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ADDITIONAL PROCUREMENT OF M-16 RIFLES

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HEARINGS

BEFORE THE
SPECIAL M-16 RIFLE SUBCOMMITTEE
OF THE
PREPAREDNESS INVESTIGATING
SUBCOMMITTEE

OF THE
COMMITTEE ON ARMED SERVICES
UNITED STATES SENATE
NINETIETH CONGRESS
SECOND SESSION

JUNE 19 AND 20, 1968



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ADDITIONAL PROCUREMENT OF M-16 RIFLES

WEDNESDAY, JUNE 19, 1968

U.S. SENATE,
SPECIAL M-16 RIFLE SUBCOMMITTEE OF THE
PREPAREDNESS INVESTIGATING SUBCOMMITTEE
OF THE COMMITTEE ON ARMED SERVICES,
Washington, D.C.

The subcommittee (composed of Senators Cannon (chairman), Stennis, Smith, and Miller) met, pursuant to call, at 10:05 a.m., in room 224, Old Senate Office Building, Senator Howard W. Cannon presiding.

Present: Senators Cannon, Smith, and Miller.

Also present: Senator Thurmond of the full Preparedness Subcommittee.

James T. Kendall, chief counsel; Samuel R. Shaw and Robert M. Neal, professional staff members.

Senator CANNON. The hearing will come to order.

Today we open our hearing into the Army's issuance of contracts for additional procurement of M-16 rifles. It should be noted that this is really a continuation of previous investigations into the Army's rifle problem. A report on our last investigation into the rifle program was published only a little over a year ago, on May 31, 1967.

We were assured by the Army at that time that it was their intention to accelerate the production of the M-16. Apparently the acceleration they had applied to the program turned out to be inadequate. At the end of March 1968, they found it necessary to terminate the competitive bidding procedure they were then following, to establish a second commercial source. This was done, we have been informed, because the amounts planned for that procurement were too small, and the production time was too extended.

In the procedures followed in placing contracts with Harrington & Richardson and General Motors, it now appears that the question of price did not enter into the elimination of two companies otherwise adjudged competent to do the work. The ceiling prices fixed for the two successful offerors, even though subject to subsequent downward negotiation, were so high that they have drawn considerable public attention and adverse criticism.

The shortcutting of competitive bidding procedures seems to have been the result of a sudden recognition of needs, which, it seems reasonable to believe, had long ago been expressed by responsible field commanders and their intervening superiors. The Congress is entitled to a full explanation of and justification for events leading to this situation.

The propriety and justification for the abrupt change of course in the planned procurement is one of the primary subjects for this hearing. Another primary area of interest is the degree which even this abrupt change in method will satisfy our requirements for the rifle in a timely and orderly fashion. It is apparent that the months of preparation for the previous procurement plan were suddenly cast aside for an accelerated procurement. This raises some question about the soundness and logic of plans for distributing the rifle among its future recipients. There is a requirement for an explanation of how the proposed production schedules will fill, in timely fashion, the requirements previously described to the Congress.

Today we will hear from the Army and will explore its version of the situation. In subsequent hearings, we will have witnesses from at least two companies involved in the M-16 procurement process. We are conducting the hearings in closed session so we can be completely free to receive both classified information and information from the companies involved which they may consider as privileged matters.

Our witness today is Hon. Robert A. Brooks, Assistant Secretary of the Army for Installations and Logistics. We appreciate his attendance and the information he is about to give us.

You may proceed.

STATEMENT OF ROBERT A. BROOKS, ASSISTANT SECRETARY OF THE ARMY (INSTALLATIONS AND LOGISTICS), DEPARTMENT OF THE ARMY; ACCOMPANIED BY MAJ. GEN. ROLAND B. ANDERSON, DIRECTOR OF MATERIEL ACQUISITION, OFFICE, ASA (I. & L.); COL. WALTER P. CUMBIE, DEPARTMENT OF THE ARMY, MONITOR M-16 RIFLE; AND JOHN MERITT, OFFICE, ASA (I. & L.), DEPARTMENT OF THE ARMY

Dr. Brooks. Thank you, Mr. Chairman.

Mr. Chairman and members of the subcommittee. I am pleased to have the opportunity to appear before this committee to clarify the Army's actions with respect to the M-16 procurement and to answer any questions that you might have.

I have with me Maj. Gen. Roland B. Anderson, Director of Materiel Acquisition in my office.

REQUIREMENTS FOR M-16 RIFLES

A number of general questions have been raised. Principally, these questions relate to the increased requirements for the M-16 rifle which necessitated a modification in our original procurement plan; and to the method and propriety of our selection of the two additional sources of production for the M-16 rifle.

Although the subject was covered in my letter to the chairman on May 31, 1968, I would like to review the developments which resulted in a dramatic increase in our requirements for the weapon. As of January of this year, our total planned deliveries for calendar year 1968 numbered about 350,000 M-16 rifles. Deliveries planned for calendar year 1969 were slightly higher. This rate of delivery would have provided, by August 1968, the additional rifles earmarked under the

then current plans for United States, South Vietnamese, and other free world forces in Southeast Asia.

Beginning in February 1968, however, a series of decisions were taken at the highest level of Government which substantially increased the requirements for rifles as well as for other weapons and equipment items. The central decision relevant to rifle requirements was that the South Vietnamese forces, both regular and territorial, were to be equipped and trained to assume a larger share of the combat against the enemy in South Vietnam. Underlying this decision were two principal factors: first, the improved performance of the South Vietnamese forces evidenced through 1967 and confirmed by the increased effectiveness of regular Vietnamese Army units during and since the enemy's Tet offensive; second was the clear change in the enemy's tactics, begun during Tet and persisted in ever since, to conducting open and intensive military operations throughout South Vietnam, using troops increasingly armed with automatic rifles.

These decisions and the successive recomputations of rifle requirements to date have increased rifle requirements for South Vietnamese Forces alone by approximately [deleted] rifles. Other increases for free world and U.S. Forces in Southeast Asia have led to a total increase of approximately [deleted] rifles for Southeast Asia forces. Of these, approximately 250,000 have been characterized by the Joint Chiefs of Staff as being urgently needed.

Compared with the new requirements, the previously planned delivery rates for the M-16 rifle were obviously inadequate. At those rates the increased requirements would not be satisfied until late 1970 at the earliest. Therefore, the production base needed to be both expanded and accelerated.

The following actions were taken to increase and accelerate production: Colt Firearms Division, the present producer, was requested to expand its monthly capacity from 30,000 to 50,000 rifles to be attained in June 1969. General Motors and Harrington & Richardson were awarded letter contracts to produce 240,000 rifles during a 15-month period, with each planned to make initial deliveries in February 1969 and reach a maximum rate of 25,000 per month the following November.

By December of 1969, our revised procurement program is expected to produce 444,000 more rifles than the original plan.

I shall now deal with the requirements for, and distribution to, specific elements of all supported forces, first in the situation before the decisions discussed earlier, next the present situation, and third in the situation at this time next year, when the increases in rifle production will have begun to take effect.

These are depicted on the three charts attached to this statement. None of these charts include requirements for replacing .30-caliber weapons now in the Department of Defense inventory. Present plans are that the caliber .30 weapons will eventually be replaced with the M-16 rifle.

REQUIREMENTS FOR 1968

Chart 1 shows worldwide M-16 rifle requirements and assets as of January 1, 1968. The net or unfilled requirement of [deleted] for U.S. Forces in Southeast Asia was for support troops. At this point

in time, all of the U.S. combat maneuver battalions had been equipped with the M-16 since August 1967. The unfilled Republic of Vietnam Armed Forces requirement was for the then-constituted regular Army maneuver battalions. All of the U.S., free world, and Republic of Vietnam Armed Forces requirements were scheduled to be filled by August 1968 on the then-existing production schedule. After August we were planning to fill progressively the requirements for other worldwide U.S. Forces, amounting to [deleted] rifles. The Army component of the requirement, [deleted] rifles was to reequip non-NATO-oriented Army Forces currently armed with M-14 rifles. The Air Force component of the requirement, [deleted] was to replace carbines under the Air Force modernization program.

INCREASED REQUIREMENTS FOR SOUTHEAST ASIA

Chart 2 shows the major increase that has taken place in rifle requirements for Southeast Asia as of June 1, 1968. Most of the increase is in requirements for the Republic of Vietnam Armed Forces, [deleted] rifles. Major components of this increase are [deleted] rifles for the Regional and Popular Forces [deleted] rifles for the Civil Irregular Defense Groups, and [deleted] rifles to equip the total regular Vietnamese Armed Forces. The increase of [deleted] in free-world force requirements is composed principally of [deleted] for Thai forces, in both Thailand and South Vietnam, and [deleted] for Korean forces in South Vietnam. For U.S. forces in Southeast Asia about [deleted] of the increase was for the Army, to provide for deploying forces, maintenance float and losses. You will note that from January 1 to June 1 we have increased the actual rifle assets in Southeast Asia by [deleted] more than the total unfilled requirement previously scheduled for delivery by August. Vietnamese Army maneuver battalions of the presently constituted forces, for example, are today 94 percent equipped with the M-16 rifle. The other major increase outside Southeast Asia is for the Korean forces in Korea, [deleted] rifles.

PROGRESS IN MEETING REQUIREMENTS

Chart 3 shows anticipated progress in meeting the new requirements by July 1, 1969, with increased production schedules. At that time all but [deleted] rifles will be available against the U.S. force requirement of [deleted]. This will be for depot stockage and pipeline. Other free-world forces will be equipped except for the Thai Army in Thailand, [deleted] rifles, and Korean support forces in Vietnam, [deleted] rifles. Of the Republic of Vietnam Armed Forces, all South Vietnamese Army maneuver battalions will have the M-16, [deleted] will be in the hands of regional and popular forces, [deleted] with the Vietnamese Marines and the remainder with Vietnamese Army combat support forces. Deliveries to all Southeast Asia forces, a total of [deleted] rifles, will be complete by December 1969. Of these deliveries, 444,000 will have resulted from the new production schedule which will make possible the completion of deliveries at least 1 year earlier than our January production schedule.

EXPANSION OF PRODUCTION

I would now like to discuss the procurement procedure which resulted in the selection of two additional sources for production of the M-16 rifle. I addressed this subject in considerable detail in my letter to the Comptroller General of the United States on June 11, 1968, and I will only cover the highlights at this time.

In order to obtain more rifles quickly the first step taken was to request Colt's, the present producer, to expand its monthly capacity from 30,000 to 50,000. The latter rate is expected to be attained in June of 1969. Expanding production at Colt's to this level was the fastest way to increase deliveries.

ALTERNATIVE PROCUREMENT PROCEDURES

Since last October we had been in the process of selecting a second producer for the M-16 rifle. The urgency of getting additional rifles more rapidly, however, made it essential that we review our second-source plans. Several alternative courses of action were considered, two receiving serious consideration. The first was to continue competition for a second source, but in addition, to select a third producer on a sole-source basis from among the four offerors who were then in the process of qualifying their technical proposals. In developing this alternative, discussions were held with General Motors' Hydramatic Division, in view of this company's capacity and outstanding past performance against accelerated schedules, particularly the production of M-39, 20mm. cannon. This alternative would have provided us with a substantial number of additional rifles at an early date while not interrupting the normal competitive procurement process with the other offerors.

The second alternative was to interrupt the competitive procurement process, negotiate with all four competitors against an accelerated schedule, select two of the four, and award letter contracts to each of the two in order to permit an immediate production go-ahead with definitization of prices and terms to follow later. This alternative would provide more rifles than the first, since two contractors would be working on accelerated schedules. In view of the potential gains from accelerated delivery of rifles to Southeast Asia I selected the second alternative, and this plan was personally reviewed and approved by the Secretary of the Army, the Assistant Secretary of Defense, and the Deputy Secretary of Defense.

Prior to the increase in requirements, in September 1967, I authorized a negotiated procurement leading to the selection of a single additional producer because there was a need to expand the production base. The authority for my action was 10 U.S.C. 2304(a) (16), which authorizes procurement by negotiation when it is in the interest of national defense to expand the mobilization base. The increased requirements which necessitated modification of the original procurement underscored the need for an expansion of the mobilization base. Two additional sources were needed instead of one. Since there was no change in our ultimate objective, there was no occasion to alter the basis of the negotiated procurement. Accordingly, after making the findings and determinations required by law, I authorized

continuation of the procurement under the authority of exception (16). Under the new procurement plan, of course, accelerated deliveries were more essential than under the original plan. Accordingly, the modified request for proposals made it clear that we intended to select the two producers which afforded the Government the highest degree of confidence in their ability to meet or exceed the accelerated delivery schedule.

SELECTION OF CONTRACTORS

All four offerors were informed of the revised ground rules for the procurement, were asked to submit new proposals and were given an opportunity to discuss their proposals in light of the changed requirements. All four proposals were carefully and objectively evaluated by a board of experts. That evaluation determined that the selection of General Motors and Harrington & Richardson would provide the Government with the greatest assurance that the accelerated delivery schedule would be met while providing the strongest possible additions to the mobilization base. Because both General Motors and Harrington & Richardson were rated higher than either Maremont or Cadillac Gage, ceiling prices based on estimated production, facilities, tooling and startup costs were solicited from the former two companies. The prices submitted by both companies were fair and reasonable. Accordingly, they were awarded letter contracts. These contracts are subject to negotiation downward after complete audit by the Defense Contract Audit Agency. We expect to have definitized contracts signed by the end of this year.

CONSIDERATIONS OF PRICE

It was our intent to solicit ceiling prices from one or both of the contractors not selected only if one or both of the companies which received superior ratings responded with an unreasonable ceiling price or if there were not a significant difference in the technical evaluation. Since both General Motors and Harrington & Richardson submitted reasonable ceiling prices, and since both were substantially superior in the technical evaluation, we did not request price estimates from Maremont or Cadillac Gage. Our procedure was fully consistent with ASPR 3-101, which provides that:

Price quotations . . . shall be solicited from the maximum number of qualified sources . . . consistent with the nature of and requirements for the supplies or services to be procured to the end that the procurement will be made to the best advantage of the Government, price and other factors considered.

I cannot emphasize too strongly that price was not abandoned as a factor for consideration. The same amendment to the request for proposals that announced the change in the immediate object of the procurement specifically conditioned the award of letter contracts on the receipt of reasonable ceiling prices. And, as I have previously indicated, both General Motors and Harrington & Richardson provided budgetary estimates that were within the range of reasonableness we had previously established for each company. Even these ceiling prices are subject to negotiation downward and the Army intends to aggressively negotiate with each contractor a fair and reasonable firm price when an audit of the producer's cost data has been obtained.

PREMIUM PRICE FOR ASSURANCE OF ACCELERATED DELIVERY

A great deal has been made of the fact that, subsequent to the award of the letter contracts, both companies not selected indicated that they would have been willing to perform the contract at a price less than that estimated by either General Motors or Harrington & Richardson. I can only restate that the critical requirements in Southeast Asia compelled us to select the two producers affording the Army the greatest assurance that the accelerated delivery schedule would be met. The Army was well aware that area wage rates and plant overhead rates differed. We expected that these differences would be reflected in the budgetary estimates prepared by each offeror. In effect, we are paying a premium for an increased probability of satisfying a delivery schedule and for a mobilization base composed of more reliable producers.

In passing the Armed Services Procurement Act of 1947 Congress clearly contemplated that factors other than price would frequently be controlling when negotiations were conducted under the authority of exception (16). The legislative history demonstrates congressional awareness that such negotiated contracts might not represent the most economical procurement of the items. Congress judged the authority to pay a premium to be required for national security. The M-16 awards represent just the kind of procurement in which this broader authority contributes to our ability to meet urgent requirements to expand the mobilization base.

FINALITY OF JUDGMENT

In enacting the Armed Services Procurement Act, Congress also recognized that difficult individual judgments must sometimes be made in the case of negotiated procurements pursuant to exceptions (11) to (16). Accordingly, the Congress provided, in what is now 10 U.S.C. 2310(a), for the finality of a secretarial determination and decisions relating to these exceptions.

URGENCY JUSTIFIES PROCEDURES

The selection of General Motors and Harrington & Richardson for the award of the letter contracts was a straightforward process. Both companies were clearly superior to the two companies not selected. This was not a situation in which a ceiling price solicited from a competitor from whom after an objective evaluation we expected to get fewer rifles, could be significantly compared to a ceiling price from a competitor judged more capable of producing. The basis for the urgency which compelled this procurement was the decision I have cited, that the Republic of Vietnam Armed Forces will assume a larger share of combat.

This urgency cannot be measured against the possibility of a lower price with less assurance of early delivery. This might be applicable to other procurements. It is not applicable here. Less assurance of delivery means fewer rifles for the Republic of Vietnam Armed Forces and delayed achievement of their desired combat effectiveness. It would therefore mean continuation of the major combat burden now borne by U.S. forces and its cost in casualties, and in money. The only proper

criterion in this case was the assurance of a fair and reasonable price from the most capable competitors for the major effort involved. I believe that we have met and shall meet this standard.

SUMMARY OF ARMY POSITION

I submit, then, that the action taken by the Army in this procurement was consistent with the letter and the spirit of the applicable law and regulations and that it was proper exercise of authority granted to the Secretary of the Army by law specifically intended to be used in the situation with which we were confronted.

In summary the Army reacted to urgent requirements to deliver additional M-16 rifles to United States, South Vietnamese and other free-world forces in Southeast Asia. The increased pressure of enemy action, coupled with increased issue of Communist-made automatic rifles to North Vietnamese and Vietcong forces, highlighted the need for the accelerated delivery of the largest possible number of rifles. The equipping of South Vietnamese forces is a major step in our efforts to shift a greater portion of the war to their shoulders. Accelerated deliveries to meet these increased requirements was our objective. We switched from the price competitive approach to one of selecting two producers judged most capable of manufacturing rifles on an accelerated basis. We announced our intentions and followed the announced plan. I consider the decisions made were sound and proper and were the best possible to meet our procurement objectives.

Mr. Chairman, we will be glad to answer your questions.

(The charts referred to follow:)

CHART 1

M-16 RIFLE, REQUIREMENTS AND INVENTORIES, AS OF JAN. 1, 1968

Area/element	Total requirements	Assets	Net requirements
SEA:			
U.S. forces.....			
Other free world forces.....			
RVNAF.....			
Total.....	[Deleted]	[Deleted]	[Deleted]
Other worldwide.....			
U.S. forces.....	[Deleted]	[Deleted]	[Deleted]
Others.....			
Total.....			
Grand total.....			

CHART 2

M-16 RIFLE, REQUIREMENTS AND INVENTORIES, AS OF JUNE 1, 1968

Area/element	Total requirements	Assets	Net requirements	Change in total requirements since Jan. 1, 1968
SEA:				
U.S. forces.....				
Other free world forces.....				
RVNAF.....				
Total.....	[Deleted]	[Deleted]	[Deleted]	[Deleted]
Other worldwide.....				
U.S. forces.....	[Deleted]	[Deleted]	[Deleted]	[Deleted]
Others.....				
Total.....				
Grand total.....				

CHART 3

M-16 RIFLE, REQUIREMENTS AND INVENTORIES, AS OF JULY 1, 1969

Area/element	Total requirements	Assets	Net requirements	Change in total requirements since Jan. 1, 1968
SEA:				
U.S. forces.....				
Other free world forces.....				
RVNAF.....				
Total.....	[Deleted]	[Deleted]	[Deleted]	[Deleted]
Other worldwide.....				
U.S. forces.....	[Deleted]	[Deleted]	[Deleted]	[Deleted]
Others.....				
Total.....				
Grand total.....				

Senator CANNON. Thank you.
 Senator Smith.
 Senator SMITH. Thank you very much.

NATURE OF TECHNICAL EVALUATION

Mr. Secretary, it is my understanding that the technical evaluation consisted of detailed analysis of the various written reports and forms and other documents submitted by the various companies, is that correct?

Dr. BROOKS. Yes, Senator, it is.

Senator SMITH. By what method did you ascertain that the actual physical factors which were involved in the documented submissions were present on the ground or in the plant?

Dr. BROOKS. There was a visit made, Senator, to each of the bidders' plants in the course of a facility evaluation which was directed by the source selection evaluation board.

Senator SMITH. Who made those visits, a representative of yourself?

Dr. BROOKS. Representative of the Army Weapons Command, Senator, which is the contracting agency. I am sorry, I should correct that.

General ANDERSON. The Defense Contract Administration Services also participated.

Dr. BROOKS. There were representatives of both organizations.

General ANDERSON. There were verbal discussions of these, too.

Senator SMITH. If one of the submissions was somewhat scanty in its language describing certain physical features, as compared with the actuality present in the factory, you could only determine the desired capability by such a visit, and you feel that the visit was sufficiently thorough to give you all the information necessary?

Dr. BROOKS. I believe that there was a visit and they did look at it on the ground, Senator, yes.

Senator SMITH. You were satisfied that they were very fair?

Dr. BROOKS. Yes, I was satisfied.

GM'S LACK OF TEST RANGE OMITTED IN TECHNICAL COMPARISON

Senator SMITH. The evaluation described Maremont as weak in the range facilities for testing the rifle. How do you explain that there was no comparable description of General Motors as weak, since it did not

possess any facilities of this nature, and its plans for provisions were an unusual arrangement which must have been noticeable in the written descriptions of its proposed testing arrangements?

Dr. BROOKS. I believe that the description as weak, as a weak point in Maremont's proposal, Senator, involved the plan for creating or acquiring the facilities, as well as, of course, a survey of the facilities that were present on the ground. It was on that basis that the Board arrived at the conclusion that relatively speaking to the other contractors, Maremont did not have as strong a plan for quality assurance and the testing metrology facilities as did the other contractors, specifically the successful ones. General Motors and Harrington & Richardson.

Senator SMITH. Was the evaluation determined on Maremont, or on General Motors in the same way that it was on Maremont?

Dr. BROOKS. Yes; indeed it was.

Senator SMITH. If Maremont had physically in operation range testing procedures for any needed expansion, how could it be described as weak when compared with General Motors, who really had no such facility in existence?

Dr. BROOKS. Well, General Motors had, of course, the current facilities which they were using for the M-39 cannon: Maremont had the facilities which they were using for the M-60 machine gun, both of which are in production at the present time. It was a question of their plan for conversion and additional acquisition of facilities to meet the new and expanded requirements and to change them from the weapons that they were presently using and testing to those required to test the rifle.

Mr. KENDALL. May I interrupt, Senator Smith?

Senator SMITH. Yes.

Mr. KENDALL. I think the Senator is asking about a testing range.

Senator SMITH. That is right.

Mr. KENDALL. General Motors did not have a testing range, Mr. Secretary, while Maremont did.

Dr. BROOKS. I will have to check the record on that. There is a voluminous set of findings, of course, by the Board, and I believe that the plan at any rate for the General Motors testing facilities was considered extremely adequate, in fact a superior plan.

Senator SMITH. Did you have something, General Shaw?

General SHAW. I visited General Motors' plant. The M-39 range they plan to use to stow the ammunition for the M-16 tests. There would be no conversion. They described to me their plans of building a range in the overhead directly above the production line. There was no such range, no such thing in existence. They had a plan to build one. There simply wasn't a range in existence, and none that they planned to use, in existence.

Dr. BROOKS. Well, they had, however, a plan which I believe, General Shaw, was considered to be a superior plan for the development and acquisition of such a range.

Senator SMITH. But it still remains that they did not have in being, testing facilities equal to Maremont, isn't that correct?

Dr. BROOKS. I would have to check that, Senator. I accept Mr. Kendall's comment on the existence. I had understood that they did have a testing range.

General ANDERSON. They do.

Dr. BROOKS. For the cannon.

General ANDERSON. Yes.

Senator CANNON. Isn't it a fact they were proposing to install a range over the heads of the workers that would have required detailed installation and detailed protective features, and as a matter of fact, quite a unique proposal in and of itself?

Dr. BROOKS. I am not familiar with that particular location, Mr. Chairman, but we can certainly check that and furnish the answer.

Senator CANNON. That is my understanding, that that was the plan. It was to use space up in the rafters of the building, space directly above the people who were working on the M-16 below, and with the requirement to install protective devices, protective measures and also complete soundproofing to get away from the acoustical problem.

Dr. BROOKS. I will certainly check that information, sir, and confirm it or modify it for the record.

Senator CANNON. I thank the Senator for yielding.

Senator SMITH. Thank you very much, Mr. Chairman, and Mr. Kendall.

Mr. Secretary, you will furnish a complete response to the questions on that matter for the record; will you not?

Dr. BROOKS. Yes, I shall.

(The information referred to follows:)

The plan for a test range submitted by the General Motors Corporation on 20 January 1968 called for the construction of a facility immediately south of and adjacent to the Ypsilanti plant, and the area planned for M16 rifle production. The new plan presented during the 5 April 1968 discussions provided for the construction of a 100-yard range in the balcony of the M16 rifle production area. The range will be equipped with six accuracy firing stations and six function and test fire cells. Steel plates will be installed where needed to insure safety and insulating material will be used to reduce the noise to an acceptable level. Due to the height of the building, the floor of the range facility will be about 16 feet over the heads of the workers. A unique but feasible sound absorption system is being developed through which test weapons will be fired to further reduce the noise. Balcony space in this huge manufacturing complex is used extensively for a variety of things. A cafeteria, for example, is installed in another balcony of the M16 rifle production area. The construction of the test range as planned will eliminate the need for the construction of another building, thereby reducing costs, and facilitate testing of weapons due to its close proximity to the production area.

GM'S LACK OF METROLOGY LABORATORY OMITTED IN TECHNICAL COMPARISON

Senator SMITH. Maremont, which has a metrology laboratory functioning for the Army's contracts of M-60 machineguns and in the same area has plans for M-16 production, was described as significantly weak in this feature. As I understand it, General Motors' presentation to the Army showed they had no metrology lab in the M-16 area, and originally did not plan to have one, instead, relying on use of outside commercial facilities.

Can you, or will you explain how the written evaluation which blackmarked Maremont on this account did not even mention the complete absence of such a facility on the part of General Motors? And also, when the Army insisted that for the production of the

M-16, General Motors shall install a lab in the M-16 area? Isn't that right?

Dr. BROOKS. I know their plan was to install such a metrology facility, Senator, and again I am speaking of General Motors, that this plan appeared to be a good one, in fact an excellent one, and that it was accepted as a strong point in their evaluation.

Senator SMITH. But isn't it true that the written evaluation did not refer to this in any way, as far as General Motors was concerned?

Dr. BROOKS. The written evaluation, the summary written evaluation, Senator, which of course is extremely brief, did not refer to this as a point in General Motors. I am sure that it is addressed in the voluminous and detailed findings of the individual groups which composed the Source Selection Evaluation Board, because this was one of the features that was required to be handled in the work breakdown, and it had to be dealt with by those working groups.

Senator SMITH. Don't you, Mr. Secretary, think personally that this is important enough an item to have appeared in even the brief summary of your evaluation?

Dr. BROOKS. Well, it was covered in general, I believe, Senator, by the quality assurance program, which is dealt with briefly of course for General Motors as being a program—I will have to quote it—"of a sound manufacturing plan for the M-16."

EQUITY OF COMPARING GM'S FINANCES WITH RESOURCES OF SMALL BUSINESS

Senator SMITH. In the evaluations performed, each company was marked on the categories of finance and management. When you consider the position of General Motors in the corporate structure of the entire world, do you think it an equitable proceeding to assess them a numerical score, in comparison with other companies such as Harrington & Richardson, which as you have noted, is classified as small business.

In other words, do you think you could compare a big business with small business for a job of this kind?

Dr. BROOKS. In this case, Senator, it was necessary to compare them, because there was no special consideration being given to the small business aspect, and what we were interested in, of course, was the company most capable of producing. The capability to produce, of course, includes the matter of financial strength, and it was considered that both General Motors and Harrington & Richardson, even though it is a small business, possessed adequate financial strength so that it would be appropriate to award them this contract.

Senator SMITH. In other words, you are saying that the provision in the law with respect to set-asides for small business was not given any consideration in this contract?

Dr. BROOKS. This was not a contract, Senator, which appeared appropriate for the small business set-aside procedure, which is allowed for in the statute.

Senator SMITH. Would it not be more equitable for all concerned, to merely ascertain on these two features that any prospective bidder is competent and adequate, without assessing numerical factors, which obviously are out of balance among the competitors?

Dr. Brooks. I think it would have been appropriate, and it was contemplated under the way in which the original procurement was established, where we had a relatively normal procurement leadtime of some 14 months, and where the buildup was on a more or less normal basis to 10,000 rifles a month on a 1, 8, 5 shift.

When we went to the accelerated procedure, where we reduced the leadtime from 14 months to 9, we required them to get as fast as possible to 25,000 per month on a 3, 8, 5 basis.

It was our feeling that any contractor would have a difficult time, and would represent a risk to the Government in being able to meet the schedule, even the best, and therefore we gave considerable weight to the relative evaluations because under the circumstances under which we were placing the procurement, it seemed to us that a judgment of greater capability meant a probability of getting more rifles. This is what it meant.

AFTER AWARD ASSEMBLY OF INDUSTRIAL PRODUCTION EQUIPMENT AS A
WEAKNESS

Senator SMITH. The evaluation assessed as a weakness on the part of Maremont that 76 percent of the required industrial production equipment would have to be obtained after award, I am informed as a result of a staff visit to the four companies, that General Motors, for instance, planned to make heavy use of the Government account machinery available throughout the country. I assume from your figures for Maremont that you have them for the other three companies as well. Will you tell us what they were for comparison purposes?

Dr. Brooks. For General Motors, Senator, it was about 50 percent. For Harrington & Richardson it was the lowest of all the companies. I believe it was approximately 20 percent.

General ANDERSON. That is about right.

Dr. Brooks. About 20 percent.

Senator SMITH. Thank you, Mr. Chairman. That is all for the time being. It just seems to me that this is a pretty shoddy and shabby record on a matter of very great importance.

Senator CANNON. Thank you.

Dr. Brooks, first I would like to go to some of your charts that are attached here.

Dr. Brooks. Yes, sir.

Senator CANNON. What was the reason of the reduction in requirements for other worldwide forces? Was this simply a figure-juggling process?

Dr. Brooks. No, sir. This was in part the shift of deploying forces. Between January and June, as you know, there were deployments agreed upon to expand U.S. Forces in South Vietnam. Those forces therefore fall out of the other worldwide area where they were originally and are added to Southeast Asia. There are also other changes, primarily in the Marines and I believe in the Navy, where the Marines were changing their requirements, for example, for their training base to bring them under the Southeast Asia requirement towards which the training base is primarily oriented.

Senator CANNON. Do I understand it that you do include in this requirement the equipment, the equipping of the forces in South Korea?

Dr. BROOKS. That is included here, sir, on the last line under "Other Worldwide," those forces, [deleted] increase in requirements is primarily for the South Korean Army in South Korea.

Senator CANNON. In South Korea?

Dr. BROOKS. Yes, sir.

Senator CANNON. And is that a fairly recent determination?

Dr. BROOKS. Yes, sir. It was made at the same time as the other determinations starting in February of this year.

Senator CANNON. Is that fully supported by our commanders, our field commanders in South Korea?

Dr. BROOKS. Yes, sir; I believe it is. It is certainly supported by the Joint Chiefs of Staff. The Secretary of Defense has taken it under his advisement. We are directed to attain the capacity to be able to meet this requirement.

Senator CANNON. That is considered of equal urgency with these other requirements that you have laid down here?

