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94-30 TO AMEND THE FEDERAL AVIATION ACT OF 1958
RELATING TO EMERGENCY LOCATOR TRANSMITTERS

GOVERNMENT

CUMENTS

(94-30)

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HEARING
BEFORE THE
SUBCOMMITTEE ON AVIATION
OF THE
COMMITTEE ON
PUBLIC WORKS AND TRANSPORTATION
HOUSE OF REPRESENTATIVES
NINETY-FOURTH CONGRESS

FIRST SESSION

ON

H.R. 7064

TO AMEND THE FEDERAL AVIATION ACT OF 1958 TO PERMIT
THE TEMPORARY OPERATION OF CERTAIN AIRCRAFT WITHOUT
EMERGENCY LOCATOR TRANSMITTERS

H.R. 8228

TO AMEND THE FEDERAL AVIATION ACT OF 1958 RELATING TO
EMERGENCY LOCATOR TRANSMITTERS, AND FOR OTHER PURPOSES

H.R. 9071

TO AMEND SECTION 601 OF THE FEDERAL AVIATION ACT OF 1958
TO AUTHORIZE THE SECRETARY OF TRANSPORTATION TO SUM-
MARILY DEACTIVATE EMERGENCY LOCATOR TRANSMITTERS ON
AIRCRAFT, AND FOR OTHER PURPOSES

DECEMBER 9, 1975

Printed for the use of the
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WASHINGTON : 1976

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TO AMEND THE FEDERAL AVIATION ACT OF 1926
RELATING TO EMERGENCY LOCATOR TRANSMITTERS

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H. R. 7064

IN THE HOUSE OF REPRESENTATIVES

MAY 19, 1975

Mr. GOLDWATER introduced the following bill; which was referred to the Committee on Public Works and Transportation

A BILL

To amend the Federal Aviation Act of 1958 to permit the temporary operation of certain aircraft without emergency locator transmitters.

1 *Be it enacted by the Senate and House of Representa-*
2 *tives of the United States of America in Congress assembled,*
3 That section 601 (d) (2) of the Federal Aviation Act of
4 1958 (49 U.S.C. 1421 (d) (2)) is amended by striking
5 out "and" at the end of clause (H), striking out the period
6 at the end of clause (I) and inserting in lieu thereof a semi-
7 colon and the word "and", and inserting at the end thereof
8 a new clause to read as follows:

9 “(J) Aircraft equipped with an emergency locator
10 transmitter which has been temporarily removed for
11 repair, modification, or replacement.”.

IN THE HOUSE OF REPRESENTATIVES

MAY 1917

Mr. Thompson introduced the following bill, which was referred to the Committee on Commerce and Transportation:

A BILL

To amend the Federal Act of 1908 to provide for temporary operation of certain vessels without emergency locator transmitters.

Be it enacted by the Senate and House of Representatives

of the United States of America, that any vessel

That is a motor vessel (1) of the Federal Reserve Act of

1908 (40 U.S.C. 1411) (2) is authorized by entering

and landing at any port of call (3) and at the point

at the end of which (4) and landing in the harbor of a town-

ship and the same "may" and in order to the end thereof

operate without a locator transmitter.

(5) A vessel equipped with an emergency locator

transmitter which has been removed for

the purpose of the act shall be deemed to be

94TH CONGRESS
1ST SESSION

H. R. 8228

IN THE HOUSE OF REPRESENTATIVES

JUNE 25, 1975

Mr. ANDERSON of California (for himself, Mr. SNYDER, Mr. HENDERSON, Mr. HAMMERSCHMIDT, Mr. RONCALIO, Mr. ABDNOR, Mr. MILFORD, Mr. TAYLOR of Missouri, Mr. MINETA, Mr. GOLDWATER, Mr. HOWE, Mr. JOHNSON of California, Mr. GINN, and Mrs. LLOYD of Tennessee) introduced the following bill; which was referred to the Committee on Public Works and Transportation

A BILL

To amend the Federal Aviation Act of 1958 relating to emergency locator transmitters, and for other purposes.

