. Did you indicate in your letter you had not obtained sufficient data to answer the questions?

Mr. FRANK. No, we just didn't answer the questions, Mr. Lally.

Mr. LALLY. You just ignored the questions?

Mr. FRANK. If that is your interpretation—we didn't have enough information to answer the letter.

Mr. LALLY. But you did not so indicate.

Mr. FRANK. That is correct; I did not so indicate.

Mr. LALLY. Previously, Mr. Frank, you discussed Aerosonic's rejection rate. The rates you quoted I assume were all of your products; is that correct, sir?

Mr. FRANK. Yes. We considered all of our products, when we made the statement, with the exception of the 19–A.

Mr. LALLY. And the other products are mainly pneumatic mode instruments; are they not?

Mr. FRANK. Yes, sir.

Mr. LALLY. The 19–A and the other two instruments of the servo mode instruments, you mentioned a few minutes ago, are the only servo instruments you have constructed; is that correct?

Mr. FRANK. Yes, sir.

Mr. LALLY. So that the rejection rate for the pneumatic instruments are not particularly pertinent in consideration of your experience with the 19–A; is that correct, sir?

Mr. FRANK. No, sir.

If our corporation built about 65,000 pneumatic altimeters, and we felt we had the experience to build the pneumatic altimeter, and it seems that in the end, it turned out that that was the problem we had with this specific instrument, was the pneumatic section.

So it did have some effect on it, but certainly not the overall effect that you would assume.

Mr. LALLY. Now, in a letter dated September 1, 1971 [see appendix 5], which is at tab No. 4, in your packet there on the table, Mr. Frank——

Mr. FRANK. Yes, sir.

Mr. LALLY. You informed Commander Curtin: "This is to advise you that the Aerosonic Corp. holds the United States Government in default in the above subject contract for the following reasons * * *"

And you set them out.

And you go on to say that, since each one of these and all of these constitute failure of the Government to live up to its requirements of the contract, the Aerosonic Corp. is shutting down its line completely effective September 6, 1971, and will hold the U.S. Government responsible for any and all damages caused by the U.S. Government for the above listed reasons.

That letter went to Commander Curtin in DCAS.

Did you send a similar letter to the AIMS SPO?

Mr. FRANK. The record does not indicate on the bottom of the letter, Mr. Lally, but the DCAS St. Peterburg—Commander Curtin—is theoretically my contracting officer on this contract.

Mr. LALLY. What does the letter indicate on the bottom?

Mr. FRANK. I sent a carbon copy to Senator Chiles.

Mr. LALLY. Was that to impress Commander Curtin; was that part of the intimidation factor Mr. Stratton was discussing this morning?

Mr. FRANK. No, sir.

I think you will find it was Senator Chiles that was able to get me the appointment with General Stewart. Because General Stewart would not see me without an appointment.

I was just showing the Senator that this is part of the problem that I have been having with the Air Force in trying to get General Stewart to live up to his word.

Mr. LALLY. Did you send a copy of this letter to General Stewart?

Mr. FRANK. I don't recall whether I did or not, sir.

Mr. LALLY. Did you have any verbal or written contact with General Stewart after his letter of August 30, which I believe is at tab No. 3 in this packet before you? (See appendix 3.)

Mr. FRANK. Verbal?

Mr. LALLY. Verbal or written?

Mr. FRANK. Which letter are you referring to?

Mr. LALLY. August 30, No. 3 in the packet before you.

Mr. FRANK. I honestly can't recall whether I have had a contact with the general.

Mr. LALLY. I direct your attention, Mr. Frank, to tab No. 14 (see appendix 28) in that package, which is a message that reproduces a letter of yours, dated September 8, 1971, to DCAS of St. Petersburg, and in it you say:

It is my understanding that Mr. Fred Wood, Wright-Patterson Air Force Base, has the authority to modify the above subject contract.

In accordance with a telephone conversation held between myself and Mr. Wood, on Friday, September 2, 1971, the modification of the contract will be such as to remove first article approval and preproduction approval of the items to be shipped on the above subject contract, thus relieving the contractor of any financial responsibility which he would be subject to, without having qualification on the item or the waiving of the first article and preproduction units.

The Aerosonic Corp. will, upon receipt of this modification, cancel its letter dated September 1, 1971, to General Stewart, along with a letter written to your office on that same date. Aerosonic Corp. will continue in production on the above subject contract, utilizing the same delivery schedule. A confirmation of this would sincerely be appreciated.

Mr. FRANK. Yes.

Mr. LALLY. That does indicate you sent a similar letter to General Stewart; is that correct?

Mr. FRANK. No, sir.

Mr. LALLY. It does not?

Mr. FRANK. No, sir.

Mr. LALLY. This letter dated September 1, to General Stewart?

Mr. FRANK. Which letter are you talking about now?

Mr. LALLY. I'm talking about this letter of yours. You say the Aerosonic Corp. will, upon receipt of this modification, cancel its letter, dated September 1, 1971, to General Stewart.

Mr. FRANK. Which is the letter?

Mr. LALLY. This is tab No. 14 in the packet before you .

Mr. FRANK. Right.

That is the correspondence I had with General Stewart.

Mr. LALLY. This is with DCAS?

Mr. FRANK. All right. All right. I'm looking at document No. 14, that is a telegram or something to that effect.

Mr. LALLY. It is a message which reproduces your letter?

Mr. FRANK. Are you saying I wrote a letter to General Stewart?

Mr. LALLY. You said it in your letter.

Mr. FRANK. That is correct; which tab is it?

Mr. LALLY. Tab 14.

Mr. FRANK. Tab 14 is just a letter between Fred Wood and I, that I wrote.

Mr. STRATTON. It refers to a letter you wrote to General Stewart on September 1 in the final paragraph of that message, if you will read it.

Mr. Lally says if you refer to a letter you addressed to General Stewart on September 1, how can you deny that you ever wrote him on September 1?

Mr. FRANK. Which is the letter that I wrote to DCAS?

Mr. STRATTON. Read the bottom paragraph of document No. 14.

Mr. FRANK. I have read that. I would like to know the letter that I wrote to DCAS.

Mr. LALLY. No. 4.

Mr. FRANK. Okay, that is the letter dated September 1.

Mr. LALLY. That is to DCAS?

Mr. FRANK. Evidently General Stewart got a copy of it.

Mr. LALLY. Now, when did Mr. Wood contact you?

Mr. FRANK. I guess sometime between the time I wrote the letter on the 1st and the time that the letter was written on the 14th, we agreed on the 14th.

Mr. LALLY. Did he say why he contacted you?

Mr. FRANK. Just to see if he could get the situation straightened out.

Mr. LALLY. What did you say?

Mr. FRANK. Any way he could get it straightened out, I guess it could be straightened out.

Mr. LALLY. Did you specify how you wanted it straightened out?

Mr. FRANK. When I spoke to General Stewart I asked General Stewart to either give me first article or termination of the contract; that is the way it stood all the way through.

And that is exactly the way I thought it stood all the way through.

Mr. LALLY. So what did you say to Mr. Wood when he asked you?

Mr. FRANK. I wanted either First Article or I would like to have termination for the convenience of the Government.

Mr. LALLY. Did you say you wanted termination?

Mr. FRANK. I don't recall but it would have to be one of the two, because that is what I said to General Stewart.

Mr. LALLY. Now, during that conversation with Mr. Wood, did he indicate he had discussed waiver of the First Article with General Stewart, or that General Stewart had advised him to contact him?

Mr. FRANK. No. I don't recall.

I honestly don't recall.

Mr. LALLY. After the contract modifications were effected, did you formally rescind your letter to General Stewart?

Mr. FRANK. I might have. I might not have.

I would have to assume, Mr. Lally, that I did, but if there is such a letter, it would probably be on file some place.

The CHAIRMAN. May I interrupt?

Mr. LALLY. Yes, sir.

The CHAIRMAN. Mr. Frank, rather than to say you sent copies, don't you indicate, when you write a letter, on the bottom to whom you send copies?

Mr. FRANK. Mr. Chairman, yes, most of the time.

In this instance, here, I can honestly say I don't know whether General Stewart got a direct copy of the letter of September 1.

The CHAIRMAN. What I'm saying: when you write the original letter, don't you indicate at the bottom in the left-hand side, is the normal procedure: "cc to so-and-so?"

Mr. FRANK. That is correct.

The CHAIRMAN. But you did not do that in this case?

Mr. FRANK. No, sir; I did not in the letter of the first of September.

Mr. LALLY. You were interested in getting out from under this First Article obligation, were you not, Mr. Frank?

Mr. FRANK. Getting out from under it?

Mr. LALLY. Yes. Getting it waived, deleted, eliminated from the contract somehow?

Mr. FRANK. I would have liked to have received First Article, and if I didn't receive First Article, I would have preferred to have termination; I didn't care which. When they said they would waive First Article, that was good enough for me; that satisfied my requirements.

Mr. LALLY. Well, the substance of Mr. Wood's testimony—I don't have the reference before me—was that when he called you and asked what the problem was, you said you wanted to get out from the First Article; he said if he got rid of that, would you be willing to get back to work. He said you indicated you would. Is that roughly the substance of the conversation?

Mr. FRANK. Yes, sir. It could have been.

Mr. LALLY. What consideration did the Government receive for relieving you of the First Article obligation?

Mr. FRANK. Mr. Lally, I'm not an attorney, so I can't answer to an attorney. I don't know what consideration——

Mr. LALLY. What did you give up?

Mr. FRANK. What did I give up?

Mr. LALLY. Yes.

Mr. FRANK. I don't know that I gave up anything except I promised to meet the delivery schedules.

Mr. LALLY. As you testified yesterday, you turned around and offered to retrofit these articles as you would have been required by the First Article, for $400 per unit; is that correct?

Mr. FRANK. That is correct.

Mr. LALLY. So the First Article requirement was quite a burden hanging over your head; was it not, sir?

Mr. FRANK. Well, it wasn't a basic burden. I would have liked to have had First Article; and if I didn't get First Article, then I wanted termination; if I couldn't get termination, they offered me the third way out, the waiver of the First Article, that is true.

I would not argue that whatsoever.

I honestly believed, not being an attorney, that I could have been held responsible. I'm not an attorney, so I don't know.

Mr. LALLY. Retrofit, at a cost of approximately $400 per unit, would have added substantially to your contract costs on this, would it not; 2,100 units were delivered at that time?

Mr. FRANK. That is right.

Mr. LALLY. So it would have been about another million dollars in your contract?

Mr. FRANK. About $800,000; yes, sir.

Mr. LALLY. Could Aerosonic have afforded that without bankruptcy?
Mr. FRANK. Aerosonic is a very stable organization. Yes, we could have afforded it without bankruptcy.
Mr. LALLY. Thank you, Mr. Chairman.
I have no further questions.
The CHAIRMAN. Any further questions, Mr. Stratton?
Mr. STRATTON. I don't believe so.
The CHAIRMAN. Thank you very much, Mr. Frank.
You are excused.

TESTIMONY OF CHARLES AKINS—Resumed

The CHAIRMAN. You were here before the committee previously.
Mr. AKINS. Yes, sir.
The CHAIRMAN. You are still under oath.
Mr. AKINS. Thank you, Mr. Chairman.
Mr. LALLY. Mr. Akins, in your prior testimony, on August 2, you testified concerning discovery of a manifold in a test chamber at Aerosonic, on, I believe it was February 28, 1972. Do you recall that testimony, sir?
Mr. AKINS. Yes, sir.
Mr. LALLY. I direct your attention to the four-pronged item to your right on the table today, and ask if that is the manifold which you discovered in the test box at Aerosonic on this date?
Mr. AKINS. No, sir. You are speaking of that one?
Mr. LALLY. Yes.
Mr. AKINS. No, sir.
Mr. LALLY. Can you describe the difference between this item and the one that you saw on that date, sir?
Mr. AKINS. Yes, sir; very easily.
Mr. LALLY. Would you describe it, sir?
Mr. AKINS. The difference being—this is what I saw, what you see now.
Mr. LALLY. Without the nipples on the top and bottom?
Mr. AKINS. Without the nipples on the top and bottom.
Mr. LALLY. Were the items you discovered that day, Mr. Akins, connected in any way to anything?
Mr. AKINS. Yes, sir.
Mr. LALLY. How was it connected?
Mr. AKINS. It was connected to an outside manifold similar to this, by hose, and connected to an instrument from the other side.
Mr. LALLY. How many instruments was it connected to?
Mr. AKINS. There were 10 instruments on the board.
Mr. LALLY. Now, would you take a look at this item here, the four-pronged item?
Mr. AKINS. Yes, sir.
Mr. LALLY. Would you describe that as a manifold, sir?
Mr. AKINS. No, sir; because the passage goes straight through. It would be no more than a wide place in the pipe.
Mr. LALLY. Had you observed the test which caused Mr. Seay to examine this test chamber on that date and discover the manifold?
Mr. AKINS. Repeat that question.
Mr. LALLY. Had you observed the test which caused him to begin the examination of the test chamber?

Mr. AKINS. I observed a repeat of the test; yes, sir.

Mr. LALLY. Could you describe that test for us again, Mr. Akins?

Mr. AKINS. When one unit was pinched off it would not exhibit a case leak. When all the units were pinched off simultaneously they registered case leakage greater than the specification tolerance requirement—7 out of the 10 units.

Mr. LALLY. How did the manifold you discovered, built within the test chamber, permit this phenomenon to occur?

Mr. AKINS. This manifold, blocked off on both ends, introduced 2 vacuums from an outside source. Pinched off one at the time it will allow the vacuum supplied by these other hoses to operate on the instrument that is pinched off.

Mr. LALLY. Could the four-pronged device perform that function?

Mr. AKINS. No, sir.

Mr. LALLY. Mr. Akins, I'm going to show you a group of photographs which Mr. Frank brought to the subcommittee yesterday, and ask you to examine them, sir.

There are 7 photographs here, sir, each of them numbered. Photograph No. 1 (see below) shows the door to the chamber; is that correct, sir?

Mr. AKINS. It is the door into the final test area; yes, sir.