Dr. BROOKS. The Joint Chiefs of Staff, Mr. Chairman, gave certain priorities as I indicated in the paper, those priorities as urgent requirements do not include the South Korean forces. This is an increased requirement but it was not characterized by the Joint Chiefs as urgent.

Senator CANNON. So that it certainly did not bear an urgency tag comparable to the equipment of the South Vietnamese forces, for example?

Dr. BROOKS. It did bear a tag which was comparable to some of the South Vietnamese forces. Only some of the South Vietnamese requirements were characterized as urgent, as for example those for equipping the initial increment of the Regional and Popular Forces in South Vietnam. That was characterized as an urgent requirement. The other requirement for support troops was not so characterized.

Senator CANNON. I must say, having visited that area quite a little over the past, well, since the fall of 1965, that I found no sense of urgency, not even a unified sense of agreement that the South Korean forces should be so equipped. Yet from early in 1965, or mid-1965, there was quite a strong appeal for the South Vietnamese forces to be equipped, and for a conversion to M-16's in South Vietnam. Yet it took us, how long a period of time to make that decision, 2½ years; is that right?

Dr. BROOKS. No, sir. They were being equipped already late last year in November-December of 1967.

Senator CANNON. Yes, but your changes that you are talking about here occurred since January of this year.

Dr. BROOKS. Yes, sir; that is correct.

Senator CANNON. Is that right?

Dr. BROOKS. The changes to equip the entire South Vietnamese regular force took place since February of this year. There had previously been a recognized requirement to equip the maneuver battalion element of the South Vietnamese forces. That had been approved by the Secretary of Defense and was already under way at the time when these other changes in requirements took place.

FAIRNESS OF TECHNICAL EVALUATIONS

Senator CANNON. I want to go to another subject now for a few moments, into some of the matters of the technical evaluation process that you used.

As I understand it, you tried to make the process so that each firm was given a full and fair assessment of their technical plans to make and qualify the rifle; is that correct?

Dr. Brooks. Yes, sir.

COMPARISON OF TEST RANGES

Senator CANNON. Now in your letter to the Comptroller and in the Source Selection Advisory Council, you lay stress on the alleged weakness of the Maremont targeting and accuracy firing stations, and in the Comptroller's letter you say:

"This weakness is significant," and in the Source Selection Advisory Council report it says:

Maremont does not have immediate facilities to support several important features of the program such as targeting and accuracy firing stations.

It would then be correct to say that this comparative weakness was a significant factor in the final outcome, would it not?

Dr. Brooks. It was one of several factors and it was significant; yes, sir.

Senator CANNON. This question has been raised in general, but I would like to ask it specifically.

Since that importance is attached to that particular feature, can you tell us why the fact that General Motors did not even possess such a firing facility was not even mentioned as a weakness for General Motors?

Dr. Brooks. It was not only the current facilities that the Board was looking at, Mr. Chairman. It was the plan and the schedule for the development and acquisition of the facilities that would be needed for the rifle, and on that the Board scored General Motors and Harrington & Richardson high, and Maremont relatively less high as to what they would have at the time that the rifle was coming into production.

Senator CANNON. So this was based solely on the plan that they said they would put in effect, even though they had nothing then as compared to a company that did have actual capability at that time?

Dr. Brooks. It was based on a combination of the two, I believe, sir.

Senator CANNON. I will be interested in seeing your further response to this so-called rafter approach that I raised a question on a little earlier.

Dr. Brooks. Yes, sir.

COMPARISON OF METROLOGY LABORATORIES

Senator CANNON. In your letter to the Comptroller you say that the metrology laboratory facilities operating for Maremont you consider to be a significant weakness and in the Advisory Council report this too was singled out as an inadequate feature among "several important features of the program."

This places, in the scoring, considerable stress on the presence of this metrology laboratory that Senator Smith asked about. Can you explain why the total absence of such a metrology laboratory in General Motors' M-16 plans was not mentioned, and that in their technical presentation their plan was to do this important work by an outside firm as an outside contract, and it was not until this presentation that

their plan was changed to provide for its purchase, construction, fitting out, and providing the trained technicians?

Dr. BROOKS. As I indicated, Mr. Chairman, we will have to supply the specifications on that. It is my understanding that the plan that was presented had adequate provision for metrology facilities in the General Motors' proposal. If it had not had such facilities, I certainly would have expected that it would have been cited as a weak point in the evaluation.

Senator CANNON. If General Motors had not had such facilities?

Dr. BROOKS. Had not had an adequate plan to arrive at such facilities, I think it should have been and would have been cited.

Senator CANNON. While you are on it then, since they were totally absent physically, and in the case of the metrology laboratory, had to be warned that such a laboratory was required to be physically present, why no mention was made of these features, whereas Maremont was in writing described as weak on those physically present and merely requiring expansion.

Dr. BROOKS. We will provide that answer.

Senator CANNON. Direct your answer to that.

Dr. BROOKS. Yes, sir.

Senator CANNON. Specifically as to why no mention was made of it.

Dr. BROOKS. Yes, sir.

The written Phase I technical proposal submitted by General Motors on 20 January 1968 did not comprehensively describe the plans for handling metrology laboratory requirements. Generally, the plan specified that external and internal facilities would be utilized as required. In the oral presentation made by General Motors on 5 April 1968, quality assurance personnel went into extensive detail as to how this requirement would be met. During this oral presentation, it was pointed out that existing facilities would be utilized to the maximum extent feasible. The existing facilities were described as being in a 50 feet by 50 feet cubicle in an environment under rigid temperature and humidity control. If it were found necessary to resort to external facilities, it was planned to use the General Motors Technical Center located a few minutes away in Warren, Michigan, or laboratories of the Industrial and Metrology Division of the Bendix Corporation in Detroit.

General Motors did not revise its plan for metrology laboratory facilities during the period between 20 January and 5 April 1968. The oral presentation of 5 April provided a detailed, excellent plan in contrast to the 20 January technical proposal. That contrast was reflected in the overall score given General Motors in the evaluation report and documented in the voluminous records compiled by the Source Selection Evaluation Board.

The Source Selection Advisory Council report to which I refer in my letter to the Comptroller General merely summarized weak and strong points for each offeror.

General Motors' plan for metrology laboratory facilities, although excellent, did not warrant being singled out as a strong point. Maremont's plan was sufficiently weak to justify being highlighted as a weakness.

AFTER AWARD ASSEMBLY OF INDUSTRIAL PRODUCTION EQUIPMENT

Senator CANNON. In your letter to the Comptroller you emphasized that you considered Maremont had a deficiency in its requirement to obtain 76 percent of the industrial production of equipment after award.

Do you consider this an unusually high percentage in such an undertaking?

Dr. BROOKS. It varies very substantially in all undertakings, Mr. Chairman, and I think it varied a great deal in this undertaking.

As I indicated, it varied from 20 percent for Harrington & Richardson, which had an M-14 line in being, up to 76 percent for Maremont. This was a feature which we felt would make it that much more difficult for them to meet this highly accelerated schedule.

Senator CANNON. So that you had a fear that they could not do what they said they could do; is that it?

Dr. BROOKS. We had a sense, Mr. Chairman, of risk in any of the contractors being able to do what this accelerated schedule called for. The risk we felt was less, was minimized in the case of the two contractors who were selected.

Senator CANNON. General Motors officials informed the staff that their total requirement for machines was 616; 534 of these were to be obtained from the Government-owned machines scattered around the country in various accounts, including \$3.9 million for 72 new machines to be purchased for the Government account. This means that about 85 percent of General Motors machines had to be obtained and installed in the area intended for M-16 production.

If 76 percent was a weakness for Maremont, how can you account 85 percent for General Motors as being strong?

Dr. BROOKS. The figures that I have, Mr. Chairman, were that approximately 50 percent of the General Motors production equipment would have to be obtained after award, and that is a comparable figure to the 76 percent for Maremont.

Perhaps General Anderson can expand on that.

General ANDERSON. That is our information. You might possibly be including the Government equipment that they already have in the plant on the M-39 and they are going to use several hundreds of those.

Senator CANNON. The figure that the staff was given was as I stated, 616 total, 534 of which were to be obtained from the Government-owned machines scattered across the country in the various accounts.

I wish you would reconcile those figures for the record.

Dr. BROOKS. Yes, sir; we will.

In contrasting actual with planned progress, General Motors indicated to Subcommittee staff members that approximately 85% of all required tooling had been acquired. To produce the M16 rifle, General Motors plans to use a total of 587 pieces of production equipment. Twenty-four pieces will be supplied from General Motors' own equipment, 274 of the M39 line will be used, 51 will be obtained from the TRW M14 line, 177 from DIPEC, and 61 purchased for the Government's account. This means that 289 of the total of 587, or 49% of the production equipment General Motors plans to use on the M16 line will have to be acquired from sources external to the Hydra-matic plant.

Maremont's plan, on the other hand, called for the use of 444 machine tools. Thirty were to be supplied from Maremont's equipment pool, 76 diverted from the M60 machine gun line, 207 obtained from an M14 rifle line, and 131 purchased for the Government's account.

Maremont's plan, therefore, required the acquisition of 76% of the production equipment needed for the M16 rifle program as compared to 49% for General Motors.

General ANDERSON. I suspect that that number includes the ones they already have in the plant.

General SHAW. They were being moved out. The entire area was being cleared and those machines, those involved with the M-39, were being parked outside to be later retooled.

General ANDERSON. Some they are using will not be required on the rifle line at all and some that they have, several hundred, will have to be rearranged for the rifle production plan. They might move them out for rearrangement purposes and then move them back.

General SHAW. I believe how many actually to be bought and outside the plant would be the significant figures.

General ANDERSON. Yes.

CHROME PLATING PROCESS AS PART OF PRODUCTION BASE OBJECTIVE

Senator CANNON. The announced intention of the Army was to gain an assured base of production for the M-16 in which certain parts were to be substantially in-house produced. One of these was the barrel, which requires chrome plating of the chamber. General Motors stated to the staff that they did not have this capability, nor the time to acquire adequate experience, and planned to do it by outside contract.

Maremont is equipped and has a satisfactory history of experience in Army production in this process. As a measure of adequacy for a production base, why was this not taken into the comparative statement of merit?

General ANDERSON. Yes, sir. Each contractor had a different shall we say make or buy pattern. They would make certain things, they would procure other things from outside from subcontractors.

As a matter of fact, General Motors is making, as far as the components are concerned, more in-house because they want to minimize their risk by not trusting someone else on any of the other components.

Now in the case of the barrel, they are going to make their own barrels in-house. Now the chrome plating of that barrel, as you indicate, they are going to have done by subcontractor. That is nothing unusual.

As a matter of fact, Colt Firearms is now doing the same thing. They are getting their barrels chrome-plated outside. When you say barrels, we are talking, Mr. Chairman, only of the chamber. The entire barrel is not chrome-plated. It is just the chamber portion of it.

Senator CANNON. Yes, I understand that, but this has been one of our big technical problems in South Vietnam. This is where we have had a lot of difficulties in the chamber.

General ANDERSON. Yes, the lack of chrome plating.

Senator CANNON. Chrome plating, and the degree of reliability that has been achieved. I am wondering why this factor was not taken into consideration or brought into account in figuring the comparative merits of the technical proposals.

General Motors was the only one that did not have an in-house capability, and this is an area that requires a great degree of good quality control, as obvious from our experience in South Vietnam.

Dr. BROOKS. General Motors, Mr. Chairman, will continue to be responsible for the quality control naturally on whatever it makes and whatever it buys.

Senator CANNON. I understand that. They will continue to be responsible under this contract. My question is, why was not this taken into consideration, not just the fact that they would be responsible, but that the other companies had a capability and General Motors did not.

General ANDERSON. Mr. Chairman, the chrome plating of the chamber, of the barrel, is not a particularly sophisticated or difficult thing

to have done anywhere. It is a simple operation. It is not a difficult thing to do at all.

For example, Colt, when we introduced the chrome chamber in the M-16 rifle some months ago, was able to go out to a commercial facility, somewhere nearby there I believe, and start doing this in a matter of weeks, and we have had no difficulty quality assurancewise with the chrome plating of the chamber. It is not a difficult operation to subcontract out.

Senator CANNON. Did you take any steps to evaluate their subcontractors' experience in the process?

Dr. BROOKS. Yes, sir; the subcontract structure was included in the evaluation.

Senator CANNON. What did you actually do with respect to their proposed subcontract?

Dr. BROOKS. The subcontractors were surveyed by the Board, Mr. Chairman, both for their competence and for the possible conflict between the subcontract structure proposed by one bidder as against another.

Senator CANNON. Who is their subcontractor on this chrome plating?

Dr. BROOKS. I will have to furnish that for you, sir. We can find out.

(The information requested follows:)

Chrome plating is not considered sufficiently critical to require the contractor to have in-house facilities. The request for proposal issued on 3 October 1967 specified that access to adequate chrome plating facilities was satisfactory. General Motors plans to use Doehler-Jarvis, a subsidiary of the National Lead Corporation, as a subcontractor. Doehler-Jarvis has had an outstanding record of performance on chrome plating M39 components. Colt's subcontracts with other firms, so there is no possibility of conflict for the capacity involved. All located in the Hartford, Connecticut area, Colt's subcontractors are the Allied Platers, Inc., Superior Plating and Microfin, Inc.

COMPARISON OF BARREL STRAIGHTENING PROCESS

Senator CANNON. In the request for proposals and other documents on M-16 production, emphasis had been laid upon the ability to perform the barrel straightening procedure. General Motors did not plan to use this procedure, instead relying on its experience in heat-treating processes to accomplish the same end. No mention was made in the evaluation of this deviation from the technical requirements of the request for proposal. Why was it not mentioned?

General ANDERSON. General Motors, as you know, are going to make their barrels by a very sophisticated process called cold swage, and with their technical knowledge of manufacturing and their use of this method of making the barrels, they have no concern whatsoever involved about the so-called straightening of the barrel and the control of the heat treatment. No other company is going to use the cold swage method that we know of at this time, not at the beginning anyhow.

Senator CANNON. You had checked that out and were completely satisfied that that was equally as good a process; is that right?

General ANDERSON. Oh, yes, sir. It has been used before. It is not a brand new process. It is one that has not been used extensively.

COMPARISON OF FINANCIAL RESOURCES

Senator CANNON. Incidentally, while I am on that, and I know my time is about up, I am going to call on Senator Thurmond in just a moment, but Senator Smith raised the question as to financial ability, and you indicated that both Maremont and General Motors were financially able as far as you were concerned. In the rating, General Motors got less than a one rating.

I am just wondering what kind of a company you would require to get a one rating, according to your rating categories, in this country. Can you think of any offhand, if General Motors has less than one, that would get a one rating?

Dr. BROOKS. I raised that question with the Board, Mr. Chairman, and they said that it was not their practice to give anyone 100 percent on these overall categories, that there were I suppose technical, management, and financial risks with any company, even General Motors.

Senator CANNON. I guess that is the whole story. They had never given anybody one before and did not think they should start now.

Senator Thurmond?

Senator THURMOND. Mr. Chairman, I do not believe I have any. Being a member of this subcommittee I just stopped by to listen for a little bit to what was going on. I expect to read the record in more detail, thank you very much.

Senator CANNON. Do you have more questions, Senator?

Senator SMITH. No.

ELIMINATION OF INCENTIVE AND PENALTY CLAUSES

Senator CANNON. The crash procurement scheme eliminated the incentive and penalty clause from the proposal. In the report to the Comptroller, the explanation was made that under the crash urgency of expansion, and acceleration of the production plan, that it would have been unrealistic and inequitable to include this clause. Since none of the companies requested this removal, was this not sort of a gratuitous action on the part of the Government here?

Dr. BROOKS. We felt, Mr. Chairman, that that specific penalty provision which operated in a very narrow range, for example, the penalty provision takes effect on the first day of the first of the month following any shortage in production, was not appropriate in that it might result in a very large contingency factor being placed into their estimates by the offerors. This does not mean, I want to emphasize, that we are abandoning the concept of penalty provisions.

In fact, I have asked the contracting agency to include consideration of such provisions in the negotiations which will take place, and the question is rather the character of the penalty provision that was in the contract versus what we would like to see in the contract under the accelerated schedule.

Senator CANNON. Would it not have been better to have waited until one of the companies raised that objection, if they had an objection to it?

Dr. BROOKS. Well, sir, the problem was that these companies were supposed to submit budgetary estimates on a very short time frame, and that we were then planning to award a letter contract with a ceiling price to be negotiated downward. We were interested in anything

which would give us, which would help to assure us a reasonable ceiling price. We felt that if we include the same penalty provision that was in a 14-month leadtime contract, in a nine and a half leadtime contract, that we were apt to get what we would consider an unreasonable estimate.

Senator CANNON. In your letter to the Comptroller General, General Motors' previous record on other items of early production was cited as a principal reason for great confidence that General Motors, a nonproducer of rifles, could meet this demanding schedule.

Now, is it not true that in these cases of previous early production that the penalty and incentive clauses were included in General Motors contracts?

Dr. BROOKS. I will have to check out by individual contracts, Mr. Chairman, and furnish you the answer.

Do you know offhand, General Anderson?

General ANDERSON. In the case of the M-39 machinegun there was no such provision. On the others that we have cited, I do not remember. I rather suspect that it was not, Mr. Chairman, because of accelerated crash nature of them, and for the same reasons Dr. Brooks has described. It would introduce a contingency into their pricing.

Senator CANNON. You cited as your main purpose here though the expediting of production. Now, how did the removal of this clause expedite production by General Motors or any one else?

How would that tend to expedite production? This was your main concern.

Dr. BROOKS. Yes, sir. We felt that it would be inequitable and might increase our prices to get this clause in there. We felt this specific clause was not appropriate to the procurement.

As I say, we have not abandoned the concept of a penalty clause which would be appropriate to this procurement.

Senator CANNON. But you still did not answer the question as to how you think the removal of that would expedite production by anybody.

Dr. BROOKS. It was a question, sir, that this did not bear, as we saw it, on the expediting of production. It bore rather on the conclusion of an equitable contract as soon as possible. In that sense we felt it would help just to get an earlier contract and therefore earlier production.

Senator CANNON. Now, of course, I am sure that one of your reasons for awarding the contract was because of GM's vast resources and the fact that they would devote a lot of effort toward the contract if required, but let's say they had difficulties in their main profit line, which is automobiles. Would it not have been useful to have had the leverage of this clause to make sure that the resources were used on a priority for this item?

Dr. BROOKS. If I may address myself to your first statement, Mr. Chairman, I do not think that simply the bigness of the company was our reason for going to General Motors. There are many substantial, very large companies in this country, where we have not had the experience so far as defense procurement is concerned that we have had with General Motors. They have shown not only the fact that they have the resources, which is, of course, well known, but the fact that they have consistently been willing, and shown evidence of apply-

ing these resources to the contracts which they have undertaken for the Government, and I think the contracts for the M-39, 20-millimeter cannon, the shell metal parts, the 105-millimeter shell, the 81-millimeter mortar shell, which are recent contracts, all with substantial urgency and all where this company has exceeded its accelerated schedule, are indicators of their attitude, capability, and intent to move out on these accelerated procurements for the Government.

ELIMINATION OF PRICE IN SELECTION OF TWO COMPANIES
FOR NEGOTIATED CONTRACT

Senator CANNON. On the original competition, all firms were to be prepared to submit firm prices on April 5, 1968. That was true even after the original proposed quantity was increased from 167,000 rifles to 358,000.

It was reaffirmed as late as the 19th of March. On March 29, the number of rifles per company was reduced to 240,000, but the rate of production and time of first delivery was accelerated.

Now, what were the intervening factors which caused the March 29 proposal to eliminate the consideration of the prices proposed by the bidding companies?

Dr. BROOKS. The prices which were contemplated to be received, Mr. Chairman, on the 5th of April were prices based on a 14-month leadtime, and a contract award as of the 15th of June, which would have given us first production in August, August of 1969.

Those prices were no longer applicable to the increased schedule, which called for delivery in February, that is 5 months earlier, and which called for a more rapid build-up to the maximum production.

Therefore, we felt that those prices were no longer significant so far as the changed schedule and the changed delivery time were concerned.

Therefore, in order to get a contract as soon as possible, rather than have the contractors go back and develop new firm prices, which would have taken at least we feel 30 to 60 days longer, in order to get firm auditable costs on a new schedule, we went the latter contract route, which required a budgetary estimate with the prices to be negotiated later.

This new budgetary estimate was what we announced on the 29th of March and what we indicated to the contractors we wanted and which they furnished to us as requested.

Senator CANNON. In your testimony before the Ichord subcommittee in the House, you cited the Truth in Negotiating Act as the basis for elimination of price from proposals, saying that your estimate was that it would take from 60 to 90 days for the competing companies to verify prices from their own supplier before they could submit a valid price.

Was this belief based on any inquiry to the competing companies as to the time that they might require?

Dr. BROOKS. This belief, sir, was based on our general experience with changed schedules.

Senator CANNON. But you made no attempt to verify from the companies whether that was in fact a true position?

Dr. BROOKS. This may have been done, sir.

Was it done in this case, General Anderson?

General ANDERSON. No, sir; not in the second case.

The submission of cost and pricing data required by 86-653, and it takes the form of a form 633. This is a submission, and the submission of this does not take 30, 60, or 90 days necessarily. But it is the auditing of these cost and price submissions and the negotiating that follows that would take the rest of the time. It is not the actual submission of the form.

These then have to be audited by the DCAA and then they serve as a basis for negotiating, which process takes varying lengths of time.

Senator CANNON. Yes, but I am saying the testimony was that it would take from 60 to 90 days for the competing companies to verify the prices from their own vendors.

Dr. BROOKS. I will have to check that testimony, Mr. Chairman. I think the intent was that it would take 60 to 90 days longer to arrive at a firm contract.

General ANDERSON. The verification maybe being the DCAA verification versus their submission.

Senator CANNON. Under the crash procurement scheme the selected companies were required to submit ceiling prices by the 13th of April. In order to make a businesslike ceiling price proposal, the companies would have had to verify for themselves at least ceiling prices from their vendors, would they not, to come within that frame?

Dr. BROOKS. They would have had to get budgetary estimates, Mr. Chairman, from their vendors, much as they submitted budgetary estimates to the Government. These, however, are not auditable. They are not in a form which will comply with the requirements of the act, and therefore, if the process had been hanged to require that they submit these firm prices, I think our estimate of 60 to 90 days longer beyond the middle of April would have been a fair one.

Senator CANNON. As a matter of fact, all four companies have informed the staff investigators that they had so verified the ceiling price proposal.

Now suppose that one of the companies might have required a few more days to have ascertained their prices, would it not have been a great advantage to the Government to allow them a few more days and proceed on that basis?

Dr. BROOKS. Even if they had been able to verify them, the form in which they are presented, Mr. Chairman, is not a form which meets the requirements, the statutory requirements of the Truth in Negotiation Act.

The DCAA requires elaborate and complete data, for audit purposes, which we are going to receive of course from these contractors as they develop it, and I do not think we would have been benefited from a few additional days to verify the type of estimates that they were developing at that time.

Senator CANNON. Since it was already apparent from the technical evaluation of the original proposals of all four companies, that they were competent under those conditions, and it must have been apparent that they were competent under accelerated conditions, would it not have been a great advantage to have had the price factor as a means of elimination from among the four?

Dr. BROOKS. Even if they had been able to verify them, the form in man, and if they had been quoting on a 14-month production leadtime, there would have been no question of the ability of the companies to meet this normal schedule.

Again, however, I would say that even the most competent of these companies undertakes a certain risk in being able to meet the accelerated schedule which we were proposing. Therefore the risk which we had to translate into getting in all probability less rifles from the less competent contractor become the overriding element in our analysis, and therefore we went to the relative competence, as we saw it, of these companies to produce the rifles in the time required.

Senator CANNON. In your letter to the Comptroller you state that price as a factor for consideration was not abandoned. Is it not correct that it was abandoned as a consideration of eliminating two companies from the competition of the four?

Dr. BROOKS. It was not abandoned, Mr. Chairman—

Senator CANNON. The price factor was not taken into consideration as far as they were concerned?

Dr. BROOKS. In selecting the two successful bidders, the process we went through was to select them on the basis of their technical competence, then to get budgetary estimates of ceiling prices from them.

Now if those budgetary estimates had been what we considered unreasonable, then we would have gone to other contractors to get budgetary estimates from them, because we were not in this case intending to pay an unreasonable price for this accelerated schedule.

This did not happen. We were satisfied that these prices were reasonable within our prior Government estimates. Therefore, we did not go to the other companies.

However, the factor was there to be used, if the price had been in our judgment unreasonable.

Senator CANNON. By the way, where did you draw the line of unreasonableness as to the price?

Dr. BROOKS. The Government team, Mr. Chairman, made a separate estimate for each contractor as to what would or would not be considered an unreasonable price.

Senator CANNON. And how did their bids actually compare, how did their estimates actually compare as to that?

Dr. BROOKS. In both cases, sir; they were lower than the Government estimate.

Senator CANNON. How much lower were they, 50 percent of it or 60 percent of it, or 70 percent?

Dr. BROOKS. Oh, no. They were around 80 to 90 percent of the estimates, sir.

This does not, of course, mean that we accept their estimate as a reasonable price for final purposes. We will continue to negotiate this price.

Senator CANNON. I understand.

Dr. BROOKS. And we anticipate that reductions will be made where appropriate.

Senator CANNON. Then the only remaining consideration of price in signing the letter contract was whether or not the selected companies came close to the ceiling price privately estimated by the Army. If that

is a fact, how can you say that price was a factor of any importance at all in selecting the contractor?

Dr. BROOKS. As I say, Mr. Chairman, if the price had been outside those limits, we certainly would have considered other prices which we would look at to see whether they were within the limits of that contract.

Senator CANNON. Did you set a low ceiling as well as a high ceiling?

Mr. BROOKS. No, sir. It was an estimate of what was considered to be an outside reasonable price for these purposes.

Senator CANNON. In your letter to the Comptroller you cite a Comptroller General decision which upheld the award to a company on a factor other than the best price.

How can it be said that your procedures even brought price in as a factor in selection of the award?

Dr. BROOKS. I would say, sir, as they have described it they provided for the use of price in those circumstances where they felt it might be required. That is, if we got an unreasonable price, unreasonable ceiling from one of the bidders judged most competent, or if there were no difference or negligible difference in technical evaluation, then there would be no other basis on which to go.

Senator CANNON. In the General Accounting Office statement to the Ichord subcommittee, he said in effect the prices you considered were your own estimates as to what the competing companies would probably submit. If that had any influence at all in making the award, the Army must have estimated that Maremont and Cadillac Gage would have been close to or higher than the other two companies; is that correct?

Dr. BROOKS. No, sir; we had different estimates for each one of the companies.

Senator CANNON. That is not my question.

Was their estimate close to or higher than the other two companies, your estimates for them?

Dr. BROOKS. It depends which of the other two your mentioned, Mr. Chairman.

Senator CANNON. You select them. Just tell us what it was.

Dr. BROOKS. The estimate for Maremont was, I believe, slightly lower than that estimated for Harrington & Richardson and for—substantially lower than that estimated for General Motors. Cadillac Gage, on the other hand, was higher than H. & R. and higher than Maremont.

Senator CANNON. Why did you estimate Maremont to be lower? Because they had a little more firm the matters at hand to fix their estimate on?

Dr. BROOKS. No, sir. It was based on the Government's understanding of the technical proposal of the contractor.

Senator CANNON. So you actually then estimated that Maremont would be able to do the job at a lower price if they got the contract.

Dr. BROOKS. That is correct; yes, sir.

Senator CANNON. And that is actually what they said they could do. What was the differential between Maremont and—

Dr. BROOKS. I have the figures here, sir.

Government estimate, I can give you them here, Mr. Chairman, although this is a matter of sensitivity of course, because these contracts

are still under negotiation and we do not want the contractors to have a target which appears to be above what they are now getting.

Senator CANNON. This is a classified hearing.

Dr. BROOKS. I understand, sir.

Senator CANNON. And certainly the record would not be made available for any of the contractors to come in and review.

Dr. BROOKS. Yes, sir.

The Government estimate for General Motors was [deleted] million in total; for Harrington & Richardson, [deleted] million; Maremont, [deleted] Cadillac Gage, [deleted].

Senator CANNON. So with Maremont you were willing to assume a price differential there of about \$14 million on your figures?

Dr. BROOKS. Yes, sir.

EXPANDING COLT'S PRODUCTION TO MEET URGENT REQUIREMENTS

Senator CANNON. Now, while all of these proceedings were underway with the stated objective of meeting, as you told the Comptroller, a critical need for M-16 rifles in Southeast Asia, how do you explain that most detailed and urgent examination of Colt's expansion ability was not undertaken?

Dr. BROOKS. We did undertake an examination of it, Mr. Chairman. Colt's came in with a proposal which we gave very careful attention to, to expand beyond what we had already committed them to, which was expanding to 50,000 a month. They proposed to expand to 75,000.

Senator CANNON. Did you in fact request Colt's in writing to match their maximum expansion capability with any terms of reference, or did you send representatives to their management to view the factories to make an on-the-spot evaluation of their expansion capacity?

Dr. BROOKS. We had them come in, Mr. Chairman, to explain in detail to us and to the Weapons Command their plan. I do not know if we sent anyone.

Did we send anyone to Colt's? I believe there was an evaluation made. I do not know whether this was a visit.

General ANDERSON. We did not ask them in writing for this. They gave it to us in our office.

Senator CANNON. They represented that they could expand very materially, did they not?

Dr. BROOKS. Yes, sir; they did.

General ANDERSON. To 75,000.

Senator CANNON. In view of the stated urgency, why did you decide not to make an intensive examination of their capacity, particularly since as early as March 16, Colt's in writing themselves proposed a scheme to go to 75,000 rifles per month, with only a minor alteration of the plan for them to go to 50,000 per month?

Dr. BROOKS. We did, Mr. Chairman, make a very careful analysis of their proposal, and I think that we came out, it was not a question in our minds that Colt's could not do this. That certainly there was some risk, but certainly no greater risk than we were attributing to the other offerors, the other competitors in the procurement.

The reason for not picking up that offer, there were several reasons.

First was the fact that Colt's schedule that they proposed and that we felt they could probably meet was about as good as the best schedule which we could expect from the other bidders. That is to say, they

would about equal that expansion. We probably could get it from them, we felt, at a lower price than the other bidders. So this was an advantage for Colt's.

However, there was a substantial risk involved, we felt, in going from a pattern where we were looking for one contractor at 50,000, one at 25,000 and one at 25,000 to one contractor at 75,000 and another one at 25,000.

First of all, we were concentrating our rifle production in one company. Now they did propose to put it up in a separate plant, but the company would then be subject to the risks of strikes, of management change, and other contingencies which can affect the ability of a company to produce.

We felt this was a real problem in being able to assure ourselves that we would get the rifles, and we have had experience, as you know, of a strike which affected the Colt's production quite seriously last year.

The second point was with respect to future procurement of the rifles, we felt that if Colt's went to 75,000 and there was one other competitor in there at 25,000 a month, that we simply would prejudice to an unacceptable degree the possibility of future competition. There could be no real effective competition with Colt's if their capacity was that high, and we felt, in future years, if we attempted to obtain competition, they could simply overwhelm the other competitor, and we would not have a truly competitive market.

Those were the two reasons, sir, on which we based our turndown of the Colt's proposal to go to 75 as an alternate.