1 *Be it enacted by the Senate and House of Representa-*
2 *tives of the United States of America in Congress assembled,*

3 That (a) section 601(d) of the Federal Aviation Act of
4 1958 (49 U.S.C. 1421), relating to emergency locator
5 transmitters, is amended as follows:

6 (1) In paragraph (1), immediately before “, minimum
7 standards” insert the following: “and except as provided
8 in paragraph (3) of this subsection”.

9 (2) By adding at the end thereof the following new
10 paragraph:

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1 “(3) The Administrator may permit the operation of
2 any aircraft without an emergency locator transmitter re-
3 quired by this subsection during such period of time as the
4 Administrator determines necessary for the inspection, re-
5 pair, or modification of such transmitter, if the Administrator
6 (A) by rule or regulation requires such inspection, repair,
7 or modification, and (B) determines that the operation of
8 such aircraft will be conducted in such a manner as to pro-
9 vide for an adequate level of safety in air commerce during
10 such period of time.”.

11 (b) (1) Section 601 of such Act is amended by re-
12 lettering subsection (d), relating to aviation fuel standards,
13 as subsection (e).

14 (2) Any reference to such relettered subsection (e)
15 shall be relettered accordingly.

16 (c) That portion of the table of contents contained in
17 the first section of such Act which appears under the side
18 heading

“Sec. 601. General safety powers and duties.”

19 is amended by striking out

“(d) Aviation fuel standards.”

20 and by inserting in lieu thereof the following:

“(d) Emergency locator transmitters. |

“(e) Aviation fuel standards.”.

94TH CONGRESS
1ST SESSION

H. R. 9071

IN THE HOUSE OF REPRESENTATIVES

JULY 30, 1975

Mr. MILFORD introduced the following bill; which was referred to the Committee on Public Works and Transportation

A BILL

To amend section 601 of the Federal Aviation Act of 1958 to authorize the Secretary of Transportation to summarily deactivate emergency locator transmitters on aircraft, and for other purposes.

1 *Be it enacted by the Senate and House of Representa-*
2 *tives of the United States of America in Congress assembled,*

3 That section 601 of title VI of the Federal Aviation Act of
4 1958, as amended (49 U.S.C. 1421), is amended by adding
5 the following subsections:

6 "SUMMARY DEACTIVATION OF EMERGENCY LOCATOR
7 TRANSMITTERS LOCATED ON AIRCRAFT

8 "(e) If an emergency locator transmitter, required to
9 be installed on civil aircraft by section 1421 (d) of title 49,

I

1 United States Code, is activated and, in the opinion of the
2 Secretary of Transportation or any agent of the United
3 States to whom the Secretary may delegate such authority,
4 interferes with air commerce, the Secretary of Transporta-
5 tion or any such agent shall have the right to enter the air-
6 craft and to deactivate the emergency locator transmitter,
7 using his best judgment to prevent any unnecessary injury
8 or damage; and no one shall interfere with or otherwise
9 prevent such deactivation.

10 “(f) The Secretary of Transportation from time to time
11 may grant temporary relief from the requirements of sub-
12 section (d) of this section, imposing such conditions and
13 limitations as he determines are necessary to provide ade-
14 quately for national security and safety in air commerce.”.

TO AMEND THE FEDERAL AVIATION ACT OF 1958 RELATING TO EMERGENCY LOCATOR TRANSMITTERS

TUESDAY, DECEMBER 9, 1975

HOUSE OF REPRESENTATIVES,
SUBCOMMITTEE ON AVIATION OF THE
COMMITTEE ON PUBLIC WORKS AND TRANSPORTATION,
Washington, D.C.

The subcommittee met, pursuant to call, at 10:30 a.m., in room 2253, Rayburn Building, Hon. Allan T. Howe, presiding.

Mr. HOWE. The Subcommittee on Aviation will come to order.

This morning we are here to conduct hearings on H.R. 8228, H.R. 9071, and H.R. 7064, bills to amend the Federal Aviation Act of 1958, relating to emergency locator transmitters.

The Chair would like to make a brief opening statement, and then we will ask other members of the committee if they have comments to make, before we get to the witnesses.

There are an estimated 120,000 emergency locator transmitter units—ELT's—installed in U.S.-registered civil aircraft. The Federal aviation regulation requiring an operable ELT on certain civil aircraft was adopted in response to a mandate from the Congress, Public Law 91-596.