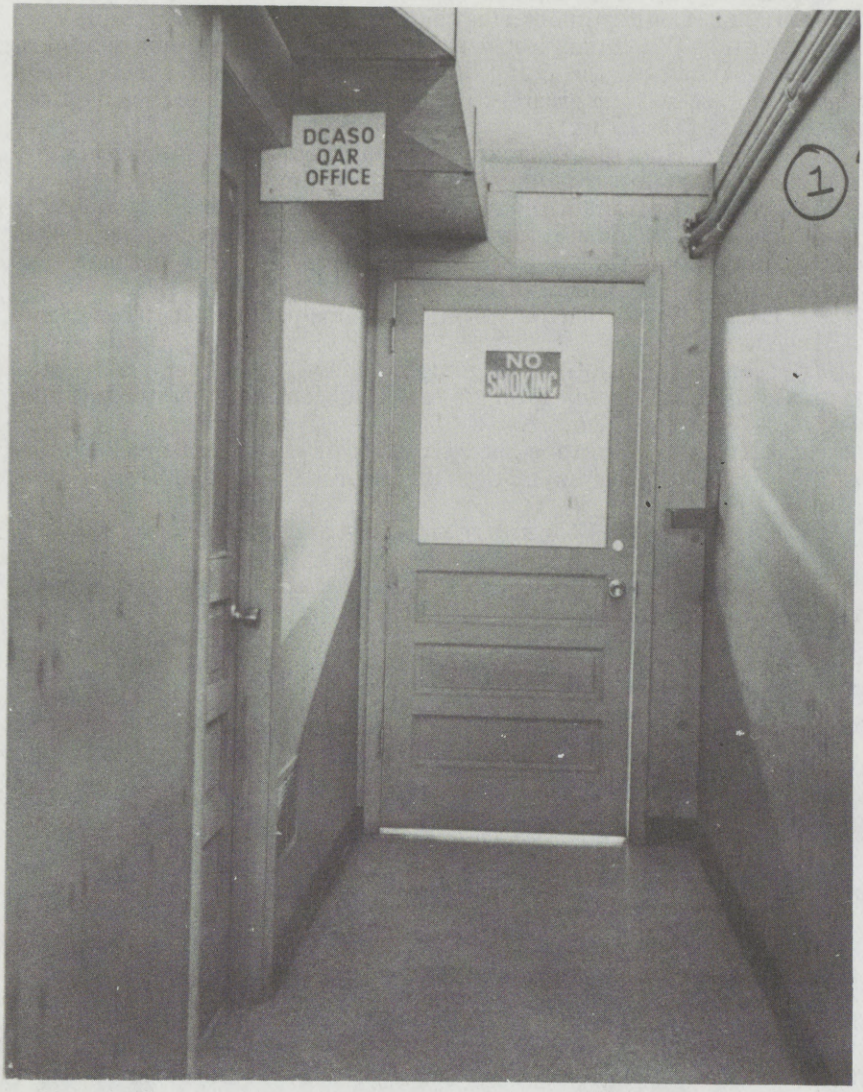
Mr. LALLY. Photograph No. 2 (see below).

Mr. AKINS. This is the test area side of that same door or what is referred to at Aerosonic as the north box.

Mr. LALLY. What does photograph No. 3 depict? (See below.)

Mr. AKINS. It depicts the ends of both the north and the south box. The barometer used in testing, and the automatic pressure controller.

Mr. LALLY. Photographs 4, 5, 6, and 7 (see below), are closeups, so I will ask you to set them aside for a minute.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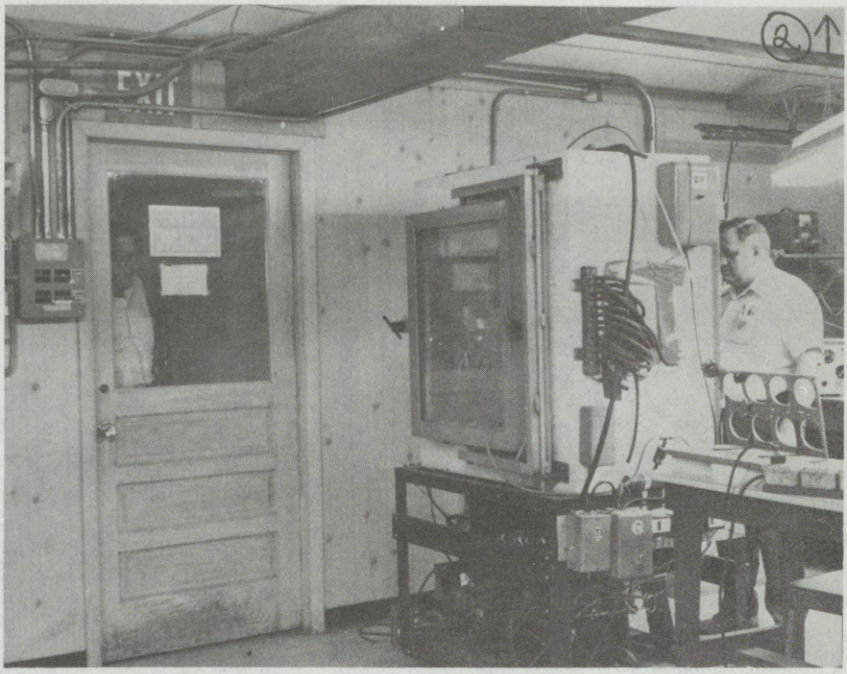
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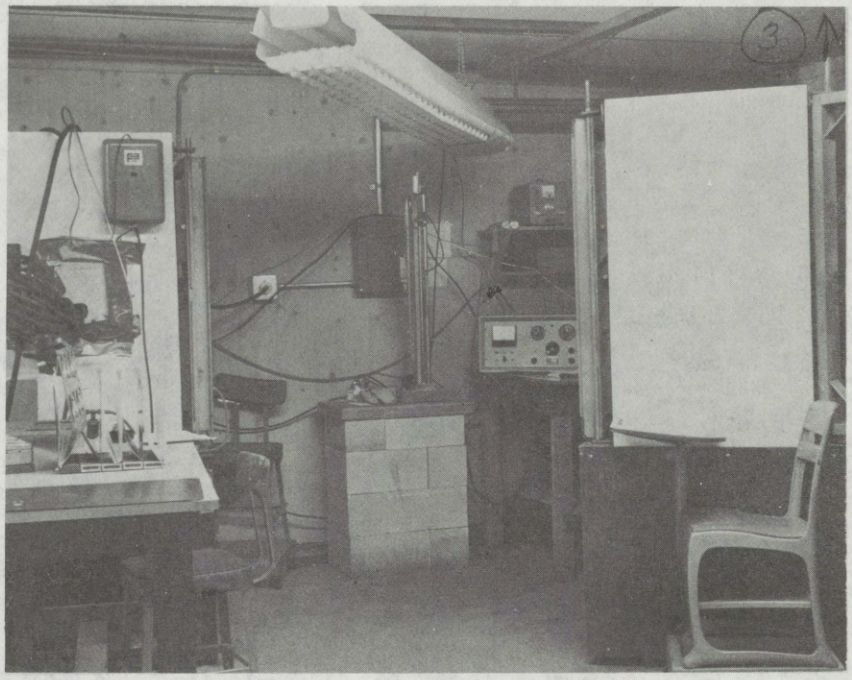
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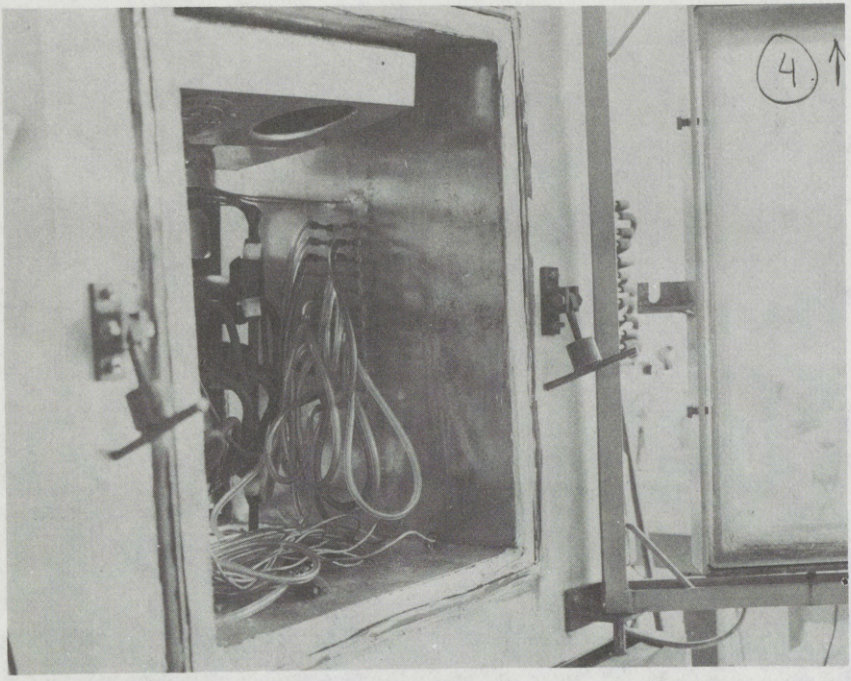
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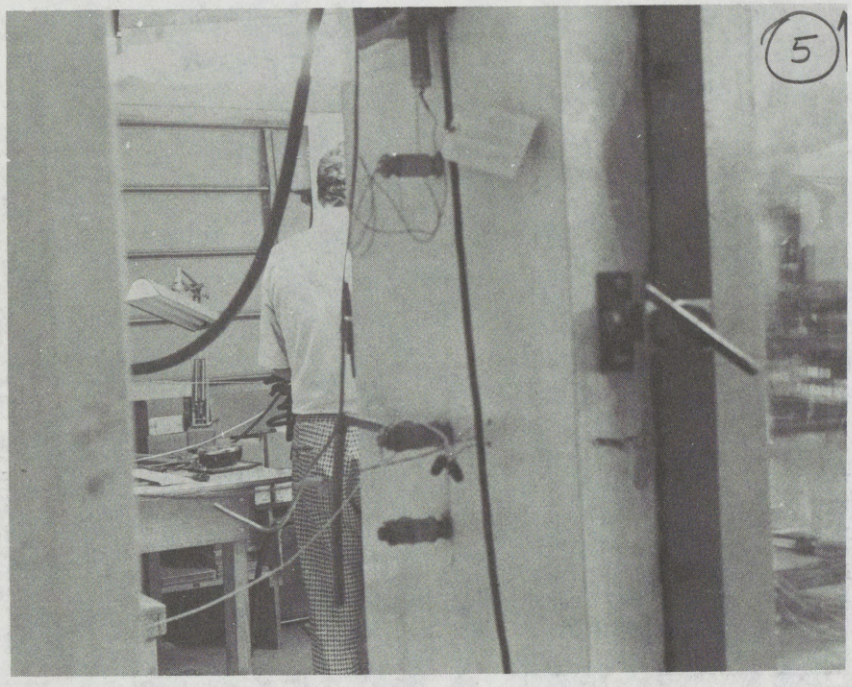
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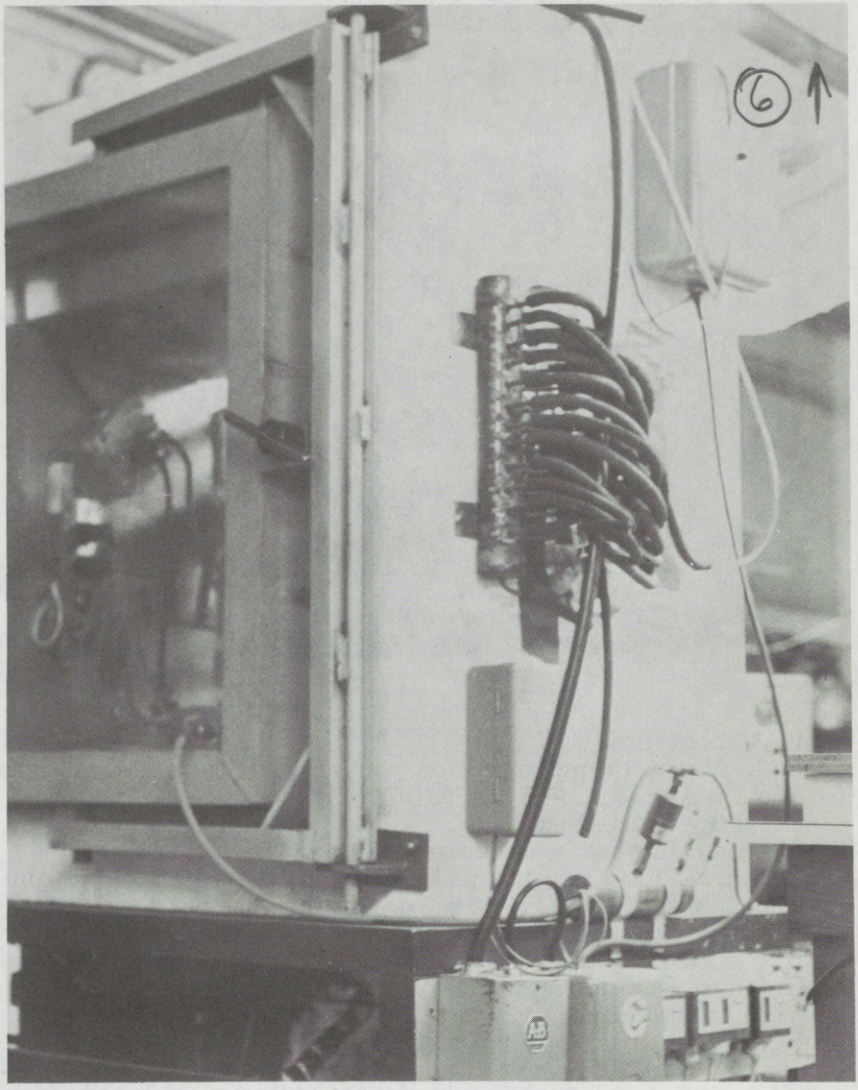
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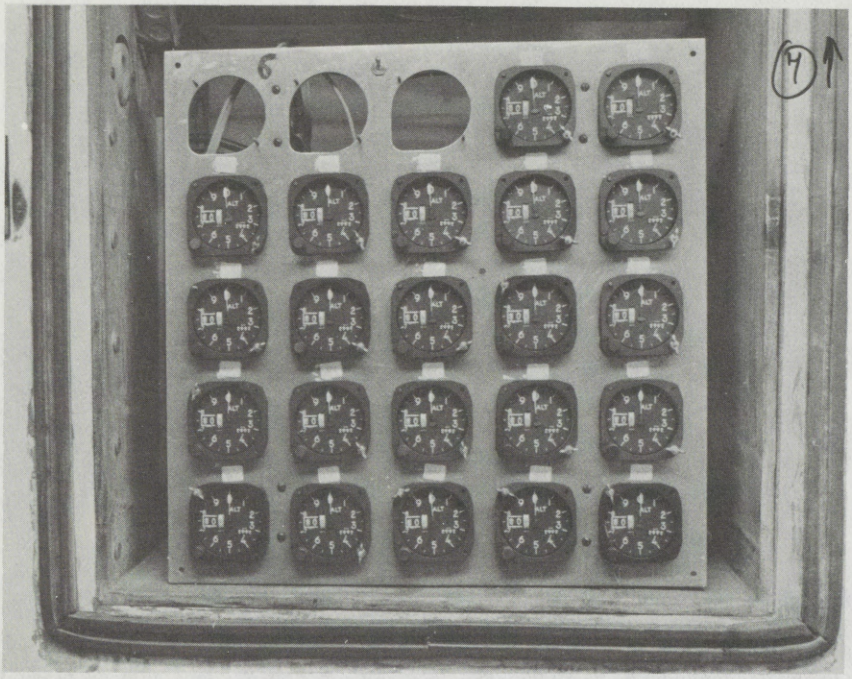

Mr. AKINS. All right.

Mr. LALLY. Do the pictures before you represent the condition of the test room at Aerosonic on April 12, 1972?

Mr. AKINS. No, sir, they do not.

Mr. LALLY. In what respect do they differ?

Mr. AKINS. The north box picture on your left, is not in the same position it was on April 12, 1972. Nor is it the same box.

Mr. LALLY. It is a different box in a different position?

Mr. AKINS. That is right, sir.

Mr. LALLY. In what respect does the position today differ from what it was on April 12, 1972?

Mr. AKINS. April 12, 1972, the box that was installed in that place was parallel to the box we call the south box, the box on your left—excuse me, your right—this box is what is referred to as the south box [pointing].

This box was parallel [pointing].

The CHAIRMAN. Let me understand that.

I'm looking to my right, that box.

Mr. AKINS. Is the south box.

The CHAIRMAN. It was not there?