COLT'S PRICE OFFER FOR PROPOSED ADDITIONAL RIFLES

Senator CANNON. And you did that, at the same time knowing that their offered price was much less than the \$222 per rifle that you estimated the other four companies were going to have to produce at?

Dr. BROOKS. We knew it would be somewhat less; yes, sir.

NUMBERS TO BE DELIVERED EARLY

Senator CANNON. And you knew at the same time that this would offer more rifles at an early date to meet those critical needs that you described in Southeast Asia?

Dr. BROOKS. No, sir; it would not have offered more rifles. We felt it would have offered about the same number on the same schedule.

Senator CANNON. It would not have offered more?

Dr. BROOKS. No, sir.

Senator CANNON. Senator Smith?

Senator SMITH. I have no questions at this time.

Senator CANNON. Senator Miller.

Senator MILLER. No questions.

Senator CANNON. Staff!

ARMY EVALUATORS' VISITS TO PLANTS

Mr. KENDALL. Thank you, Mr. Chairman.

Mr. Secretary, let me make sure I understand one or two of your answers.

Did you say that Army representatives did go to each of the four offerors—that is, General Motors, Maremont, Cadillac Gage, Harrington & Richardson—prior to the selection of General Motors and Harrington & Richardson, and made a detailed study of their plant facilities?

Dr. BROOKS. I did say so, Mr. Kendall. That was my understanding. Can I ask General Anderson?

General ANDERSON. I am not sure. I understand so, but I am not sure.

Mr. KENDALL. You will check that, please, sir, and supply it for the record?

Dr. BROOKS. Yes; I shall.

(The information requested follows:)

Special task groups, representing all the relevant disciplines from the Boston and Detroit Defense Contract Administration Services Regions, supplemented by small arms specialists from the Army Weapons Command, made separate and independent on-site surveys of each offeror's plant. These surveys were made from late January through mid-February. These task groups explored all aspects of each offeror's capability to perform in accordance with his Phase I technical proposal. The capability survey reports were reviewed and key individuals interrogated by the Source Selection Advisory Council during the period 11-15 March 1968. The Council's findings on the capability surveys were incorporated into a Council report dated 18 March 1968. The latter report was updated to reflect the proposal of each offeror made during the discussions of 4-5 April 1968.

SURPRISE OVER DIFFERENCES IN TECHNICAL EVALUATION

Mr. KENDALL. Do I also understand, sir, that although the question of testing facilities and metrology laboratory were considered factors, at least in qualifying Maremont, that you are not prepared to respond today as to the details of what General Motors possessed on that? In other words, that you just do not know right now?

Dr. BROOKS. Well, we will have to provide you the answer, Mr. Kendall, on what General Motors' plan was.

Mr. KENDALL. In other words, while this was considered an important factor, the question on those two points have caught you by surprise. That is the fact of the matter; is it not, sir?

Dr. BROOKS. We do not have the detailed information, sir, that you have after the visit.

Mr. KENDALL. Yes, sir.

This, of course—

Dr. BROOKS. However, I would say that I believe that the board which made this report had looked into that and had made an analysis of it.

Mr. KENDALL. This relates to the question that was asked as to why the absence of these facilities or the inadequacy of them—not absence, because they existed in the case of Maremont—should be considered a weakness with respect to them and should not even be considered in the case of General Motors, and you are not prepared to respond to the question.

CONSIDERATION OF THIRD SOURCE FROM THOSE COMPETING FOR SECOND SOURCE CONTRACT

Now going back for a little while, since last October when you were considering the question of selecting a second producer for the M-16, you considered the alternative also of continued competition for the second source, but selecting a third source producer while the competition was going on; is that right, sir?

Dr. BROOKS. Last October?

Mr. KENDALL. Yes, sir; since last October, sometime in the process.

Dr. BROOKS. The consideration of a possible third source, sole source producer, Mr. Kendall, came up in—

Mr. KENDALL. You considered several alternative courses of action?

Dr. BROOKS. Yes, sir.

Mr. KENDALL. I am quoting from page 6.

Dr. BROOKS. Right. That came up in March of this year.

Mr. KENDALL. Yes, sir.

The first was competition for a second source, but, in addition to select a third producer on a sole source basis among the four offerors who were then in the process of qualifying technical proposals.

I am reading from your statement:

In developing this alternative, discussions were held with General Motors Hydramatic Division in view of this company's outstanding performance on accelerated schedules, particularly production of the M-39mm. cannon.

Is General Motors the only company that you discussed that alternative with?

In other words, did you just say General Motors is it and "we are going to talk with you to see whether we want to proceed," or did you give any other companies conferences about that proposal?

Dr. BROOKS. No, sir. We discussed it with General Motors on the basis that we indicated in my statement, that this company had an outstanding past record.

Mr. KENDALL. Why eliminate companies like Harrington & Richardson, which had previous experience on the M-14, and companies like Maremont, which had had previous experience, and I think the Army said a fine record on the M-60 machinegun?

Dr. BROOKS. Because their record, while good, classified as good, Mr. Kendall, was not the outstanding one that General Motors had provided us with, had provided for us.

OMISSION OF PRICE AS A FACTOR IN 1968 DETERMINATION

Mr. KENDALL. Going back to your method of source selection and entering into the contract, in the 1967 determinations authorizing a negotiated contract, price was included as one of the factors, was it not?

Dr. BROOKS. In the September 1967 determination?

Mr. KENDALL. Yes.

Dr. BROOKS. Yes, it was.

Mr. KENDALL. And the determination issued on March 28 omits price as a factor. As a matter of fact, you advised the offerors not to submit prices until they were asked for it.

In other words, you said "Do not tell us what the price is until we specifically ask you"; that is correct, is it not?

Dr. BROOKS. That is correct, sir.

Mr. KENDALL. How can you square that situation with your statement that it was never intended to abandon price as a factor?

Dr. BROOKS. We did not abandon price in the sense that we are still looking and still are looking, Mr. Kendall, for a fair and reasonable price on this procurement.

COMPETITORS READINESS TO SUBMIT PRICES

Mr. KENDALL. Well, in your planning to meet the accelerated expanded production directed by the Defense Department, did you know that the bidding companies had to be prepared on April 13 to submit firm prices on the increased quantities which you directed on March 8?

Dr. BROOKS. We knew that they were submitting, they were directed to submit firm prices. I believe it was April 5; is that correct, General Anderson?

General ANDERSON. I believe so.

Dr. BROOKS. On the increased quantities, but on the same delivery schedule that we had set up beginning in the procurement last September. That was what I would call the normal 14-month leadtime.

Mr. KENDALL. So in the March 8 direction you told them to be prepared to submit firm prices?

Dr. BROOKS. That is correct, on a 14-month leadtime.

Mr. KENDALL. Yes, on the same quantity, and then on your determination on March 28 you told them not to submit prices. The thing that had changed since that time was an acceleration of the schedule?

Dr. BROOKS. Acceleration of the schedule for that portion of the procurement which had been contemplated to be competitive at 14 months leadtime; yes, sir.

Mr. KENDALL. All four of the companies have stated to our staff that ascertaining prices from the vendors under the expanded concept was no great problem, and that under any condition, at least ceiling prices from all four companies could have been obtained with a very few days' delay.

I still come back to the question, under these circumstances, what was the overriding factor which caused the obvious advantage to the government and the taxpayers, that is a lower price, to be discarded?

Dr. BROOKS. The factor that became of the greatest significance, Mr. Kendall, was the capability of the producers, two producers, to produce more rifles and to come closer or to beat the accelerated schedule.

Mr. KENDALL. Then would not the best way to have gone, if that was the sole consideration, eliminating the requirements of the second source, would it not have been better to have gone with Colt's?

Dr. BROOKS. No, sir. They were no better than the accelerated schedule that we were looking for. That would not have given us an advantage. That would have given us the two things that I mentioned to the chairman, a risk in concentrating our base in one producer, and the virtual elimination of the possibility of future competition.

KNOWLEDGE OF PROBABLE PRICE RANGE

Mr. KENDALL. Just so that the record reflects this, you are saying that the Army made its own estimate of ceiling prices, and you have given the figures, also as to how they compared with the ceiling prices submitted by GM and Harrington & Richardson, so you are saying that the Army selected General Motors and entered into a contract with the knowledge and the information based on its own estimates that General Motors would be \$14 million higher than Maremont or Cadillac Gage, or Maremont at least?

Dr. BROOKS. That was what the estimates indicated; yes, sir.

However, we also had greater confidence in the ability of both General Motors and Harrington & Richardson to meet the schedule proposed than we had in the other two companies.

Mr. KENDALL. And the basis of information which you have now available, the actual difference in the contract according to Maremont, what they said they would propose, is \$20 million?

Dr. BROOKS. Well, that is what their indication of the price they would have bid, Mr. Kendall, is.

I would like to point out here again, I appreciate the fact that this is a classified hearing, that in the period between the selection of the two bidders and the award of the contract, we went over the estimates in order to assure ourselves that they were indeed fair and reasonable. We were looking for two things. One was duplications, things that should not be in there. We found some of those. The other was omissions.

Now, we did find in Harrington & Richardson's proposal specifically that there were some substantial omissions, and Harrington & Richardson's price that they submitted to us by telephone, in their initial budgetary estimate, was quite a bit lower than the price of \$41.6 million which was finally agreed on as the ceiling.

We pointed out those omissions. They went back and revised their estimate, so that I would say that the difference of \$20 million may or may not be a valid one, in that we might have found similar omissions if we had obtained prices from Maremont.

Mr. KENDALL. Since the Army was interested in price, according to what you say, and since it made its own estimate of ceiling prices, do you not think the Army would have been in a little better situation if they had not precluded the offerors from coming in and saying, "This is our estimate of our price"? Do you not think that information would have been of some value to the Army in its proceeding with this situation, or did the Army prefer not to get confused by the question of price?

Dr. BROOKS. No, sir.

The question in our mind was what value to us and to the taxpayer would the price have been if we had obtained it from contractors that had been judged less capable of performing than the two successful bidders.

Mr. KENDALL. Is there any way in the world that General Motors could have been seriously considered for this award in view of the fact that three other contractors with a lower price were considered qualified, is there any way that General Motors could seriously have

been considered if you had had these price figures at the time you made the award?

Dr. BROOKS. Yes, sir.

I think that with the rating that this company had, with its record of past performance, since we wanted that performance and we wanted to get the rifles as soon as possible, the award, I think, would have been made in the same way with or without the pricing.

Mr. KENDALL. Do you not think you would have been in a little better situation to defend your award if you had taken into consideration the basis, the prices which the companies had in mind, to say "Yes, we did consider this, we considered this in connection with all of the other factors, and this was our judgment"?

Dr. BROOKS. It would have been difficult for us, I think, Mr. Kendall, and this I am sure you appreciate is a hypothetical issue at present, it would have been very different in price against the urgency and the value to the Government of getting the rifles earlier.

Mr. KENDALL. You are still faced with that problem in retrospect now, are you not?

Dr. BROOKS. Yes, sir; I think we are certainly faced with the problem and I believe that we have submitted to you the justification for doing what we did. I do not think the problem would have been any different if we had obtained prices.

QUALIFIED SOURCES

Mr. KENDALL. I believe your testimony adds up to the fact that Maremont was a qualified source although not as qualified as General Motors; is that right?

Dr. BROOKS. It was a competent source, sir. And as I indicated, with a risk schedule for all contractors, we would prefer not to characterize a source as qualified or unqualified, because that is a yes or no proposition. They are more or less qualified.

Mr. KENDALL. Well, it is obvious from the debriefing given Maremont that they were considered a qualified source, Mr. Secretary. I have it here; I do not want to go into it and take up a lot of time, but I am sure you are familiar with it.

Dr. BROOKS. Yes; I am, sir.

Mr. KENDALL. The debriefing gave us some pretty strong recommendations in certain areas, and I think you will agree that the overall conclusion of the debriefing, that they were qualified but not as qualified as General Motors in the peculiar circumstances of this award.

Dr. BROOKS. That is what the debriefing officer said.

QUOTATIONS FROM MAXIMUM OR MINIMUM NUMBER OF SOURCES

Mr. KENDALL. Yes; so when you refer to ASPR 3-101, saying that price quotations shall be solicited from the maximum number of qualified sources, you actually in this case solicited from the minimum of qualified sources, two out of four.

Dr. BROOKS. The ASPR clause, Mr. Kendall, goes on to say consistent with the nature of and the requirements for the supplies and services.

Mr. KENDALL. Yes, sir.

Dr. BROOKS. Now, consistent with the requirements for, we then bring in the question of urgency.

Mr. KENDALL. Yes, sir; but when you refer to the maximum and you are going to select two, and you had four offerors, you actually considered price from the minimum number, not the maximum?

Dr. BROOKS. No, sir.

Mr. KENDALL. You had to consider at least two.

Dr. BROOKS. We felt that the minimum in this case would be the same as the maximum, because the number of sources to be solicited consistent with the requirement was such that we felt the overriding urgency required that we solicit the prices from the two people who had been judged most capable.

Senator MILLER. Would counsel yield?

Mr. KENDALL. Certainly, sir.

PROSPECTS FOR DOWNWARD NEGOTIATION

Senator MILLER. In connection with this, I believe you said \$14 million additional cost—

Mr. KENDALL. That was the original Government, Army estimate.

Senator MILLER. For General Motors?

Mr. KENDALL. As compared with Maremont; yes, sir.

Senator MILLER. Yes, but there is another factor that the Secretary did bring out in his testimony, which I think fits with this, and that is you have laid emphasis on the fact that these prices are subject to negotiation.

Dr. BROOKS. Yes, sir; that is correct.

Senator MILLER. Downward, and that the Army tends to aggressively negotiate with a view to getting them down.

Do you have any idea how much you might be able to get them down?

In other words, the 14 is a tentative figure. It might turn out that way, but you are going to try to lower that figure?

Dr. BROOKS. That is correct, Senator.

Senator MILLER. In negotiation, downward.

Do you have any ideas on how much of that could be negotiated downward?

Dr. BROOKS. We do expect to obtain reductions, primarily, principally in the General Motors ceiling price, Senator. I would hesitate to speculate on a figure right now. We have not yet received the submissions from the two companies. We will get those, and as I indicated in the statement, we will negotiate on that basis.

Senator MILLER. Well, would it be unrealistic to suggest that this might possibly be negotiated downward by half of that difference?

Dr. BROOKS. I would hesitate to comment on that, but we do expect, Senator—

Senator MILLER. I am not asking for a commitment. I am just asking on the basis of your experience what would be a ballpark possibility on this.

We are talking now about \$14 million difference out of what is the total procurement contract. What does that amount to?

Dr. BROOKS. The present estimate for General Motors is \$56 million.

Senator MILLER. Fifty-six million dollars. Well, if you cut it down

by 10 percent, that would be getting near half that figure. Is it unrealistic to look for the possibility of a 10-percent reduction?

Mr. BROOKS. I do not think that is unrealistic; no, sir.

Senator MILLER. You do not think it is unrealistic?

Dr. BROOKS. No, sir.

Senator MILLER. What has been your experience on these renegotiations downward?

Dr. BROOKS. In procurements of this kind we have frequently experienced, Senator, a 10-percent reduction upon doing this.

Senator MILLER. Thank you.

Mr. KENDALL. Now, Mr. Secretary, on page 11 of your statement, I just want to make certain that I understand one of the sentences here, the third sentence in the first full paragraph on page 11 you say:

This was not a situation in which a ceiling price solicited from a competitor from whom, after an objective evaluation, we expected to get fewer rifles could be significantly compared to a ceiling price from a competitor judged more capable of producing.

What are you really saying there, that you expect to get fewer rifles from Maremont and therefore it would be unrealistic to compare it with General Motors? Is that what you are saying?

Dr. BROOKS. Yes, sir.

Mr. KENDALL. I assume you mean fewer rifles earlier?

Dr. BROOKS. That is correct; fewer rifles against the schedule.

SIZE OF URGENT REQUIREMENTS

Mr. KENDALL. With reference to the requirements, I need to get a little assistance on a point or two here.

You say on page 2 that:

Increases for free world and U.S. forces in Southeast Asia have led to a total increase of approximately [deleted] rifles for Southeast Asia forces. Of these, approximately 250,000 have been characterized by the Joint Chiefs of Staff as being urgently needed.

In the briefing which General Woolwine gave to Senator Muskie he furnished a chart showing the requirement. He said the JCS requirement for Southeast Asia was [deleted] as soon as possible. I assume as soon as possible equates with urgent.

Dr. BROOKS. Yes, sir.

Mr. KENDALL. So could you give me some explanation of the difference of [deleted] there?

Dr. BROOKS. Yes, sir.

I was referring here, Mr. Kendall, to that portion of the increased requirement which was characterized as urgently needed. The JCS in their statement did characterize [deleted] as urgently needed. Of that, a little over 100,000 were requirements which were not increased.

In other words, these were requirements for the ARVN maneuver battalions, for the U.S. forces remaining in South Vietnam, which were requirements existing at the time that the increases came about. So that the total urgent requirement, [deleted], the total urgent increased requirement, [deleted].

Mr. KENDALL. I certainly hope that you will meet these requirements as quickly as you hope, Mr. Secretary.

Dr. BROOKS. Yes, sir.

Mr. KENDALL. As you know, we have been talking to you since 1965 and trying to get some sense of urgency into this program, although without regard to the contract award I must say that I am pleased that the urgency did develop.

Dr. BROOKS. We feel it, sir.

Mr. KENDALL. I think General Shaw would like to ask you a few questions.

Senator CANNON. General Shaw?

General SHAW. On the matter of industrial production equipment to be installed, is it the point as to what has to be moved into place in the plant, and connected up to the power sources and adjusted and retooled? Is that the point, in making that observation about how much had to be obtained?

Dr. BROOKS. Well, there are two kinds of sources of production equipment, General Shaw. One is of course the equipment that is available either at the plant, has to be rearranged but it is there, or it is available elsewhere.

The other is the equipment that the contractor has to go out and buy.

Now in our answer clarifying the point on what percent of equipment was available, we will go into that in detail as to what had to be bought, what was available in inventory, what was available at the plant.

General SHAW. You just lost me. They were limited originally to only buying \$4 million worth?

Dr. BROOKS. That is right, sir.

General SHAW. And I believe no company planned to exceed that, and General Motors only planned to buy 72 pieces at \$3.9 million, so they told us. But a large amount of this equipment they would draw from the DIPEC or ASOD lines and elsewhere?

Dr. BROOKS. And from their own plant.

General SHAW. That would not be in the plant. They would have to be obtained as new pieces, physically moved from somewhere?

Dr. BROOKS. Yes, physically moved.

However, its availability is guaranteed. It is a little different when they go out and buy it.

General SHAW. Maremont, they were not going to buy more than \$4 million worth either?

Dr. BROOKS. That is correct; yes, sir.

General SHAW. So in that respect they were equal to General Motors then?

Dr. BROOKS. Oh, yes.

I was not suggesting a difference in that respect. I was just trying to point out the different category.

HYDRAMATIC DIVISION NOT THE PLANT CITED AS BASIS FOR
CONFIDENCE IN ACCELERATED PRODUCTION

General SHAW. As a matter of expanding on the information, you cited General Motors' record in the ammunition and M-60 tank transmission production as a factor of their assuredness in meeting a rapid schedule.

Was that Hydramatic that performed those, or was it some other division?

Dr. BROOKS. No, Hydramatic has had one contract recently and that is the M-39, which was also an outstanding job.

General SHAW. But Hydramatic was not involved in the mortar ammunition, or the M-60 tank transmission?

Dr. BROOKS. That is correct.

However, they did use on this, and the company did provide to other accelerated programs, the resources of the corporate management.

ORIGIN OF DIRECTIVES FOR CHANGING TO ACCELERATED PRODUCTION

General SHAW. In getting this accelerated production started, did you receive a directive from the Defense Department to expedite the M-16 production?

Dr. BROOKS. We certainly received—yes, very strong.

General SHAW. Could you say from whom?

Dr. BROOKS. I am trying to recall the specific point. I am sure it came from, the originator of it, was the Deputy Secretary of Defense, Mr. Nitze.

General SHAW. Could you say when?

Dr. BROOKS. There were a succession of them, General Shaw. I think the latest one was, essentially it went to the question of maximizing production. I think it was the end of February or early March.

General SHAW. When we had this briefing by General Woolwine, he used a chart which quoted a March 27, 1968, directive. They were told to change objectives to two sources, make selections as soon as possible, a desired award date of April 15, conduct intensive negotiations with all offerors who had submitted proposals, and make selection primarily on the basis of production capability together with the high level of confidence in ability to meet an accelerated schedule while maintaining good quality.

Did that directive come from—

Dr. BROOKS. That came from me.

General SHAW. That is your directive?

Dr. BROOKS. Yes, sir.

General SHAW. To the Army Materiel Command?

Dr. BROOKS. Yes, sir.

General SHAW. What was the significance of the April 15 deadline date, referring back particularly to the timing of the price quotation?

Dr. BROOKS. Because we felt this was the earliest possible date at which we could reasonably expect to award a contract under this procedure, and we wanted to accelerate that as much as possible.

In other words, we were looking for a gain of some 2 months over the June 15 contemplated award to April 15 through this procedure, and therefore getting into production 2 months earlier on that basis.

CONSIDERATION GIVEN TO THE EXISTING MOBILIZATION BASE

General SHAW. Now turning to the matter of General Motors, and your negotiations with them. When the urgency came upon you, and discussions were held with General Motors as a sole source producer,

there were then three companies being paid by the Government to maintain rifle lines as a mobilization base, TRW, Olin Mathieson, and H. & R.

As I understand it, you held no discussions with them.

Dr. BROOKS. That is correct, General Shaw.

The case of Olin Mathieson and TRW was quite clear. They had declined to enter the original competition. At this point, therefore, and I am speaking about early March, they were not in possession, for example, of the Colt's drawings which had been furnished to the other bidders, and we felt that they would have a much too long a time to catch up, to get familiar with the technical aspects of the procurement, to make them candidates for the award, for the sole source award.

We did look at the H. & R. capabilities of course as we did the other bidders, and we felt that again among those four, that the outstanding one in terms of potential for a sole source award was General Motors.

I would say that the Source Selection Evaluation Board concurred fully with that conclusion.

General SHAW. Then paying these companies to maintain these lines as part of the mobilization base is not paying off very well?

Dr. BROOKS. Well, they are M-14 lines, General Shaw, and we are maintaining them for that purpose. This M-16 is of course a different rifle.

General SHAW. We understood that the present decision is to build no more M-14's.

Dr. BROOKS. If there were a mobilization requirement today or in the near future, we would have to build M-14's. That is why, as we get further into the M-16 base, of course, we will phase down the M-14.

General SHAW. You mean you do not have sufficient assets on hand with rifles plus the production capability of M-16's to equip the forces we have mobilized?

Dr. BROOKS. Oh, indeed we have; yes, sir.

The problem is of course of continuing to support them, and this is what we maintain a mobilization for, is to continue indefinitely being able to support forces with the rifle with which they are equipped, and for NATO forces that is the M-14.

Now, in order to provide such support and a continuing basis, to replace losses, we would have to activate one or more of those lines.

DUAL CONSIDERATION OF GENERAL MOTORS AS CONTRACTOR

General SHAW. As I understand it, we were informed by the General Motors people that you commenced your negotiations with them on the 7th of March on this single procurement.

Dr. BROOKS. Yes, sir; I believe that is correct.

General SHAW. Was this in writing or verbal, the proposal?

Dr. BROOKS. You mean the negotiations?

They were initially verbal. I do not know whether they made any written submissions or not.

General SHAW. We were also informed by a General Motors official that they were not informed that the sole source plan was called off until sometime shortly after the 29 March telegram shifting to the two source competition.

Dr. BROOKS. That is correct, sir.

General SHAW. Then until this time General Motors was in effect having a double shot at the job, was it not, one competitive and one noncompetitive?

Dr. BROOKS. They were still in the competition.

What we were trying to do, General Shaw, was to be ready to move in whatever direction that seemed appropriate as soon as possible.

Now during March, what happened was that the requirements that we saw as of the 1st of March kept going up. There were, for example, I mentioned the civilian irregular defense group requirement in Vietnam. This was not known to us at the beginning of March. This is something that came in as the traffic went back and forth and as the requirements became defined. It appeared at the beginning of March that we could satisfactorily do the job with one accelerated producer, one additional accelerated producer, and one on a normal schedule.

That became less and less likely as we went through March, and it appeared that we were beginning to get more and more requirements. Therefore, we decided to get two producers in and get them accelerated as fast as possible.

General SHAW. I have nothing more.

Mr. KENDALL. That is all the questions the staff has.

Senator CANNON. Anything further?

Senator SMITH. Yes, Mr. Chairman.

As I listened to the Secretary's statement, which is marked "Secret," I would like to ask just what is secret about this statement except the charts in the back?

Dr. BROOKS. That is the part of it, Senator, and the numbers of course of assets and requirements in the body of the statement.

Senator SMITH. So that the statement without the numbers and without the charts could be released?

Dr. BROOKS. Yes.

Senator SMITH. I do not intend to release it, but I did want to talk about it.

Dr. BROOKS. It could be.

Senator CANNON. Would you provide to the committee a nonclassified copy in the event that requests are made for it, if someone should desire it?

Dr. BROOKS. We could; yes, sir. We will be glad to do so.

Senator SMITH. Mr. Chairman, as I said at the beginning, it seems to me this is a very shoddy, shabby record, and that it may be that legislation is needed so as not to have repetition.

I want it well understood that I hope to do something about it.

Senator CANNON. Certainly in the course of these hearings we will be better able to form a good judgment on that, but I, myself, am very much concerned about the position taken with respect to this picture so far.

Senator Miller?

Senator MILLER. Thank you, Mr. Chairman.

Going back to my question about the possibilities of negotiating downward these figures, I wonder if you could provide for the record some examples in rifle procurement where this has been done, so that we would have an idea of what you have been doing over the years, and what you have for a basis for optimism or pessimism.

Dr. BROOKS. Yes, sir. We will certainly do that, Senator. I do not know whether we can do it for rifle procurement, because I am not aware of instances in which we have used—we have. I will correct that.

We have used a letter contract, one or more in the past. I would suggest that we do it in small amounts.

Senator MILLER. For rifle procurement it would be good, and then contracts with General Motors it would be good, so we might see (a) in the rifle area, (b) in the area of General Motors contracts.

Dr. BROOKS. Yes, sir; we will be delighted.

There were two actions with Colt's involving the use of ceiling prices. In December 1965 Colt's was awarded a letter contract for M16A1 rifles at a ceiling price of \$115. The firm price in the contract definitized in June 1966 was \$111.50, a reduction of 3%.

A modification to the June 1966 contract contained an option clause with ceiling prices of \$95.50 for the M16 and \$107 for the M16A1. Prices on the option quantities were definitized in December 1966 at \$90.55 for the M16 and \$102.30 for the M16A1. These prices represented reductions from the ceiling prices of 4% for the M16 and 5% for the M16A1. It should be noted that Colt's had extensive historical cost data upon which the ceiling prices were based.

There are two prime examples of letter contracts with General Motors.

On one letter contract for 105mm high explosive projectiles, the ceiling price was \$9.00. The definitized contract set the unit price at \$8.675, a reduction of 4%.

On a contract for 81mm mortar projectiles, the ceiling price was \$9.76. The negotiations prior to definitization of the award led to a unit price of \$7.82, a reduction of 20%.

Senator MILLER. On the last page of your testimony, the middle of the paragraph, you say:

"The equipping of South Vietnamese forces is a major step in our efforts to shift the greater portion of the war to their shoulders."

I was wondering if there was any significance to that word "the" as distinguished from the word "a"?

Dr. BROOKS. I do not think it was intentional, sir.

I understand your point. I do not think any of us can predict at this time who will be carrying the major share of combat. Of course it depends on many factors, and I would be the first to say that the rifle is one of them.

Senator MILLER. Yes; and I understand the predictability and all that, but I am wondering if that word "the" was your word, or if that came from some other policy statement that you drew from in making that statement.

Dr. BROOKS. I do not believe so, sir.

I think the—

Senator MILLER. Could you check with whoever helped you prepare that statement?

Dr. BROOKS. We will check on it.

Senator MILLER. And find out the source of the word "the."

Dr. BROOKS. Yes, sir.

Senator MILLER. I will appreciate it very much. And furnish it for the record.

Dr. BROOKS. I shall.

(The information requested follows:)

As indicated on line 2, page 2, and line 10, page 11, of my opening statement, it is our plan to provide more M16 rifles to South Vietnamese forces so that they could assume "a" larger share of the combat. The use "the" in line 10, page 12, in reference to the burden of the war to be shifted to the South Vietnamese shoulders was unintentional.

Senator CANNON. If there are no further questions, the hearing will be recessed until 10:30 tomorrow morning. I say 10:30 because the Armed Services Committee is meeting at 10 o'clock, and we will resume at 10:30 here.

(Whereupon, at 12 noon, the committee recessed, to reconvene at 10:30 a.m., Thursday, June 20, 1968.)

Senator Cannon: (b) in the case of General Motors contracts... (c) in the case of General Motors contracts... (d) in the case of General Motors contracts...

There was no action with the... (b) in the case of General Motors contracts... (c) in the case of General Motors contracts... (d) in the case of General Motors contracts...

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Senator Cannon: (b) in the case of General Motors contracts... (c) in the case of General Motors contracts... (d) in the case of General Motors contracts...

The... (b) in the case of General Motors contracts... (c) in the case of General Motors contracts... (d) in the case of General Motors contracts...

It was... (b) in the case of General Motors contracts... (c) in the case of General Motors contracts... (d) in the case of General Motors contracts...

Mr. Cannon: (b) in the case of General Motors contracts... (c) in the case of General Motors contracts... (d) in the case of General Motors contracts...

I am... (b) in the case of General Motors contracts... (c) in the case of General Motors contracts... (d) in the case of General Motors contracts...

Senator Cannon: (b) in the case of General Motors contracts... (c) in the case of General Motors contracts... (d) in the case of General Motors contracts...

The... (b) in the case of General Motors contracts... (c) in the case of General Motors contracts... (d) in the case of General Motors contracts...

I think... (b) in the case of General Motors contracts... (c) in the case of General Motors contracts... (d) in the case of General Motors contracts...

Senator Cannon: (b) in the case of General Motors contracts... (c) in the case of General Motors contracts... (d) in the case of General Motors contracts...

Mr. Cannon: (b) in the case of General Motors contracts... (c) in the case of General Motors contracts... (d) in the case of General Motors contracts...

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ADDITIONAL PROCUREMENT OF M-16 RIFLES

THURSDAY, JUNE 20, 1968

U.S. SENATE,
M-16 RIFLE SUBCOMMITTEE OF THE
PREPAREDNESS INVESTIGATING SUBCOMMITTEE
OF THE COMMITTEE ON ARMED SERVICES,
Washington, D.C.

The subcommittee (composed of Senators Cannon (chairman), Stennis, Smith, and Miller) met, pursuant to recess, at 10:45 o'clock a.m., in room 224, Old Senate Office Building, Senator Howard W. Cannon presiding.

Present: Senators Cannon, and Smith.

Also present: James T. Kendall, chief counsel; Samuel R. Shaw and Robert M. Neal, professional staff members.

Senator CANNON. The hearing will come to order.

This morning we continue the hearings which we opened yesterday into the Army's issuance of contracts for additional procurement of M-16 rifles.