This regulation, which carried out the intent of Public Law 91-596, prohibits the operation of airplanes subject to the law unless there is an operable automatic type emergency locator transmitter. The mandatory date for compliance was June 30, 1974, in accordance with Public Law 93-239, which extended the original date of December 30, 1973, contained in Public Law 91-596.

No provision was made in the two statutes to permit the operation of an airplane subject to the ELT requirement when an installed ELT becomes inoperative. The FAA then cannot by regulation provide for flexibility in the ELT requirement. This lack of flexibility has caused problems, and we will be hearing about these problems and recommended solutions from our witnesses today.

The question before us is whether provision should be made in the law to allow the continued operation of an airplane, provided appropriate limitations are applied. Such provision in the law would permit the FAA to make a—to maintain an adequate level of safety and carry out the broad intent of the statutory requirement without causing unnecessary hardship due to the inflexibility existing in the present law.

Before hearing from our first witness today, I will ask other members of the committee if they have statements? The Chair will recognize the gentleman from California, Mr. Goldwater.

Mr. GOLDWATER. Mr. Chairman, I want to commend you for holding this hearing on various bills, including one that I have introduced, to give the Federal Aviation Administration flexibility in implementing the emergency locator transmitter program.

I happen to support the ELT program, and I am informed that it is working successfully. However, when Congress enacted Public Law 91-596, we inadvertently placed a restriction on the FAA in implementing the ELT program. This occurred when the FAA was denied the authority to deviate from the mandatory ELT carriage requirements, even when good and sufficient technical reasons existed and safety would not be thwarted.

It is my understanding that approximately 150,000 aircraft carry ELT's. The design, manufacturing and maintenance of ELT equipment has posed a serious problem to the electronic industry, and my information indicates certain design and manufacturing deficiencies.

Obviously, the major problem is one of false alarms. Each transmission made on the emergency frequencies immediately triggers an extensive national search system involving the Department of Defense, Department of Transportation, State and local authorities to mention the minimum participants.

Regardless of the cause of the false alarm, that is corrosion due to battery malfunction, failure of the g switch, et cetera, each signal must be investigated for obvious reasons. In March 1975, the U.S. Air Force reported a total of 468 false alarms for the month which is an increase of 32 percent over the preceding month. Since one of the basic reasons for requiring the ELT was the burgeoning costs of search efforts, it can be readily appreciated that the false alarm investigations are counterproductive.

Without the ability to deviate from the existing wording of the law, the FAA is unable to reduce this incidence of false alarms by normal regulatory authority. Recently, a design deficiency resulted in a recall of approximately 20,000 units by one manufacturer. These units were failing, resulting in undesirable false alarm signals.

The deficiency could only be corrected in the manufacturer's factory and few, if any units, were available for exchange or interim use while the field units were being modified.

If the FAA had had the authority contained in these proposed bills, these questionable units could have been removed for timely correction while appropriate and substitute operational procedures for the aircraft owners could have been arranged. My bill, H.R. 7064, would provide this capability. It is unknown how many false alarms would have been avoided under these preferred conditions but most opinions indicate it would have been a sizable number with an appropriate cost saving to the Government.

Also, just recently another manufacturer, who had in excess of 15,000 ELT's in service, was having trouble securing replacement battery units. These batteries must be replaced on a calendar shelf-life basis to insure a proper power source. While the FAA, with assistance from the industry, looked for an alternate supplier, it was apparent that the lack of flexibility was a detriment to the flying public in this instance.

Mr. Chairman, I believe that the FAA has strongly endorsed this change in the law as being necessary if they, the FAA, are to properly

exercise their air safety requirements under the terms of the act. I am hopeful that we can report a bill to give the FAA the flexibility needed to administer the act.

Mr. HOWE. Are there other members of the committee who would like to make comments before we hear from witnesses?

If not, we will recognize at this time our colleague, the Honorable Dale Milford, of Texas, the very knowledgeable and valuable member of this subcommittee, a highly experienced aviator, and I might add, a person that I have relied upon greatly in becoming acquainted with, and educated in, aviation matters since I joined this subcommittee, since coming to Congress.

Dale, we are delighted to have you as our first witness, and you may proceed.