Mr. AKINS. No; that box was there.

The CHAIRMAN. It was parallel to the box on my left?

Mr. AKINS. This box was parallel to this one.

The CHAIRMAN. In other words, that box there to the right——

Mr. AKINS. No, sir. The boxes were in the position—this box was in the same position this box is in, but they were parallel. Instead of being

slanted outward as you see this appearance, if you look real close when you get this photograph back you will see the rust line on the floor where the original box stood.

Mr. STRATTON. The dark line that you see on what looks like carpeting or something, under the chair that is up against the wall, is that right?

Mr. AKINS. That is right, sir.

Mr. STRATTON. If I understand, if I can visualize the perspective here, Mr. Akins, for the north box to be parallel to the south box, it would have to be turned toward this little chimney, and moved back closer to the wall, is that about the position that it occupied?

Mr. AKINS. It would be moved no closer to the wall, sir. It would be—but it would be turned toward the blocks that hold up the barometer.

The CHAIRMAN. This is not an accurate picture of what you saw?

Mr. AKINS. On the 12th of April 1972, no, sir.

The CHAIRMAN. It is not an accurate picture?

Mr. AKINS. No, sir, not of the conditions on the 12th of April 1972.

Mr. STRATTON. Could I ask whether that material which you see on the side of the north box behind the tubing from the manifold—does that cover up the place from which the extra manifold, or the heat exchange instrument, as Mr. Frank has described it, was taken?

Mr. AKINS. Yes, sir. In fact that is the box it was discovered in.

The CHAIRMAN. Let me recall now. It was demonstrated insufficiently in these pictures, Mr. Frank testified about the position where you were.

Mr. AKINS. Yes, sir.

The CHAIRMAN. The position described is the position where you were?

Mr. AKINS. I was standing approximately where Mr. Frank is standing in this picture.

Mr. LALLY. I believe that has been identified as Mr. Lolley in that picture.

Mr. AKINS. No, right here behind the door. That was me, and Mr. Hathcock. There were two of us standing there.

The CHAIRMAN. All right. The way the picture was presented to us—hold it up.

Mr. AKINS. Yes, sir.

The CHAIRMAN. The way the picture is presented to us, you could not see from that position the way the boxes are arranged in the picture.

Mr. AKINS. Right, the way they are arranged right now, I could not see what the man was doing, not with the boxes like they are right now.

The CHAIRMAN. But where the boxes were, you could see?

Mr. AKINS. I could see through one box to the other.

The CHAIRMAN. Do these pictures show what you could see at that time?

Mr. AKINS. No, sir, these pictures were taken recently. This is the position of the boxes at this point in time. They are arranged just like this right now.

The CHAIRMAN. That is right.

Mr. AKINS. On the 12th of April they were not arranged like this?

The CHAIRMAN. That is what I'm trying to discover.

In other words, the boxes in the picture, you could not see.

Mr. AKINS. That is right.

The CHAIRMAN. That is an accurate statement?

Mr. AKINS. That is right, sir.

The CHAIRMAN. However, when the boxes were arranged as you saw them, you could see?

Mr. AKINS. Yes, sir.

Mr. STRATTON. If I could, Mr. Chairman, nail that point down just a little more accurately.

If the north box in that picture were rotated about 10 degrees clockwise, it would then be parellel with the south box, and you would also have a clear view of the instruments from the door window?

Mr. AKINS. Yes, sir.

Mr. STRATTON. And it would also be in line with the shading on the floor?

Mr. AKINS. Yes, sir.

Mr. LALLY. I have no further questions.

Mr. STRATTON. Mr. Akins, let me ask a couple of questions if I may.

Did you go into that room at the time that the manifold was found?

Mr. AKINS. It was not this room. The room where the manifold was found—yes, sir, I did go in.

I did see the styrofoam pulled out of the box and visually saw them mounted.

Mr. STRATTON. Who was there at the time this occurred?

Was Mr. Clarence Ammons there?

Mr. AKINS. I don't recall. My contact at that point in time was with Mr. Duane Smith, who is the foreman of that particular area.

Mr. STRATTON. He was there?

Mr. AKINS. Yes, sir, he was there.

Mr. STRATTON. And he saw what was taken out of the inside of the box?

Mr. AKINS. Yes, sir, he saw it in the box with me.

Mr. STRATTON. He saw it in the box with you?

Mr. AKINS. Yes, sir.

Mr. STRATTON. Did you clearly recognize it as a manifold rather than this heat exchange device?

Mr. AKINS. This is a unique device.

Mr. LALLY. Which one are you pointing to now?

Mr. AKINS. This one with the 48 prongs.

This is a unique device.

The CHAIRMAN. That was not the device you saw?

Mr. AKINS. That was not the device. Had it been this device, it would be so unique until there would have been no doubt as to what it was. Some type of experimental equipment.

The CHAIRMAN. All right. As I recall the testimony, Mr. Frank testified that that was the instrument that was there, the one that you just referred to.

Mr. AKINS. Yes, sir, I heard that.

The CHAIRMAN. It was not?

Mr. AKINS. No, sir, it was not.

Mr. STRATTON. Did you discuss this with Mr. Smith?

Mr. AKINS. I discusssed it with Mr. Smith and Mr. Benmayor.

Mr. STRATTON. And with Mr. Benmayor?

Mr. AKINS. That is right, sir.

Mr. STRATTON. Did Mr. Benmayor tell you, "Why that is something I ordered Mr. Ammons to build sometime ago as a heat exchanger device?"

Mr. AKINS. No, sir; he did not.

Mr. STRATTON. Mr. Benmayor didn't undertake to explain its presence there at all, as something that was normal and in line with some other experiment that was going on?

Mr. AKINS. He offered no explanation.

Mr. STRATTON. Was Mr. Thomas Ammons around there at the time?

Mr. AKINS. Not in the test area that I remember.

Now he was around the plant in maintenance-type activities, but as far as being in the test area; no, sir.

Mr. STRATTON. He didn't come forward and say: "This is something I made and I'm going to take it out?"

Mr. AKINS. No, sir, not to me.

Mr. STRATTON. Was it you or Mr. Seay who was the top Government representative?

Mr. AKINS. I was the QAR, with the responsibility for the plant; yes, sir.

Mr. STRATTON. I believe Mr. Frank testified, Mr. Ammons said he made the device and he removed it at the request of a Government representative.

Did you direct Mr. Thomas Ammons to remove this?

Mr. AKINS. No, sir; that would have been way beyond the scope of my authority, sir. I never ask the contractor's people to do work; I cannot do that.

Mr. STRATTON. You reported this incident in what way again?

I think you testified to this before, but I just want to refresh my memory.

Mr. AKINS. Well, the committee realizing the situation I was under here, during, according to my previous testimony—I immediately left the area, after I visualized and actually saw the manifold in question, I left that area, went immediately to my office as Mr. Frank has testified, something like 20 steps away, and called my immediate superior, who is Mr. Reece Tabor, and informed him of the fact and what I had found.

Mr. Tabor told me, as I previously stated—I documented the fact in my own records, rough draft, handwritten: Times, places, who was there, and what time it happened. This I transmitted to him on the 15th of March, along with the rest of the things that I had verbally contacted Aerosonic personnel about—not directly to Mr. Frank sometimes, but Aerosonic personnel in responsible positions—supervisors, vice presidents—these types of persons—director of quality control.

I had verbally contacted them and I wrote it all down and sent it to Mr. Tabor, as it happened daily, or on the day it occurred—all on the 15th of March, I sent this to him in one memorandum.

He subsequently put out a letter to higher DCAS authority almost verbatim to my handwritten statement.

Mr. STRATTON. And including a couple of other incidents as well?

Mr. AKINS. Yes, sir.

Mr. STRATTON. And concluded, if I recall, with a statement to the effect that under these circumstances, the activities of Aerosonic were going to have to be monitored very carefully, as I remember it?

Mr. AKINS. I don't recall just exactly what his memo says; I don't have it with me.

Mr. STRATTON. What was that number, John, do you remember? I had it here a minute ago.

Mr. LALLY. Thirty-six.

Mr. STRATTON. I have it here; yes.

He concluded:

In view of the contractor's poor attitude toward quality, improper work practices and obvious lack of integrity, it is recommended that all material produced by this contractor be subjected to statistical sampling and independently tested by DCAS personnel.

Mr. AKINS. That was not my statement, sir.

My statement concluded in the paragraph before.

Mr. STRATTON. This is his conclusion on the basis of the incidents that you forwarded to him.

Mr. AKINS. Yes, sir, I believe so.

Mr. STRATTON. I have that letter which discusses that the investigation disclosed an additional manifold built into the wall of the test chamber installed in a manner that any single unit would be supplied with a vacuum source when pinched off outside of the chamber. That is item 36.

Mr. LALLY. You have the wrong document there.

Mr. AKINS. Do I have the wrong document?

Mr. LALLY. Yes.

Mr. STRATTON. That is the item you said was almost verbatim to what you had forwarded.

Mr. LALLY. In No. 36——

Mr. STRATTON. What you had forwarded to Mr. Tabor.

Mr. AKINS. Oh, yes, sir, this is the memorandum of which I have a copy; yes, sir.

Mr. STRATTON. Item 2, is based, you say almost verbatim, on your memorandum to Mr. Tabor on that particular incident of the excess manifold?

Mr. AKINS. Yes, sir, and even in retrospect, here is a typographical error.

It was minus 35° centigrade, not 55.

Mr. STRATTON. Minus 35°.

One other question, Mr. Akins.

You said the committee is already aware of your situation in that plant, if I am quoting what you said a moment ago in explaining who you reported to and why you reported to him.

By that, I take it you mean, putting it as generously as possible, that you had found from bitter experience that reporting some of these quality control inadequacies to Mr. Frank did not result in very prompt remedial action being taken; is that a fair statement?

Mr. AKINS. No, sir, that would not be a fair statement.

Mr. STRATTON. Well, exactly what did you mean when you said considering your position in the plant?

Mr. AKINS. At this point in time, I had just taken over from Mr. Blickenstaff. The committee is well aware of the situation with Mr. Blickenstaff.

Mr. STRATTON. You were told you had been given directions by Commander Curtin, as I remember just vaguely, to try to avoid irritating Mr. Frank by sending things up to him; is that about it?

Mr. AKINS. I had been given direct orders not to submit anything to Mr. Frank in writing without passing it through DCAS over at St. Petersburg.

Mr. STRATTON. OK.

The CHAIRMAN. One question I want to ask to clear this up definitely in my mind:

Recalling Mr. Frank's testimony, Mr. Frank testified under oath that that instrument over there, whatever you want to call it—was the instrument that—the manifold that was really the one that was behind the partition; whatever it was, that one over there.

Mr. AKINS. That was his testimony, sir.

The CHAIRMAN. That was his testimony.

And that if that were the instrument behind the wall it would not influence the testing; is that right?

Mr. AKINS. That is correct, sir.

The CHAIRMAN. The other is, what you say is the one that you saw, and that presence would influence the testing?

Mr. AKINS. Yes, sir, it would.

Now, Mr. Chairman, if I may—this unit would be of no use as a heat exchanger, because it has no inlet or outlet for refrigeration.

The CHAIRMAN. I'm not worried about the technicalities. I'm just a little country boy, I can't understand all this technical stuff.

All that I can understand is that that instrument there on the table would have no effect on the testing.

Mr. AKINS. That's correct, sir.

The CHAIRMAN. But if it was the other instrument, it would have an effect?

Mr. AKINS. Yes, sir, it would.

The CHAIRMAN. That is all I want to know.

Mr. STRATTON. If I could add something more to that——

The CHAIRMAN. Surely.

Mr. STRATTON. That is the clear conflict of the testimony we have.

I think the point Mr. Akins is making is that even if this unit were used for the purpose that Mr. Frank claimed that it was used for, it still couldn't function, as I understand it.

You would have to put some kind of chemical in that device to produce the cold, and that would mean that any air going through the tubes, with that chemical in, would turn into ice before it got through.

Didn't you indicate something to that effect?

Mr. AKINS. That is a reasonable statement—yes, sir.

Mr. STRATTON. I'm just a country boy, too, but he mentioned that earlier, Mr. Chairman.

And, sir, I thought we ought to get it on the record.

The CHAIRMAN. Let's both be country boys, it either works or does not work.

[Laughter.]

Mr. LALLY. Mr. Akins, I have one further question:

Mr. Warren provided you with a copy of Mr. Frank's statement a few moments ago?

Mr. AKINS. Yes.

Mr. LALLY. I direct your attention to the first sentence on page 60, on which Mr. Frank says: "I can verify that this"—at that time he was referring to the four-pronged device to your right—"this is either the particular device in question, or is so closely identical in construction and purpose as to be indistinguishable."

Does this four-pronged device resemble in any way the manifold which you found in the test chamber on February 28, 1972?

Mr. AKINS. No, sir.

Mr. LALLY. Thank you, sir.

I have no further questions, Mr. Chairman.

The CHAIRMAN. Thank you, gentlemen, very much for your cooperation and appearance.

The committee will stand in recess subject to the call of the Chair.

(Whereupon, the committee recessed at 3:39 p.m., subject to the call of the Chair.)

APPENDIX 1

FOR OFFICIAL USE ONLY

DEPARTMENT OF THE AIR FORCE
HEADQUARTERS AERONAUTICAL SYSTEMS DIVISION (AFSC)
WRIGHT-PATTERSON AIR FORCE BASE, OHIO 45433

Office of the Commander

9 August 1971

MEMORANDUM FOR THE RECORD

SUBJECT: Meeting with Mr. Frank, Aerosonics Corporation re AIMS Program

1. On 3 August, I received a call from Mr. Dale Marler, Assistant to Senator Chiles (Florida), asking if I would meet with Mr. H. J. Frank, President, Aerosonics Corporation (contractor on AIMS Program) re a problem the latter compounded by confusion over who was the "crew chief" for AIMS in view of the imminent move from ASD to ESD. I agreed, expressing some surprise that Mr. Frank had not called me directly to ask for a meeting.

2. Mr. Wood, Mr. Lyon (both AIMS SPO) and I met with Mr. Frank, Mr. Benmayer, and Mr. Biales on 4 August. Mr. Frank complained that his small-business organization was being and had been discriminated against by the Air Force (and Army and Navy) -- e.g., never invited to bid on development contracts; "big business" always could get relief from onerous specs and Aerosonics couldn't; acceptance criteria was always tougher on Aerosonics than their "big business" competitors, etc. Mr. Frank talked mostly in broad generalities at this time and few specifics were identified.

3. With regard to the AAU-19/A Altimeter being produced by Aerosonics for the AIMS Program, Mr. Frank coupled his discrimination charges with a concern that resolution of several open items in his contract might be unduly delayed due to the program being transferred to ESD (new team members' orientation, etc.) Specifically, he asked for help in:

a. Qualification -- noting that 2,000 instruments had been produced but were not yet officially qualified and that he had been "told" it would "never" be qualified (I flatly disavowed this); that he couldn't bid on other contracts, was incurring excessive COD liability, etc.

b. Schedule -- not yet contractually adjusted from the original production goal of about 350 per month to the present 100-plus.

c. Inventory Reimbursement re Partial Termination -- that he was entitled to some reimbursement (even though the contract and agreement at time of termination indicate otherwise).

d. Payment for Acceptance Tests -- that for the past six months, Aerosonics was not being paid (about $12 - 15K total per Mr. Frank) for additional acceptance tests directed by the Air Force.

e. That Aerosonics had to meet every detail of their contract and Kollsman didn't (that Aerosonics demonstrated 137 more acceptance test points than Kollsman).