Our first witness this morning will be Senator Edmund S. Muskie of Maine. The subcommittee is conscious of Senator Muskie's active interest in all matters that affect the national security and the keen awareness he has for those things which affect his own State of Maine and the welfare of the citizens of that fine State. We are delighted to have the opportunity to hear Senator Muskie on this matter. This portion of the hearing will be in open session.

Following Senator Muskie's presentation, we will hear from representatives of the Maremont Corp., from Saco, Maine, one of the unsuccessful competitors in the M-16 bidding. Their appearance here today is in order to give them the opportunity to shed light upon several matters on which we had testimony from the Army yesterday.

STATEMENT OF HON. EDMUND S. MUSKIE, A U.S. SENATOR FROM THE STATE OF MAINE

Senator MUSKIE. Thank you very much, Mr. Chairman, Senator Smith.

I debated whether or not I should try to read my complete statement or try to highlight it, and I think that perhaps I ought to read it, notwithstanding the fact that it repeats a lot of the facts about this whole situation which I am sure are familiar to you now, but I think perhaps by reading it, I can present my impression of the facts to you, and my very real concern that they reflect a cause for concern about the way in which this procurement was handled, so that I will read my statement, and perhaps make some additional comments.

First of all, I appreciate the opportunity to appear before you today to discuss the recent Army announcement that contracts had been awarded to the General Motors Corp. and the Harrington & Richardson Co. for the manufacture of M-16 rifles. Each award was for 240,000 rifles.

My interest in this particular Army procurement is threefold: First, I question the propriety of the Army contract award to General Motors and to the Harrington & Richardson Co. at ceiling prices of \$56 and \$42 million, respectively, when the Maremont Corp. was prepared to manufacture the same number of rifles for a ceiling price of \$36 million.

Secondly, my concern about the first point is intensified in the light of the fact that Maremont's qualifications to handle this contract are so clear and strong from the Army's own evaluation.

Finally, I have a special interest in this matter since it was a Maine corporation that was declared an unsuccessful bidder. The loss of this contract by Maremont Corp. will affect not only the company but more importantly, the economy of the area in which it is located.

I would like to review briefly the history of this procurement action with you.

The M-16 rifle has since its inception been produced by the Colt Industries. In an attempt to establish a second source of supply for this rifle, and I emphasize that point because it seems to me it has been lost by the Army in its shifting of gears on March 29, we are talking about a second source of supply, not about an emergency procurement, but in an attempt to establish a second source of supply, the Department of the Army purchased the necessary rights and licenses from Colt's in June 1967. The Army then issued a two-step request for bids calling for the procurement of 167,000 rifles with delivery scheduled for August of 1969. The procurement was multi-year; that is, a 3-year program. It should be noted that in this request for bids the Army stated that "* * * the contract will be awarded to that responsible offeror whose proposal would be most advantageous to the Government, price, quality, and other factors including special standards, considered * * *." Phase I of the procurement, the submission of technical proposals, was to have been completed by January 20, 1968, and Phase II, the submission of price proposals, was to have been completed by May 10, 1968, but the due date was later accelerated to April 5, 1968.

May I point out that that date was prior to the time, April 22, when the awards were made.

A ceiling of \$4 million was set at the amount that could be spent for the purchase of manufacturing equipment, to be used by the successful bidder. This equipment would be purchased for the Government's account.

A number of technical proposals were submitted by various companies in January 1968.

On March 8, 1968, the Army increased the quantity from 167,000 to 358,000 units and at the same time accelerated the rate of delivery. On March 19, four corporations, including Maremont, were considered technically qualified and were authorized to proceed with Phase II, the preparation of the price proposal.

On March 29, 1968, the Army canceled Phase II of the procurement and revised the request for proposal to indicate that two manufacturing sources would be selected rather than one. At the same time, on the basis of a JCS directive dated March 27, 1968, the delivery schedule was substantially advanced and the quantities to be manufactured by each of the selected producers were reduced, thus suggesting that the increase in total quantity representing a decrease in the quantity to be procured from any one producer could not have materially affected the ability of any one of the four technically qualified to deliver.

The Army stated that the awards would be made on the basis of the technical proposals that had been submitted under Phase I, but that the awards would be by means of letter contracts subject to agreement on a reasonable price. A letter contract would state a price ceiling, the actual price would be negotiated at a later date.

The March 29 provision also eliminated price as a factor to be considered and instead indicated that the procurement would be made from those sources "which will afford to the Government the highest degree of confidence in their ability in meeting or exceeding the accelerated schedule * * * while maintaining good quality and provide the Government the strongest mobilization base." In effect, this made the "confidence factor" the sole element in the procurement.

The March 29 revision also permitted the offerors to propose modifications to the \$4 million ceiling that had been set for purchase of the equipment to be procured for the Government account. In addition, the incentive and penalty clauses which had been previously included were deleted, to me a rather strange requirement in the light of the fact that they would seem to contribute to the delivery deadlines which the Army has emphasized were so much a part of the change in the rules.

On the same day, March 29, the four companies qualified under Phase I were asked to report to the Army Weapons Command on April 4 and 5 to discuss proposals regarding the new ground rules. These companies were Hydramatic Division of General Motors, Harrington & Richardson, the Maremont Corp., and the Cadillac Gage Corp.

In a conversation with the vice president of the New England Maremont Corp., he told me that he met with the Army representatives on April 4 and testified that the Maremont Corp. had the ability to adjust to the Army's changes and presented the necessary revisions in the Maremont technical proposal to meet the accelerated schedule. He also indicated that the Army did not ask any questions to clarify misunderstandings in the Maremont oral presentation nor did they ask questions in the areas that the Army later claimed they lacked sufficient detailed information.

A few examples of the Army's failure to seek out information can be cited from the Army debriefing statement.

Incidentally, if that debriefing statement is not a part of the record, I would like to suggest, Mr. Chairman, that it be made a part.

Senator CANNON. The debriefing statement is part of the committee's files.

Senator MUSKIE. I assumed it would be.

I quote from the debriefing statement :

(a) "There is a deficiency in the explanation of responsibility for the engineering element. Assignment of responsibility to engineering must be assumed mostly from a study of organization structure."

If the Army needed greater clarification—and that seems to be the only question raised by this objection—of engineering responsibilities; why didn't they ask for it?

(b) "There is no indication that professional safety personnel are available to administer the range safety program or inspect operations."

How simple it would have been to ask this question and find out that the company has a safety officer and that Maremont has operated a firing range testing the M-60 machinegun and other weapons for the past 9 years without an accident. I am surprised the Army contracting officers were not aware of this fact, in view of the succession of M-60 contracts between the Army and Maremont.

(c) "The information submitted by the company was lacking in sufficient detail to arrive at an in-depth judgment. Except for the quality assurance manual, written standard operating procedures had not been provided * * *"

On page 42 of amendment No. 7, the Government states, "unnecessary elaborate brochures or other presentations beyond that sufficient to present a complete and effective proposal are not desired." I agree with the premise that "unnecessary elaborate brochures * * * are not desired," but I also believe that every attempt should have been made by the Army to obtain the facts and information they needed to make a meaningful decision.

The attitude displayed by the Army representatives at the Maremont proposal presentation leads me to believe that charts, graphs, brochures, in a word "showmanship," was the important ingredient in deciding the best qualified. I cannot conceive that a company would be asked to make a presentation of fact and during the presentation not be asked questions pertinent to the subject being presented.

It is obvious to me, Mr. Chairman, that the Army did indeed go outside the presentations made by General Motors and Harrington & Richardson, in order to reassure itself upon the one criteria that became critical, the criteria of confidence. They could have gone just a little further, it seems to me, to have asked those questions which would clarify Maremont's presentation, in order to justify or disprove Maremont's eligibility under the confidence factor.

What value would a hearing before this Senate subcommittee be if the Senators present could not, or did not ask questions to clarify or develop information?

It is also significant to note that at no time was the Maremont Corp. asked to submit budgetary estimates of ceiling prices despite the fact that such estimates were prepared by April 13, as the Army had requested, and in ample time to be considered before any awards were made. On April 22, 9 days later, the Army released to the press an announcement that indicated that contract awards had been made to General Motors and Harrington & Richardson.

When I learned that there might be some question about the propriety of this procurement action, I immediately asked the Army to give me a briefing so that I might have the benefit of both sides of the story.

After hearing the Army's side, I was far from satisfied. It has never been satisfactorily explained why money was not a factor in the procurement nor could the briefing officers explain to my satisfaction the written debriefing statement of April 26, 1968 in which the Army repeatedly praised the capabilities of the Maremont Corp. Statements such as:

"* * * the strongest point in your proposals is the evidence of your successful manufacturing experience since 1962 on Government contracts for the M-60 machinegun * * * you were given a superior evaluation in the packaging aspects of your proposal."

Now that kind of a judgment, Mr. Chairman, surely bears upon the question of confidence.

Another one: "in the important areas of barrel straightening and chromium plating the proposal also reflects a thorough understanding of the facilities and techniques required * * *"

"the proposal shows that personnel designated for assignment to the M-16 program are well qualified by education and/or experience * * *"

"the response was considered very good in respect to company history and high-grade engineering capability."

"* * * in-house manufacturing of parts, in-process inspection and assembly is sound * * * your plans set forth in this part of your response were very good."

Certainly all of these, and there are others, Mr. Chairman, I have indeed selected only a few and there are others, are just a few examples of the statements that the Army made about the Maremont Corp. before turning down their bid. Surely they bear upon the question of confidence, which became the critical factor.

The briefing by the Army representatives did not help resolve the contradictions. The Army never adequately explained:

How it could have such high regard for the Maremont proposal, and yet refuse to honor that proposal;

How, in turn, the Army could show preference for General Motors, even though that corporation has never manufactured small arms, and its bid was \$20 million more than Maremont's;

And how, finally, the Army could further disregard its own judgment about Maremont's capability by contracting with Harrington & Richardson, even though the Harrington & Richardson bid was \$6 million more than Maremont's.

And indeed, the curious thing about that debriefing, considering that the Army was in the position, having changed the rules, of having to supplement its information in order to form a judgment on the question of confidence, in view of that fact, and in view of the fact that the Army was now relying upon a wholly subjective judgment to make comparisons between these offerors, the Army at the outset of its debriefing pointed out that it was interested only in presenting its own case, and not getting engaged in argument, thus at the outset of the debriefing discouraging any attempt that Maremont might have attempted to make to clarify questions which had been raised by the Army to supplement information that might be useful in forming the new judgment, a positive discouragement of any inclination Maremont might have had understandably to supplement information already in the hands of the Army.

The major reason given at the briefing for selecting the General Motors Corp. was that the Army had more confidence in the General Motors Corp. to complete the contract on schedule. The Army's position concerning Maremont's qualifications was summarized in a question and answer session following the briefing as follows:

You were not amongst the two who gave us the highest degree of confidence and that is the way the award was made. I am not saying that you were disqualified on any point. On the contrary, I can tell you point blank that you were not disqualified on any particular point. It is the matter of which two gave us the greatest degree of confidence * * *

The Army has not demonstrated that General Motors is so much more deserving of confidence as to justify \$20 million more plus unlimited amounts to tool up General Motors.

And how is this committee or anyone else to test that kind of subjective judgment, as long as the procuring officers, whoever they may be at the moment, have subjectively decided that one of three or four qualified offerors to inspire in him the highest degree of confidence, no one is to question that subjective judgment, and the Army is not required to present any objective evidence to support that subjective judgment which can be tested against reasonableness and rationality and the legitimate interest of the taxpayer and the other offerors involved.

The defense, in other words, rests wholly upon a subjective factor which cannot be adequately tested and which, in my judgment, is suspect because of the record which shows that the Army itself concluded Maremont is deserving of such confidence.

My reason for appearing before you today, Mr. Chairman, is to request that a complete investigation be made by this committee into the procurement action, and I understand that is underway. The investigation should be made from the standpoint of legality to determine whether the procurement regulations or procedures have been followed. I understand the House has asked GAO for such an investigation and that the GAO has submitted their report, which I have not seen.

Secondly, and more important, it is our responsibility as Members of Congress to question the judgment of the Department of the Army when in our opinion this judgment has been bad.

I want to make it clear that I do not suggest nor do I think it is necessary to prove that there were any dishonest acts committed by anyone in the Army. But one gets the impression that the decision-makers in this case were taking the easy way out, by giving the General Motors Corp. an open checkbook. I am sure that they will get their rifles, but this decision was made at the expense of the American taxpayers. It is also significant to note that the decision was made at a time when every level of government is being asked to cut back, to economize, a time when we are looking for means to cut the President's budget by \$6 billion.

In closing, Mr. Chairman, I would like to submit for the hearing record a letter from Congressman Peter N. Kyros, First District, Maine, to the Honorable Richard Ichord, chairman of the House Special Ad Hoc Subcommittee to Investigate the M-16 Rifle Contract. I ask that because his letter undertakes to do what I have not had an opportunity to do, and that is to prepare a detailed brief of the

legal issues involved. I think it is important that this committee should have that, if it doesn't.

(The letter referred to follows:)

MAY 15, 1968.

HON. RICHARD H. ICHORD,

Chairman, Special Subcommittee on the M-16 Rifle Program, Committee on Armed Services, U.S. House of Representatives, Washington, D.C.

DEAR MR. CHAIRMAN: I have listened carefully to the Army's explanation as to why it selected General Motors and Harrington and Richardson as the two additional sources for the production of the M-16 rifle under RFP DAAF03-68-R-0014. That explanation, although I have subsequently studied the text carefully, still leaves unanswered the charges which I made in my statement to the Subcommittee on Monday, May 13, 1968. Indeed, the explanation raises more questions than it answers. With your permission I would like to take this opportunity to make the following comments on the record concerning the Army's explanation of its recent actions with respect to the M-16 rifle program.

(1) It would appear that the Army's explanations have confirmed my previously expressed contention that the Army had already decided on a special sole-source procurement of the M-16 rifle from General Motors in early March 1968 and merely used this procurement as a means of awarding a contract to General Motors despite its obvious inexperience in the small arms field.

(2) Nothing credible was said by the Army representatives to indicate that General Motors was more qualified than, or as qualified as, my constituent, Maremont, to produce the M-16 rifle on the accelerated delivery schedule.

(3) Although the Army placed a great emphasis on the risk of non-delivery on the accelerated schedule and although this was given as the principal reason for making the award to General Motors, nothing was said which would in any way support the Army's contention that there would be a greater risk of non-delivery or slow delivery from Maremont.

(4) Although lip service was paid by the Army's representative to competitive pricing there was no explanation as to the incredible difference as among the prices of Colt's, General Motors', Harrington and Richardson's, and Maremont's.

(5) The only protection cited by the Army as to its price vulnerability, vis-a-vis General Motors, was the Truth in Negotiation Act. There is nothing in that Act to protect the Government against either crude inefficiency or as against high pricing.

(6) The award to General Motors was improper in that it violated the spirit, intent, and provisions of ASPR.

THE ARMY, PRIOR TO THE MARCH 29 AMENDMENT OF THE RFP, WAS PREDISPOSED TO MAKE AN AWARD TO GENERAL MOTORS

The Army admitted that discussions had been held with the Hydramatic Division of General Motors prior to the March decision to award to two sources under the Request For Proposal. It is significant that the Army did not mention any other companies with which similar discussions had been held. Indeed, this Subcommittee is aware that the Army was specifically considering an award to General Motors at that time. The question is immediately to be asked—"Why General Motors?"—particularly in view of the Hydramatic Division's total inexperience in small bore rifle manufacture and in view of the mammoth tooling-up charges required. The only suggestion as to reason was "the company's capacity and outstanding performance against accelerated delivery schedules." Is General Motors the only company known to the Army which can meet accelerated delivery schedules or is the inference to be drawn that only the biggest corporations in America can qualify where large procurements on an accelerated basis are involved?

Subsequent events bear out my contention of favoritism. Among those items which support my conclusion that the Army was predisposed to the Hydramatic Division of General Motors are the following:

(1) The elimination in March of the previously existing \$4 million ceiling on tooling to be paid for by the Government.

It was obvious that General Motors could not meet this requirement of the Request For Proposal, and it appears that the change was made in order to permit General Motors to qualify.

(2) The pointed avoidance of the question of price by the Army.

No amount of explanation can avoid the requirements of ASPR or ever dissuade me from my present belief that, in a procurement of this magnitude, the Government should have a clear picture of the approximate prices intended. The only logical inference to be drawn is that the Government already had some indication of the magnitude of General Motors' price and was therefore most anxious to avoid *any* price comparison.

(3) The pointed avoidance of questions to my constituent, Maremont, with respect to the alleged deficiencies in its Proposal.

The major criticism made of Maremont's Proposal was that there was, in some cases, insufficient detail. This criticism was leveled, despite the explicit instructions of the Army that the offerors' Proposals should not include a mass of detail, and despite the fact that a few questions at the April 4th meeting could have resolved all problems.

(4) The elimination of incentives and penalties.

It is common knowledge that General Motors as a matter of "corporate policy" usually resists any effort to impose liquidated damages. The sudden elimination of this provision without any discussion with other contractors can be considered only to be a concession to that General Motors corporate policy and a further manifestation of the Army's favoritism. Parenthetically, it is amazing, in view of the Government's insistence on the importance of meeting the delivery schedules, that it should suddenly relinquish its insistence on liquidated damages, which are a powerful incentive for timely performance.

MY CONSTITUENT, MAREMONT CORPORATION, IS AS QUALIFIED AS, OR MORE QUALIFIED THAN, GENERAL MOTORS

I am submitting herewith the evaluation by the Department of the Army of Maremont's qualifications as given to Maremont on April 26 as a part of a debriefing session. I am also attaching herewith the transcript of questions and answers on that same debriefing session.

It will be noted that Mr. Seeds of the Army, at Page 6 of the transcript of questions and answers, in response to the question as to whether Maremont was qualified, answered affirmatively and stated that Maremont was not disqualified on any point.

A close examination of the debriefing report shows that there was no real criticism of Maremont other than with respect to purely tangential matters. Thus, for example, it was noted that a weakness of Maremont was that only half of its personnel were college graduates. This criticism is senseless in light of the preceding finding that the personnel involved were experienced and well qualified in small arms manufacture. Another weakness cited by the Army was that Maremont would have to mix its production line with the M-60 machine-gun line. This criticism again is meaningless when it is realized that Harrington and Richardson must in fact mix its production and in light of the fact that it was obvious that General Motors almost certainly would have to extensively reorganize and re-tool its production lines.

When the apparent deficiencies of General Motors are compared with those of Maremont, it becomes evident that the Evaluation Board has gone wrong somewhere. When it is realized that General Motors had no experience in the manufacture of small bore weapons and that General Motors would require extensive rearrangement of its production lines and would require extensive tooling, it is hard to see how the criticisms made of Maremont could throw the balance of the scales toward General Motors.

THE ARMY HAS ADVANCED NO REASONS TO SUPPORT ITS CONCLUSION THAT GENERAL MOTORS WOULD HAVE A HIGHER CONFIDENCE FACTOR IN ACHIEVING ACCELERATED DELIVERY SCHEDULES

The Army explained its position by the repetition of its justification that it had more confidence that General Motors would be able to meet the accelerated delivery schedule than the other two bidders. A careful examination of those explanations, however, gives no indication as to how the Army can support this conclusion. It is clear that General Motors has had no experience in the manufacture of small bore rifles and that Hydramatic Division's exposure in the ordnance field was limited to 4,000 20mm. cannon. The statement that General Motors has had an outstanding record for meeting difficult delivery schedules is matched by Maremont's almost unblemished record for having delivered in

excess of 100,000 machineguns on time and for having delivered on other ordnance contracts on a timely basis.

The inescapable decision is that the Army is really saying that bigness is the only favorable criteria when an award is made on a contract requiring tight delivery schedules. This conclusion is totally unacceptable to me as a Congressman and as a taxpayer. I appreciate the Army's requirements for confidence. I do not believe, however, that there are only a handful of corporations in the United States which can qualify on such contracts because they are big.

THERE WAS NO EXPLANATION BY THE ARMY OF THE INCREDIBLE DISPARITY IN PRICES

Incredibly, the Army's explanation contains not one iota of discussion of the central problem in this procurement and that is how there could be such an overwhelming discrepancy between the prices of Colt's, General Motors', Harrington and Richardson's, and Maremont's proposals. Even taking the Army's explanation of the apparent high cost of a first procurement, there is still no explanation as to why there should be such a wide difference between General Motors' price and the price of the other producers.

If the Army was prepared to spend \$20 million additional, it would appear that the Army would have a rational and reasonable explanation of the difference. This is particularly true in view of your Subcommittee's repeated criticisms of the Colt's price. I know that your Subcommittee will pursue that point in detail.

THE TRUTH IN NEGOTIATION ACT DOES NOT, PER SE, PROTECT THE U.S. GOVERNMENT AGAINST EXCESSIVE PRICE

The Army's attempts to make it appear that the taxpayers' interests will be protected by the fact that General Motors' proposals will have to be supported by the information required by the Truth in Negotiation Act (Public Law 87-653). The fact is that that Act and the regulations and forms issued thereunder do not require that General Motors agree to any price reduction proposal by the Army. The Act requires instead that General Motors provide complete, accurate, and up-to-date information as to its estimates as to the cost of production. This includes such items as the cost of purchased components, overhead rates, hourly rates, and the like. If General Motors has started production on this contract and the Army does not like General Motors' estimates or does not like General Motors' profit margins, there is little that it can do. Parenthetically, it should be noted that there is no protection against inefficiency or gold-plating practices.

I would have thought that the Army would have relied on the securing of competitive pricing as required by ASPR rather than relying on the furnishing of information after the fact by General Motors.

The Army's action was illegal

The Army's actions violated the letter, spirit, and intent not only of ASPR, but also of controlling legislation and decisions of the Supreme Court of the United States and the Comptroller General.

Section 2304(g) of Title 10, United States Code, establishes the strict requirement that price must be considered as a critical factor in all negotiated procurements. That Section provides as follows:

(g) In all negotiated procurements in excess of \$2,500 in which rates or prices are not fixed by law or regulation and in which time of delivery will permit, proposals shall be solicited from the maximum number of qualified sources consistent with the nature and requirements of the supplies or services to be procured, and written or oral discussions shall be conducted with all responsible offerors who submit proposals within a competitive range, price, and other factors considered: *Provided, however,* That the requirements of this subsection with respect to written or oral discussions need not be applied to procurements in implementation of authorized set-aside programs or to procurements where it can be clearly demonstrated from the existence of adequate competition or accurate prior cost experience with the product, that acceptance of an initial proposal without discussion would result in fair and reasonable prices and where the request for proposals notifies all offerors of the possibility that award may be made without discussion.

Furthermore, the ASPR provisions directed toward negotiated procurement, which implement the directives of the above statutory provision, are explicit and clear that "price quotations * * * shall be solicited from the maximum number of qualified sources of supplies." Thus, Section 3-101 of ASPR provides the following:

Whenever supplies or services are to be procured by negotiation * * * *price quotations*, supported by statements and analyses of estimated costs or other evidence of reasonable prices and other vital matters deemed necessary by the contracting officer * * * *shall be solicited from the maximum number of qualified sources of supplies* or services consistent with the nature of and requirements for the supplies or services to be procured, in accordance with the basic policies set forth in Section I, Part 3 * * *, to the end that the procurement will be made to the best advantage of the Government, price and other factors considered. Unless award without written or oral discussion is permitted under 3.805.1(a), negotiation shall thereupon be conducted, by contracting officers and their negotiators with due attention being given to the following and, any other appropriate factors:

(i) comparison of prices quoted, and *consideration of other prices for the same or similar supplies or services*, with due regard to production costs, including extra-pay shift, multi-shift and over-time costs, and any other factor relating to price, such as profits, cost of transportation, and cash discounts; * * * (Emphasis added.)

In addition, it is the basic policy of ASPR in all procurements, *including negotiated procurements*, to require the Government to obtain the most advantageous price on its contracts. This basic policy is set forth in Section 1-302.2 of ASPR as follows:

Irrespective of whether the procurement of supplies or services from sources outside the Government is to be effected by formal advertising or by negotiation, competitive proposals * * * shall be solicited * * * from all such qualified sources of supplies or services as are deemed necessary by the contracting officer to assure such full and free competition as is consistent with the procurement of types of supplies and services necessary to meet the requirements of the Military Department concerned, and thereby to obtain for the Government *the most advantageous contract prices, quality, and other factors considered*. (Emphasis added.)

The statutory and regulatory scheme quoted above has been recently interpreted by the Supreme Court to make active price competition mandatory in negotiated procurements such as the M-16 procurement here involved. In the recent case of *Paul v. United States*, 371 U.S. 245, decided in 1963, the Supreme Court analyzed the foregoing statutory and ASPR language in the following categorical and unambiguous terms:

The Armed Services Procurement Regulation speaks in unambiguous terms of a policy "to use that method of procurement which will be most advantageous to the Government—price, quality, and other factors considered." The Regulation states, "Such procurement shall be made on a competitive basis, whether by formal advertising or by negotiation, to the maximum practicable extent * * *." What ever method is used—formal advertising or negotiation—"competitive proposals" must be "solicited from all such qualified sources of supplies or services as are deemed necessary by the contracting officer to assure such full and free competition as * * * to obtain for the Government the most advantageous contract—price, quality, and other factors considered." If advertising for bids is used, the contract is to be awarded "to the lowest responsible bidder." *Moreover, even when advertising for bids is not used, competitive standards are not relaxed. The policy is "to procure supplies and services from responsible sources at fair and reasonable prices calculated to result in the lowest ultimate over-all cost to the Government."* The fact that a procurement is to be negotiated does not relax the requirements for competition. Whenever supplies * * * are to be procured by negotiation, price quotations * * * shall be solicited from all such qualified sources of supplies or services as are deemed necessary * * * to assure full and free competition * * * to the end that the procurement will be made to the best advantage of the Government, "price and other factors considered." The Regulation then specifies 20 separate considerations for the selection of a supplier in case of a negotiated procurement. The first of these is a "comparison of prices quoted."

We have said enough to show that the Regulation does more than authorize procurement officers to negotiate for lower rates. It directs that nego-

tiations or, wherever possible, advertising for bids shall reflect active competition so that the United States may receive the most advantageous contract.

In callous disregard of the explicit mandates of the Supreme Court, the Army has made no effort—and in effect admits to having made no effort—to procure the M-16 rifles “at fair and reasonable prices calculated to result in the lowest ultimate over-all cost to the Government.”

Despite the fact that the Army specifically directed the four qualified offerors to have their price proposals ready by April 13, 1968, it nonetheless did not give Maremont and Cadillac Gage any opportunity to present such price proposals. It is noted that Maremont had its proposals ready on April 4, which was a full 9 days before the Army had directed them to be ready. The Army's conduct in this respect is particularly outrageous in light of its own admission that Maremont and Cadillac Gage were fully qualified on their technical proposals. Indeed, the Comptroller General has required the Government to consider pricing proposals, and to negotiate with the lower-priced contractor, even where that contractor's technical proposal was deemed to be inferior to the higher-priced contractor and even where the contract involved was a R & D contract in which price is not as important as in a supply contract. In Comptroller General Decision No. B-157150, decided on January 19, 1966, the Comptroller General thus held as follows [45 Comp. Gen. at pp. 426-27]:

We find it difficult to understand how a current contractor may have its technical proposal on a task specifically related to its current contract missions categorized, not as unacceptable but as inferior, for a period of over 2 months without affording such an offeror at least an opportunity of discussion and explanation, especially when its cost proposal represented significant savings to the Government. It is provided in ASPR, which has the force and effect of law, at paragraph 3-101 that when procurements are undertaken pursuant to negotiation, maximum competition should be obtained to the end that the procurement will be made to the “best advantage of the Government, price and other factors considered.”

* * * * *

In this context, we believe that an obligation to negotiate with AAI existed notwithstanding that ITTFL's proposal was determined to be technically superior to AAI's. *We find nothing in the record which would indicate that AAI's proposal was so technically inferior as to preclude any possibility of meaningful negotiation with such offeror. This is what both the law and the ASPR require in order to assure the competition contemplated.* (Emphasis added.)

Indeed, in the present case the Army has not even suggested that Maremont's proposal was “technically inferior”, and therefore, its refusal to consider comparative prices is all the more blatant.

The Army may be justified in undertaking a procurement by negotiation rather than formal advertising, under the authority of Section 2304(a)(16) of Title 10 of the U.S. Code, and Section 3-216 of ASPR. However, those provisions categorically do not warrant the Army's disregard of price competition and do not change the requirements of law discussed above.

The only permissible conclusion is that the Army was determined to award the contracts to Hydramatic Division of General Motors and Harrington and Richardson regardless of cost and despite the mandates of Congress, the Supreme Court, the Comptroller General, and the ASPR that price competition is absolutely essential even in negotiated procurements.

The Army's explanations have obfuscated the situation on two scores:

(1) The effort is made to assimilate this procurement to a research and development contract where price is secondary to the adequacy of the proposal.

This is not a research and development contract, but a supply contract.

Further, in the Comptroller General's view there *must* be price competition even on a research and development negotiated contract.

(2) The effort is made to make it appear that I take the position that a letter contract is illegal.

I do not take that position, but I do take the position that a letter contract without price competition where there are other qualified offerors is illegal.

In closing, I would like to clear up the major misconception which has become apparent from the press stories that the Army's actions were justified by General Motors' ability to meet the accelerated deliveries. That contention is false since

at least Maremont was categorically also able to meet that same accelerated schedule.

Sincerely yours,

PETER N. KYROS.

Senator MUSKIE. May I comment, again with the assistance of Mr. Kyros, on the opinion which has just been handed down by the General Accounting Office. I have already said that I have not had an opportunity, indeed I have not seen that opinion of GAO, but I refer to Congressman Kyros' analysis of it in order to indicate my concern for the point that the Congressman raises, and in order to call those points to the attention of the committee in a way that will focus the committee's attention upon them. I read just this from Congressman Kyros' letter. He says:

It is apparent to me that the opinion contained in Mr. Keller's testimony proceeds from two erroneous assumptions of fact; namely (1) that Maremont was in fact disqualified from the procurement; and (2), that the Army did consider price.

Now, if in fact GAO's opinion was based upon those assumptions, I would agree wholeheartedly with Congressman Kyros' conclusion that the assumptions are erroneous. There is nothing in the record that I have read, including the debriefing statement of the Army, including such record of colloquies as there is, to indicate that the Army ever considered that they had disqualified Maremont from the procurement.

Secondly, there is certainly nothing in the record to indicate that Army considered price before awarding the contracts. And so I submit for the record, Mr. Chairman, and I know that the subcommittee and its staff will evaluate the letter and the points made of Congressman Kyros to Elmer Staats commenting upon the opinion of GAO.

I am rather astounded if that is the nature of GAO's opinion, but I have not yet had an opportunity to study it myself.

Senator CANNON. Congressman Kyros' letter will be made a part of the record. The committee does have a copy of it.

Senator MUSKIE. That is two letters that he has written.

Senator CANNON. Yes.

Senator MUSKIE. This one he just wrote.

Senator CANNON. Yes; we have both of those.

Mr. ELMER B. STAATS,
Comptroller General of the United States,
General Accounting Office, Washington, D.C.

DEAR SIR: I feel compelled to express my displeasure and disagreement with the opinion of the General Accounting Office with respect to the legality of contracts awarded to General Motors and Harrington & Richardson by the United States Army Weapons Command for the production of M-16 rifles.

It is apparent to me that the opinion contained in Mr. Keller's testimony proceeds from two erroneous assumptions of fact; namely, (1) that Maremont was in fact disqualified from the procurement, and (2) that the Army did consider price.

In my opinion, both of these assumptions are contrary to the documentary record, and therefore furnish insufficient and erroneous grounds on which to base the decision that the contract was legal.

I would like to review briefly the available information from which it is patently obvious that the two above assumptions cannot be sustained.

MAREMONT'S TECHNICAL QUALIFICATIONS

The GAO opinion rests wholly on the belief that the Army first rejected the Maremont and Cadillac Gage bids as not being within a competitive range and then proceeded to negotiate with the two remaining qualified bidders, i.e., General Motors and Harrington & Richardson. Under this assumption the Army then met the requirements of 10 U.S.C. 2304(g) for negotiation of price with all qualified offerors.

However, such assumed facts are not in accord with the record. The Army has never in any of its public statements asserted in any way that Maremont was disqualified or that Maremont was not technically responsive. Its justification consistently has been only that it considered General Motors and Harrington & Richardson to be more reliable in terms of meeting the accelerated requirements of the procurement.

That Maremont was *never* considered by the Army to be disqualified is borne out by the transcript of the prepared portion of the briefing session at Rock Island Arsenal on April 26, 1968:

Maremont's proposal indicates technical experience and competence capable of establishing a satisfactory production operation for the M-16 weapons family responsive to the requirements of the RFP.

This statement relates to Maremont's original proposal under Phase I.

Again, concerning Maremont's proposal after the change in delivery requirements, the following statement was made:

The changes in delivery requirements did not significantly affect the relative strengths and weaknesses of the original Maremont proposal. In general, your previous record of timely deliveries against tight schedules has been good. * * *

Finally, during the question and answer period which followed the Army's prepared presentation at Rock Island the following transpired:

B. THOMASIAN. Excuse me, just to be very certain that I understood what you read previously—your opening I think, started by saying that all four offerors were found to be acceptable sources. Am I right?

R. SEEDS. Words to that effect, yes sir.

B. THOMASIAN. That being true then we qualified to that objective that you have just read off in that telegram. We are qualified to that objective.

R. SEEDS. That is a fair statement. The answer to what is running through your mind, I think, is that the objective was to choose those two firms who would give us the highest degree of confidence in their ability in meeting or exceeding. You were not chosen as one of those two who gave us the highest degree of confidence or gave us a degree of confidence. You were not amongst the two who gave us the highest degree of confidence and that is the way this award was made. I am not saying that you were disqualified on any point. On the contrary, I can tell you point blank that you were not disqualified on any particular point. It is the matter of which two gave us the greatest degree of confidence within that strength. I will read the wire to you again: "As a result of increased urgency to supply the maximum number of rifles at the earliest possible date with minimum risk of production interruption, the object of this procurement is changed to select those two sources which will afford to the Government the highest degree of confidence in their ability in meeting or exceeding the accelerated schedule set forth below while maintaining good quality and provide the Government with the strongest mobilization base."

It is therefore clear that the Army did not, as now contended by GAO disqualify Maremont, but rather, in contravention of the dictates of the statute, it selected only two of the four responsible offerors with whom to negotiate price.

Were the foregoing references to the debriefing session inadequate to demonstrate that the Army never considered Maremont's proposal to be non-competitive, the presentations by Secretary Brooks to you and to the House Armed Services Subcommittee investigating this question should certainly prove that point. At no time has Secretary Brooks proffered the excuse that Maremont was either unqualified or non-competitive from the technical standpoint.

On the contrary, he has endeavored to justify the failure to ask Maremont's price *solely* on the theory that the March 29th amendment to the RFP changed the object of the procurement to select only those two offerors "affording the Government the highest degree of confidence in their ability to meet or exceed the accelerated delivery schedule."

Illustrative of the Secretary's explanation for the choice of General Motors over Maremont is his quotation of the Source Selection Advisory Council's findings, included in his letter to you at page 10.

While the Maremont Corporation has considerable production capability and overall ability, there is less assurance (compared to Hydramatic and Harrington & Richardson) that it can meet the accelerated delivery schedule with a quality product.

In fact, Secretary Brooks has asserted an entirely different reason than that found by GAO for failing to consider price in this procurement. In his letter to you, at page 15, he stated:

The ceiling prices reflected in contracts with both the Hydramatic Division of General Motors and Harrington & Richardson, the two firms receiving the highest rating by Source Selection Evaluation Board, were within the reasonable limit previously calculated for each company. Accordingly, budgetary estimates were not solicited from either Maremont or Cadillac Gage and letter contracts were awarded to the Hydramatic Division of General Motors and to Harrington & Richardson because of the technical superiority of their proposals.

Thus, the Army chose not to ask for Maremont's price solely because it deemed the successful offerors to be technically superior and because it deemed their proposed prices reasonable. Furthermore, implicit in the foregoing statement is the thought that Maremont would have been asked for a price had the prices of the selective offerors been "unreasonable" and that Maremont's technical proposal was within a competitive range of the successful offerors.

In the face of the foregoing, Mr. Keller's evaluation of the Army's legal position cannot stand. The Army's failure to ask for Maremont's price was not occasioned by the legally defensible conclusion that Maremont was not within a competitive range of the successful offerors. Rather, that failure was prompted by the Army's erroneous assumption that it could select the two most technically competent offerors without reference to price competition.

COST CONSIDERATION

Mr. Keller also stated in his testimony that there is some support for the Army's position that *cost* to the Government was not ignored in the selection process. I must again take issue with his and the Army's assertion because the facts directly contradict it.

The transcript of the debriefing session referred to above contains the following statement at page 6 by Mr. Seeds, the Army representative:

Price was not a factor in this for this reason as we gave Maremont in our wire.

Again at Page 4 Mr. Seeds made the following statement:

The next one is why price consideration was taken out of this procurement. Now my best answer to you Mr. Spear is to read to you our wire to you to put in amendment #10.

Again at a briefing session provided to the Maine Congressional delegation by representatives of the Army it was flatly stated that price was not a factor. The after-the-fact statements by the Army, therefore, with respect to the role played by price and cost are inconsistent with the contemporaneous record.

Not only did the Army ignore the immediate cost of the procurement but it also ignored long term cost in awarding the contract to General Motors. The very purpose of this procurement was to establish a second source producer of the M-16 capable of ultimately competing with Colt. But the Army has justified its estimate of different ceiling prices for the General Motors and Harrington & Richardson contracts on the basis that General Motors' overhead and labor rates are considerably higher. With that admission the Army also admitted that General Motors is disqualified from ever competing with Colt Industries in the manufacture of the M-16 and that its award defeats the basic purpose of the procurement.

In addition to the fact that the Army violated the letter and spirit of 10 U.S.C. 2304(g), it also seems to have ignored the basic authority under which it undertook the negotiated procurement. Unfortunately, I have not had the benefit of reviewing all of the findings and determinations made by Secretary Brooks as the statutory prerequisite to negotiation. However, Mr. Keller referred to one portion of the findings and determinations made on March 28th and his reference leads me to believe that, by its failure to ask for Maremont's price, the Army violated the Secretary's own determination concerning the

conduct of the procurement and its awards are illegal for that additional reason.

According to Mr. Keller, the following determination was made as the underpinning for amendment #10 issued on March 29th :

The purpose of this procurement is to establish two additional producers who will supply a quality product in an *economical* manner and act as additional mobilization producers. This will necessitate pre-award discussion and negotiations to ensure selection of the best *overall* prospective contractors. [Emphasis added.]

By the terms of the foregoing statement, one of the clearly stated purposes of the procurement was to *economically* establish two additional sources for the M-16. Furthermore, the Secretary's determination itself required pre-award discussions and negotiations so that the best "*overall*" offerors would be selected. The clear implication is that all qualified offerors would be given the opportunity to present price proposals as an integral part of the source selection process.

It is impossible to understand how the Army could possibly be considered to have complied with the mandate of the Secretary's determinations. By its failure to do so, it conducted the procurement illegally since negotiation could not legally be conducted without the findings and determinations.

CONCLUSION

I earnestly hope that the actual facts will lead you to re-evaluate your findings and reassess the legality of the Army's award to General Motors.

Sincerely yours,

PETER N. KYROS, *Member of Congress.*

JUNE 24, 1968.

Mr. ELMER B. STAATS,
Comptroller General of the United States,
General Accounting Office, Washington, D.C.

DEAR MR. STAATS: In my letter to you of June 19, I attempted to convey my tentative belief that the General Motors and Harrington and Richardson M-16 rifle letter contracts were illegal because, among other things, the procurement was conducted contrary to Secretary Brooks' own determinations concerning its purpose.

At this time, I wish to supplement my remarks on that subject. I have since received copies of both the September 27, 1967, and March 28, 1968, "determinations and findings" made by the Secretary as the statutory prerequisite to negotiated procurement. After reviewing those documents, I am convinced that the awards are patently illegal.

The original RFP expressed the purpose of the procurement in the following manner:

The purpose of this competitive procurement is to establish a strong, responsible, second source for the M-16 Weapons System Family and thus broaden the production base.

* * * * *

It is contemplated that the contract will be awarded to that responsible offeror whose proposal will be most advantageous to the Government, *price, quality, and other factors*, including Special Standards, considered.

In its telegram of March 29th the Army expresses the change made in the purpose of the procurement as follows:

As a result of increased urgency to supply the maximum quantity of rifles at the earliest possible date with minimum risks of production interruption, the object of this procurement is changed to select those two sources which will afford to the Government the highest degree of confidence in their ability in meeting and exceeding the accelerated schedule set forth below while maintaining good quality and provide the Government the strongest mobilization base.

Thus, the March 29th telegram is an unambiguous statement of intent of the procurement. Their purpose had been changed to select the two sources which were most likely to meet the schedule. Economy, a significant factor in the original RFP, was not even mentioned in the telegram.

Therein lies the reason why the contracts awarded are illegal. The ground rules of the procurement were changed without authority. The March 28th D&F made no specific reference to any change in purpose. Furthermore, the only substantial difference between the September 27, 1967, D&F and the one issued on March 28th is that the latter calls for the procurement of more rifles, at a greater total price, via two sources rather than one.

It is therefore clear that the Army officials responsible for issuing the March 29th telegram misconstrued the extent of the change made by the March 28th D&F. It is also clear that the procurement was thereafter conducted, and the awards made, in a manner which carried out that misconception. No useful purpose would be served by restating all of the events which followed upon the March 29th telegram. No reasonable man would dispute that the contracts were awarded as if the purpose of the procurement had been changed exactly as set forth in the March 29th telegram. The Army made its selection on the basis of which offerors afforded the highest degree of confidence from the delivery standpoint. The factor of economy was not considered.

In essence, then, the Army representatives changed the purpose of the procurement without any authority. In carrying out an unauthorized change, and awarding contracts pursuant to it, they exceeded the authority granted them in the March 28th D&F, appropriately subtitled "Authority to Negotiate A Class of Two Contracts."

The conclusion which naturally flows from the foregoing facts hardly needs expression. It is fundamental that a contract made on behalf of the Government is illegal if the party making it on behalf of the Government did not have the authority to do so.

The circumstances are aggravated by the fact that this procurement was conducted pursuant to the exception granted by Congress in 10 U.S.C. § 2304 (a) (16) : Prerequisite to undertaking negotiation under that exception is an appropriate *Secretarial* determination and finding; and Congress took the trouble to expressly prohibit any delegation of the authority to make that D&F below the Secretarial level. Yet, in this procurement the ground rules set forth in the Secretary's D&F were changed by someone down the ladder!

If these awards are allowed to stand, then the Congressional purpose in limiting the delegation of authority to negotiate under "Exception 16" will be subverted and the Army will be permitted to undertake two substantial contracts which are illegal and void. I submit that this perversion of authority cannot be allowed.

Once again I express my hope that the injustice will not be permitted to prevail and that the Army will be forced to procure the M-16 through legal and reasonable contracts.

Sincerely yours,

PETER N. KYROS, *Member of Congress.*

Senator MUSKIE. Mr. Chairman, I appreciate your patience and attention and concern, and I am willing to try to answer any questions you may have.

Senator CANNON. We want to thank you for that very fine statement. I must admit that we have raised already in these hearings, yesterday, some matters that give me some very serious doubts in my mind as to what happened in the award of these contracts. I know that Senator Smith raised a number of points yesterday with the Army that I think would certainly make suspect the actions that were finally arrived at. At least if not from the standpoint of legality, certainly from the standpoint of good judgment.

Senator Smith.

Senator SMITH. Mr. Chairman, I have no questions, but I would like to thank my distinguished colleague from Maine for coming in and taking the time to present this very, very fine statement. I think it will be very helpful.

Senator MUSKIE. Thank you very much.

Senator CANNON. Thank you very much.

The next witness will be Mr. Berge Thomasian, vice president, New England Division of the Maremont Corp.

We are very happy to have you appear, sir.

STATEMENT OF BERGE THOMASIAN, VICE PRESIDENT, NEW ENGLAND DIVISION OF THE MAREMONT CORP.

Mr. THOMASIAN. Mr. Chairman, Senator Smith, and members of the committee, I am Berge Thomasian, vice president of Maremont Corp., New England Division, located in Saco, Maine. Maremont is one of the unsuccessful, but qualified, offerors on the recent procurement of M-16 rifles.

I think it appropriate at the outset to say a few words about Maremont Corp. The company was founded in the 1870's and has been in continuous operation from that date. Total consolidated sales of the company for last year were \$185 million. The company is listed on the New York Stock Exchange and has assets in excess of \$100 million, with a net worth exceeding \$50 million. The New England division, located in Saco, Maine, is one of its five operating divisions. This modern facility, constructed in the 1950's, has over 300,000 square feet of floor space and now employs 1,400 skilled workers. The New England division, which was established in the 1800's, has been producing weapons and ordnance components, among other products, for the last 20 years. Hundreds of thousands of machineguns, rifle barrels, and weapon components have been manufactured with an enviable record of quality and timeliness at competitive prices.

On April 22, 1968, 1 week after the Army had awarded contracts to General Motors and Harrington & Richardson, a representative of the Army Weapons Command informed Maremont that it had not been selected to produce the M-16. We thereupon asked for a meeting with Army representatives to learn why our proposal had been rejected. There followed a "debriefing session" at Rock Island on April 26, 1968. At that meeting we were informed that Maremont was fully qualified for the procurement.

Certain specific areas of expertise are required to manufacture rifles and the Army Weapons Command thought them important enough to specifically identify them in the procurement document. These are: (1) ability to straighten small caliber barrels; (2) ability to chrome plate small caliber barrels; and (3) ability to assemble small components to exact tolerances.

The Army has told us that we are well qualified in all of these areas. In fact, there are at best only one or two other companies in the United States currently manufacturing weapons that require all of these skills. We were also rated highly by the Army's Evaluation Board in all other important areas of technical and production competence. All of these data are documented in the transcript of the "debriefing session," copies of which I will give you.

After learning that we were fully qualified to handle this procurement at the debriefing session, and in view of the great difference between our price and that of General Motors, we considered the possibility of a formal protest. After careful reflection, however, and in consideration of the fact that we must continue to do business with the Army, we decided to drop the matter. I wish to emphasize that

Maremont Corp. had lost large procurements before but we had never even considered questioning those decisions.

Despite our decision to drop this subject, when questions were raised in Congress as to the propriety of this procurement, we felt obligated to supply all of the information at our disposal.

The facts with respect to this procurement have indeed been ably and correctly presented by Senator Muskie. Therefore, some of the things that we say will be repetitious, but they will give a continuity to the action as we saw it.

Maremont first received notice of the Government's intent to establish a second source producer of the M-16 rifle in early September 1967, by means of a letter from the Army Weapons Command. That letter contained basic information concerning the request for proposal which would ultimately be issued. Subsequently, Maremont and a number of other companies were invited to attend a meeting at the Army Weapons Command, held on October 3, 1967, at which further information was provided by the Army. On that same date, the Army issued a request for proposal for the procurement of 167,000 rifles, together with an option for 150 percent of the basic quantity.

The October 3 RFP initiated a two-step procurement. Phase I called for the submission of technical proposals by January 20, 1968. Phase II called for the submission of a price proposal by May 10, 1968. By the terms of the RFP, or request for proposal, award would "be made to that responsible contractor who submits the most advantageous proposal to the Government, price and other factors considered."

The RFP called for a 3-year program with delivery starting at the rate of 500 in August 1968, and increasing to 10,000 per month by February 1970. Incentive and penalty clauses were to be included in the final contract. The Government was to furnish one of three M-14 rifle production lines then in storage. In addition, a maximum of \$4 million worth of limited types of equipment could be purchased for the Government's account by the contractor.

Between October 3 and January 19, 1968, when Maremont submitted its Phase I technical proposal to the Army Weapons Command, there were several amendments to the RFP, but its basic terms remained the same.

On January 25, 1968, we orally presented our technical proposal at the Army Weapons Command. Thereafter, AWC requested more elaborate cash flow and cost control data, which was provided.

On February 21, 1968, we received another amendment to the RFP—it advanced the due date of the price proposal from May 10 to April 5.

On March 8, we received a telegram advising us of the terms of a formal amendment which was ultimately issued on March 21, 1968. This amendment increased the quantities desired from 167,000 to 358,000 rifles and retained the 150 percent option. The program was still to be on a 3-year multiyear basis. The revision contemplated production being increased through the use of three shifts rather than the one originally intended.

On March 19, we received a telegram authorizing us to proceed with the Phase II pricing proposal which was due on April 5. However, on March 29, the Army Weapons Command canceled the request

for the Phase II pricing proposal in another telegram, amendment No. 10, which also extensively revised the RFP.

Amendment No. 10 changed the object of the procurement from the selection of one to the selection of two additional sources for the production of the weapon. Selection of offerors was to be made on the basis of the Phase I technical proposals which had already been submitted but which could be clarified and modified to the extent necessary in a technical discussion to be held at a later date.

The telegram notified us that the Government intended to enter into letter contracts with the two selected offerors, subject to agreement on reasonable ceiling prices. We were informing that we could propose modifications to both the cost ceiling and type limitations on the facilities that were to be purchased for the Government's account.

Delivery requirements were accelerated substantially beginning in February 1969 with 1,000 units and building up to 25,000 units by November of that year. The total quantity was revised to 240,000 units from each source on a 2-year basis. Finally, the incentive and penalty clauses called for by the original RFP were canceled by the amendment.

On the same date, March 29, we received a second telegram from the Army Weapons Command. The later telegram requested us to have representatives available at AWC on April 4, 1968, for a technical discussion which was not to exceed 3 hours in length. It also requested us to prepare budgetary estimates of ceiling prices to be used in any subsequent letter contract awarded to us. The prices were to be available for relay via telephone any time after 8 a.m. on April 13, 1968.

The telegram emphasized that under no circumstances were our budgetary estimates to be provided to the Government until specifically requested. I would like to submit copies of these telegrams for your information.

Senator CANNON. They will be received and made a part of the record.

Mr. THOMASIAN. On April 4, four representatives from Maremont, including myself, visited the Army Weapons Command to present the technical modifications necessitated by amendment No. 10. On that occasion, Mr. David Spear, president of the New England Division, submitted a prepared statement indicating our readiness and ability to meet the accelerated delivery schedule.

With your permission, Mr. Chairman, I would like to submit Mr. Spear's entire statement for the record. At the same time I wish to quote the following portion of it because it characterizes Maremont's position throughout the procurement.

Senator CANNON. The statement will be made a part of the record.

Mr. THOMASIAN. I am quoting from Mr. Spear's prepared text:

There are three questions to be answered:

1. Can we produce this weapon within the time frame which has been requested by the last Amendment?
2. Can we produce this weapon in the quantities required?
3. Can we produce this weapon at a competitive price? Before we proceed any further I would like to assure you that as requested, I will not discuss the price in terms of detailed figures.

As an aside, that was Mr. Spear's reaction to the telegram enjoiner not to reveal pricing to the Army.

Continuing with Mr. Spear's quote :

My answer to all of these three questions is an unequivocal "yes."

1. Yes, we can produce this weapon within the required time frame.
2. Yes, we have the technical skill and the skilled labor force to produce this weapon in quantity.
3. Yes, we will be competitive with any other source.

At the April 4 conference we also furnished the Army with copies of an amendment to our technical proposal, demonstrating our capability and capacity to meet the accelerated production schedule.

Mr. Chairman, I have here a copy of our proposal which I am submitting with your permission for the subcommittee's information. I would ask that this proposal be considered as company confidential.

Senator CANNON. It will be retained in the committee's file and considered as confidential.

Mr. THOMASIAN. Let me expand this a little bit. This was developed inside of 1 week, because if you recall, the Army's telegrams to us indicating a meeting to be held at the Weapons Command on the 4th, we received the telegrams on the 29th. That was a Friday. The 4th was the following Thursday. We were due to appear there at 8 o'clock. We received the telegrams late on the afternoon of Friday, so in effect we had a three working-day allowance to develop this. The original proposal was some 2 inches thick. This was merely an amendment to that proposal indicating our total plan to meet the revised delivery schedules and requirements as requested on these March 29 letters, and this very specifically defines our intent and our technique for meeting those requirements.

At that same meeting we also had with us the worksheets which would have enabled us to quote, on an hour's notice, the \$36.5 million price which we ultimately incorporated in our proposal but which was never requested by the Army. We were therefore prepared to present our estimates of ceiling prices, but we were not asked about that information and did not volunteer it because of the mandate contained in the second March 29 telegram. At the conclusion of that meeting we believed that our prices would be requested because we were presented with a sample letter contract for review.

Upon our return from the April 4 meeting we immediately prepared our written price proposal consistent with the sample contract provided us, and there were some variations between the sample letter contract provided us and the original RFP terms, and our price was revised slightly to compensate for that, but the total difference was less than \$500,000, or less than \$1 million basically, and it was as a result of the Army's change of terms, because if you recall that telegram indicated that we could now open up the contract relative to the equipment that could be purchased for Government account, and we obviously took advantage of that, too, and broadened that scope.

However, as I stated earlier, on April 22 we received the phone call notifying us that we had not been awarded either of the two production contracts.

At the April 26 debriefing session we were informed that we had been evaluated on the basis of our technical proposals and our management and financial capabilities. We were specifically told that we were qualified to undertake the accelerated production but that the Army placed "a lesser relative degree of confidence" in Maremont than in the successful offerors.

Because the Army indicated that our proposal qualified us to handle the procurement, we were puzzled that we had not at least been asked to submit our budgetary estimates. We had prepared our technical proposal with the idea of attempting to do the best job possible consistent with cost considerations. Therefore, when the Army gave us the opportunity to ask questions concerning its evaluation of our proposal, we asked why price had not been a consideration in the awards.

The Army explained that it did not consider price in making the awards, and these are slightly inconsistent with some of Secretary Brooks' later words, because the object of the procurement had been changed to the sources in whom it could feel most confident. There then took place the following colloquy:

B. THOMASIAN. Excuse me, just to be very certain that I understood what you read previously—your opening I think, started by saying that all four offerors were found to be acceptable sources. Am I right?

R. SEEDS (who is the Contracting Officer at the Army Weapons Command). Words to that effect; yes, sir.

B. THOMASIAN. That being true then we qualified to that objective that you have just read off in that telegram. We are qualified to that objective.

R. SEEDS. That is a fair statement.

The telegram I am referring to are the objectives set forth in our March 29 telegram which called for the accelerated delivery because that was a question in my mind, had we been qualified up to that point, and the answer which you will see very unequivocally in this next paragraph was that we were qualified under that schedule also.

Let me continue:

R. SEEDS. That is a fair statement. The answer to what is running through your mind, I think, is that the objective was to choose those two firms who would give us the highest degree of confidence in their ability in meeting or exceeding. You were not chosen as one of those two who gave us the highest degree of confidence or gave us a degree of confidence. You were not amongst the two who gave us the highest degree of confidence and that is the way this award was made. I am not saying that you were disqualified on any point. On the contrary, I can tell you point blank that you were not disqualified on any particular point. It is the matter of which two gave us the greatest degree of confidence within that strength.

Transcripts of these proceedings were made and I am sure you have those as stated before.

As presented by Secretary Brooks, in testimony before the Special Subcommittee on the M-16 Rifle Program of the House Armed Services Committee, the letter contract awarded to the Hydramatic Division of General Motors calls for a ceiling price of \$56.21 million and the one awarded to Harrington & Richardson calls for a ceiling price of \$41.575 million. As I stated earlier, our ceiling price was \$36.5 million. The prices are compared as follows—I think this is rather an important approach to this. The way the letter contract was finally developed, there were four items on that, and I have listed the costs here by item. In the left-hand column, for instance, items 1 and 2 indicated the 240,000 rifles at a unit cost, and then the next line I have broken out the unit cost. The GM quote, I used rounded out figures because that is all I had available to me from Secretary Brooks' testimony, \$38 million for General Motors, which indicates a unit cost of \$158; Harrington & Richardson, \$30.5 million indicates a \$127 unit cost; Maremont, \$26.762 million, indicating a unit cost of

\$111 plus. The relationship to General Motors prices indicates that on this item alone there is an \$11 million plus spread, or a \$46 per weapon spread of cost.

Item 3 was test and inspection equipment; General Motors bid \$210,000, H. & R. bid \$275,000, Maremont bid \$183,000. That is not too significant a spread. It is \$26,000 between us and General Motors.

Item 4, the preproduction costs, which include tooling, plant rearrangement, planning, engineering, et cetera, General Motors, \$12 million, Harrington & Richardson, \$4.9 million, and the Maremont price of \$4.758 million, a spread there of \$7 million plus from our price to the General Motors price.

Facilities, this is for the Government's account, General Motors was \$6 million, Harrington & Richardson, \$5.9 million, and we were \$4.782 million, a spread there again of about \$1.2 million between us and General Motors.

The total indicating \$56.21 million for General Motors, \$41.575 million for H. & R. \$36.5 million for Maremont, a spread of \$19.7 million between us and the higher bidder.

The unit cost, if computed on this basis, rises pretty drastically to \$234 a weapon for General Motors, \$173 a weapon for Harrington & Richardson, and Maremont's price is \$152, and our relationship to General Motors price as indicated.

(The chart referred to follows:)

COMPARATIVE PRICES

	GM	H&R	Maremont	Related to GM prices
Items 1 and 2:				
240,000 rifles.....	\$38,000,000	\$30,500,000	\$26,762,400.00	-\$11,237,600.00
Unit cost.....	(158)	(127)	(111.51)	(-46.49)
Item 3: Test and inspection of equipment.....	210,000	275,000	183,216.00	-26,784.00
Item 4: Preproduction costs (tooling, plant rearrangement, planning, engineering, etc.).....	12,000,000	4,900,000	4,758,413.00	-7,241,587.00
Facilities.....	6,000,000	5,900,000	4,782,212.00	-1,217,788.00
Total.....	56,210,000	41,575,000	36,486,241.00	-19,723,759.00
Unit cost.....	(234)	(173)	(152.03)	(-81.97)

Mr. THOMASIAN. Since preparing that chart, Cadillac Gage in a hearing before the House presented its cost estimates on the House committee requests. It came in at \$36.8 million something, less than 1.5 percent difference between ours and theirs, so they, too, were around the \$36.5 million position, which validates our pricing to some degree.

In addition, since royalty payments to Colt's are based on percentage of selling price, the Government is paying, and will probably continue to pay, about 40 percent more in royalties for the high-cost producer. This element alone means an additional and unnecessary cost of \$618,000 for the first 240,000 units from one source.

Comparative prices with royalties: Items 1 and 2: \$38 million; \$30,500,000; \$26,762,400; and -\$11,237,600. Royalty: 51½ percent; \$2,090,000; \$1,677,500; \$1,471,932; and -\$618,068.

The \$618,000 in the right-hand column is the indicated difference in the royalty payments alone because of the high unit cost of the rifle. Royalty per weapon is also indicated. This is the true cost to the Government for buying the weapons under this current cycle. The Gen-

eral Motors price is \$166, and that is only on the unit costs of the weapon plus the royalty, nothing else, not the facilities or the tooling, \$166; Harrington and Richardson, \$133.99; and ours would have been \$117 plus.

Royalty per weapon: 8.69; 6.99; 6.13; and -2.56. Unit cost including royalty: 166.69; 133.99; 117.64; and 49.05.

Options for 150 percent of 240,000 units are included in the letter contract. This possible addition of 360,000 weapons could result in total contracts for 600,000 units from each contractor. Therefore, the unit prices for items 1 and 2 are of tremendous significance. Negotiations for these options will be based against the ceiling prices indicated above. The potential overpayment of as much as \$49 per weapon could add an additional \$17,500,000 to the \$20 million excess cost already apparent—total potential overpayment of \$37,500,000.

Mr. Chairman, the \$20 million difference in price means that after the current General Motors contract has been completed—I am speaking strictly of the 240,000 units since we are only talking about the \$20 million spread—an additional 1 million rifles would have to be sold to the Government at a price \$20 less than Colt's price in order for the Government to recoup this excess expenditure.

In other words, the establishment of a second competitive source is, in my opinion, an impossibility at this point in time.

Mr. Chairman, Senator Smith, and members of the committee, I wish to express Maremont's sincere appreciation to you and the members of this subcommittee for granting me the opportunity to present the facts underlying the M-16 procurement.

(The attachments to Mr. Thomasian's statement follow:)

[Transcript of question-and-answer section of tape—debriefing on the M-16 rifle held at Rock Island, Apr. 26, 1968]

R. SEEDS. Do you have any questions?

D. SPEAR. Yes is this presentation available?

R. SEEDS. I have no objection, I will have it typed up as I read it to you. I had some underlining, etc., and some words stricken and changed. You may have either the tape or this or both. I would want time to type it up as you can see I have stricken certain lines.

R. THOMASIAN. I think the tape would cover the informational discussion as it takes place here.

D. SPEAR. This is D. Spear speaking from Maremont Corporation. In listening to your evaluation I have come to the conclusion that the so-called weaknesses as related to the strength are very, very minor. You talk specifically about some things and I would like to ask some questions now.

The first question I have is this: In view of the fact that the bulk of the equipment required for the manufacture of the M16 rifle is going to be provided by the Government, whether to Maremont or anybody else, what is the relevance of the problem or what is the relevance of our program on modernizing our equipment?

R. SEEDS. I wonder if we might to this—as I do not want to give you anything but absolutely accurate answers. I wonder if you might give us a chance to jot these questions down, give us a chance to go out and talk, to make sure we give you the right answers. So let somebody here please get them down.

D. SPEAR. Second question concerns itself with you apparently making a point of the fact that we have gone to some of the same suppliers Colt has had and you have specifically referred to the upper and lower receivers. [End of first tape.]

Now we have indicated in our presentation of April 4th that we had an alternate source who was not presently supplying Colt, two other sources as a matter of fact.

Third question. You speak about the inadequate planning of a test range. Well, in all previous contracts and businesses we have done with the Government where there is any question about this kind of thing, this could be modified.

This is not a question: We felt that the test range the way we have presented it was adequate. If there are now some questions about it, these were not beyond modification in time to meet the contract requirement so, I fail to see why that should have been some kind of an objection.