4. With regard to Para. 3, above, I assured Mr. Frank that ASD would settle items a. - d. before the program completely transferred to ESD -- noting that if the AAU-19/A Altimeter could not be qualified at this point in time, I would probably take action to terminate the rest of the contract. With regard to Para. 3e., I expressed the opinion that Aerosonics and Kollsman altimeters had different mechanisms (and characteristics) and that this accounted for at least some of any difference; however, I committed myself to a thorough review of the situation and subsequent transmittal of my findings to Mr. Frank.

5. I subsequently asked Mr. Lyon and Mr. Wood to insure that Paras. 3a. - d. were cleaned up before program transfer was completed and to review the Kollsman/Aerosonics acceptance test point differences with me next week.

JAMES T. STEWART
Lt General, USAF
Commander

Cy to: ESD/DCT

APPENDIX 2

16 AUG 1971

UBJECT: Contract AF33(657)-15444

TO: Mr. H. J. Frank
President, Aerosonic Corporation
Post Office Box 4627
Clearwater, Florida 33518

Dear Mr. Frank

During our 4 August meeting, I assured you that ASD would make every effort to settle four AAU-19/A contractual matters with Aerosonic prior to complete transfer of the AIMS/TRACALS SPO to ESD. The current status is as follows:

1. Revised Delivery Schedule: Contract Modification #54, distributed on 9 August, incorporated the agreed-to delivery schedule.

2. Payment for Previously Directed New Acceptance Test Requirements: Contract Modification #54, referred to above, also provided for these payments.

3. Qualification: The Sample Plan A & B data, as submitted were not complete. Mr. Bialas submitted additional data on 12 August. If all data and information now in hand support your contention that there were no failures, First Article Approval, pursuant to contract provisions, will be granted promptly. A decision will be forthcoming next week.

4. Possible Termination Inventory Reimbursement: Mr. Bialas advises that you are not yet ready to submit a specific proposal on this matter. As I noted during our discussion, even though a no-cost termination was provided for in the contract and agreed to by you at the time, the Air Force will nevertheless consider an equitable adjustment should an audit validate any significant excess inventory. We are arranging the audit and await your proposal.

In addition to the above, I also committed myself to review the variance in acceptance test requirements between Aerosonic and Kollsman. I have

done so, and my general observations can be summarized as follows:

1. The Aerosonic and Kollsman AAU-19/A's are the same from a "form, fit, and function" viewpoint; however, they are not identical hardware, nor do they exhibit identical performance characteristics at various temperature/altitude operating environments.

2. The Kollsman instrument was required to meet more stringent reliability test conditions (MIL-STD-781) than the Aerosonic altimeter.

3. Aerosonic is required to provide data on a significantly greater number of acceptance test points than Kollsman (as a minor aside, I identify 127 -- not 137, as you stated). I also note that these are in-scope contract tasks.

4. The number of acceptance test points required of each contractor was based initially, as you know on development and preproduction test results, and our appraisal of the inherent design characteristics of each instrument. Production experience -- acceptance test variances, reject rates after shipment, etc. -- resulted in some subsequent modifications to those requirements.

5. You also questioned whether Kollsman was required to meet all of the terms and conditions of their contract with regard to production unit acceptance tests. The New York Region DCAS has certified that Kollsman does perform all acceptance tests exactly as stated in their Part II specification.

With regard to the variance in production unit acceptance test points required of each contractor, the results of my fairly detailed review can be summarized as follows:

1. Baro Setting Torque Test: The additional push-pull tests required of Aerosonic will be deleted in a forthcoming Spec Change Notice.

2. Position Error: Aerosonic is required to record 10 -- not 24 -- more test points than Kollsman. These were added in a cost-bearing ECP because of a high reject rate at LTV (apparently related to mechanical balance problems). The Kollsman instrument has not demonstrated similar characteristics. I see no reason to change the requirements for either contractor.

3. Backlash: Test requirements are the same for both contractors and no change is indicated.

4. Scale Error: Aerosonic demonstrates 240 test points vs 216 for Kollsman, but is allowed two out-of-tolerance readings in each temperature range vs none for Kollsman. I see no reason to change those requirements.

5. Static Friction: The additional static friction test point (at 55,500 ft.) required of Aerosonic will be deleted in a forthcoming Spec Change Notice.

6. Altitude Deviation: The wide variance in acceptance test points (a total of 92 -- among the three specified temperatures) between Aerosonic and Kollsman is in this area. As indicated earlier, these requirements were predicated on development and preproduction test results, our evaluation of inherent design characteristics, etc. I did not see production/use experience data which would justify at this time my relaxing your acceptance test requirements in this area. I have asked the SPO to further explore this possibility for me.

7. Servo Stability/Spurious Pointer Motion: While Kollsman has eight mandatory test points in this area and Aerosonic has none, I recognize the requirement for Aerosonic to observe for instability tendencies during the conduct of other tests. I see no reason to change the respective test procedures.

I will follow up personally on the production article qualification matter; the SPO will pursue all open items to completion. I trust our meeting and this letter have been responsive to your concerns.

Sincerely,

JAMES T. STEWART
Lt General, USAF
Commander

APPENDIX 3

30 August 1971

Mr. H. J. Frank
President, Aerosonic Corporation
Post Office Box 4027
Clearwater, Florida 33518

Dear Mr. Frank

Reference is made to our 4 August meeting and my 16 August letter.

The production sampling plan test data submitted by Aerosonic since our 4 August discussion has been carefully evaluated by my Flight Instruments Division. The following seems pertinent:

1. As I understand it, your contract requires that three randomly-selected samples from each 1,000 production units undergo complete sample plan testing. Further, although Aerosonic has delivered some 2,100 units to date, the required sampling has not yet been completed on the first 1,000-block.

2. Data has not been received for about 50 percent of the required sampling plan "B" tests. Queries to Aerosonic and the resident DCAS indicate that several tests are still in progress.

3. Of the data submitted, a number of test points were recorded by Aerosonic (and witnessed by DCAS) as being outside specified tolerances. This conflicts with my recollection of our discussion wherein I believe you indicated the Aerosonic Altimeter had experienced no failures during production sample testing. A detailed listing and analysis of the out-of-tolerance conditions is attached.

The SPO is now moving to FSD and I am disappointed that this issue has not yet been resolved. By copy of this letter, I will ask General Cody to follow up on this matter.

Sincerely

JAMES T. STEWART
Lt General, USAF
Commander

1 Atch
a/s

Analysis of AAU-19/A Test Data Submitted by Aerosonic in August 1971

TEST	S/N 1345A	Failed	S/N 1150A	Failed	S/N 1309A	Failed	S/N 1336A	Failed	S/N 1064	Failed	S/N 1110	Fail
Individual												
Exam of Product												
Torque	X		X		X		X		X		X	
Position Error	X		X		X		X		X		X	
Friction (S & J)	X		X		X		X		X		X	
Friction (Static)	X		X		X		X		X		X	
Case Leak	X		X		X		X		X		X	
Zero Setting	X		X		X		X		X		X	
Backlash	X		X		X		X	X	X		X	
Scale Error (+25°C)	X		X		X		X		X		X	
Hysteresis & A. E.	X		X		X		X		X		X	
Failure Det. (+25°C)	X		X		X		X		X		X	
Alt. Deviation (+25°C)	X		X		X		X		X		X	
Cont. Switch Oper.	X		X		X		X		X		X	
Scale Error (-35°C)	X		X		X		X		X		X	
Failure Det. (-35°C)	X		X		X		X		X		X	
Alt. Deviation (-35°C)	X		X		X		X		X		X	
Scale Error (+45°C)	X		X		X		X		X		X	
Failure Det. (+45°C)	X		X		X		X		X		X	
Alt. Deviation (+45°C)	X		X		X		X		X		X	
Visual Lighting	X		X		X				X		X	
Servo Stability												
Sampling Plan A												
Shelf Life	X (*)		X (*)	X	X (*)	X	X (*)		X (*)	X	X (*)	
Scale Error (-54°C)	X		X		X		X		X		X	
Failure Det. (-54°C)	X		X		X		X		X		X	
Alt. Deviation (-54°C)	X		X		X		X		X		X	
Scale Error (+71°C)	X		X		X		X		X		X	
Failure Det. (+71°C)	X		X		X		X		X		X	
Alt. Deviation (+71°C)	X		X		X		X		X		X	
Vibration Error	X		X		X		X		X		X	
Response	X		X		X		X		X		X	
Dielectric Str.	X		X		X		X		X		X	
Power Consumption	X		X		X		X		X		X	

Analysis of AAU-19/A Test Data Submitted By Aerosonic in August 1971

TEST (continued)	S/N 1345A	Failed	S/N 1150A	Failed	S/N 1309A	Failed	S/N 1336A	Failed	S/N 1064	Failed	S/N 1110	Fail
Sampling Plan A (continued)												
Voltage Variation	X		X		X	X	X	X	X		X	
Standby Failsafe	X		X		X		X		X		X	X
Bending	X		X		X		X		X		X	
Lighting	X		X		X		X		X		X	
Servo Stability												
Reliability							X		X		X	
S. E. 500 hr							X		X		X	
S. E. 750 hr							X		X		X	
S. E. 1000 hr							X	X	X		X	
Friction (S & J)							X		X		X	
Friction (Static)							X		X		X	
Case Leak							X		X		X	
Lighting												
Sampling Plan B												
High Temperature Exposure	X(*)		X(*)		X(*)							
Low Temperature Exposure	X		X		X							
Humidity	X	X	X		X							
Fungus	X(*)		X(*)		X(*)							
Salt Spray												
Vibration	X		X		X							
Radio Noise												
Dust												
Acceleration												
Magnetic Prop.	X		X		X							
Lighting												
Shock	X		X		X							
Internal Exam.												
Servo Stability												
(*) Data Incomplete												

Analysis of Failures - Aerosonic AAU-19/A

1. Backlash - (S/N 1336A) This failure occurred during individual test and was not recognized by Aerosonic. This is a long standing problem wherein Aerosonic does not compare the readings taken during backlash to the initial 29.92 reading.

2. Shelf Life - Data was not adequate to show if the shelf life requirements were being met. It is required that scale error readings after shelf life not change over certain amount. This data was not provided. Certain other failures are discussed below.

(S/N 1150A) - Static friction was failed at one (1) point (2500 ft). Scale error was failed at two (2) points (SL).

(S/N 1309A) - Position error was failed at two (2) points. Zero-setting scale was failed at one (1) point.

(S/N 1064) - Static friction was failed at two (2) points (2500 and 3500 ft) by as much as 25 feet. The drum was discovered by DCASR during this test to be indexing 900 feet off. These failures were recognized by Aerosonic and a failure report was prepared. The report does not discuss a fix for the friction. The unit passed the test after repair of the counter. A 100% inspection was initiated during barometric check to provide assurance the drum indexed properly. This should provide assurance no more such units are shipped; however, it is possible several units are out with this condition.

3. Voltage Variation - (S/N 1309) This test was failed at one (1) point (800 ft., 121V-480H_Z) and not recognized by Aerosonic. (S/N 1336) This test was failed at all points and recognized by Aerosonic. The failure report indicates the power transformer was incorrectly installed in the case and the flux patterns affected the aerosyn signal. It is indicated a station will be set up for purposely checking this installation. This analysis is reasonable; however, it is also reasonable to assume there are several units out in this condition.

4. Standby Failsafe - (S/N 1110) The unit failed at 14 points and cannot be calibrated into the scale error limits. This failure was not recognized by Aerosonic.

5. Reliability - (S/N 1336) One (1) scale error point was out-of-tolerance after the 1000 hour rezero. It is only out a small amount; however, this would require a maintenance action since it has maximum positive and negative readings.

6. Humidity - (S/N 1345) This unit failed servo scale error at four points after humidity. This failure was recognized by Aerosonic; however, the analysis does not appear correct. The cause is listed as too much backlash in the mechanism. The explanation was given as backlash and a border line aerosyn. The fix is listed as reducing the acceptable limits of the aerosyn. This analysis does not provide any assurance the condition will not occur again or that many items are not out with this deficiency. Since the unit had passed at least 7 scale error tests prior to humidity, it appears reasonable to assume that the humidity test (moisture or high temperature) caused the failure. The aerosyn limits cannot be reduced enough to cover the amount of out-of-tolerance condition.

APPENDIX 4

DEPARTMENT OF THE AIR FORCE
HEADQUARTERS ELECTRONIC SYSTEMS DIVISION (AFSC)
LAURENCE G. HANSCOM FIELD, BEDFORD, MASSACHUSETTS 01730

REPLY TO ATTN OF: DCT

13 September 1971

SUBJECT: AF33(657)-15444 (Aerosonic Corporation, AAU-19 Servoed Altimeter)

TO: DCP (Lt Col A. Hood) - PCO

1. It is requested that subject contract be amended to delete the first article clause currently incorporated therein.

a. Contractually Aerosonic has been authorized to ship AAU-19's prior to First Article approval. Against that authorization, the contractor has shipped approximately 2100 of the 4200 under contract. Contractually he is obligated to ship 100 units per month on all remaining quantity.

b. Of the approximate 2100 delivered to date, about 700 are installed in aircraft and are performing the function for which they were procured.

c. The Government is currently paying Aerosonic Corporation approximately $1000.00 per unit versus $2300.00 to Kollsman for a similar item.

d. The responsible engineering group will not grant this article approval due primarily to their concern about the design approach taken by Aerosonic Corporation.

e. By letter dated 8 July 1971, Aerosonic requested resolution of the First Article problem, among other problems, prior to transfer of the SPO to ESD.

f. By letter dated 16 August 1971, the ASD Commander agreed, if possible, to resolve the problems prior to the transfer (a copy of the Commander's 9 Aug 71, 16 Aug 71, and 30 Aug 71 correspondence is attached for reference).

g. On 2 Sep 71, ASD received a copy of a TWX from DCASO, SPBG, Florida which set forth the contents of Aerosonic letter dated 1 Sep 71. This letter stated Aerosonic intended to cease performance against subject contract. Inasmuch as the ASD Commander had agreed to either solve the First Article problem or investigate termination of subject contract, he called a meeting with ASD personnel familiar with the problem with the view to settling the matter in the best interest of the Government. Several alternatives were explored. The one which appeared to be mutually beneficial and in the best interest of the Government was deletion of the First Article clause.

This was based on the understanding that Aerosonic would withdraw its letter of 1 Sep 71 and continue to deliver AAU-19's. The former Chief, Procurement and Production Division of the DOD AIMS/TRACALS SPO, Mr. F. S. Wood, discussed the matter with Mr. Frank, President of the Aerosonic Corporation. Mr. Frank agreed to the above proposition.

2. In summary, any type termination of subject contract would deprive the Government of urgently required equipments and would be extremely time consuming and costly to the Government. In view of all of the circumstances surrounding this contract, and in consideration of the urgent need for the equipment, it is requested that the deletion of the First Article clause be accomplished immediately without monetary consideration. Further, in compliance with the DCASO TWX, it is requested that they be notified of the Government's intention immediately.