Another objection you have is the Quality Assurance Manager reporting to the Vice President of Manufacturing. If this is indeed such a serious objection that it would outweigh some of the other positive factors which are presented, then this could have been corrected very easily to the satisfaction of the Government even though I myself might argue the point that this is not as detrimental as you may seem to think. I mean this is your idea of how an organizational structure should be, and the other one was ours. We have always in all of our best relationships with the Government, when we have some differences of this nature, tried to adapt ourselves to whatever the requirements were. It is not the kind of earthshaking thing that I think requires as much point as has been given to it.

In the area of Cost Reporting, I take exception completely to your remarks. In the last five years we have bid on something like over 200 different contracts. Our books are audited periodically, on every contract that we submit, by the Ordnance Department. It has never been indicated to us, we have always found that Cost Reporting and the cost figuring that we have been able to present have always been adequate and have managed to give the right figures.

Thirdly, as far as Cost Reporting, in view of the fact that price became no consideration apparently in award of this contract, why is the shadow, if you will, on our Cost Reporting—which I don't even accept—have been a major issue.

Now I have a couple of other questions: I am questioning why price consideration was taken out of the contract altogether. We have prices that were available to be submitted prior to the time the decision had to be made.

Now you are also putting certain restrictions on me, I believe, to confine ourselves to ourself but, nevertheless, you may not want to answer this question—I would like to know if Hydramatic was responsive to the first phase prior to the change in requirements?

These are the questions I have, do you have any Berge?

B. THOMASIAN. I think that question of the financial capability of Maremont was completely inappropriate.

D. SPEAR. That's right.

B. THOMASIAN. If they award that kind of a question that serious a factor—financial capability of this corporation to handle the program—that should have been clarified whether within or without the time limit of the discussion.

D. SPEAR. I would like to make another comment. This is D. Spear speaking. When we came in here for the very first presentation, which was on the—whatever date it was—25 January—we came at that time prepared to answer any question but were in effect precluded. We were limited in our presentation by the fact no questions were asked. This is very unusual in a procurement, because in a procurement of this size if there are any questions I think it best the questions be asked and answers given. The same, to a large extent, applies to our second presentation. Any of these objections raised now must have been apparent right at the briefing that we had and if they were questionable I think that we were entitled to answer prior to this determination. This is our basic position. I think that within the confines of the original procurement that we would have had absolutely no problems in meeting the requirements. We still feel that we could meet the requirements because those issues which you have maintained as being detrimental to our company are very, very minor.

I take objection to your classifying our people, just because they do not have college degrees, as not being qualified. We have shown their experience. It is not necessary to have college degrees in order to put out good work and if this is going to be a requirement of procurement, I would like the Department to give us the percentage of college graduates that we should have in our work force in order to qualify to meet your standards—and furthermore, talking about availability of people—I think we made it very, very clear at the last presentation that people were not going to be any problem. We do not have to train five hundred additional people. We have no commitments past April of 1969. Our

total work force practically was available and I think we made this point clear in our presentation.

But, I would like to ask this question to which I would like to have an answer—is the fact that we are maintaining a base for the M60 production disqualifying us from getting into the M16 production. If it were, we should have been advised and given the choice of which of the two programs we wanted to participate in. We have no contracts on the manufacture of the M60 or maintaining that equipment.

Those are the major questions I have.

R. SEEDS. All right, we would like to pause for a moment if we could, I want to make sure that we give you the correct answers to these, Mr. Spear. I hope that I have which are questions and which are comments clearly here. When we come back, why if I am in error please straighten me out as I believe we can be responsive and we will answer your questions.

D. SPEAR. I would like to make one more comment—[Tape was shut off at this point.]

R. SEEDS (coming back). In regard to answering your questions—your first question was—since the Government is furnishing the equipment for the manufacture of the M16 rifle what is the relevance of Maremont's modernization plan?

The question that was asked in the RFP in regards to your modernization plan, went into your overall company policy on modernization and this policy in our review of facts, production reliability, management's attitude toward modern techniques, and it bears upon the question of the reliability of the mobilization base line to be established.

The next question as I understand it was also a comment—in regard to the test range. We made an observation that it was somewhat less than might be desirable in our comments previously and you stated that this was a matter that was not beyond correction prior to production. You stated it was a matter that could have been corrected prior to start of production. Now, I must point out here in my answer to this question, which is the same as three other questions you posed, when we received your proposal we analyzed the proposal. Our meetings with you, the meeting on the 4th of April, was to make sure that we completely understood what it was you were proposing to the Government. It was not a session to correct your proposal or change your proposal but, rather to thoroughly understand it. Now what you proposed was evaluated—and that was evaluated. The fact that you could have done something differently or made a corrective change, if that is what was deemed necessary, prior to production is of no consequence, we were analyzing and evaluating your proposal. The purpose of the meeting was to completely understand what it was you were proposing.

Your next question was in regard to the Quality Assurance area where we referred to the top Quality Assurance man reporting to the Vice President for Manufacturing. You commented that although you did not agree necessarily with this, this is something that could have been corrected or changed if we so desired. My answer to you is the same, this is something you could have changed but, I believe, that we understood what it was that you were proposing and our comments went to our evaluation of your proposal as we understood it and, I believe, we have great understanding on that point.

The next one is a matter of why price consideration was taken out of this procurement. Now my best answer to you Mr. Spear is to read to you our wire to you to put in Amendment #10. Paragraph 2 starts out with this: "As a result of increased urgency to supply the maximum number of rifles at the earliest possible date with minimum risk of production interruption, the object of this procurement is changed to select those two sources which will afford to the Government the highest degree of confidence in their ability in meeting or exceeding the accelerated schedule set forth below while maintaining good quality and provide the Government the strongest mobilization base".

The same change cancelled the price of Phase II portion of this procurement. The objective was changed for that reason and in that fashion.

The last one—your question was "Was Hydramatic responsive in the first phase prior to the change?" Without inquiring as to what change you mean, I must answer that we are not and will not discuss other proposals from other companies with you.

Your next one was that you took exception to our questioning the financial capability. I want to point out to you that we questioned everything for the purpose of evaluation. We asked for information, information we evaluated that.

Our conclusion was not that we questioned your financial capability, we did not find you unsatisfactory on this point. Perhaps I did not make myself clear when I was going through it before. I can reread that portion of you wish.

D. SPEAR. No, I think I remember.

R. SEEDS. Your next one you started out saying you wanted to make a comment but it quickly turned into a question, and it goes along this line: When you came in on January 25th for the presentation here you were prepared to answer questions. Why were there no questions and answers at that meeting? The purpose of that meeting was to permit you, to give you the opportunity, and all offerors were given the opportunity to orally present that which had been presented in your proposal to a group of people who were going to be busy evaluating the proposals. In other words so that we might more thoroughly understand that which had been proposed. It is necessary in this type of procurement to evaluate what is presented and to understand what is presented. That was the purpose and that is why there were no questions.

Your next question—at the second (and you are referring to the one on the 4th of April) you stated that anything questionable should have been asked. In other words, you were referring I presume to things we thought were inadequate. Once again, it was not our purpose to tell you we though something was inadequate but rather to make sure we understood what it was you were presenting, thoroughly understanding, so that we would make no mistakes in the evaluation of your proposal and, any information you presented, we wanted to make sure that we understand it—not change it—but understand it so we could properly evaluate it.

The next question: You started out by saying that several other points, detrimental points as you called them, we did not call them that we said points of weakness—relative weaker points—were very, very minor. Then you referred to college degrees and said that if this is going to be required we should like to know the percentage. Once again that was an observation made in the evaluation. When we evaluated the proposal, the people you planned to use we evaluated and that was an observation of the nature of the people you were going to use. I will call your attention to my comments in regard to the credit that was given for very much experience. It was merely an observation on education and experience—one very strong, one relatively weaker—not a disqualifying point but an observation. All right?

The next question: Is the fact that Maremont is maintaining a base for the M60 Machine Gun, has the fact disqualified them on the M16 Rifle. The answer is, absolutely not, without qualification.

Those are the questions as I heard them, sir.

D. SPEAR. I don't think that we are going to go much beyond this. I would like to state for the record that if the disqualifying factors that you have presented to us, the weaknesses in our presentation were of such nature that they were not major and, furthermore, assuming that others had other weaknesses in their presentation, we are assuming that all of the bidders were qualified and, therefore, why was price not made a factor. I ask that again.

R. SEEDS. I will read the wire to you again. The same question the same answer, Mr. Spear. Price was not a factor in this for this reason as we gave Maremont in our wire. "As a result of increased urgency to supply the maximum number of rifles at the earliest possible date with minimum risk of production interruption, the object of this procurement is changed to select those two sources which will afford to the Government the highest degree of confidence in their ability in meeting or exceeding the accelerated schedule set forth below while maintaining good quality and provide the Government the strongest mobilization base." Further on in this wire we cancelled Phase II because this now became the object of the procurement.

D. SPEAR. I understand.

B. THOMASIAN. Excuse me, just to be very certain that I understood what you read previously—your opening I think, started by saying that all four offerors were found to be acceptable sources. Am I right?

R. SEEDS. Words to that effect, yes sir.

B. THOMASIAN. That being true then we qualified to that objective that you have just read off in that telegram. We are qualified to that objective.

R. SEEDS. That is a fair statement. The answer to what is running through your mind, I think, is that the objective was to choose those two firms who would give us the highest degree of confidence in their ability in meeting or exceeding. You were not chosen as one of those two who gave us the highest degree of confidence or gave us a degree of confidence. You were not amongst the two

who gave us the highest degree of confidence and that is the way this award was made. I am not saying that you were disqualified on any point. On the contrary, I can tell you point blank that you were not disqualified on any particular point. It is the matter of which two gave us the greatest degree of confidence within that strength. I will read the wire to you again: "As a result of increased urgency to supply the maximum number of rifles at the earliest possible date with minimum risk of production interruption, the object of this procurement is changed to select those two sources which will afford to the Government the highest degree of confidence in their mobilization base."

D. SPEAR. As far as we are concerned we have no more questions. We would like it however, if the tape has to be redone, we would like to have it with a copy of your remarks no later than Monday morning.

R. SEEDS. I will get them as quickly as I can sir. There are several pages here and we will have them typed. I assume they will be in the mail late today or tomorrow. I can not guarantee you that you will have them no later than Monday.

D. SPEAR. Well then, the only difference is—— (Then suggests tape may be shut off.)

[Tape starts again.]

R. SEEDS. If there is more discussion here. If you are going to be around today, we have other things on with you, I know that, but I may ask if you have further questions in this area that you propose these questions to me and that we get around the table again so that I might list the questions and give you the answers.

D. SPEARS. To the best of my knowledge now, and I have talked with the fellows, I don't think we will have any other questions on this subject here today.

R. SEEDS. All right, fine, fine. [End of tape.]

[Telephone message received from Army Weapons Command, March 29, 1968, at 4 p.m.]

Para. 1. This wire constitutes amendment No. 10 to RFP DAAF03-68-R-0014.

Para. 2. As a result of increased urgency to supply the maximum number of rifles at the earliest possible date with minimum risks of production interruption, the object of this procurement is changed to select those two sources which will afford to the Government the highest degree of confidence in their ability in meeting or exceeding the accelerated schedule set forth below while maintaining good quality and provide the Government the strongest mobilization base.

Para. 3. The selection will be made on the basis of the Phase I technical proposal as clarified and modified during the technical discussions referred to in para. 9 below including ability to meet the special standards and other factors which offer the Government the greatest assurance of meeting the above objective. Phase II of the procurement is hereby canceled. It is proposed to enter into letter contract, subject to agreement on reasonable ceiling prices, with the two selected offerors at the earliest possible date.

Para. 4. During the technical discussion referred to in para. 9 below, offeror may proposed modifications to the dollar and PEC code limitations on new facilities to be purchased for Government account provided such modifications beyond or outside these limitations can definitely be shown to establish a higher degree of assurance of production capability and a higher degree of confidence that the revised delivery schedules can be met or exceeded.

Para. 5. The quantities and delivery schedules are changed from a three year requirement to a two year requirement with the following desired quantities and delivery schedules:

Fiscal year 1968 requirements

February 1969	1, 000
March 1969	4, 000
April 1969	6, 000
May 1969	8, 000
June 1969	10, 000
July 1969	6, 000
August 1969	15, 000
September 1969	18, 000
October 1969	20, 000

This establishes a total of 88,000.

Fiscal year 1969 requirements

October 1969.....	2,000
November 1969.....	25,000
December 1969.....	25,000
January 1970.....	25,000
February 1970.....	25,000
March 1970.....	25,000
April 1970.....	25,000

This makes a total of 152,000 for the fiscal year 1969 requirements for a 2 year total of 240,000 rifles.

Earlier deliveries are acceptable and encouraged. A letter contract will be issued leading to a two year multiyear type contract.

Para. 6. If the above schedule cannot be met the Government reserves the right to enter into a letter contract with the offeror or offerors offering the schedule which most nearly meets such requirements and provide the Government with the highest confidence that he can do so.

Para. 7. The incentive bonus and penalty provisions of the RFP are canceled.

Para. 8. Proposal A, that is the proposal submitted in accordance with para. 14A, H10 of the RFP will no longer be considered.

Para. 9. Final discussions will be held with all offerors on the technical aspects of their proposal. These discussions will be held at the Headquarters, U.S. Army Weapons Command on 4 and 5 April 1968. You will be further notified. At the time of such discussions each offeror will submit his best schedule of planned production and will address facilities matters referred to in para. 4 above. The discussions will be confined to the foregoing subject to resolve any areas where there may be a possible doubt about achieving the offered level of procurement.

Para. 10. Please acknowledge receipt of this message by return wire.

From: Robert G. Seeds, Contracting Officer, U.S. Army Weapons Command, Rock Island, Ill.

To: Ruedhla/Maremont Corp., New England Division, Attention D. Spear, Saco, Maine.

Reference is made to our teletype No. 9140 to you of this date and in particular to paragraph 9 thereof, which states that discussions will be held on 4 and 5 April 1968.

It is requested that you have representatives available at this headquarters for discussions not to exceed three (3) hours in length commencing at 0800 hours on 4 April 1968.

Reference is also made to paragraph 3 of our teletype 9140 which states that letter contracts will be issued subject to agreement on "reasonable ceiling prices." It is requested that you prepare budgetary estimates to be used in any subsequent letter contract as much ceiling prices and have such budgetary estimates available to be obtained by phone any time subsequent to 0800 hours 13 April 1968. Such budgetary estimates are to be broken down in the following categories:

A. Rifle unit price.

B. Facilities.

C. Pre-production costs including tooling, rearrangement, planning, engineering, gage design, etc.

D. Inspection equipment.

Under no circumstances are the budgetary estimates to be provided to the Government until specifically requested.

Please acknowledge receipt of this message by return wire.

PREPARED STATEMENT READ TO THE MAREMONT CORP. ON APRIL 26, 1968,
AS A PART OF THE DEBRIEFING SESSION

DEBRIEFING

As you will recall, the objective of the M16 Procurement Program was changed by Amendment 10 to RFP 0014 on 29 March to select *two offerors which would afford the Government the highest degree of confidence in their ability to meet or exceed the required accelerated delivery schedule as set forth in that amendment*, while at the same time maintaining quality and providing the Government the

strongest mobilization base. As you will further recall, Phase II of the Proposal was at that time cancelled and it was stated that awards would be made to those two offerors which the Government deemed to afford that highest degree of confidence as stated above.

Selections were made on the basis of Phase I Technical Proposals, as clarified and modified during technical discussions, including ability to meet the special standards and other factors which offered the Government the greatest assurance of meeting the revised objective of the M16 Procurement Program.

During the week of 1 April you were afforded the opportunity to personally appear before personnel at HQ AWC for the following purpose:

1. To present any changes that you might have due to the removal of the dollar and PEC Code limitations on facilities.
2. To present your plan for meeting this new accelerated production schedule.
3. To give our people an opportunity to ask questions in order to assure a complete understanding of the technical proposal being made to the Government.

As you are aware, you were not selected as one of the two to receive contracts under this procurement. At your request, you have been afforded the opportunity to appear here today and to receive an oral presentation which will set forth to you the results of the Government's evaluation of your technical proposal. These results will cover all areas of your proposal including those which led to the Government's conclusion in not selecting your Company as one of the two offering to the Government this highest degree of confidence. We will cover these by three major areas—technical, management, and financial.

In presenting this information to you we have one purpose, and one purpose only, that is to impart to you our evaluation of those areas and not to engage in an argumentative discussion relative to our assessment of those areas, nor to compare the relative standing in these areas with any other offeror.

We will now present to you our assessment or evaluation of your proposal.

TECHNICAL

Each of the response to this RFP, including your response, had significant strengths, and each had some weaknesses. The evaluation did not disclose deficiencies in any proposal which would clearly prevent any Offeror from meeting the terms of the RFP, and so the fact that you were not selected does not imply a determination that your proposal contained any *specific, disqualifying* weakness. All of the information submitted was analyzed carefully and evaluated in detail. The differences between proposals were generally differences of degree rather than differences of kind. Finally, the strengths, weaknesses and other significant considerations were weighed together, in arriving at a judgment as to which, among the various proposals, afforded the highest degree of confidence that the terms of the RFP, as finally amended, could be met.

In order that you may be assured that all of the information which you presented was thoroughly and objectively evaluated, there follows a Summary of the evaluation of your original proposal, and a Summary of the supplemental evaluation including information which you supplied in response to Amendment Number 0010 of the RFP.

Strong points

In overall view, the strongest point in your proposals is the evidence of your successful manufacturing experience since 1962 on Government contracts for the M60 Machine Gun. They also show satisfactory performance on Government contracts for major parts of other weapons, including barrels for the M14 Rifle, the M61A1 Aircraft Gun, and M61 bolts.

You were given a superior evaluation in the Packaging aspects of your proposal. The response in this area demonstrated a clear knowledge of military packaging requirements, indicated that highly qualified personnel were available to prepare and implement the plan for packaging weapons of the M16 Family, and presented a record of relevant experience with similar items on previous and current military contracts.

In the important areas of Barrel Straightening and Chromium Plating, the proposal also reflects a thorough understanding of the facilities and techniques required, based on experience in current and previous Government contracts. In Metal Finishing, Maremont displayed a comprehensive plan for meeting the requirements. In each of these areas, Barrel Straightening, Chromium Plating and Metal Finishing, the overall response was considered very good.

The proposal shows that personnel designated for assignment to the M16 Program are well qualified by education and/or experience for their respective positions in manufacturing engineering, and meet the requirement for High-Grade Engineering Capabilities as set forth in the RFP. Company History indicates that you have high regard for the importance of Government production contracts, and strives to allocate your in-house personnel and facilities so as to assure successful performance of Government work. Government work comprises about 80% of the dollar volume of your present products, and about 90% of your Government work is performed in-house. Your response was considered very good in respect to Company History and High-Grade Engineering Capability.

The plan submitted by Maremont for in-house manufacture of parts, in-process inspection, and assembly is sound. Much of the work was to be done by conventional techniques on general-purpose machines, but some of the more complex major components were to utilize Tri-Ordinate milling machines especially adapted to the purpose. Your plan set forth in this part of your response was very good.

Maremont presented a very strong response relative to availability for assignment to the M16 Rifle Program of high-grade personnel, experienced in the production of small arms. In-house, strong capability exists in key positions for all technical aspects of manufacturing and quality-assurance required for small arms. In-house personnel are experienced in manufacture and inspection of mechanisms containing multiple precision parts of complexity and precision comparable to the M16 Rifle Family of Weapons. You indicated ready availability in the immediate area of additional technical and other skills, is needed.

Extensive experience in-house with Government contracts for military weapons and parts provided a strong base for application of similar skills to establishing a satisfactory production operation for small arms such as the M16 Rifle. The overall past and current performance, deliverywise, on military contracts, as portrayed in the proposal, is good.

Maremont's potential for future performance resulting in timely delivery of items of the required quality is considered very good based on the expressed application of resources, and history of performance. The minimal response relative to subcontractor structure was not considered as significantly weakening the future potential inasmuch as only 10% of the dollar volume of Government work is performed out-of-house, and historically has been successfully procured by Maremont.

The best qualities of the proposal concerning Quality Assurance are found in the areas of your General and Detailed Quality Assurance Plans, which are responsive to Specification MII-Q-9858A in all major respects. The thorough understanding of these areas undoubtedly derives from, and is confirmed by, their extensive and successful production experience on military contracts for manufacture of M60 Machine Guns under Government approved Quality Assurance Plans.

Current experience and procedure in the M60 Machine Gun quality program provide a strong, viable base for the M16 Rifle quality program. Strong elements within the plans are the work instructions; control of purchase, drawings and documentation, measuring and test equipment; manufacturing controls; maintenance of records; and receiving, in-process and final inspection.

The quality organization includes all elements and well qualified personnel in all key positions for control of quality. Responsibility and authority are specifically defined within the organization. The ratio of inspection to manufacturing personnel is 1 to 4.5, considerably above the 1 to 7 ratio normally expected for small arms manufacture.

Weak points

The weakest points in the Maremont response are in the area of plans for modern production facilities and tooling. The average year of manufacture of your proposed Industrial Production Equipment (IPE) is 1966, which is acceptable, although not especially favorable from the viewpoint of utilizing the most recent IPE technological developments. Furthermore, the presentation was very weak in respect to your record of, and plans for, IPE modernization replacement.

In certain areas in which the response was generally above average, there were also some weak points. The plant layout indicates that M16 components must flow through the area in which the M60 Machine Gun is being manufactured. No description was provided of the material handling equipment which

you propose to use. The staffing of the production-control organization specifically identified only three expeditors. The description of the anodizing equipment intended for use in finishing the aluminum parts indicates that the power source is marginal for efficient operation. The equipment for shot-peening is not clearly described.

There is a potential problem in meeting the objective of broadening the mobilization base, in the fact that certain vendors cited in the Maremont proposal are currently vendors for Colt's. Of the critical components, three might be affected by the fact that Colt's present vendors are cited as sources of raw material or forgings in the Maremont proposal. The critical parts which might be affected are the Upper Receiver, the Lower Receiver, and the Front Sight.

Quality assurance facilities as covered in the Maremont proposal, are weak in the following respects:

- a. The number of test ranges, and the facilities and equipment included in the plans for the ranges, appeared not to provide the necessary capacity for testing.
- b. The Government-owned portable metrology laboratory which is currently in use for the M60 Machine Gun and other contracts at Maremont, appeared not to have sufficient capacity for the additional workload imposed by manufacture of M16 Rifles at the same time.

The shortcomings of the proposal in these respects appeared due to lack of complete recognition of the expansion which would be required in capacity of these facilities to accommodate M16 Rifle production.

Although a strong operating organization is depicted for the quality-assurance function, having the Quality Assurance Manager subordinate to the Vice President for Manufacturing is questionable. To assure the greatest objectivity in implementation of the quality program, lines of authority should be direct from top management to the manufacturing and quality-assurance managers, respectively.

General comments

In the areas of Production Engineering, Product Engineering, Production Control, and Support Facilities, the Maremont proposal was satisfactory in overall responsiveness, being neither notably weak nor notably strong, although certain elements within these areas were sufficiently strong or weak to deserve the mention made of them in preceding paragraphs.

Maremont's proposal indicates technical experience and competence capable of establishing a satisfactory production operation for the M16 Weapons Family, responsive to the requirements of the RFP.

In summary, the Maremont proposal contains adequate evidence of a satisfactory manufacturing capability for the M16 Family of Weapons, within the terms set forth in the RFP. This appraisal is based on both the Offeror's description of his specific plans which were laid out in response to this RFP, and on the record which is presented showing satisfactory fulfillment of other Government contracts for military small arms.

Maremont's position was adversely affected by some significant weaknesses in its proposal.

Supplementary evaluation pertaining to amendments 0010 and 0011

The original proposal from Maremont, and the additional information which has subsequently become available, were reviewed in the light of the new requirements set forth in Amendment 0010 of the RFP. Consideration was given to the consequences of new information on Maremont's efforts since their original response, and also to consequences of the amended delivery schedule, in assessing the probability that Maremont could fulfill the terms of the contemplated contract.

- a. The oral discussions with Maremont on 4 April 1968 indicated that more detailed planning has been done toward meeting the terms set forth in the RFP, especially in regard to the manufacturing process. Cognizance has been taken of the amended delivery schedule, and documented commitments consistent with this schedule have been obtained from potential suppliers of Industrial Production Equipment (IPE) and potential vendors of M16 components which are to be purchased according to the Maremont Plan. In consequence of the amended provisions of the RFP, Maremont proposed to purchase for Government account an additional 24 items of IPE, which are of the same type cited in their original proposal. The capability of Maremont in training and retention (80%) of operating personnel is a favorable aspect in staffing a new production line. An out-

standing program for training of QA and Inspection personnel has also been developed in light of the accelerated delivery schedule. Maremont's presentation of its proposal was considerably more polished and better organized than it had been previously, and it responded to questions in oral discussion on 4 April 1968 with confidence. However, no new information became available which would alter substantially the areas of relative strength and weakness which were found in the original proposal.

b. The changes in delivery requirements did not significantly affect the relative strengths or weaknesses of the original Maremont proposal. In general, your previous record of timely deliveries against tight schedules has been good, but there is no specific precedent for the establishment of a production line and initial delivery of weapons within 10 months of contract award. The nucleus of professional and skilled personnel who are experienced in small arms manufacture is clearly an asset toward accomplishment of earliest possible deliveries. Maremont's need for 76% of IPE to be acquired after award placed a premium on planning and action to acquire the equipment on a timely basis.

MANAGEMENT

A synopsis of your relative strengths and weaknesses and some general comments are summarized as follows:

Relative strength

a. The Maremont Corporation has an experienced cadre of management and engineering personnel in the manufacture of machine guns. They have produced the .50 Cal. Aircraft Machine Gun, and are currently producing the M60, M60C and M60D Machine Guns. To supplement the Maremont management, two former engineers from Springfield Armory are available as consultants. Forty-three of the engineering and production personnel who could be available for the M16 have been with Maremont since the M3-50 cal. Machine Gun Program in 1951. Maremont has successfully expanded its work force in the past with 510 personnel added in four months during the M37 Program and 900 additional personnel added over a 2½ year period during the M60 Program. The M16 Program requires 500 additional employees to makeup the 950 personnel required for peak production. The additional skills required are primarily in the area of production workers and inspection personnel. These will be drawn from a labor market which has 1,650 unemployed male personnel within a 20 mile radius of the plant and 2,970 unemployed males within a 50 mile radius. Women are also being considered for use in the assembly operations which would enlarge the availability of labor.

b. The organizational structure of Maremont is documented in the proposal. All major or key elements are depicted. Mid-management elements are further subdivided to show elements at the lower echelon. Each mid-management level that would be actively involved in the M16 Program reports directly to the President.

c. Delegation of authority and assignment of responsibility is well depicted. The use of functional titles in each block on the organization charts, coupled with the name of the person responsible for that activity, plus written policies, procedures, and operating manuals, leaves a minimum of doubt as to the extent of authority and responsibility.

d. The Company has stated, without qualification, that the M16 Program will have priority over all "on-going" programs in the Company.

e. Maremont submitted a very good narrative description of management control procedures used in its purchasing operations. These procedures and manuals reflect in detail the interfaces between Procurement, Production, Quality Assurance, and other elements involved to a lesser degree. Main responsibility for routine purchases appears to rest with buyers.

f. Prime/Sub-Contractor relationships are defined and apparently are under control. The Company's policies and procedures are designed to exercise direction and restraint over Sub-Contractors in such a way as to result in the procurement of quality items, on time, at the lowest practicable price.

g. The production control system appears very good. The department is well placed in the Organization with the Manager of Production Material Control reporting directly to the Director of Manufacturing. A strong point is that a punched card reporting system is utilized, and enables the necessary daily, weekly, and monthly control reports to be generated daily.

h. Control of special and standard tools is considered good. Tools are manufactured to specifications established by the manufacturing engineering and tool design departments, and procured through the Purchasing Department. All incoming tools and gages are inspected by the Receiving Area inspection crib. Control charts are used to follow up deliveries.

i. The Sub-Contractor monitoring is considered good. The vendors' are checked for past performance, or visited to determine manufacturing capabilities. Firm delivery commitments are required of all vendors and only fixed price contracts are used. The buyer is required to expedite deliveries; a one month parts float is maintained by the Company.

j. The Company has extensive knowledge of the requirements to operate a test firing range safely. Although storage of ammunition would require changing.

Relative weakness

a. Out of the key management group, only 50 percent of those whose résumés were submitted had a college degree. These management personnel, however, did have related functional experience for the positions held. The education background and years of experience were not specified on the 58 personnel who were listed as being "deeply involved" in the M16 Program. Heavy reliance is placed on the Maremont in-house training program to generate qualified production and especially inspection personnel for use on the M16.

b. The organization structure has a weakness in that the Quality Assurance Manager will report to the Manufacturing Vice-President and because of this the quality of product may suffer as a result of decisions being made favoring manufacturing without proper emphasis being placed on overcoming quality control problems.

c. A weakness revealed in the proposal is the fact that the M16 Program would be integrated into the existing operating structures. This precludes the appointment of one individual, other than the President himself, to monitor or control the M16 Program throughout the entire manufacturing cycle.

d. There is a deficiency in the explanation of responsibility for the Engineering element. Assignment of responsibility to Engineering must be assumed mostly from a study of organization structure.

e. While this Company proposes to give the M16 Program top priority, the integration of the Program into other Company operations would make it extremely difficult to sustain the Number One priority which it would require.

f. The Company has a policy with respect to equipment modernization, but requirements are determined solely on the basis of annual sales forecast. This does not appear to be a very satisfactory method of requirements determination. Additionally, the Company policy does not provide for recognition or responsibilities of organizational elements who are to implement the policy.

g. There is no indication that professional safety personnel are available to administer the range safety program or inspect operations.

h. The preparation of the manual, in view of the Management Systems area, was not well done. Information was not in detail and scattered throughout the manual. Copies of written SOP's were referred to but not provided.

General comments

a. The successful past production of several major machine gun programs attests to the management and engineering capability of Maremont. The large number of new hires, (500), which precipitates heavy reliance on the in-house training program, weakens the government confidence in the ability of Maremont to meet the accelerated schedule.

b. Make or buy policies and procedures are in operation and decisions are made by a committee composed of representatives from Engineering, Production, Quality Assurance, and Methods. Detailed procedures for make or buy actions are somewhat lacking; however, this does not detract significantly from the proposal.

c. The information submitted by the Company was lacking in sufficient detail to arrive at an in-depth judgment. Except for the Quality Assurance manual, written Standard Operating Procedures had not been provided. However, a review of the submission resulted in a satisfactory rating.

Concluding statement

The overall evaluation based on all factors considered, leads us to conclude that we must place a lesser relative degree of confidence in Maremont to perform in accordance with the terms of the RFP, as amended.

FINANCIAL

Strong points

The present level of corporation operations would enable it to assimilate this contract without undue difficulty. The earnings appear adequate to provide the cash resources required for initiation of production under this contract and to overcome normal production difficulties.

Weak points

The low equity to total liabilities and low acid test ratio when coupled with the low profit percentage on corporate sales causes apprehension as to whether the current financial position will be maintained in the future. The information submitted did not allow a full understanding of the reasons for these low ratios.

General comment

The Maremont Corporation was considered to possess satisfactory financial ability to perform this proposed contract.

Cost planning and control

Maremont is considered to have an acceptable accounting system. From the information submitted, a rating of satisfactory was assigned.

Information was incomplete in the area of cost reporting. There was some question as to how often reports were analyzed and compared to the budget.