/ Paul P. Stanley

PAUL P. STANLEY, Colonel, USAF
Acting System Program Manager
DOD AIMS/TRACALS Program Office
Deputy for Communications
and Navigation Systems

3 Atchs
1. ASD/CC M/R, 9 Aug 71
2. ASD/CC Ltr, 16 Aug 71
3. ASD/CC Ltr, 30 Aug 71

APPENDIX 5

AEROSONIC CORPORATION

P.O. BOX 4627
CLEARWATER
FLORIDA 33518
TEL: (813) 446-5904

September 1, 1971

DCASC, St. Petersburg
Federal Building, Room 265
144 First Avenue South
St. Petersburg, Florida 33701

Attention: Commander P. Curtain

Subject: Contract AF33(657)15444

Gentlemen:

This is to advise you that the Aerosonic Corporation holds the United States Government in default in the above subject contract for the following reasons:

1) Flagrant discrimination against the corporation, its owners and personnel by personnel of Wright Patterson Air Force Base.

2) Failure of General James T. Stewart to live up to verbal commitments he made at a meeting of August 4, 1971, which Aerosonic Corporation contends is as much part of the contract listed above as any written piece of paper.

3) Failure of the United States Government to respond to requests and answers requesting assistance for information.

Since each one of these and all of these constitute failure of the government to live up to its requirements of the contract the Aerosonic Corporation is shutting down its line completely effective September 6, 1971, and will hold the United States Government responsible for any and all damages caused by the United States Government from the above listed reasons.

Very truly yours,

Herbert J. Frank
President

cc: Senator Lawton Chiles

APPENDIX 6

Form 36
Approved by General Services Administration, Nov. 1960 Edition

AWARD
(SUPPLY CONTRACT)

LSA

CONTRACT NO.	PAGE NO.	NUMBER OF PAGES OF AWARD
AF 33(657)-15444 Class: 6610	1	11

DATE OF AWARD: 15 FEB 1966

SOLICITATION NO.: IFB 33-657-66-80

TO (Contractor and address):
AEROSONIC CORPORATION
1212 North Hercules Avenue
Clearwater, Florida 33517

ISSUED BY: UNITED STATES AIR FORCE
AFSC AERONAUTICAL SYSTEMS DIVISION
WRIGHT-PATTERSON AIR FORCE BASE, OHIO
Buyer: Mr. J. G. Chapman, ASZTK

INVOICE FOR PAYMENT SHOULD BE MAILED TO: See below

PAYMENT WILL BE MADE BY: See Cover Page (Cont'd)

Your bid on the above numbered invitation for Bids is hereby accepted as to the items enumerated below with the additions or changes made by you, which additions or changes are set forth in full below.

ITEM NO.	SUPPLIES OR SERVICES	QUANTITY (Number of units)	UNIT	UNIT PRICE	AMOUNT
	*as amended by Amendment No. 1 thereto dated 17 August 1965 and Contractor's letters dated 20 August 1965 and 28 January 1966.				
	The Contractor shall furnish the supplies or services as listed herein.				
	Administrative Office: Chief, Defense Contract Administration Services Office P. O. Box 1361 Clearwater, Florida, 33757				
	Invoices (or Vendor's Shipping Documents used as invoices) will be addressed to the Navy Regional Finance Center and/or the Defense Contract Administration Services Region referred to herein and mailed according to the instructions received from the Contracting Officer assigned to administer the contract.				
	FOR SERIAL NO: REHOP-65-8-23 AERNO: 86-0101 LAB SYMBOL: SEFIF				
	THIS CONTRACT SHALL BE SUBJECT TO THE WRITTEN APPROVAL OF THE SECRETARY OR HIS DULY AUTHORIZED REPRESENTATIVE AND SHALL NOT BE BINDING UNTIL SO APPROVED.				
	See Cover Page (Cont'd)				
	APPROVED 14 Feb 1966 /s/Henry G. MacDonald HENRY G. MACDONALD Colonel, USAF Chief, Procurement and Production Office				
	Items 1.1 thru 1.11 and 2 thru 2.2 of Part I and Items 2.1 thru 2.23 and 3 thru 3.2 of Part II, Alternate "B" are fully funded in the total amount of $2,194,585.00				
				TOTAL AMOUNT	$9,374,550.00

This Award consummates the contract, which consists of the following documents, including any Continuation Sheets thereto: (a) the Government's Invitation for Bids and your Bid, (b) the Schedule, (c) the General Provisions, and (d) the Government's Award. No further contractual document is necessary.

UNITED STATES OF AMERICA

BY: /s/ Frederick S. Wood — 15 FEB 1966
FREDERICK S. WOOD — Date
CONTRACTING OFFICER

Standard Form 26
Nov. 1960 Edition

AF-WP-S-AUG 62 600

(1)

APPENDIX 7

SUPPLEMENTAL AGREEMENT	EFFECTIVE DATE	PAGE NO	NO. OF PAGES
FFPV TRG/[illegible]	8 Sep 1966	1	

REQUISITION NO./PURCHASE AUTHORITY	CONTRACT (Order) NO.	MODIFICATION NO.
None	AF33(657)-15444 FSC-6610	11

TO: (Contractor's name and address)	ISSUED BY
AEROSONIC CORPORATION 1212 NOR HERCULES AVENUE CLEARWATER, FLORIDA 33517	UNITED STATES AIR FORCE AFSC AERONAUTICAL SYSTEMS DIVISION WRIGHT-PATTERSON AIR FORCE BASE, OHIO Buyer: J.G.Chapman/ASZIK

ACCOUNTING AND APPROPRIATION DATA

None

MAILING DATE OCT 19 1966

The above-numbered contract is modified as follows:

See Pages 2 and 3 attached hereto and hereby made a part hereof.

ADMINISTRATIVE INFORMATION

Subject:	Change in First Article Approval Provisions; Delivery Schedule Revision
Change in Contract Price:	None
OFFICE OF ADMINISTRATION:	DCASO, CLEARWATER, (DCRA-DOGC) Suite 306, 314 So. Missouri Avenue Clearwater, Florida 33516
Payment will be made by:	Navy Regional Finance Center 700 Robbins Avenue Philadelphia, Pennsylvania 19111 (for Navy Items) DCASR, Atlanta (DCRA), Disbursing Officer 3100 Maple Drive, N.E. Atlanta, Georgia 30305 (for AF Items)

RECEIVED
SEP 19 1966
Aerosonic Corp.

Except as hereby modified, all terms and conditions of said contract as heretofore modified remain unchanged and in full force and effect. This Supplemental Agreement is entered into pursuant to the ~~[illegible]~~ ~~(IF APPLICABLE)~~ provisions of the "Changes" Clause of the above-numbered contract.

AEROSONIC CORPORATION NAME OF CONTRACTOR	UNITED STATES OF AMERICA
BY A.L. Benmayor 22 SEPTEMBER 1966 SIGNATURE DATE	BY [signature] 14 OCT 1966 SIGNATURE OF CONTRACTING OFFICER DATE
A.L. BENMAYOR TYPED NAME	FREDERICK S. WOOD Contracting Officer TYPED NAME OF CONTRACTING OFFICER
VICE PRESIDENT TITLE	

DD FORM 1 MAY 60 1320

U.S. GOVERNMENT PRINTING OFFICE 1960-O-555749

1. By amending Schedule Provision J, entitled "First Article Approval", of said contract as follows, at no change in the total contract price:

(a) By revising paragraph 1. thereof to read as follows:

"1. Nine (9) each of the Altimeter Type AAU-19A shall be designated First Articles and shall be subjected to Environmental and Reliability Tests in accordance with Specification DOD AIMS 64-101A, dated 16 February 1966. These tests may be conducted at the Contractor's plant or at an approved testing laboratory witnessed by an Air Force Inspector. Upon successful completion of said tests, seven (7) each of said First Articles, accompanied by pertinent test data prepared in accordance with Specification MIL-STD-831 and certified by an authorized official of the organization performing same shall be delivered in accordance with Schedule Provision "K" hereof, all transportation charges prepaid, to the consignee listed in paragraph 3(a) below. The Contractor shall be notified in writing by the Contracting Officer of approval or disapproval of the First Articles. The remaining two (2) each shall continue into Longevity and Shelf Life Tests in accordance with Specification DOD AIMS 64-101A, dated 16 February 1966.

Pending approval of First Articles, except for Longevity and Shelf Life Tests, the Contractor may fabricate but not deliver the articles called for by this contract. The First Articles will be returned to the Contractor, for rework if necessary, and delivered as production articles."

(b) By revising paragraph 2. thereof as follows:

(i) By changing the date "February 1966" to read "September 1966".
(ii) By revising "Specification DOD AIMS 64-108 dated 23 November 1964" to read "Specification DOD AIMS 64-101A dated 16 February 1966".

2. It is recognized that the Specification changes directed by CCN No. 1(6N-1743), incorporated by Supplemental Agreement No. 9, effected a change in the designation of the Altimeter called for in Item 1.1 of Part I of the Schedule of Supplies from "AAU-11/A" to "AAU-19/A". It is further recognized that the equipment now called for under Item 1.1 is identical to that called for under Item 2.1 of Part II of the Award (i.e. Altimeter, AAU-19/A); consequently, no requirement now exists for the First Article approval of the Altimeter, AAU-11/A.

3. As a result of paragraphs 1. and 2. above, Schedule Provision K of said contract is hereby amended to the following extent:

(a) By deleting "Part I - Altimeter, AAU-11/A" and substituting in lieu thereof, "Part I - Altimeter, AAU-19/A".

(b) By revising the first part of Paragraph 1. to read as follows:

"1. Delivery is REQUIRED to be made in accordance with the following schedule:

	1966				1967					
Items	D	J	F	M	A	M	J	J	A	S
1.1 thru 1.11(b) - (combined)	30	45	60	60	60	60	60	45	45	30

2 and 2.3 - In accordance with DD Form 1423 hereto.

3.1 and 4.1B - In accordance with Part VI, Paragraph 1.b. of Form 9 (V-2-40.0-1), referenced in said Items.

4.1A - In accordance with Part IX, paragraph 1.b of Form 9 (V-4-40.0-1), referenced in said Ite

(o) By revising the first part of paragraph 4 - PART II ALTERNATE "B" - Altimeter, AAU-19/A - of said Schedule Provision K. to read as follows:

"4. Delivery is REQUIRED to be made in accordance with the following schedule:

	1966
	Sep
Prototype Units -	8

First Articles and Test Data - November 1966.

Items	1966 - Dec												
2.1 thru 2.23, 6.1 thru 6.15, 10.1 thru 10.25, 14.1 thru 14.3. (combined)	50												
	1967 -	J	F	M	A	M	J	J	A	S	O	N	D
		75	130	250	300	300	300	300	200	100	100	94	350
	1968 -	J	F	M	A	M	J	J	A	S	O	N	D
		350	350	350	350	350	350	250	150	150	150	50	400
	1969 -	J	F	M	A	M	J	J	A	S	O	N	D
		400	400	400	400	400	400	400	300	250	250	219	200
	1970 -	J	F	M	A								
		200	200	200	74								

3 thru 3.3, 7 thru 7.2, 11 thru 11.2, and 15 thru 15.2 - In accordance with the applicable documents referenced therein.

4.1, 8.1, 12.1, and 16.1 - In accordance with Part VI, paragraph 1.b of applicable Form 9, V-2-40.0-1/V-3-40.0-1.

5.1A, 5.1B, 9.1A, 9.1B, 13.1A, 13.1B, 17.1A, and 17.1B - In accordance with*Part IX, paragraph 1.b of applicable Form 9, V-2-40.0-1/V-3-40.0-1/ V-4-40.0-1. "

*Part VI, paragraph 1.b or

APPENDIX 8

CONTRACT FILES

CONTRACT CHANGE NOTIFICATION

MASTER SERIAL NO. N/A

E. CCN NO. 8

F. PAGE 1 OF 3 PAGES

4. TO: Aerosonic Corporation
1212 N. Hercules Avenue
Clearwater, Florida 33517

5. FROM: AFSC, ASD, ASZIK, WPAFB, OHIO
R. Mutschler, ASZIK, 54614

6. PURCHASE REQUEST NO. ZI-8-6610-2604

7. CONTRACT NO. AND/OR PURCHASE ORDER NO. AF33(657)-15444

8. PROPERTY CLASS 6610

9. Pursuant to the clauses of the contract relating to changes, the above named Contractor is hereby authorized and directed to accomplish the changes listed below in respect to the articles called for under said contract as the same has heretofore and may hereafter be amended; subject, however, to the terms and provisions set forth on the reverse side hereof. Whenever both a purchase order number and a contract number are shown above, both numbers will be used in any shipping paper, packing sheet, invoice, correspondence, or related document, the purchase order number preceding the contract number.

A. In performance of subject contract, the contractor shall comply with the following Engineering Change Proposals including applicable Specification Change Notices to Military Specification DOD AIMS 64-101B.

1. SPO ECP, 30 November 1967, including SCN No. 8, 19 March 1968 (Pages 1 thru 5)

2. SPO ECP, 22 March 1968, including SCN No. 9, 22 March 1968 (Page 1 of 1).

3. SPO ECP, 18 April 1968, including SCN No. 10, 18 April 1968 (Pages 1 thru 10).

B. Contract End Items Affected: All End Items

C. Delivery Schedule: Changed to read as follows:

68						69		
J	A	S	O	N	D	J	F	
20	30	50	80	120	170	200	250	and 250 per month till completion.

The contractor agrees by acceptance of this CCN that:

1. The 100 units to be delivered in July, August and September 1968 will be immediately released to production.

2. To correct any deficiencies revealed as result of preproduction testing at no additional cost to the Government.

3. Testing for the period May through September 1968 shall be per attached chart.

D. Funds Obligation: Funds in the amount of $30,000.00 are hereby obligated to cover this CCN.

DUPLICATE ORIGINAL

E. Accounting and Appropriation Data:

57x3010 1084720 P11101Z-1586-1120 S595600/S524600
BPAC 11101Z-1586-1120

MAILING DATE MAY 14 1968

10. DATE 3 MAY 1968

11. TYPED NAME, GRADE, AND SIGNATURE OF CONTRACTING OFFICER
WENDELL J. BOGNER, JR.

12. DISTRIBUTION Same as basic contract.

AFPI FORM APR 58 35 PREVIOUS EDITIONS OF THIS FORM MAY BE USED.

F. Authority:

SPO ECP, 30 November 1967, CCBD 332, 19 March 1968

SPO ECP, 22 March 1968, CCBD 386, 26 March 1968

SPO ECP, 18 April 1968, CCBD 389, 18 April 1968

G. The amount of funds being obligated to cover an increase in price resulting from this document is for administrative purposes only. However, this does not effect the rights of either party to negotiate an equitable adjustment in accordance with the clause pursuant to which this CCN is made.

APPENDIX 9

GENERAL SERVICES ADMINISTRATION
FED. PROC. REG. 1 (41 CFR) 1-16.101

1. AMENDMENT/MODIFICATION NO.	EFFECTIVE DATE	3. REQUISITION/PURCHASE REQUEST NO.	PROJ. NO.
57	1SEP23	N/A	

5. ISSUED BY USAF	CODE FQ7620	6. ADMINISTERED BY (If other than blo	CODE S1003A
ELECTRONIC SYSTEMS DIVISION (AFSC) Deputy for Comm & Nav Systems L. G. Hanscom Field, Bedford MA 01730 BUYR: Elaine C. Voulgaris, DCP 861-2113		DCASO, St. Petersburg Rm 265, Federal Bldg 144 First Avenue South St. Petersburg FL 33701	

7. CONTRACTOR NAME AND ADDRESS (Street, city, county, state, and ZIP Code)	CODE 98810 FACILITY CODE	8. AMENDMENT OF SOLICITATION NO. ____ DATED ____ (See block 9) ☒ MODIFICATION OF CONTRACT/ORDER NO. AF33(657)-15444 DATED 66FEB15 (See block 11)
AEROSONIC CORPORATION 1212 North Hercules Avenue Clearwater FL 33517		

9. THIS BLOCK APPLIES ONLY TO AMENDMENTS OF SOLICITATIONS

☐ The above numbered solicitation is amended as set forth in block 12. The hour and date specified for receipt of Offers ☐ is extended, ☐ is not extended.

Offerors must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation, or as amended, by one of the following methods:

(a) By signing and returning ____ copies of this amendment, (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKOWLEDGMENT TO BE RECEIVED AT THE ISSUING OFFICE PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If, by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided such telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.

10. ACCOUNTING AND APPROPRIATION DATA (If required)

N/A

11. THIS BLOCK APPLIES ONLY TO MODIFICATIONS OF CONTRACTS/ORDERS

(a) ☐ This Change Order is issued pursuant to ____

The Changes set forth in block 12 are made to the above numbered contract/order.

(b) ☐ The above numbered contract/order is modified to reflect the administrative changes (such as changes in paying office, appropriation data, etc.) set forth in block 12.

(c) ☒ This Supplemental Agreement is entered into pursuant to authority of terms of the basic contract.

It modifies the above numbered contract as set forth in block 12.

12. DESCRIPTION OF AMENDMENT/MODIFICATION

THE ATTACHED PAGE 2 IS HEREBY MADE A PART OF THIS AGREEMENT.

MAILING DATE OCT 8 1971

Except as provided herein, all terms and conditions of the document referenced in block 8, as heretofore changed, remain unchanged and in full force and effect.

13. ☐ CONTRACTOR/OFFEROR IS NOT REQUIRED TO SIGN THIS DOCUMENT ☒ CONTRACTOR/OFFEROR IS REQUIRED TO SIGN THIS DOCUMENT AND RETURN 3 COPIES TO ISSUING OFFICE

14. NAME OF CONTRACTOR/OFFEROR		17. UNITED STATES OF AMERICA	
BY (Signature of person authorized to sign)		BY (Signature of Contracting Officer)	
15. TITLE OF SIGNER (Type or print) T. FRANK	16. DATE SIGNED 71 SEP 2	18. NAME OF CONTRACTING OFFICER (Type or print) LELAND E. CARR	19. DATE SIGNED 71 SEP 2

U.S. GOVERNMENT PRINTING OFFICE: 1966 O-285-145-(10-67)

WHEREAS, the Government has by its prior action waived the requirements for the Contractor to obtain First Article Approval prior to production in accordance with Article J of the Schedule "First Article Approval", and

WHEREAS, the Government has allowed the Contractor to produce end items under this contract, and

WHEREAS, the Contractor has as of this date produced and delivered to the Government in excess of 2,100 units, the units having been accepted by the Government,

NOW, THEREFORE, it is agreed between the Government and the Contractor that the Government may not now require the Contractor to retrofit or correct any previously delivered units to bring them up to any standard which may have been required by complete testing or First Article Approval in accordance with Article J of the Schedule and that the Contractor will continue to produce units required by this contract in accordance with delivery schedule and other requirements thereof and that all future units will be subjected to the sample Plan A Test and the sample Plan B Test as set forth in Specification #64-101B of this contract and the Contractor will insure that complete and timely data is submitted in accordance with said sample plans and will, at no additional cost to the Government, correct any deficiencies in any units hereinafter delivered, which defects or deficiencies are revealed prior to acceptance or through the tests set forth in sampling Plan A and sampling Plan B.

This agreement does not in any wise limit the requirements placed upon the Contractor for repair or for the correction of any defects required by any clause of subject contract other than Article J of the Schedule.

APPENDIX 10

DEPARTMENT OF THE AIR [illegible]E
HEADQUARTERS AERONAUTICAL SYSTEMS DIVISION (AFSC)
WRIGHT-PATTERSON AIR FORCE BASE, OHIO 45433

REPLY TO ATTN OF: ASZIR

30 JUL 1968

SUBJECT: Inspection Instructions, Contract AF33(657)-15444

TO: DCASD (Clearwater)

1. Reference Procurement Quality Assurance Manual for Contract Administration Services, DCAM 8200.1, Paragraph 1-100(C).

2. It is requested that Class A mandatory inspections in accordance with above manual be conducted on AAU-19/A Altimeters produced under subject contract.

3. It is requested that mandatory "A" surveillance be continued on the first 1000 AAU-19's produced under subject contract. This mandatory "A" inspection to be performed in the final functional test area. At the expiration of the quantity specified above, the inspection shall, at the discretion of the resident QAR, revert to that inspection normally accorded altimeters.

FOR THE COMMANDER

FREDERICK S. WOOD, [illegible] - Chief
Procurement & Production Division
DOD AIMS System Program Office

APPENDIX 11



March 10, 1971

Mr. E. F. Blickenstaff, Q.A.R.
Aerosonic Corporation
Clearwater, Florida

Dear Mr. Blickenstaff:

We are notifying all of our government offices that we are not going to comply with the two letters dated 10 March and the one dated 4 March, and until these letters are rescinded or other arrangements made no further shipments will be made on any government contract since we consider these letters a threat and discrimination against our organizstion caused by you and your group.

Therefore, you and your quality control representatives will not be needed or admitted on the premises after 4:30 p.m. today until further notice.

Very truly yours,

Herbert J. Frank
President

HJF/sd

APPENDIX 12

DCRM-DOCB 18 March 1971

Mr. H. Frank
Aeronomic Corp.
P. O. Box 4627
Clearwater, Florida 33518

Dear Mr. Frank:

The purpose of this letter is to confirm our discussions of 15-16 March regarding the performance of the quality assurance function in your Clearwater, Florida, facility. The areas of understanding are as follows:

a. Government Inspection of Spare and Repair Parts: Inspector's correspondence (DD Form 1232) dated 10 March 1971 will be modified by Mr. E. F. Blickenstaff (Resident QAR). This modification will stipulate that the Government will perform source inspection on the next five (5) shipments of repair parts/spare parts. If the AQL is 1% or less this inspection will be terminated. If the AQL exceeds 1% it will be necessary to continue the source inspection until an acceptable AQL is achieved.

b. Final Functional Test: DD Form 1232 dated 10 March 1971 will be rescinded because you have stated that the QAR would be furnished a daily schedule of units expected to be subjected to the final functional test. Further, while such tests are in progress they may be witnessed by the responsible Government QC personnel. If testing is required the Government QC personnel will request appropriate contractor personnel to perform the test.

c. Government Inspection Prior to Casing: DD Form 1232 dated 4 March 1971 will be rescinded because you have stated that the QAR would be furnished a daily schedule of units expected to be subjected to the final functional test. Further, while such tests are in progress they may be witnessed by the responsible Government QC personnel. If testing is required the Government QC personnel will request appropriate contractor personnel to perform the test.

d. Communications: Communications regarding quality control procedures/problems/questions will be handled between the resident QAR, Mr. E. F. Blickenstaff, and your Mr. E. Lolley, Quality Control Director.

DCRA-DOCSB
Mr. H. Frank

18 March 1971

c. Resident OAP: Your desire to replace Mr. E. F. Blickenstaff will not be agreed to at this time. I expect Mr. E. F. Blickenstaff to perform his duties in such a manner that the Government receives a quality product. He has received explicit guidance in the performance of his duties. Should you have occasion to present to me data that indicates that Mr. Blickenstaff or any other DCAS employee is exceeding his authority or imposing arbitrary requirements, I will immediately take appropriate remedial action.

If the foregoing is not in accordance with our discussions, please let me know.

Sincerely yours,

P. CURTIN
Commander, SC, USN
Chief

2

APPENDIX 13

TO: Mr. H. J. Frank 12 November 1971

SUBJECT: Sampling Inspection

FROM: E. F. Blickenstaff, Q.A.S.

The sampling plan to be implimented on 15 November 1971 on the AAU-19/A and the AAU-27/A Altimeters will be administered in accordance with MIL-STD-105D and DSAM 8260.1 Sampling Procedures and Methods for Quality Assurance. Application will be as follows:

1. You may present lots in quantities of 26 - 50 for each instrument, the AAU-19/A and the AAU-27/A for Government Inspection.

2. The lots will be formed after final functional test and prior to painting.

3. We will then select a sample size of 8 each of the AAU-19/A and the AAU-27/A to be retested for the test characteristics attached. These tests may be performed in conjunction with units being final functional tested.

4. Tests will be conducted by final functional test personnel and witnessed by the Government Q.A.S.

5. Should there be a failure of any or all of the test characteristics, the lot will be rejected and returned to be screened by you for those characteristics that failed.

6. After retest, the entire lot will be resubmitted and another sample size of 8 each will be selected and retested for only those characteristics that failed.

7. In cases where end-of-month contract delivery schedules may be affected by formation of a minimum lot size of 26, lots of 9 - 26 units will be acceptable to expedite shipments.

If we can advise you or your staff on further details of this plan please feel free to contact us.

E. F. Blickenstaff
E. F. Blickenstaff
Q.A.S.

TEST CHARACTERISTICS

AAU-27/A

MIL-A-83212

1. Static Friction	Para. 4.6.4.1
2. Scale Error, Room Temp	Para. 4.6.6.1

AAU-19/A
SPEC 64-101B

1. Static Friction	Para. 4.2.3.1.7
2. Scale Error Standby ±25°C (Room)	Para. 4.2.3.1.7
3. Scale Error Servo ±25°C (Room)	Para. 4.2.3.1.7

APPENDIX 14

AEROSONIC CORPORATION

P.O. BOX 4637
CLEARWATER
FLORIDA 33518
TEL: (813) 446-5904

December 3, 1971

DCASO - St. Petersburg
Room 265, Federal Building
144 1st Avenue South
St. Petersburg, Florida 33701

Attn: P. Curtin, Commander, USN, Chief

Subj: Termination of all Government Contracts

Gentlemen:

The Aerosonic Corporation is requesting a termination of all government contracts as listed by Exhibit "A", effective immediately.

The U. S. Government, by its unilateral action of denying payment to Aerosonic for work done, illegally placing requirements above and beyond the requirements of contracts, and other similar harrassments, have so financially affected our corporation that we can no longer continue our operation under these conditions. We therefore are closing our entire operation concerned with government contracts, effective Monday, December 6th, 1971, in order that our corporation can survive. Each day our corporation stays open under the conditions stated above puts our corporation in further financial difficulties which would eventually end in bankruptcy, all caused by the U. S. Government's illegal acts. In order, therefore, to survive we find that this move is necessary.

Our request for termination of all government contracts is based on our belief that certain members of the government are determined, in one form or another, to bankrupt our corporation through harrassment, illegal requirements placed on our corporation, and other such moves which over the past several years have been self-evident. We do not feel that we have to subject ourselves to this form of operation, nor do we believe that we can continue, even with assurances given by the government, which said assurances have been given to us before with obvious little or no effect.

We are further requesting that the DCAS records and personnel stationed at our plant be removed as soon as possible so that Aerosonic can continue its normal operation.

The Aerosonic Corporation also wishes to bring to the attention of the U. S. Government, through your office, the fact that the U. S. Government does not even recognize that these illegal acts did, and are, taking place, through its failure even to acknowledge a dispute letter dated the 11th of November. This in itself, in our opinion, is a form of harrassment and an illegal act.

Very truly yours,

Herbert J. Frank
President

HJF/sd

Aerospace Corporation

December 3, 1971

EXHIBIT "A"

AF33(657)15444 AAU/19
DAA JO1-70-D-0054(PIA)
DAA-69-C-0551(1A)
F33657-70-C-0655 AAU/27
F33657-70-C-0862
F33657-70-D-0680
F33657-71-C-0668
DAA JO1-71-C-0860
F33657-71-C-0837
DAA JO1-72-C-0031
F33657-71-C-1100
F42600-71-C-2712
NOO383-72-C-0329
F33657-71-C-1177
NOO383-72-C-0343
F41608-72-C-5037
F42600-72-C-0324
F41608-72-D-5156
F04606-72-C-0180
F33657-72-C-0230
F04606-72-N-1095
F33657-72-C-0132
F34601-72-D-0875
F34601-71-D-3316
F33657-72-C-0231

APPENDIX 15

ALTIMETER TEST LOG
(HOT +45°C)

LOT # ..... INST. # 1438

AAU-27/A DATE 2-24-73

MIL-A-83212

BAROMETER READ	UP	DOWN	
	-170	-160	
G.L.	-150	-145	

TEST POINT (FT.)	S.E. (TOL.)	SCALE ERROR +45°C UP	DOWN
-1000	30	-5	-10
0	30	10	20
500	35	10	20
1000	35	15	25
1500	40	5	15
2000	40	15	25
2500	45	10	20
3000	45	15	30
4000	50	20	45
5000	50	25	40
6000	55	25	45
8000	60	15	35
10000	65	5	20
12000	70	-10	15
14000	75	-25	-10
15000	80	-30	-15
16000	85	-35	-15
18000	90	-45	-30
20000	95	-70	-55
22000	100	-85	-45
25000	105	-70	-60
30000	115	-65	-25
35000	125	20	45
40000	140	105	125
45000	185	90	105
50000	210	125	
INSPECTOR	CALT		
CASE LEAK	-30	-75	45

Form 7-1024

Annamore
Trudel

Atch #2

ALTIMETER TEST LOG
(HOT [illegible]°C)

LOT #..... INST. # 1435

AAU-27/A DATE 2-24-72

MIL-A-83212

BAROMETER READ	UP	DOWN	
	-170	-160	
G.L.	-185	-155	

TEST POINT (FT.)	S.E. (TOL.)	SCALE ERROR +45°C UP	DOWN
—1000	30	0	-5
0	30	-10	0
500	35	-20	-5
1000	35	-5	5
1500	40	-5	10
2000	40	5	15
2500	45	0	10
3000	45	15	25
4000	50	10	20
5000	50	5	15
6000	55	5	20
8000	60	5	25
10000	65	-20	10
12000	70	-15	5
14000	75	-20	-5
15000	80	-45	-15
16000	85	-40	-15
18000	90	-65	-25
20000	95	-80	-45
22000	100	-65	-35
25000	105	-90	-75
30000	115	-15	-25
35000	125	25	55
40000	140	65	75
45000	185	10	20
50000	210	[illegible]	[illegible]
INSPECTOR	[illegible]		
CASE LEAK	-25	-60	35

Form 7-102[illegible]

ALTIMETER TEST LOG
(HOT +45°C)

LOT #..... INST. # [illegible]

AAU-27/A DATE [illegible]

MIL-A-83212

BAROMETER READ	UP	DOWN	
	-170	-160	
G.L.	-180	-170	

TEST POINT (FT.)	S.E. (TOL.)	SCALE ERROR +45°C UP	DOWN
—1000	30	15	5
0	30	-15	-5
500	35	-10	0
1000	35	-5	10
1500	40	-15	5
2000	40	-20	-5
2500	45	-10	5
3000	45	-15	0
4000	50	-5	10
5000	50	-15	5
6000	55	-10	15
8000	60	-10	10
10000	65	-20	[illegible]
12000	70	-45	[illegible]
14000	75	-40	[illegible]
15000	80	-40	[illegible]
16000	85	-50	[illegible]
18000	90	-60	[illegible]
20000	95	-65	[illegible]
22000	100	-65	[illegible]
25000	105	-70	[illegible]
30000	115	-20	10
35000	125	30	[illegible]
40000	140	105	[illegible]
45000	185	-10	0
50000	210	-160	[illegible]
INSPECTOR	[illegible]		
CASE LEAK	-20	-75	55