The Phase I proposal was not sufficiently clear on the method used to control costs, and whether the cost reports are effectively utilized.

Senator CANNON. Thank you very much for your very fine statement.

Senator Smith?

Senator SMITH. I have no questions, Mr. Chairman. The statement speaks for itself.

Senator CANNON. In the event that any of the questions that I ask you here would involve confidential information that you prefer not to divulge in open session, if you would just so indicate, then we can have you supply those for the record, and they will be kept in the classified portion.

Mr. THOMASIAN. Yes.

ADEQUACY OF TEST RANGE

Senator CANNON. First we would like to clarify some of the allegations which were made by the Army as to points of weakness in Maremont's proposal. The first one concerns the adequacy of range testing facilities.

As we understand it, you now have an operational range for testing the M-60 machinegun you are producing for the Army. Has there ever been any question by the Army as to this range's adequacy in any way?

Mr. THOMASIAN. No, sir; far from it. It has been an acceptable range. They review it with their safety people, I think this is quarterly. The safety people of the State of Maine review it monthly. We have never had an incident on the range.

Senator CANNON. I understand that the range is adjacent and close to where you propose to manufacture the M-16, is that correct?

Mr. THOMASIAN. Yes, sir. It is right behind the basic production facility.

Senator CANNON. Were space and other factors adequate for expansion of this range to any degree required by the M-16 production?

Mr. THOMASIAN. Yes, sir; and we did propose a relay out of a range. It would take another range to handle the M-16. We laid it out. And their comment is a question of opinion. They felt we had not allocated

enough shooting alleys. That is all it amounts to basically, enough shooting alleys to handle the rate of production that we propose. We still think we are right, but in the event that we were not, here again we are only talking about a shooting gallery basically. It is that simple a function.

Senator CANNON. Was there immediately at hand the necessary knowledge of how to expand the facilities of the range?

Mr. THOMASIAN. Very definitely, sir.

Senator CANNON. In your opinion, did the expansion problem present in any way any difficulty for the company?

Mr. THOMASIAN. No, sir.

Senator CANNON. In the written presentation for both Phase I of the original competition and the presentation for accelerated production made later, were understandable explanations of the plan for the range expansion included?

Mr. THOMASIAN. Yes, sir. There is a drawing of the expected range expansion.

Senator CANNON. In your oral presentation of the accelerated production, was any question raised concerning the range facilities, and, if so, what was the ensuing discussion between you and the Army?

Mr. THOMASIAN. I am hesitating because there was discussion, and again I cannot recall the specifics, but they did not indicate to us anything of significance and our reaction would have been anyway, that if there were a problem, we would take care of it. It was so insignificant that it never entered our heads as being a detail of major importance.

ADEQUACY OF METROLOGY LABORATORY

Senator CANNON. Now, with relation to the capacity of the metrology lab, as we understand it, this laboratory properly built, adequately equipped and staffed is giving satisfactory performance to the Army in the M-60 machine gun production, is that correct?

Mr. THOMASIAN. Yes, sir.

Senator CANNON. Did you plan to expand this or increase the capacity of this lab to take care of the M-16 production?

Mr. THOMASIAN. Our proposal did not indicate that we felt it was necessary to increase the lab's capacity. Let me, if I may, expand on that a little bit. A metrology lab is nothing more nor less than a humidity and temperature controlled room. It has in it measuring devices and so forth, and the reasons for the controlled atmosphere, is so that these measurement standards can maintain their capability to hold dimensions. We have used the metrology lab. There are literally hundreds of standardization gage certification firms in the country, many of them up in the Maine area and certainly in the Boston area. If the metrology lab had become a bottleneck, we could have subcontracted any of those services outside and to have added another air-conditioned area is a rather insignificant problem again, and nothing of importance to our mind.

Senator CANNON. Were there any points raised in the discussion with the Army in connection with the adequacy of this lab?

Mr. THOMASIAN. Yes; I believe there were, and again our answer was that we believed it was adequate. If it had not been, we would subcontract the services we needed.

ACQUISITION OF INDUSTRIAL PRODUCTION EQUIPMENT

Senator CANNON. A third point of weakness alleged in the Army evaluation was the amount of industrial production equipment necessary to be obtained and installed after the award of the contract. Can you give us the figures as to the amounts of equipment you then had on hand, the amounts planned for acquisition for other Government-owned accounts, and the numbers of machines you planned to acquire for the Government equipment account?

Mr. THOMASIAN. I am afraid I cannot give you that information off the top of my head.

Senator CANNON. Could you supply that for the record?

Mr. THOMASIAN. Yes, I can.

(The information referred to follows:)

MAREMONT CORP.,
Washington, D.C., July 2, 1968.

Brig. Gen. SAM SHAW, MC (retired),
Senate Preparedness Investigating Subcommittee,
Old Senate Office Building,
Washington, D.C.

DEAR GENERAL SHAW: This letter will confirm the Maremont estimates of equipment required to meet the accelerated schedules for producing the M16 rifle under the recent Request for Proposal.

The estimate is the same as furnished the committee staff informally; however, it has been arranged, as you requested, in accordance with the breakdown used by the Army in their estimate of Maremont equipment needs.

Equipment requirements	Number of pieces	
	Army estimate	Maremont estimate
(a) From the M60 line.....	76	39
(b) From the M14 line.....	207	192
(c) Purchased for Government account.....	131	105
(d) From the Maremont equipment pool.....	30	24
Total.....	444	360

We are unable to reconcile the difference in estimates other than to attribute it to the Army's use of outdated information. Our estimate is current and represents our best estimate of equipment needs.

J. H. FITCH, *Vice President.*

Senator CANNON. Very well. What difficulties, if any, were involved in acquiring and installing the equipment not on hand at the time of the award?

Mr. THOMASIAN. No more than we have had to do for every other production contract we have ever had. It means shipping it in, uncrating it, laying out your production line, installing the power to the lines, and putting it to work. It is not a simple task. I do not mean that it is. But it is certainly a routine task.

Senator CANNON. For the new purchase equipment how much Government money did you plan to spend?

Mr. THOMASIAN. I think my figure I just read off is \$4.7 million, sir.

Senator CANNON. And that compared to the six-point-something million dollars.

Mr. THOMASIAN. That General Motors put in, right.

Senator CANNON. Now, was this equipment all of the latest high capacity machinery?

Mr. THOMASIAN. Yes, sir. The "facilities" means, sir, the Government equipment account. That is their technical phraseology for that.

Senator CANNON. You said this was of the latest high capacity machinery.

Mr. THOMASIAN. Yes, sir. In fact, we have conflicts between the sources we went to for equipment. General Motors went to the same sources we did. I mean after all, in this technology, there are only certain appropriate ways to do things, and most anybody that has any competence in the field knows that. As I say, we had actual conflicts with H. & R. and General Motors relative to certain machine tool sources, so obviously we picked the same type of high capacity equipment.

Senator CANNON. And were you assured by the vendors of the equipment that it could be delivered and installed in adequate time?

Mr. THOMASIAN. We had the same schedules that were given to all the other sources. In other words, the vendor having all these requests for quotes quoted them all, assuming that one or two are going to get it, and they would honor those commitments.

Senator CANNON. In other words, the problem there would have been the same for any contractor—

Mr. THOMASIAN. Yes, sir.

Senator CANNON (continuing). That got the award.

Mr. THOMASIAN. Absolutely.

PRICE PREPARED FOR SUBMISSION

Senator CANNON. Now, on the matter of prices, is it correct that you were prepared to submit ceiling prices with the firm knowledge of your prices from vendors and subcontractors?

Mr. THOMASIAN. Very definitely, sir.

Senator CANNON. And the only reason that no price was submitted was because of the telegram where you were instructed not to submit price unless you were asked for it.

Mr. THOMASIAN. That is right.

Senator CANNON. In your opinion, was the information you had been providing to the Army under the original Phase 1, as to cost flow factors, sufficient to give them a reasonable estimate of your probable offering price?

Mr. THOMASIAN. Yes, sir. It is fairly obvious from that that they would have a good figure projection from that cash flow.

Senator CANNON. Would this condition have been true for the other companies if they were submitting similar information?

Mr. THOMASIAN. I would suspect so, yes.

Senator CANNON. Is it your position that you were completely prepared to stand or fall on a procedure which included technical and price evaluations?

Mr. THOMASIAN. Yes, sir; technical and price evaluation.

ALLEGATIONS OF LATE DELIVERIES

Senator CANNON. You are aware that the Army's report to the Comptroller included two allegations of later deliveries on the part of your company, in contracts for the M-60 machinegun, and the 20-

millimeter Vulcan barrel. Do you have any comment to make in response to those allegations?

Mr. THOMASIAN. Yes. They are true. I think they had to dig far back to pick up the one on the M-60, to 1960. We had a pre-award survey—

Senator CANNON. Just a moment on that. You are saying that on the M-60, it was 1960?

Mr. THOMASIAN. Their allegation refers to a 1960 date.

Senator CANNON. And have you been manufacturing the M-60 ever since 1960 and up to the present time?

Mr. THOMASIAN. Yes, sir; continuously.

Senator CANNON. And no late deliveries in that period of time.

Mr. THOMASIAN. That is right, sir.

Senator CANNON. All right, go ahead and finish your answer.

Mr. THOMASIAN. All right. Then the 20-millimeter bolt—incidentally, the 20-millimeter bolt assembly is for the Vulcan, the G Vulcan gun. I think our price for that, roughly—and I think this is public information—is a little over \$100 for the first order. The Government is paying something close to \$140 for that from GE. We started that as a new program. I am sorry, their allegation was with reference to a barrel. We are currently on contract with that barrel. The Government changed the schedule, and we became current on that contract, too. But one thing they failed to mention, for instance, is the 20-millimeter bolt we have been producing for the Vulcan gun. That bolt they tried to second source several times. Another contractor has had that bolt almost 2 years, and currently final delivered acceptable samples. This bolt incidentally is almost the price of an M-16 gun, roughly around \$100, to give you an idea of its complexity as an assembly. We produced acceptable samples within 6 months. We are producing this thing at about 40-percent saving over General Electric's price to the Government on that item.

Now, as far as any other point relative to a missed delivery date, I do not think there is a defense contractor in the country that can claim that it has made every date on time continuously. Our total record, however—and they investigated this, this is part of their pre-award survey—we had a whole team come into the plant. One of the elements of their investigation was our current delivery schedule and our past delivery performance—our past delivery and current delivery schedules were lauded in our debriefing sessions. They admitted that our delivery schedules had been excellent as a total factor.

CHROME PLATING OF BARREL CHAMBERS

Senator CANNON. With reference to the chrome plating of the chambers of the M-16 barrel, is that a technically difficult process in assuring high quality precision volume output?

Mr. THOMASIAN. Yes, sir. It has been a problem process. We happen to be doing it now for the M-60 machinegun; the caliber on the M-60 machinegun is not so much greater than the M-16.

Senator CANNON. And you do that all in-house.

Mr. THOMASIAN. We do that in-house; yes, sir.

Senator CANNON. Are there a number of companies that have had volume experience in work of that nature, so that a job like that could be subcontracted out?

Mr. THOMASIAN. To our knowledge the only company that is doing that today at that caliber level is Colt's.

Senator CANNON. Is Colt's?

Mr. THOMASIAN. Is Colt's, right, who is now producing the M-16.

Senator CANNON. And that is, of course, one of the modifications, is it not, that was made on the M-16, because of some of the operational difficulties in Vietnam?

Mr. THOMASIAN. Yes, sir; the jamming problem.

DROPPING OF PENALTY AND INCENTIVE CLAUSE

Senator CANNON. In connection with the incentive and penalty clauses which were dropped in the case of the accelerated procurement action, is that clause present in your M-60 machinegun contract?

Mr. THOMASIAN. No, sir.

Senator CANNON. It is not.

Mr. THOMASIAN. It is not. That is a developed item, and has been in production so there would not be too much validity to it. We have been meeting production dates continuously.

Senator CANNON. If that had been contained in the accelerated production scheme, would you have viewed it as any particular hazard in your company's business?

Mr. THOMASIAN. No, sir; not especially.

Senator CANNON. Was there any discussion at any time with the Army about the elimination of that provision?

Mr. THOMASIAN. Not with us, and we were fully prepared to accept that under the Phase 2 proposal which was never requested.

TECHNICAL ADVICE ON M-16 PRODUCTION

Senator CANNON. Where would the technical advice have come from for this contract?

Mr. THOMASIAN. Where would it have come from?

Senator CANNON. The outside technical advice?

Mr. THOMASIAN. Well, there would not have been much resource for outside technical advice because, as you know, the arsenal system has been dissipated, done away with basically. We are fortunate, however. We picked up some of the best engineers out of Springfield Arsenal. But that capability for technical assistance directly from a contracting agency has been somewhat degraded.

Senator CANNON. Does the Government's contract with Colt for their rights require them to furnish technical advice?

Mr. THOMASIAN. I have to speak from my knowledge. I have been speaking to a Colt representative at a local seminar we just had. He indicated that Colt will refuse to give any technical knowledge to another source on grounds that are perfectly understandable, because what they are afraid may happen is that their release of this technical know-how may invalidate their patent rights in other areas. In other words, they have sold the patent rights to the U.S. Government, but they have hopes of selling this weapon to other allied free-nation countries directly, and they think they would jeopardize this position by giving out the technical information directly. So, as I understand it, they are not going to do this.

Senator CANNON. Do you have any questions?

Senator SMITH. I have no questions.

Senator CANNON. I am going to call on counsel for a few questions that he has.

NO SUBMISSION OF PRICE ESTIMATES

Mr. KENDALL. Mr. Thomasian, in your experience on Government contracts of this nature, have you ever been instructed before not to divulge your price estimates?

Mr. THOMASIAN. No. Usually that is what they are asking for.

Mr. KENDALL. This is unique in that respect then.

Mr. THOMASIAN. Very much so.

Mr. KENDALL. Do you happen to know, so we can get it in relation to your testimony, the unit price of the rifle that Colt is producing now?

Mr. THOMASIAN. I understand it is approximately \$104 a weapon currently.

RECORD OF PERFORMANCE ON ARMY CONTRACTS

Mr. KENDALL. Now, with reference to the Army's adverse comment on your past delivery record on the M-60, have you been recently given an additional contract for the M-60?

Mr. THOMASIAN. Yes, sir. We have recently been given an additional award for approximately 10,000 additional weapons at an accelerated delivery. We have already made 1 month's delivery against that accelerated delivery on time.

Mr. KENDALL. That was after the award?

Mr. THOMASIAN. Yes.

Mr. KENDALL. In this case.

Mr. THOMASIAN. Right.

Mr. KENDALL. And with respect to that, you referred to it but I think it might be well that the record show it. In the debriefing session, the Army stated among strong points:

The strongest point in your proposals is the evidence of your successful manufacturing experience since 1962 on Government contracts for the M-60 machine-gun. They also show satisfactory performance on Government contracts for making parts of other weapons including barrels for the M-14 rifle, the M-61A1 aircraft gun, and the M-61 bolts.

Mr. THOMASIAN. Yes.

Mr. KENDALL. So, as I understand what you are saying, the question of an unsatisfactory delivery record was not brought up during the debriefing sessions or otherwise.

Mr. THOMASIAN. No, sir; quite the contrary.

Mr. KENDALL. And this is another statement from the debriefing session which deals with your capacity and ability to deliver. They told you:

The Maremont proposal contains adequate evidence of a satisfactory manufacturing capability for the M-16 family of weapons within the terms set forth in the RFP. This appraisal is based on both the offerors description and his specific plans which were laid out in response to this RFP, and on the record which is presented showing satisfactory fulfillment of other Government contracts for military arms.

That was a part of the debriefing session?

Mr. THOMASIAN. Yes, sir.

Mr. KENDALL. And in the supplemental evaluation which took into consideration the accelerated delivery schedules resulting from amendments 0010 and 0011 they said this:

The changes in delivery requirements do not significantly affect the relative strengths or weaknesses of the original Maremont proposal. In general your previous record of determined deliveries against tight schedules has been good but there is no specific precedent for the establishment of a production line and initial delivery of weapons within 10 months of contract award. The nucleus of professional and skilled personnel who are experienced in small-arms manufacture is clearly an asset toward accomplishment of earlier possible deliveries.

I thought those ought to be on the record, Mr. Chairman. That is all I have.

Senator CANNON. General Shaw?

PROCESS OF EVALUATION OF PROPOSALS

General SHAW. I would like to clarify here a question and answer which you got from the Army yesterday, Senator Smith, concerning the process of evaluation. I will ask the question.

Is it your understanding that in the evaluation of the proposal it was to be based purely upon the written documents handed to the Army?

Mr. THOMASIAN. Yes.

General SHAW. Or delivered to the Army. There was no concurrent or, subsequent to those documents, physical examination of the plant or anything else.

Mr. THOMASIAN. There was a survey team that came into the plant.

General SHAW. But that was prior to the submission of the documents?

Mr. THOMASIAN. No; that was after the submission of the Phase 1 document.

General SHAW. The Phase 1 document?

Mr. THOMASIAN. Right; and prior to the submission of this one.

General SHAW. And prior to the submission of the accelerated scheme.

Mr. THOMASIAN. Yes, sir.

General SHAW. So there was no examination physically of whatever had to be changed in connection with the accelerated proposal.

Mr. THOMASIAN. No, sir. There was only, as I said, 3 working days between the time they asked us to develop a plan.

TECHNICAL ASSISTANCE TO NEW PRODUCERS OF WEAPONS

General SHAW. And then I would like to expand a little bit on the problem of the technical assistance to competing companies. You mentioned that Colt's was having this problem of being expected to provide technical assistance to companies who they later will be expected to compete with in later production contracts.

Mr. THOMASIAN. Procurement.

General SHAW. Would you consider it a businesslike approach for the firm which is the only one making it now, to be required to provide and maintain technical people on call to another firm to assist them in overcoming difficulties?

Mr. THOMASIAN. I would be extremely loath to do it.

General SHAW. Would you consider that you would give them the right to come into your plant and discuss problems with your engineers, with your production technicians, to inspect your lines and procedures, as a means of overcoming their lack of know-how to begin the job?

Mr. THOMASIAN. Again it is not normally done.

General SHAW. And this was formerly provided by—

Mr. THOMASIAN. By the arsenal.

General SHAW. The repository of skilled people there in the arsenal.

Mr. THOMASIAN. Right. They were the go-betweens literally from one firm's know-how, to another one's, and you ended up developing it but at least you developed it on your own merit.

General SHAW. That is all.

Senator CANNON. Any further questions?

Senator SMITH. Thank you, no.

Senator CANNON. Thank you very much for your fine testimony.

The hearings will now be recessed until 2 o'clock this afternoon.

(Whereupon, at 11:55 a.m., the committee recessed, to reconvene at 2 p.m. the same day.)

AFTERNOON SESSION

Senator CANNON. The committee will come to order.

This afternoon we continue the hearings into the Army's issuance of contracts for additional procurement of M-16 rifles. On Wednesday we heard the Army on this matter, and this morning from Senator Muskie of Maine and the Maremont Corp.

Our witnesses this afternoon will be representatives from Colt's Firearms Division of Colt Industries. This firm is now the only firm manufacturing the M-16 family of weapons. Their appearance here this afternoon is in order to give them the opportunity to explain their plan of expansion of M-16 production and their reasons for believing that their proposals for this expansion would have provided more rifles at an earlier date and less cost than the plan actually adopted by the Defense Department.

We have here the president, Mr. Paul Benke, and Mr. William Goldbach. We are happy to have you gentlemen here. You may proceed.

STATEMENT OF PAUL A. BENKE, PRESIDENT, COLT'S FIREARMS; ACCOMPANIED BY W. H. GOLDBACH, VICE PRESIDENT AND GENERAL MANAGER, MILITARY DIVISION, COLT'S FIREARMS

Mr. BENKE. Senator Smith, Senator Cannon, and staff, we are certainly pleased to have been invited to appear before you today to state our views on the matter which we understand is before you. We will for all practical purposes repeat the presentation that we made to various agencies of the Army and also to the Ichord committee earlier this year.

To get directly to the matter, to make sure we have the right parameters, we understand that the Army proposes to procure 100,000 M-16 rifles per month, and that 50,000 per month are to be procured from Colt's and 25,000 from each of two other sources which we understand will be General Motors and Harrington & Richardson.

We have been fully convinced and continue to be fully convinced, and our conviction, I think, is based on demonstrable facts, that Colt's could and still is in a position to provide the facilities for an additional 25,000 rifles as well as any other quantities for that matter more quickly, more efficiently, and at less cost and less risk to the Government, certainly insofar as reliability, delivery, and quality are concerned, than any other alternative that the Government may have to pursue.

To date, Colt's has manufactured to quality standards established by the Government and delivered to the Government over 750,000 M-16 and M-16A1 rifles. During this period, from 1963 to the present, Colt's has experienced many increases in our monthly delivery rates and several expansions of its production capacity. These increases in expansions have been accomplished on or ahead of schedule without any exception whatsoever. Thus we are justifiably competent in the plans and delivery schedules that we have presented to the Army and which we will review with you today. We know that they are realistic and achievable by Colt's because they are based upon Colt's actual experience in setting up production, producing this very weapon, and expanding its production on several occasions.

In addition, Colt early in this program formulated detailed plans for providing increased production and these plans have been continually updated so as to always anticipate increased requirements. These plans covering increased production in place and/or at other facilities were discussed with the Army on several occasions dating back to 1965. For example, as it appears in the memorandum of the Army reproduced on pages 4828 to 4831 of the transcript of the House subcommittee hearings last summer, Colt's had plans at least as early as December of 1966 to increase its production to 40,000 or 50,000 rifles per month, and at a time when the Army then foresaw its requirements at only about 250,000 rifles per year, or about 20,000 per month.

We believe we could effect the Army's desire to increase the monthly delivery of weapons far sooner, as I said, than any second and/or third source, and Mr. Goldbach will have more to say on that subject during his presentation.

At the time the Army purchased our proprietary rights, Colt's agreed it would enter into a technical assistance or engineering support contract at some future date as requested by the Army and that we would provide support for the introduction of a second source. Since that time, Colt's has established and trained an engineering and management staff sufficient to handle this technical assistance and to provide sufficient personnel to handle our own planned expansion as we have stated previously in correspondence with the Secretary of the Army. That same outstanding capability is available for use in increasing our own capacity to 75,000 rifles a month or more, in our present facilities or in a second facility.

The quality of the weapons we have produced to date is well illustrated by the reliability tests performed each month for the passage of our monthly production of weapons. We think to ask some company outside to produce these weapons reliably and to the quality standards we have set, to maintain the desired delivery date would be extremely difficult, since any other company would not have either the personnel or the experience that we have garnered from our years

of experience of production totaling more than 850,000 rifles including our foreign sales.

I would like to make a preliminary statement on cost before Mr. Goldbach proceeds with his presentation.

We estimated that for us the facilities required to raise Colt's production level to 75,000 rifles a month instead of the 50,000 per month on an in-house basis would have cost the Government and still would cost the Government, for that matter, less than \$10 million including capital equipment, plan rearrangement, startup costs, and so forth, and that we estimate that all rifles resulting from this increase in-house would cost not to exceed \$95 a rifle.

Senator CANNON. How much? What was the figure?

Mr. BENKE. \$95 a rifle.

Mr. KENDALL. That includes cost of facilities?

Mr. BENKE. No; not including the facilities and nonrecurring costs which would amount, as I said, to something less than \$10 million.

We feel that this cost is significantly less than the costs of establishing a second or third source, and Mr. Goldbach will lend credence to this statement with his presentation.

At this point I would like to ask Mr. William Goldbach to make our flip chart presentation. Bill Goldbach is the vice president and general manager of our military operations and has full responsibility for their success.

Bill?

STATEMENT OF W. H. GOLDBACH, VICE PRESIDENT AND GENERAL MANAGER, MILITARY DIVISION, COLT FIREARMS DIVISION

Mr. GOLDBACH. Thank you.

Mr. Chairman and members of the committee, we appreciate the opportunity to present to you the same presentation as has been given to the AWC, AMC, and the Ichord committee in March of this year. The presentation includes the facts associated with two basic plans to accelerate to 75,000 rifles per month. Plan 1 included augmenting our current planned 50,000 per month production with facilities to produce an additional 25,000 rifles per month, merely an expansion of our Huyshope facility with 69 machines, 69 major machine tools and in available plant space. Speed and acceleration, cost and delivery are all favorable factors to produce these weapons.

If in addition to least cost and quickest delivery the Army considered a separate facility essential, we were and are still prepared to establish this plant immediately, although certainly the most economical plan is to increase production another 25,000 rifles per month in our existing facility.

Mr. KENDALL. I think it might be better if you brought that around over here.

Mr. GOLDBACH. Chart No. 1 indicates a recap that has been prepared of our scheduled performance to date. Without exception, we have met or exceeded each acceleration plan the Army has requested for a period of four and a half years. We have met each schedule with on-time delivery and excellent quality rifles, and in the face of rising costs, the Army has enjoyed a cost reduction each year since 1964. Our realistic planning indicated the Colt could produce 75,000

rifles per month by August of 1969. Although it is now 3 months later, we feel we could still meet or almost meet this target. This month we will produce and ship nearly 40,000 rifles. You can see by the chart that the 40,000 was not to be obtained until January of 1969. In June of this year we will produce 40,000 rifles. So our acceleration plan has gone ahead and gone ahead quite efficiently. We have never missed a delivery. We have never missed a schedule. We are already at 40,000 this month.

Of course we are on a 4-4-5 basis which means that the last quarter in each month we have an extra week, which does permit additional rifles. It is noteworthy that our schedule indicated we would be at 40,000 in January, and in this month we are at 40,000.

Our spare parts production converted into rifles gains an equivalent 5,000 to 6,000 rifles per month. These are major make parts which we furnish as spares. To date Colt has produced, as Mr. Benke has said, 850,000 rifles. The valleys indicated on the chart indicate our preventative maintenance schedule, and in the past, in 1965 and 1964, we asked our employees to forgo their vacations and we staggered the maintenance schedule and we were able to get rifles because of critical schedules. We feel sure that the employees would permit us, if we asked the question again, if they gave up their vacation and staggered the maintenance, we could get an additional 30,000 or 35,000 rifles in this period. We would have been able to do this earlier in the year if we had the go ahead in March. It is quite late now to do this, to ask people to give up their vacations at this late date.

When critical production schedules required this staggered maintenance, people gladly gave up the time.

This chart indicates some comments regarding our 75,000 rifle program at Huyshope, which is our current facility. (A) It provides capacity for 10 percent repair part requirement on all parts except barrels which will have a 20 percent repair part requirement above rifle capacity. This is in effect increasing our production at our present current facility an additional 25,000 rifles per month. It provides 36,000 more rifles in calendar year 1969, and it is possible to produce another 30,000 rifles which would make this 66,000 rifles, additional rifles, in 1969 through this vacation plan.

(B) It gets production levels to 75,000 rifles per month we feel fully 4 months sooner. This was a realistic yet conservative plan, and we considered that a new source could possibly produce 25,000 rifles, an acceleration from 500 rifles in the first month to 25,000 rifles in the 12th month, but that was for the benefit of the doubt in our planning. It is an exceedingly difficult task. We feel that that would possibly take 15 to 18 months.

Mr. KENDALL. Just a clarifying question. When you said it gets the production levels to 75,000 rifles per month 4 months sooner, 4 months sooner than what?

Mr. GOLDBACH. I have another chart that explains that, sir. This is what we plan to produce and we had to estimate. We had no schedule for the second and third source. In fact at the time of the last presentation we were not aware of a second source, although we knew about the third source. So through experience on various rifle programs we laid out a schedule which we thought we could make, and for the benefit of the doubt, why we gave the other source only 12 months to pro-

duce those rifles. We wanted to see how we would come out, and if our approach would be faster in getting rifles.

(C) We say we meet or exceed the third source production in every month except July. Actually even losing the last 3 months from March until the present time, a point in time right today, we could still, the way our acceleration plan is going, we are so far ahead of schedule that we could meet this same target that we presented back in March, at this late date, 3 months later.

This is the schedule I had reference to, the Colt schedule, our present current expansion schedule. We hit 50,000 rifles in June of 1969. This is where we estimated what a third source could reasonably do, we believe might be done, and actually it has been done before. Maybe with luck or good engineering, but it was done in 12 months. We calculated that a source starting at that date in March could produce 500 rifles in the month of January, if everything went well, and then there are ways of getting spare parts and parts from a maker also to produce this schedule, the second schedule (chart) is so small. So the combination of these two gave a total of 668,500 rifles. Our schedule, this schedule (chart) plus the Colt's expansion schedule of 25,000 rifles, indicated through our planning that we could be at 75,000 rifles per month in the month of August of 1969, fully 4 months ahead of this plan, the Colt plan versus the second or third source plan, which we felt was reasonable that they could produce 25,000 rifles by December of 1969, for an accumulative increase in weapons of some 36,000 plus this period double, 35,000, which would be an increase of weapons in 1969 of some 71,000 weapons.

Chart No. 4 I think is possibly one of the most significant charts we have. We have made some general statements, but all are calculations and are indicators that we could make this schedule contained in the next few charts.

The equipment requirements, if you will, these 223 machines indicated by the dark blue area, were Colt's current major machine tool facilities to produce 27,500 rifles per month plus spares. When we expanded or when we had the request—in fact we just got the contract Monday—at this time we had gone ahead and ordered the machines on a risk situation without having an actual contract, but we ordered 80 machine tools to give us a 100 percent schedule expansion, not 223 machines but only 80 machines, and I think this is significant.

These are the make parts, our major make parts that we make. The dark blue indicates a total of equipment requirement for each individual part or each individual line. As an example, the barrel line consists of 49 machines. Now there is additional capacity on most of these machines that is not being utilized, so we have machine loadings that instead of 27,500 rifles or parts for 40,000 with spares, some of these machines are capable of producing 60, 70, 75, and almost 100,000 pieces. So to expand our schedule 100 percent, or from 27.5 or 25 to 27.5 to 50-plus in the barrel line, we needed 15 machines.

All of the requirements for the 100 percent increase in schedule are indicated by the light blue (chart) the light blue area. Now our expansion to 75,000 rifles, which is a 50-percent increase in schedule, indicated we only required 69 machine tools, major machine tools, because our support equipment, our heat treat equipment, our abrasive equip-

ment, our service departments, our management, and so forth was back of this, and was adequate for any of these expansions.

The red indicates what we required for the additional or the 75,000 level. Of interest, and this is true through industrial engineering principles of machine loadings, we could take one of the areas where we had 14 machines, and we required only two machines to get us to 50,000 and no machines to get us to 75,000. It is just the way it came out.

To take one of these lines, to give I think a real clear understanding, you take one that is not at the low range or not at the high range but a line that is representative of most of the parts, is the barrel extension line which has a high spare requirement, since it is part of the barrel assembly. We required or we had on hand to produce our original schedule 14 machines; to get a 100-percent increase in schedule we needed six machines. Those machines have been purchased, or are on order. Some of them are now in the plant. To get to 75,000 rifles, and this means 90,000 parts, when you consider the spares required for the barrel assembly, we only required four machines.

I have taken that particular part and broken it down for additional clarity to give you an idea of what our requirements were on a specific part. This is the barrel extension (chart). The machine capacity by machine type for consecutive operations of the barrel extension part. The barrel extension has 12 operations, 12 consecutive operations indicated by the bars here (chart) and requires 14 machines. That is the 14 machines. This is a duplicate of what you saw on the chart, 14, 6, and 4.