Form 7-1024

Atch #[illegible]

ALTIMETER TEST LOG
(HOT +45 °C)

LOT #..... INST. # 1177

AAU-27/A DATE 2-24-76

MIL-A-83212

BAROMETER READ	UP	DOWN
	-170	-165
G.L.	-190	-175

TEST POINT (FT.)	S.E. (TOL.)	SCALE ERROR +45°C UP	SCALE ERROR +45°C DOWN
−1000	30	25	15
0	30	−20	−10
500	35	−15	−5
1000	35	−20	−5
1500	40	−25	−15
2000	40	−10	5
2500	45	−15	0
3000	45	−20	−5
4000	50	−5	15
5000	50	−10	10
6000	55	0	20
8000	60	0	25
10000	65	5	20
12000	70	15	30
14000	75	−5	15
15000	80	−10	10
16000	85	−10	−10
18000	90	−25	−15
20000	95	−45	−20
22000	100	−30	−15
25000	105	−25	−15
30000	115	−10	10
35000	125	10	60
40000	140	25	95
45000	155	15	25
50000	210		
INSPECTOR			
CASE LEAK	−20	−35	15

Form 7-1024

ALTIMETER TEST LOG
(HOT +45°C)

LOT #..... INST. # 1179

AAU-27/A DATE 2-24-76

MIL-A-83212

BAROMETER READ	UP	DOWN
	-170	-165
G.L.	-175	-155

TEST POINT (FT.)	S.E. (TOL.)	SCALE ERROR +45°C UP	SCALE ERROR +45°C DOWN
−1000	30	0	−5
0	30	0	5
500	35	5	15
1000	35	5	10
1500	40	0	5
2000	40	−5	5
2500	45	−5	10
3000	45	0	15
4000	50	5	−20
5000	50	−5	10
6000	55	−15	5
8000	60	−30	−5
10000	65	−10	10
12000	70	−30	−10
14000	75	−30	−10
15000	80	−40	−20
16000	85	−30	−20
18000	90	−35	−30
20000	95	−30	−25
22000	100	−30	−25
25000	105	−35	−25
30000	115	−50	−30
35000	125	15	−40
40000	140	95	−10
45000	185	−30	25
50000	210	65	
INSPECTOR			
CASE LEAK	−15	−40	25

Form 7-1024

ALTIMETER TEST LOG
(HOT °C)

LOT #..... INST. #.....

AAU-27/A DATE .....

MIL-A-83212

BAROMETER READ	UP	DOWN
G.L.		

TEST POINT (FT.)	S.E. (TOL.)	SCALE ERROR +45°C UP	SCALE ERROR +45°C DOWN
−1000	30		
0	30		
500	35		
1000	35		
1500	40		
2000	40		
2500	45		
3000	45		
4000	50		
5000	50		
6000	55		
8000	60		
10000	65		
12000	70		
14000	75		
15000	80		
16000	85		
18000	90		
20000	95		
22000	100		
25000	105		
30000	115		
35000	125		
40000	140		
45000	165		
50000	210		
INSPECTOR			
CASE LEAK			

Form 7-1024

ALTIMETER TEST LOG
(HOT +45°C)

LOT #..... INST. #.....

AAU-27/A DATE .....

MIL-A-83212

BAROMETER READ	UP	DOWN
G.L.		

TEST POINT (FT.)	S.E. (TOL.)	SCALE ERROR +45°C UP	SCALE ERROR +45°C DOWN
−1000	30		
0	30		
500	35		
1000	35		
1500	40		
2000	40		
2500	45		
3000	45		
4000	50		
5000	50		
6000	55		
8000	60		
10000	65		
12000	70		
14000	75		
15000	80		
16000	85		
18000	90		
20000	95		
22000	100		
25000	105		
30000	115		
35000	125		
40000	140		
45000	165		
50000	210		
INSPECTOR			
CASE LEAK			

Form 7-1024

APPENDIX 16

QUALITY CONTROL REPRESENTATIVE'S CORRESPONDENCE

1. CONTRACT, P. O., OR O. I. NUMBER: All Government contracts and/or Purchase Orders
2. DATE PREPARED: 4 March 71
3. PRIME CONTRACTOR AND LOCATION: Aerosonic Corporation
4. PLANT NAME AND ADDRESS: Clearwater, Florida
5. ITEM: All

SUBJECT: GOVERNMENT INSPECTION PRIOR TO CASING

FROM (*Name & Signature*): E. F. Blickenstaff

TO: Mr. E. Lolley, Quality Control Director

1. Effective this date you are requested to notify this office prior to all units being cased. This is so that we may perform a visual inspection.

2. Should this office not be able to have someone present to perform the above you will be so notified.

3. Your cooperation in carrying out the above will be appreciated.

Eugene F. Blickenstaff

Eugene F. Blickenstaff
Q.A.R.

DD FORM 1 NOV 64 1232 EDITION OF 1 JUL 58 MAY BE USED. ALSO REPLACES DSA FORM 225 WHICH MAY BE USED UNTIL EXHAUSTED.

GPO 884-082

APPENDIX 17

INSPECTOR'S CORRESPONDENCE

1. CONTRACT, P.O., OR O.I. NUMBER	2. COMMODITY SECTION	3 DATE
Various Gov. Contracts		10 March 1971

4. PRIME CONTRACTOR AND LOCATION
Aerosonic Corporation

5. PLANT NAME AND ADDRESS
Clearwater, Florida

6. ITEM
AAU-18/A, AAU-8B/A, AVU-8/A, AAU-16/A, AAU-19/A, AVU-19/A

SUBJECT: FINAL FUNCTIONAL TEST

TO: Mr. E. J. Lolley, Q. C. Director

1. Effective this date you are requested to notify this office prior to start of Final Functional Test on the above units. This is so we may verify that contractual requirements are being met.

2. Should this office not be able to have someone present to witness the above test you will be so notified.

3. Your cooperation in carrying out the above will be appreciated.

E. F. Blickenstaff

E. F. Blickenstaff
Q.A.R.

Inspector.

DD FORM 1 JUL 68 1232 REPLACES DA FORM 10-208, 1 NOV 54, WHICH IS OBSOLETE.

GPO 861871

APPENDIX 18

INSPECTOR'S CORRESPONDENCE

1. CONTRACT, P.O., OR O.I. NUMBER	2. COMMODITY/SERVICE	3. DATE
All Gov. Contracts and/or Purchase Orders		10 March 1971

4. PRIME CONTRACTOR AND LOCATION
Aerosonic Corporation

5. PLANT NAME AND ADDRESS
Clearwater, Florida

6. ITEM
All

SUBJECT: GOVERNMENT INSPECTION ON SPARE AND REPAIR PARTS

TO: E. J. Lolley, Q. C. Director

1. Effective this date you are requested to notify this office prior to packaging and after packaging any and all spare and/or repair parts. This is so that we may perform Government Inspection as required by contract and/or delegation.

2. Should this office not be able to have someone available to perform the above you will be so notified.

3. Your cooperation in carrying out the above will be appreciated.

E. F. Blickenstaff
E. F. Blickenstaff
Q.A.R.

DCAS Q-4-71
22 Feb 1971

Inspector.

GPO 881971

DD FORM 1 JUL 68 1232 REPLACES DA FORM 10-208, 1 NOV 64, WHICH IS OBSOLETE.

APPENDIX 19

DEFENSE SUPPLY AGENCY

Inter-Office Memorandum

20 March 1972

AAU-27/A Altimeter on Contract F33657-70-C-0655 at Aerosonic Corporation

TO: DCMA-DOGSQ-1 - MR. TABER

FROM: DCMA-DOGSQ - Major FRINGER

1. During review of final test records dated 24 February 1972, on subject instrument, it was noted that seven units had received both hot (+45° C) and cold (-35° C) tests. No entry was made on the Contractor's Notice for Proposed Testing that indicated these tests were to be performed on this date. Mr. Hathcock, QAS, was present in the test area from 0650 through 1045 on 24 February, and no hot or cold tests were performed during this period. The Contractor's Inspectors listed on the test documents, Mr. C. Ammons and Mr. L. Trudel, were asked if they ran the "hot" test, and the reply was "no". Mr. Benmayor, Production Manager, later stated that he personally had run the tests on the previous night. When further questioned concerning the "cold" test on 13 units, Mr. Benmayor stated he had not run the tests. There was considerable doubt the units were tested for hot and cold performance. A retest was conducted - 13 were cold tested, 5 rejected; 7 units were hot tested, 4 rejected.

2. On 28 February 1972, while performing a case leak test at -55° C, our QAS isolated all units on the test board (normally performed individually) from the vacuum source by pinching off the hoses - 7 units failed leak test. When pinched off individually, no case leak failures occurred. Investigation disclosed an additional manifold built into the wall of the test chamber. This manifold was installed in a manner that any single unit would be supplied with a vacuum source when it was pinched off on the outside of the chamber. The Contractor disclaimed any knowledge of the existence of the additional manifold. The additional manifold was removed at 0700, 29 February 1972.

3. On 9 March 1972, a QAS was witnessing tests on AAU-27/A altimeters. They were being tested for altitude error in descending direction. A 90-feet error was recorded at the 12,000 feet test point, the maximum allowed at that point. The QAS indicated a 105 foot error. He passed the unit, taking into account a possible reading error. On 10 March 1972, the QAS was witnessing a cold scale error test in the descending direction. At the 35,000 feet test point, an error of 160 feet was indicated, but the Contractor's test recorder listed it as 150 feet, which is maximum limit. The QAS (Mr. Seay) questioned the reading. Mr. Benmayor had instructed his people if a reading was 10 feet beyond specified limits to record it as being within specification limits. Mr. Benmayor expressed a severe dislike for the QAS (Mr. Seay) and

SUBJECT: AAU-27/A Altimeter on Contract F33657-70-C-0655 at Aerosonic Corporation

requested he leave the plant. The QAS refused to leave until ordered by the QAR. Mr. Benmayor called the QAR (Mr. Akins) to the test area and the QAS was requested to go to the DCAS plant office and the QAR completed witnessing the tests. The unit in question was rejected when two other test points were out of specification limits.

4. During and subsequent to the above incident, the Corporation President (Mr. Frank) and Vice-President (Mr. Benmayor) held a meeting with Mr. Akins and strongly requested he discontinue witnessing final functional test. The QAR repeatedly referred to the contract, letters of delegation, and instructions outlining the type and amount of product verification that must be performed by the Government prior to acceptance of product.

5. On 14 March 1972, the Corporation President held a meeting with the QAR to discuss the DCAS sealing of the units that were selected by a QAS to undergo sampling test as required by the specification. This seal was placed on the units to prevent reseting prior to or during tests. Mr. Frank strongly requested to be shown the authority to seal "his" units. There is no written requirement for sealing and it was discontinued. The practice of sealing is a result of questions asked by a procurement agency representative concerning the lack of seals during proto-type and first article testing. We are no longer able to assure the units are not readjusted prior to or during tests.

6. In view of the Contractor's poor attitude toward quality, improper work practices and obvious lack of integrity, it is recommended that all material produced by this Contractor be subjected to statistical sampling and independently tested by DCAS personnel.

REECE TABOR
Supervisor
Branch 1

Copies furnished:
QAR-Aerosonic

APPENDIX 20

INTRA-OFFICE CORRESPONDENCE

To ED LOLLEY, HOWARD FRANCIS & NEAL STELLA/KH Date March 27, 1972

Subject Inspection of 19/A units.

Effective immediately, in accordance with proper quality control procedures, no production people are to touch any 19/A altimeters that have been brought in for inspection. If any adjustments are needed the Quality Control Department will make these adjustments.

Herb Frank

HJF/sd
cc: Chas. Akins, DCASO

By

APPENDIX 21

TYPED FROM XEROX COPY

REGISTERED

DCRA-DOGCCC 14 October 1966

Mr. Herbert Frank, President
Aerosonic Corporation
1212 North Hercules Road
Clearwater, Florida 33516

Dear Mr. Frank:

You are hereby notified that since you have failed to meet the delivery schedule as set forth in Contract AF33(657)-15444, the Government is considering terminating said contract pursuant to clause entitled "Default". You are hereby afforded an opportunity to show cause why the Government should not, by written notice of default, terminate this contract. Any facts bearing on this question should be presented in writing within ten (10) days after receipt of this notice to Department of the Air Force, Headquarters Aeronautical Systems Division (AFSC), Attn: ASZIK/Mr. Frederick S. Wood, Wright-Patterson AFB Ohio, 45493, with information copy to the undersigned. Your failure to reply within this time may be considered as an admission that no excuse exists. Your attention is invited to the rights of the Contractor and the Government under clause entitled "Default" and your contractual liabilities in the event a decision is made to terminate for default.

Any assistance rendered to the Contractor on this contract or acceptance by the Government of delinquent goods or services hereunder will be solely for the purpose of mitigating damages, and is not to be construed as an intention on the part of the Government to condone any delinquency or as a waiver of any rights the Government may have under subject contract.

Sincerely yours

APPENDIX 22

TYPED FROM XEROX COPY

CERTIFIED MAIL 462033

October 25, 1966

Defense Contract Administration Services
314 So. Missouri Avenue
Clearwater, Florida

Attention: Mr. R. Brown/ACO

Subject: Contract No. AF33(657)-15444

Gentlemen:

This is to acknowledge receipt of your letter concerning the possible default action on the above-subject contract.

The Aerosonic Corporation is finalizing units which will be submitted to the DCASO Air Force and Navy personnel on, or before, the 14th of November for conformance with the above-subject requirements of the contract.

Furthermore, in a discussion with Mr. Fred Wood (a copy of confirming letter enclosed), will provide the Air Force with the necessary instruments to fill holes in the panels so that the aircraft can properly fly in the even there is a delay in scheduling on the AAU-19/A altimeter.

Very truly yours,

AEROSONIC CORPORATION

Herbert J. Frank
President

HJF:kd

APPENDIX 23

AEROSONIC CORPORATION

P.O. BOX 4627
CLEARWATER
FLORIDA 33518
TEL (813) 442-5974

August 2, 1971

DCASO, St. Petersburg
Room 265, Federal Building
144 First Avenue South
St. Petersburg, Florida 33701

Ref: Contract AF33(657)-15444

Gentlemen:

The Aerosonic Corporation is asking for immediate termination, at the convenience of the Government, of the above subject contract. We are requesting termination at the convenience of the Government for the following reasons:

1) Continuous flagrant discriminatory practices used against Aerosonic Corporation by personnel of the AIMS SPO in administering this contract.

2) Failure of the AIMS SPO to even acknowledge letters requesting qualification approval. (Letter dated July 8th, 1971)

3) Failure to give Aerosonic Corporation a delivery schedule on the above subject contract.

Unless all the above items are corrected within five (5) working days of this notification the Aerosonic Corporation will suspend all further work on the above subject program.