Where we require two machines, it is so indicated by this white line. There are only two operations, requiring two separate machines, a chamfering machine and an ID grinder. These operations do require two machines because they are limited to some 35,000 parts and some 40,000 parts. But you can see, through the use of machine loading to increase our schedule to what was required, 50,000 weapons plus 15,000 repair parts, we merely have to put the pointer across our current schedule to find out what our equipment requirements are to get to this level. We have additional capacity here, here, here, here, here, and here. Our requirements were and are these six machines.

Now, when we install those six machines, we have another additional gain, because that brings us almost up to a level fairly close to 75,000 parts plus 15,000 repair parts. So to get to the 75,000 level, again we have to look at the loadings. The loadings are all right for the lowest one, at 90,000 parts, which means that we have requirements of only four machines to get to 75,000 rifles. You can see what the peak is by just adding a few more machines. We can get up to 125,000 rifles or parts. So for our overall expansion to 75,000 rifles per month, we had a 22-percent increase in equipment requirements at this level, at the 75,000 level, for a 50-percent increase in schedule. Through loadings we indicate we can go from 75,000 to 100,000 rifles plus repair parts, with only the addition of between 15 and 16 percent additional equipment, for 25,000 rifles more.

These are some capability examples just briefly to demonstrate Colt performance, and to advise you of our plans and our current status.

This was the chart we used during the last presentation. It is outdated, but just to let you know how fast we did operate, on March 8,

we received approval for a production level of 50,000 rifles per month. This actually was not an approval. It was a request.

Operating on that request, in 13 days we had placed all the purchase orders for 73 of the 80 machines required to produce 50,000 rifles per month. Of course, now, all of this equipment is ordered, and some of it is coming in.

As backup for what we thought was so economical a plan that it would not fail to sell, we had quotations prepared and purchase orders prepared, and they were ready to be issued for an additional 69 machines that were required to produce 75,000 rifles per month.

All the tooling required to produce 75,000 rifles would have been—we say here will be completed within 20 weeks. This normally—a situation like this normally takes at a minimum 10 to 12 months to complete the tooling job for a rifle program, if you are making very many parts.

All the gages required will be ordered within 1 week and delivered within 12 weeks.

From May 1966 to April of 1967 Colt recruited 510 hourly employees for the military work force. A similar number of employees can be recruited for this expansion. At the time we did this, in 1966 to 1967, our turnover rate was running around 5 percent, and in 1 month it was at a high of 7 percent. Our turnover rate is now well below 3 percent, and the Hartford area has eased considerably for available employees.

Without exception, all of Colt's subcontractors were ready to produce 75,000 parts plus spares requirements well within the time frame specified. We have dual or alternate sources for 93 percent of our purchased parts. Some sources we have dropped for various economies. But actually we have about 93 percent dual sources, or we could get them. And we could be at 100 percent—and this could be attained within a 6-month period.

Colt has had extensive plans to increase production since 1966. Although it has been exceedingly difficult really to determine overall U.S. needs, we have always had available a current, up-to-date, well-engineered specific plan to meet any demand requirements in the shortest possible time, and schedules at times have been reduced as drastically as they were increased. One time in 1965 we were almost out of business. These are some of the available plants in a very few States that could handle an expansion program, should we require or were it indicated that we would have to have a separate facility.

FANTUS, Inc. consultants worked with us in 1967 and 1968 on a consulting basis to find available plants. These plants happen to be primarily in the Northeast, although we have looked at plants as far North Carolina and South Carolina and also Georgia. But we wanted to be ready, in the available area, in case we were called upon to install a separate facility.

These are some other plant sites. This is representative of the acreage we have investigated for a proposed new plant site. These are all in the Northeast section of the United States. Extensive surveys have also been taken in the South. In addition to leasing additional plant space at Windsor, Conn., just recently, for some other expansions we have had, we indicated during our various presentations that we would be willing to construct a plant suitable for use as a separate

facility to produce 25,000 rifles per month, should this be desirable, because of a disaster or for security or mobilization planning.

In very recent discussions with local builders, it was indicated that a building could be constructed faster than the equipment needed to be installed within it. In fact this site looked so good that we have broken ground for a new plant ourselves of nearly 100,000 square feet in Rocky Hill, Conn. As I mentioned, we have completion times from contractors of between 120 and 180 days for space between 200,000 and 225,000 square feet.

Should we be required to establish an entirely separate facility, we had this plan available for 50,000 rifles at our existing plant, and 25,000 at a new plant. Our schedule is the same for the 50,000 at Huyshope, 50,000 rifles in June of 1969. Our schedule, as you see, the third source schedule we have maintained, is the same in January of 1969 for a best effort and first rifles. The Colt schedule of 25,000 at a new plant is the same. We had indicated with an early start that we could have 500 rifles produced in October. That was back in March.

This schedule is all Colt's two plants. We still attain the 75,000 rifles in the same time frame as the prior plan in August of 1969, for a gain of again 45,000, plus staggering our maintenance and vacation to produce another 30,000 rifles or some 75,000 rifles.

Were it necessary to build, this chart indicates the lead times of major elements leading to first production out of a separate facility, a separate plant. Of course the economics are more favorable, for an expansion in place, we are talking about 225,000 square feet versus 70,000 square feet in our existing plant for the same production, and this is much more expensive. We had heard that in the machine line, the machine line bar (chart), where we had indicated that we had all our equipment in the plant in seven and a half months, we understand that there was some feedback, that this had been checked out, and for some of our delivery times, there was some skepticism that we could make this delivery. It is true we did have two or three machines extending out in this area (chart), but again that capacity was available back at the other plant, and that was our plan. It was not significant at all, we did not need those machines.

Chart C recognizes the economics of increasing production, and some of these are fairly startling. For 75,000 rifles we only needed 70,000 square feet. When you consider two facilities of 25,000 apiece, you are talking about at a minimum 350,000 to 400,000 square feet. So in the interests of economics, and best business practices, our plan of expanding at our current facility to 75,000 was best. It looked like a very good plan. But the two-plant plan did provide capacity for repair parts expansion requirements. It provided 3,000 additional rifles from the new plant in 1968 with the first gun in October.

It meets or exceeds third source production in every month in 1969.

It delivers some 75,000 more rifles in 1968 and 1969. The vacation period adds another 30,000 rifles.

It requires 216 production machine tools versus the 69 machine tools that we needed for our expansion at our current facility.

It provides a Colt's double base for a source of expansion for rifles and spares. It could expand either plant.

It obtains production levels of 75,000 rifles per month 4 months sooner.

In conclusion, we stated our conviction that if the need existed for 75,000 rifles per month—we did not know if 100,000 rifles per month was firm at that time—Colt's Firearms could and still can satisfy this need in a faster and most economical manner. As we see current needs, by estimating the recent programing of rifle parts, we are positive that Colt's could save the American taxpayer a minimum of \$8 million on one contract and a minimum of \$20 million on the other contract.

Importantly, our calculations, our cost calculations, are at not to exceed prices, and startup production and other costs are at a minimum, as a result of 5 years' experience on this program. We are willing immediately to document any and all statements regarding capacity, equipment, available plant space, and machine loadings or to add further support for any one plan.

I thank you for this audience today.

Senator CANNON. Thank you, Mr. Goldbach, for your fine presentation.

Senator Smith?

Senator SMITH. I have no questions, Mr. Chairman.

COLT'S OFFERS TO EXPAND

Senator CANNON. As we understand it, all of the proposals for expanding the M-16 production originated with your company, is that right?

Mr. BENKE. Yes.

Senator CANNON. You mentioned a sequence of events in which the Army asked you to expand production to fit 50,000 rifles per month. At the time that occurred, was that 50,000 a month considered by you to be the maximum expansion that you could undertake without very substantial costs in additional construction facilities?

Mr. BENKE. No.

Mr. GOLDBACH. No, sir.

Senator CANNON. That was just a figure, because 50,000 was what they were talking of.

Mr. GOLDBACH. Someone asked could we do 50,000. We answered affirmatively, sir.

ARMY'S INFORMAL ASSESSMENT OF COLT'S EXPANSION CAPACITY

Senator CANNON. It is your belief that the Army at the time of the decision to go to 50,000 had acquired by ordinary businesslike proposals in writing an understanding of your ability to go to more than 50,000?

Mr. BENKE. No, sir.

Senator CANNON. Did you think the Army acquired that figure in an informal manner and it was just accepted by responsible authorities as your maximum capacity?

Mr. BENKE. Yes. I would be glad to describe the informality of it if you would like to hear it.

Senator CANNON. Will you do that, please?

Mr. BENKE. I was visiting Army Weapons Command in conjunction with other problems and was asked verbally to give the Army Weapons Command some general statements on costs, setback time,

and possible production capacities for planning purposes. The occasion was about the time of the Tet offensive in Vietnam.

I asked the question at the time, "Well, what quantity should we pick? What do you want the figures for?" And the statement was made, "Well, this is strictly for planning purposes. We don't know what figure we want. We just want to get some idea what would be involved in an expansion program. You pick a figure."

I called Mr. William Craven, the manufacturing manager at Colt's, and I said, "Let's pick a figure, 35, 40, 50, 75,000." He said, "Well, 50 is a round number. We will put some data together on the 50,000."

This was verbal, informal. The request was not reduced to writing nor was our response.

We reviewed hastily what we thought would be involved in establishing at 50,000, and gave the Army Weapons Command figures in terms of time, money to go to 50,000.

In subsequent conversations, I stated, "If you want to make it 100,000, we can give you those figures, too," but we did not realize that the Army was seriously thinking about 100,000 at the time. So what started out as an informal, casual figure that we picked out of the air became, so to speak, solidified in subsequent conversations. But that is how the 50,000 was arrived at. If I had said 75,000 or 100,000, we might have 75,000 or 100,000; I do not know.

COLT'S PRICES

Senator CANNON. What is your approximation of the unit cost per rifle, if you had expanded to 75,000 per month?

Mr. BENKE. As we had said in writing, the nonrecurring costs would amount to less than \$10 million, say like \$8.5 million. We said that the price would not exceed \$95 per unit. So for 240,000 at \$95 apiece, that is about \$23.8 million, so we are talking, considering the 240,000 quantity, a total cost of a magnitude of around \$31 million to \$31.5 million.

For your information, the Army bought its first 240,000 rifles from us—that is, if we just add up the first 240,000, which is the figure that can then be compared to the costs of buying 240,000 from the second and third source, the Army paid us a little over \$27 million for the first 240,000 rifles. I picked the figure 240,000 because that is the contract size for the second and third sources, \$27.8 million I believe for the 240,000 rifles.

To incorporate the expansion program that we would have to undertake to go to 75,000, and to pick that figure 240,000, it would be about \$31.5 million, I would say, now, but that would include within that 240,000 the complete amortization of all the nonrecurring costs.

Mr. KENDALL. \$31.5 million you said?

Mr. BENKE. Yes, maximum.

TECHNICAL ASSISTANCE TO COMPETITORS BY COLT'S

Senator CANNON. On this contract for technical assistance, has there been an agreement worked out now where you are to provide technical assistance to other firms?

Mr. BENKE. The agreement as such has not been worked out, Senator Cannon. We do have an ad hoc arrangement with the project

manager in which we have said if there are any real critical problems interfering with the establishment of the second source, that are current, pressing, and exigent, that we will respond without a contract to their solution. The contract itself is under preparation. It is going through the normal negotiations involved.

We have every expectation that the problem will be resolved and we will have a so-called technical assistance contract in the near future.

Senator CANNON. What has the Army indicated that they think you should do in rendering assistance to your prospective competitors?

Mr. BENKE. Well, the assistance that we will render will be rendered to and through the Army Weapons Command. We will have no direct contact with the second and third sources.

For example, we have agreed to undertake a training program for Government employees on quality control, quality assurance, and our techniques of quality control, quality assurance. They will come into our plant, but these will be Government employees. There will be a technological ruboff, I am sure, from these Government employees to the second and third source, but I think it goes without saying that General Motors has a high level of technical qualification within its own facility. But we will work with the Army Weapons Command. We will undertake this training program. And all the requests for technical assistance are directed to the project manager who then consolidates them and we respond to and through him.

Senator CANNON. Do you think this is a good method of proceeding?

Mr. BENKE. Senator Cannon, the M-16 is unique to the Army. It is probably the only rifle that the Army has ever acquired that it did not produce in-house, and it has this unique attribute.

I think that what is being done is on a kind of ad hoc empirical basis, is reasonable, and will work itself out, but I do not know of anything, in the annals of the Army at least, that is comparable to a situation in which the Army has been dependent for a firearm on a proprietary item such as this, and it has some peculiarities about it.

Senator CANNON. Do you have any questions?

EXPANDED PRODUCTION WITHOUT BUILDING NEW PLANT

Mr. KENDALL. One or two, Mr. Chairman. I just want to get some facts straight for the record.

Could you go to 75,000 a month without additional bricks and mortar?

Mr. BENKE. We can go to 75,000 without additional bricks and mortar; yes, sir.

Mr. GOLDBACH. Yes.

PRICE OF RIFLE

Mr. KENDALL. And your \$95 unit cost per rifle is based on the proposal to make it at your existing facility.

Mr. BENKE. Yes.

Mr. KENDALL. What would be the price per rifle if you had to have an additional facility, as the Army might insist on?

Mr. BENKE. We told the Army it would be not to exceed \$105, was it?

Mr. GOLDBACH. I cannot quite recall. It is close to that. About \$2 million additional.

Mr. BENKE. We presented to the Army two plans, a plan to go to 75,000 per month in-house, the cheapest, fastest way to assure delivery of a quality item at the most economical price, and, as I said, we thought that this would run about \$8.5 million and a not-to-exceed price of \$95. If the Army wants a complete and separate facility, to satisfy strategic needs outside of the realms of just pure economics, we said that we would need somewhere in the range of about \$10.5 million for nonrecurring costs, and that on the first 200,000 we would have a not-to-exceed price of about \$100 each because we have a learning curve problem in a new facility.

Mr. KENDALL. What is your unit cost at the 50,000-per-month rate?

Mr. BENKE. We have not established that price as yet. We have a letter order that has a not-to-exceed price currently for the M-16 of \$115, but that is a price that represents a ceiling.

I would like to digress for a minute to explain now, Mr. Kendall, that we have recently received a new purchase description for the rifle itself that will increase the costs for inspection and test extensively. We imagine that the ammunition consumption will double at our plant. We have not had an opportunity to explore fully all of the ramifications of the new purchase description, so we picked a ceiling price of \$115 for the M-16.

The negotiations themselves will be undertaken as soon as we get what we understand will be an additional letter order for 573,000 rifles. We do not have enough rifles on order to go to 50,000 as a matter of fact.

Mr. KENDALL. But you have reasonable assurance—

Mr. BENKE. Yes.

Mr. KENDALL (continuing). That they will be requested.

Mr. BENKE. And when that contract is at hand and coupled with those now on order, we will negotiate a price on whatever quantity that turns out to be.

ARMY RESPONSE TO COLT'S EXPANDED PRODUCTION PROPOSALS

Senator CANNON. What assurance do you have at the present time that you will go to 50,000?

Mr. BENKE. Senator Cannon, we have a telegraphic communication and a modification to the existing contract stating that the Army Weapons Command desires that we go to 50,000, and that it will cover us for the liabilities of the cost involved—that is, determinations of machine tools if we do not make it and with I think \$2.7 million of limits of liability. But that is all. We do not have an order that specifies that we go to 50,000. We have nothing but an expression of the Army's desire, and a statement that they will cover us for whatever termination costs we might face, up to \$2.7 million.

Senator CANNON. Have you ever had any specific response from the Army concerning your capability to go to 75,000 or more?

Mr. BENKE. No, sir.

Senator CANNON. Do you have further questions?

Mr. KENDALL. One or two.

Senator CANNON. Go ahead.

COLT'S WORKWEEK

Mr. KENDALL. As I understand it, you are operating on a two-shift, 10-hour, 6-day-per-week basis.

Mr. BENKE. That is correct.

Mr. KENDALL. Is that right?

Mr. BENKE. Yes.

Mr. KENDALL. And do you plan to continue that, to go to 50,000 a month?

Mr. BENKE. Yes.

Mr. KENDALL. Would you have done the same thing on the 75,000—

Mr. BENKE. Yes.

Mr. KENDALL (continuing). Per month basis?

Mr. BENKE. Yes.

INFORMAL PROPOSAL

Mr. KENDALL. Let me ask one further question. This conversation that you had, was it with the Army Weapons Command—

Mr. BENKE. Yes.

Mr. KENDALL (continuing). That resulted in this informal proposal with respect to 50,000 a month; who was that conversation with?

Mr. BENKE. I would prefer giving that information to you in closed session.

Mr. KENDALL. That is all I have, Mr. Chairman. I think General Shaw may have a question.

Senator CANNON. General Shaw?

COLT'S TECHNICAL ASSISTANCE TO COMPETITORS

General SHAW. This business of training the Army Weapons Command in the specialties of producing the M-16 is in effect training them to do what the Springfield Armory used to do as a routine thing; is that not correct?

Mr. BENKE. We are limiting our training to quality assurance people.

General SHAW. It is even less than what Springfield used to do or would have been prepared to do to a rifle producer in the way of technical advice on production techniques, and so forth.

Mr. BENKE. I had very little contact with Springfield Armory myself, General Shaw. You can probably speak better to that question than I can. But we will train Government personnel in problems of quality assurance as a function of our technical assistance contract.

General SHAW. That is all.

Mr. KENDALL. We have nothing further, but I think if we can take just a minute or two to let General Shaw put something on the record as to what we found on his trip with respect to General Motors' situation with the testing range, I think we might save some time.

Senator CANNON. Go ahead.

General SHAW. As you know, myself and Mr. Neal visited all of the companies involved, as well as first going to Mr. Benke's plant at Colt. On the question of the range facilities, we went through all that were in existence. Maremont's was a separate building close to the main production plant. Its expansion was simply a straightforward routine affair. I have been on lots of ranges. There was no problem.

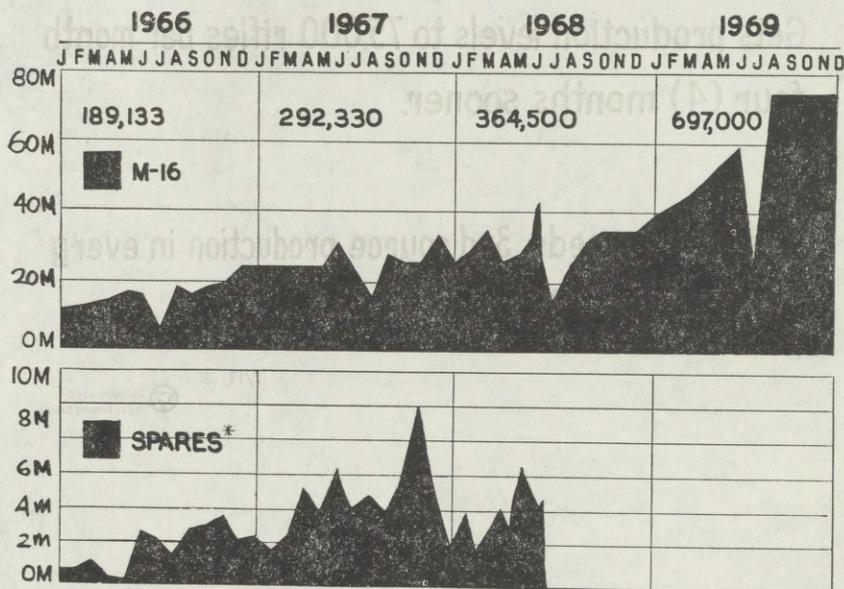
When we got to General Motors, we asked to see their test range, and they said they did not have one. We asked how they would go about doing that. We were standing in the main production room. They pointed to the overhead and said, "We are going to build it up there," and it is just about as far as that ceiling. We went into it further with them. Their scheme for test firing 10 million rounds of the M-16 ammunition that far from their production workers. We asked them, "What are you going to do about this unique feature, the noise problem, with the people only a few feet away?" They said they planned to—they had asked the General Motors technical institute to come up with a muffling scheme. They said it is no more than a muffler they build on a car.

When I jokingly replied, "Have you ever built a muffler 100 yards long," they said "no," but that is what they were going to do. So my point is that there is a considerable difference between the routine expansion of a range in operation and the construction from scratch of a type of range which has never been built before.

Senator CANNON. With that the hearings will be in recess subject to the call of the Chair.

(Whereupon, at 3 p.m., the committee recessed, to reconvene subject to the call of the Chair.)

M-16 PRODUCTION



* EQUIVALENT GUNS EXCLUSIVE OF MAGAZINES

3/1/68

GM INDUSTRIES INC.
DETROIT, MICHIGAN

COLT'S 75,000 RIFLE PROGRAM AT HUYSHOPE

A.

Provides capacity for 10% repair part requirement on all parts except barrels which will have 20% repair part requirements above rifle capacity.

B.

Provides 36,000 more rifles in calendar 1969.

C.

Gets production levels to 75,000 rifles per month four (4) months sooner.

D.

Meets or exceeds 3rd source production in every month except July



M-16A1 RIFLES

COLT 50,000 AT HUYSHOPE AND 25,000
COLT SECOND SOURCE VS. PROPOSED THIRD SOURCE

1969	COLT'S 50,000 SCHEDULE	+ ESTIMATE SCHEDULE 3 RD SOURCE	= TOTAL	COLT'S 75,000 SCHEDULE	ACCUMULATIVE INCREASE IN WEAPONS
JAN	40	.5	40.5	40.5	0
FEB	40	1	41	42	+1
MAR	45	2	47	47	+1
APR	45	4	49	50	+2
MAY	45	6	51	55	+6
JUN	50	10	60	60	+6
JUL	25	12	37	35	+4
AUG	50	14	64	75	+15
SEP	50	16	66	75	+24
OCT	50	18	68	75	+31
NOV	50	20	70	75	+36
DEC	50	25	75	75	+36
TOTAL	540	128.5	668.5	704.5	36

3/14/68


 Colt Industries Inc.
Colt's Firearms Division


JANUARY

FEBRUARY

MARCH

APRIL

MAY

JUNE

JULY

AUGUST

SEPTEMBER

OCTOBER

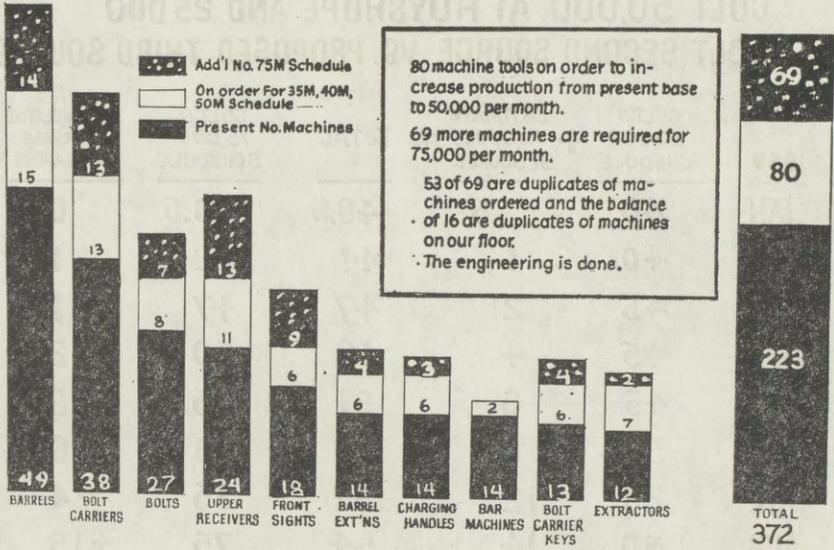
NOVEMBER

DECEMBER

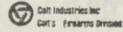
TOTAL

36

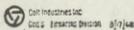
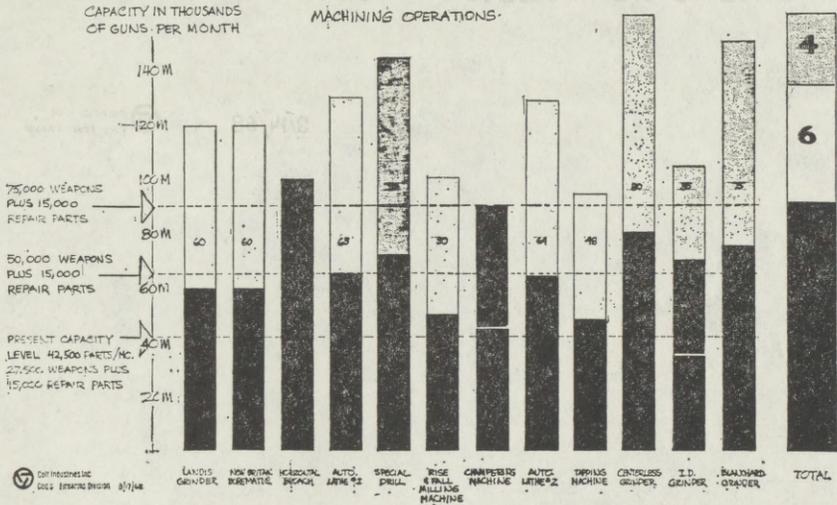
NUMBER OF PRODUCTION MACHINES



3/14/68



MACHINE CAPACITY BY MACHINE TYPE FOR CONSECUTIVE OPERATIONS OF THE BARREL EXTENSION PART



CAPABILITY EXAMPLES

On March 8, we received approval for a production level of 50,000 rifles/month.

Today, 13 days later, purchase orders have been placed for 73 of the 80 machines required. 88% of the equipment is on order to produce 50,000 rifles/month.

Quotations are in, and purchase orders are ready to be issued for the additional 69 machines required to produce 75,000 rifles/mo.

All tooling required to produce 75,000 rifles/month will be completed within 20 weeks.

All gages required, will be ordered within one week and delivered within 12 weeks.

From May, 1966 to April of 1967, Colt recruited 510 hourly employees for the military work force. A similar number of employees can be recruited for the expansion.

Without exception, all of Colt's subcontractors are ready to produce 75,000 parts plus spares requirements well within the time frame specified.

Colt has dual or alternate sources for 93% of purchased parts. 100% can be attained within six months.

3/14/68

 Colt Industries Inc.
Colt's Firearms Division

AVAILABLE PLANTS 25,000 RIFLES/MO.

American Brass Company	283,000 sq. ft.
Torrington, Connecticut	VACANT
Vickers Plant	260,200 sq. ft.
Waterbury, Connecticut	VACANT
Singer Plant	240,000 sq. ft.
Bridgeport, Connecticut	VACANT
Stamford, Connecticut	180,000 sq. ft.
	VACANT
Bomarc Missile Facility	100,000 sq. ft.
Bangor, Maine	VACANT
Foster Grant Company	170,000 sq. ft.
Manchester, New Hampshire	VACANT
Scotia Naval Depot	1,220,000 sq. ft.
Scotia, New York	VACANT
10 buildings of 122,000 sq. ft. ea.	
First National Building	289,186 sq. ft.
East Providence, Rhode Island	VACANT
Westinghouse Electric	200,000 sq. ft.
East Springfield, Massachusetts	VACANT
Asheville, North Carolina	100,000 sq. ft.
	VACANT-NEW

3/14/68



Colt Industries Inc.
Colt's Firearms Division

PLANT SITES-25,000 RIFLES/MO. CONSTRUCTION TIME: 120-180 DAYS

Rocky Hill, Connecticut	41.0 acres*
Wethersfield, Connecticut	173.0 acres
Bloomfield, Connecticut	28.5 acres
Bloomfield, Connecticut	30.0 acres
Bangor, Maine	290.0 acres
Manchester, New Hampshire	100.0 acres
Huntingdon Expressway Ind. Park Providence, Rhode Island	69.0 acres
Greater Woonsocket Ind. Park North Smithfield, Rhode Island	130.0 acres
Barre-Montpelier, Vermont	60.0 acres
Springfield Industrial Park Springfield, Massachusetts	450.0 acres

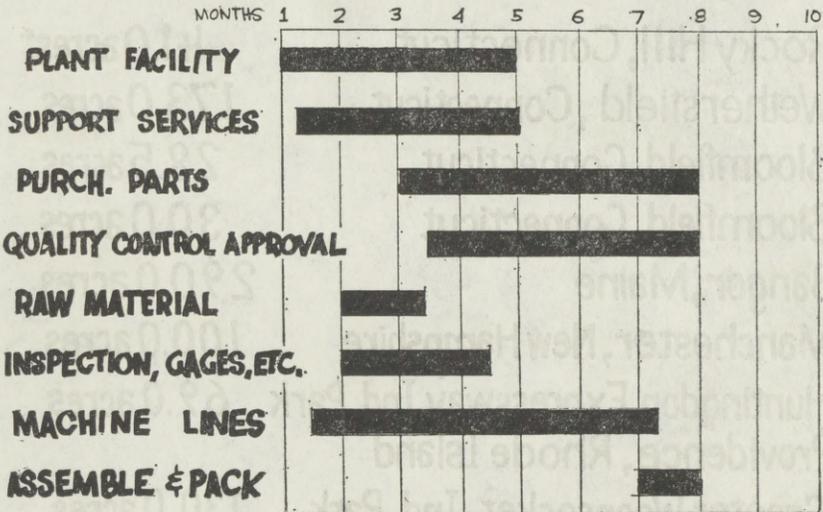
* or more to
approx. 100 acres

3/14/68

 Colt Industries Inc.
Colt's Firearms Division

COLT'S SECOND PLANT (25,000 PER MONTH)

LEAD-TIMES OF MAJOR ELEMENTS LEADING TO FIRST PRODUCTION



Comparison of Colt's production at 50,000 per month
at Huyshope and 25,000 at new plant with the third source

	A	B	C	A+B	A+C	Accumulative Increase in Weapons
	Colt's 50,000 Schedule	Colt's 25,000 Schedule New Plant	Third Source Schedule	All Colt's (2-Plants)	Colt's and Third Source	
OCT		.5		.5		+ .5
NOV		1		1		+ 1.5
DEC		1.5		1.5		+ 3.0
JAN	40	2	.5	42	40.5	+ 4.5
FEB	40	2	1	42	41	+ 5.5
MAR	45	4	2	49	47	+ 7.5
APR	45	6	4	51	49	+ 9.5
MAY	45	8	6	53	51	+ 11.5
JUN	50	10	10	62	60	+ 13.5
JULY	25	12	12	37	37	+ 13.5
AUG	50	25	14	75	64	+ 24.5
SEPT	50	25	18	75	66	+ 33.5
OCT	50	25	18	75	68	+ 40.5
NOV	50	25	20	75	70	+ 45.5
DEC	50	25	25	75	75	+ 45.5
TOTAL	540	174	128.5	714	668.5	+ 45.5

3/19/68


 Colt Industries Inc.
 COLT'S PATENT SYSTEM

COLT'S 75,000 RIFLE PROGRAM

50,000 at Huyshope and 25,000 at a second plant

PLAN B

Provides capacity for repair parts requirements.

Provides 3,000 rifles from the new plant in 1968-
First gun in October.

Meets or exceeds 3rd Source production in
every month in 1969.

Delivers 45,500 more rifles in 1968 and 1969.

Requires 216 production machine tools.

Provides a Colt double base for source of
expansion for rifles and spares.

Obtains production levels of 75,000 rifles
per month four (4) months sooner.

3/14/68

 Colt Industries Inc
Colt's Firearms Division