Very truly yours,

Herbert J. Frank

APPENDIX 24

15 Dec 67

ASZIK [illegible]/cc/55244

Contract AF33(657)-15444, AAU-19/Z (ASZIK Ltrs, 23 Jun 67 and 19 Jul 67 and ASZIB Msg 27872, 26 Jul 67)

The Aeroconic Corporation

1. As you recall two of the referenced documents established a schedule for accomplishment of testing required prior to the Government having sufficient confidence in your design to proceed with production release. The testing was accomplished during the week of 23 October 1967 and although the equipment showed marked improvement over that which was disapproved in June 1967, the total performance requirements of the contract specification have not yet been demonstrated to the Government's satisfaction.

2. The Contractor and Government testing conducted in October 1967 revealed the following deficiencies. The parenthetical paragraph numbers refer to the appropriate requirements in DOD AIMS Specification 54-101B, Part I. A recap of the out-of specification conditions is shown in Attachment 1 and 2 to this letter.

a. Servo Scale Error (Paras 3.1.1.1.3; 4.4.1.14; 4.4.1.15; Table 2) -- Scale error problems were experienced at -35°C and -54°C. Four of eight units tested exceeded the specified tolerance.

b. Altitude Deviation (Paras 3.1.1; 3.2.1.2.a; 4.4.1.25; 4.4.1.44; Table 5) -- Problems were detected at all test conditions with the most serious occurring at the extreme power conditions. Five of eight units failed at room temperature and normal power.

c. Monitor Trip Level (Paras 3.1.c; 3.1.1; 3.2.1.2.a; 4.4.1.19; 4.4.1.27) -- The monitor circuit was very sensitive to temperature and power variation. With power input being normal (115V-400Hz), the monitor of one unit failed to operate at -35°C and -54°C; a second monitor circuit failed to operate at -54°C. A third monitor circuit failed to operate at room temperature after being exposed to cold temperature.

d. Damage to standby mechanism (Paras 3.1.1.b; 3.1.2a; 3.1.2b) -- One unit was subjected to a simulated computer failure such that the servo portion of the altimeter was driven until the monitor tripped. At sea level the servo overrode the pneumatic system by 6,000 feet prior to the monitor tripping. This, in itself, is not objectionable except that a permanent shift of 100 ft was caused to the pneumatic system. A similar test performed at high altitude (50,000 ft) prior to the lower altitude test, yielded satisfactory results.

e. Friction, "Stop and Jump" (Para 4.4.1.8) -- The contractor's tests revealed several units exceeding requirements.

f. Zero Set Scale/Backlash (Paras 4.4.1.2; 4.4.1.2.1) -- Five of the eight instruments did not meet specification tolerances.

g. Quality Control (Para 4.3.1) -- Although, for purpose of subject evaluation, the instruments were to be considered the equivalent of production units, quality-control discrepancies continued to prevail. It should be noted that even if performance had been totally acceptable, most of the eight units would have been rejected for quality control discrepancies.

(1) Sticking "STBY-RESET" Switches (Para 3.1.1) -- Three out of the eight instruments exhibited sub-normal switch operation. In one instance, poor switch operation resulted in neutralizing the monitor-circuit function into a non-operating condition.

(2) Rough Baro-Set Operation (Para 3.1.1.2c) -- At least two instruments exhibited rough baro-set mechanisms. It is understood that Aerosonic's incoming inspection procedures normally include lubricating this assembly with a moly-oil mixture.

(3) Poor "STBY" Flag Operation (Paras 3.1.1.b, d; 4.4.1.19; 4.3.1.b.6; Figure #2) -- One instrument's flag exhibited a sticky action in moving from servoed to "standby" position. Other instruments had flags which were not of the required display size.

(4) Loose Servo Amplifier (Para 4.3.1.b.7) -- One unit contained a loose servo amplifier assembly. This assembly has only one mounting stud tying it to the frame. The matching nut was absent on the instrument examined, thereby permitting the stud to float in the mounting hole. The concern expressed herein is primarily of an electrical nature, although the problem was mechanical, because the mounting stud also serves to electrically ground the amplifier shield.

(5) Internal Interconnecting Wiring (Para 4.3.1.b.12) -- The wiring, as routed between the various electrical and mechanical components, was not tied down sufficiently. To the naked eye, some of the insulated leads appeared to be touching against nearby gears and other moving parts. This condition constitutes a constant hazard during the operational life of an instrument in that shock or prolonged vibration could shift the leads sufficiently to compromise even the altimeter's "emergency" mode of operation.

3. Whereas the above deficiencies pertain to requirements of the contract specification, it is recognized that there have been areas of mutual misunderstanding in the performance of subject contract to date. In an effort

to clarify such areas, and to avoid future misunderstandings, the Government desires to incorporate the attached proposed specification revisions into subject contract (See Attachments 3 thru 8).

4. As you well know, the Government is most anxious to obtain acceptable altimeters (as defined by 64-101B, Part I specification) as soon as possible. To this end, subsequent to agreement, the following actions shall be accomplished:

a. The contractor shall conduct "Individual Tests" on nine units that are representative of Aerosonics' production-design configuration. The same nine units shall then be subjected to tests that will demonstrate specification compliance (in accord with paragraph 3 specification revisions) in those critical areas outlined in paragraph 2 of this letter.

b. All remaining tests of Sample Plan "A" shall be conducted on 3 of the 9 instruments.

c. Reliability testing of at least 250 failure-free hours shall be conducted on each of 6 instruments. In the event of any failure in the first 250 hours the test time is to be extended. The amount of extension will depend on the number and type of failures but will not exceed that required by 64-101B.

d. The maintainability demonstration shall be conducted in its entirety on one instrument representative of the final configuration.

e. All delinquent contractor data and analyses from the early 1967 qualification tests shall be submitted to the Systems Program Office. This includes, but is not limited to, lighting, shelf life and longevity, internal examination, and anti-reflection glass.

f. A detailed test report shall be submitted at each of the three milestone periods described in attachment 9a and 9b.

Upon successful completion of the above listed efforts, it is the Government's intent to authorize production of a limited quantity of instruments not to exceed 200. Concurrent with this production effort, the reliability testing previously initiated (Paragraph 4c above) shall be continued to final completion as required by Specification 64-101B, Part I, paragraph 4.4.2.41. Longevity testing in accordance with 64-101B, Part I, paragraph 4.4.1.42 will then be initiated with 2 of the reliability units. Individual tests and Sample Plan "A" and "B" tests, as required by the contract, must, of course, be successfully completed. See Attachments 9a and 9b for a schematic description of these listed efforts.

5. It is requested that you carefully review this letter and forward your comments to this Systems Program Office no later than 30 December 1967. Upon receipt of your reply, negotiations will commence with you to revise subject contract so as to reflect a complete meeting of minds relative to your contractual obligation. The areas to be negotiated will be the specification revisions, outstanding CCN's, milestones for accomplishment of required testing to demonstrate specification compliance, and delivery schedule.

FREDERICK S. WOOD
Procurement [illegible] Division
DOD AIMS System Program Office

10 Atchs
1 and 2 - Test Results (wk of 23 Oct 67)
3 thru 8 - Proposed Spec Changes
9a and 9b - Proposed Sequence

cc: DCASO, Clearwater
ASZI/E

[illegible] ASZI/N 12-13-67

P. Marshall 14 Dec 67 SETIF

[illegible] ASZI/E

C.K., as far as it goes; still feel that more of the technical needs (expressed in Engrg. letter) should have been expressed in writing, at this time. Walt Gmelinek 14 Dec 67

4

APPENDIX 25

TO: MR. H. J. FRANK 9 DEC 71

SUBJECT: SAMPLING INSPECTION

We elect to apply the "Responsibility For Inspection" clause cited in the product specification on the twenty-five AAU-27/As presented for acceptance.

It is requested that the Aerosonic Corporation provide the necessary facilities to perform tests outlined under the quality assurance provision of the product specification. Government Quality Assurance personnel will perform the inspections set forth in the specification they deem necessary to assure supplies conform to prescribed requirements prior to acceptance.

Our inspection will be performed independent of Aerosonic testing. Your or your personnel may participate or witness our performance of inspection in a manner you consider necessary.

It is suggested that test equipment be scheduled to assure minimum interference with normal production activity.

E. F. Blickenstaff
Q.A.S.

APPENDIX 26

ASZIK (J.G.Chapman/br/54614/3 May 66) 3 MAY 1966

AF 33(657)-15444; "Mechanical Finger"

The Aerosonic Corporation

It is requested that Aerosonic provide a detailed answer to questions below relative to the solenoid-actuated, pressure finger used against one of the rotating shafts of the AAR-19/A Altimeter:

a. What is the required "finger" pressure against the rotating shaft? (grams, ounces, etc)

b. To what degree or tolerances will this finger-pressure be maintained on the production AAR-19's?

c. What kind of production-line tests will be accomplished to measure acceptable performance of the mechanical-finger?

d. What is the probability of actuating solenoid "hanging-up" and maintaining "finger" pressure during standby mode of operation?

e. If solenoid should hang-up, how will this affect operation of altimeter under standby-mode operating conditions; with internal vibrator working; with internal vibrator not working?

f. If "finger" is being used to dampen-out oscillation:

(1) To what degree will altimeter oscillate without such a fix, when installed in an instrument panel, and under average, reciprocating engine flight conditions?

(2) What is the estimated effect on the performance of the mechanical-finger with accumulation of operating hours, under the various environmental conditions; i.e.: (high humidity, cold, etc)?

FREDERICK S. WOOD, Actg Dep/Dir
for Procurement & Production
DOD AIMS System Program Office

cc: ECASR (Clearwater, Fla)

APPENDIX 27

P O Box 569
HERCULES AVENUE • PHONE 446 5904 • CLEARWATER FLORIDA
TELEX 052-897

June 23, 1966

Headquarters
AFSC, Aeronautical Systems Division
Wright-Patterson Air Force Base, Ohio

Attention: J. G. Chapman/ASZIK

Subject: Contract No. AF 33(657)-15444
Bearing Preloader

Dear Mr. Chapman:

We wish to acknowledge receipt of a copy of your letter dated May 13, 1966 regarding our bearing preloader.

May we repeat that the basic use of this unit is to preload the bearings when in a power-on situation. This gives substantial increase in life to the jewels on the handstaff, along with the reduction in friction due to lack of pitting caused by high frequency oscillation of the handstaff. The information you requested is as follows:

a. There is approximately ten grams load on the rotating shaft.

b. We will hold this degree of load to within plus or minus 10%.

c. We will measure the load with a test fixture and a Gram Gauge.

d. The C. P. Claire relay that is used for our bearing preloader is rated at a minimum of 50,000,000 operations which would preclude any possibility of "hangup". Power is used to operate the relay and when power is off, a mechanical spring returns the bearing armature to the "unload" position. Should the return spring break, the armature is so weighted that gravity causes the armature to drop away from the handstaff pinion shaft. It should be noted that the solenoid has a 10° limited rotation. We cannot visualize, in this design, how the armature could hang-up.

Considering the number of cycles that the bearing preloader will

will operate under normal flight conditions, it is estimated that the life of this unit exceeds the MTBF of the altimeter by a factor of ten.

We will be pleased to submit any other information requested.

Very truly yours,

AEROSONIC CORPORATION

Herbert J. Frank
President

HJF:sf

APPENDIX 28

042000Z SEP 71
FM DCASO SPRG FL
TO CDR HGS ESD AFSC HANSCOM FLD MASS

Rec'd Sep 15 2027 H

UNCLAS DCAA-DOSSB0017 FOR DOT, LT COL HOOD/ECF27
REF TELECON 14 SEP 71 BETWEEN LT COL HOOD AND
CDR CURTIN, ON, DCASO, ST PETERSBURG. COMPLETE
TEXT AEROSONIC LTR 8 SEP 71 RECD THIS OFC TRANSMITTED
FOR INFO. NO RESP HAS BEEN MADE TO THIS LTR.

QUOTE

SEPTEMBER 8, 1971

DEFENSE SUPPLY AGENCY
DEFENSE CONTRACT ADMINISTRATION SERVICES OFFICE
ROOM W65, FEDERAL BUILDING
144 1ST AVENUE, SOUTH
ST. PETERSBURG, FLORIDA 33701
ATTENTION: COMMANDER P. CURTIN

SUBJECT: CONTRACT AF33(657)-15444

GENTLEMEN:

IT IS MY UNDERSTANDING THAT MR. FRED WOOD, WRIGHT-PATTERSON AIR FORCE BASE, HAS THE AUTHORITY TO MODIFY THE ABOVE SUBJECT CONTRACT.

PAGE 2 MUCLSGP0057 UNCLAS
IN ACCORDANCE WITH A TELEPHONE CONVERSATION HELD BETWEEN MYSELF AND MR. WOOD, ON FRIDAY, SEPTEMBER 2, 1971. THE MODIFICATION OF THE CONTRACT WILL BE SUCH AS TO REMOVE FIRST ARTICLE APPROVAL AND PRE-PRODUCTION APPROVAL OF THE ITEMS TO BE SHIPPED ON THE ABOVE SUBJECT CONTRACT, THUS RELIEVING THE CONTRACTOR OF ANY FINANCIAL RESPONSIBILITY WHICH HE WOULD BE SUBJECT TO, WITHOUT HAVING QUALIFICATION ON THE ITEM OR THE WAIVING OF THE FIRST ARTICLE AND PRE-PRODUCTION UNITS.

THE AEROSONIC CORPORATION WILL, UPON RECEIPT OF THIS MODIFICATION, CANCEL ITS LETTER DATED SEPTEMBER 1, 1971, TO GENERAL STEWART, ALONG WITH A LETTER WRITTEN TO YOUR OFFICE ON THAT SAME DATE. AEROSONIC CORPORATION WILL CONTINUE IN PRODUCTION ON THE ABOVE SUBJECT CONTRACT, UTILIZING THE SAME DELIVERY SCHEDULE. A CONFIRMATION OF THIS WOULD SINCERELY BE APPRECIATED.

VERY TRULY YOURS,

HERBERT J. FRANK

PRESIDENT

APPENDIX 29

DEFENSE SUPPLY AGENCY
DEFENSE CONTRACT ADMINISTRATION SERVICES OFFICE, ST. PETERSBURG
ROOM 265, FEDERAL BUILDING
144 1ST AVENUE SOUTH
ST. PETERSBURG, FLORIDA 33701

IN REPLY REFER TO DCRA-DOGSB

10 December 1971

Mr. Herbert Frank
Aerosonic Corporation
P. O. Box 4627
Clearwater, Florida 33518

Dear Mr. Frank:

This is in response to your letter of 6 December 1971 requesting the removal from your facility of Mr. E. F. Blickenstaff, Quality Assurance Representative of this office. Your request is based on what you believe to be arbitrary requirements imposed on your corporation by Mr. Blickenstaff.

As you are well aware, within the past 7 to 10 days I have had occasion to examine in depth the quality assurance procedures in effect at the Aerosonic Corporation. My review would in no way lead me to a removal of Mr. Blickenstaff because of unsatisfactory/improper job performance. On the contrary, I have the highest regard for the personal integrity of Mr. Blickenstaff and place every confidence in his professional recommendations and decisions. Nonetheless, it is apparent that Mr. Blickenstaff's assignment to your facility will be a continuing source of irritation to you personally which, in turn, could seriously jeopardize the contractual support of your corporation to the Department of Defense. I believe that this latter fact far outweighs any other consideration.

Accordingly, I have initiated appropriate action to transfer Mr. Blickenstaff from your facility. The personnel realignment will occur as soon as practical, but I estimate that an orderly transition will require a minimum of 7 to 10 working days.

Sincerely,

P. Curtin

P. CURTIN
Commander, SC, USN
Chief