TESTIMONY OF HON. DALE MILFORD, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF TEXAS

Mr. MILFORD. Thank you, Mr. Chairman.

I would like to take this opportunity to familiarize some of you who may not exactly be familiar with what an emergency locator transmitter is, and what it does.

By way of background, I am familiar with this equipment, having logged a little over 6,500 hours in flying time, and served for some time as a flight instructor, and I am familiar not only with the equipment but also with how it works and some of the problems that it presents.

To give a little bit of background on the ELT, which as you stated, is the abbreviation for "emergency locator transmitter," we have had for several years problems when a pilot would fail to file a flight plan and then have an accident en route. It is a tremendous job trying to locate the sites of these crashes. We also have had tremendous problems even when a pilot would file a flight plan, when we would know when he took off and when he was due, but if that pilot strayed off course, then again, search parties, or search aircraft, would have a difficult time locating crash scenes.

We also have established many instances where there were survivors in an air crash, but they would die before rescue people could reach them, simply because we would have to search a broad area in order to locate the crash site.

Recognizing this, Congress, some few years ago, passed the ELT law which would require that the ELT be installed on any aircraft flying more than 25 miles away from its home base. Unfortunately, the wording of the law was such that there were absolutely no exceptions to this, which creates the first problem that the ELT brought on to the aviation community.

As an example, if I were to go back home in Bug Tussle, I would have to land on a dirt strip, where there is no way that the aircraft could be guarded, it could not be secured, but if upon my return flight, I checked my ELT—which I am required to do before I can take off with the aircraft—and I found that it was inoperative, I would then have to leave that aircraft sitting, even though it was in an unguarded area, an unsecured area. I could not legally fly that aircraft, even to a field, say 20 miles away where I could obtain repairs. This of course creates a problem.

Now, first I'd like to demonstrate what an ELT is, by showing you one. This is a typical general aviation model of an ELT; this particular one is manufactured by Narco. It is a device that is mounted inside the airplane—this would be your mounting bracket, which would be mounted usually in the rear portion of the aircraft. The rear baggage carrier sometimes is a popular place, or near a bulkhead. It has to be oriented in a certain direction. Then, once the mounting case is mounted, the unit is then clipped in and secured to that.

This particular model is designed so that if the person had a landing, he could simply remove the unit and extend the little antenna, and it becomes a portable unit that he can carry with him, with the unit activated. This is particularly valuable in areas such as Alaska, or other regions where you might land in a canyon and in so doing, the radio signal could not be transmitted too well. In that case, you simply remove your ELT and walk to the top of the hill.

As you are looking at it here, you are looking only at a transmitter, and this creates one of the problems. For example, I am now going to activate the unit—and you notice you can hear nothing, because the unit itself is only a transmitter, but if I turn on a radio receiver [high-low electronic “beeper” signal generated] you will then see that it is transmitting a signal, and for purpose of the record, the signal sounds identical to the emergency signal that you hear from a police or ambulance vehicle.

When this signal is transmitted, the Federal Aviation Administration stations and several airborne types of equipment can locate and pinpoint where the transmitter is located by using standard direction-finder radio equipment. And this is the way the thing works.

It has proven itself to be very useful, and in fact, it can be documented that lives have been saved by having one of these on board the aircraft. Unfortunately, it has also created some severe problems, the first as I have outlined.

Now, in addition to the problem of not being able to fly an aircraft, probably the greatest problem is the accidental arming of these devices. Any time it is armed it will transmit that signal, and once the signal is transmitting, it then blocks out the emergency channel.

We have established a frequency—121.5 is the VHF frequency and there is also a UHF frequency which the military primarily uses—which is solely dedicated to emergencies. That frequency is never used unless there is an actual emergency, and if one of these goes off, it then blocks out that emergency frequency so that a bona fide emergency then cannot be heard. I am sure you are familiar with two people trying to transmit at the same time; as a result you can hear neither. And also it would present problems in that the direction-finder equipment would sit and fluctuate between the two, and you would be unable to get a fix on a location.

Now, to demonstrate the second problem—I have now armed this as it would be in the aircraft. Again, the radio receiver is on, and you hear nothing. But if I am flying, and I have an accident, any time that I decelerate this unit to 5 g's or more [activates signal] it will then set off the signal.

As you noticed, it takes only a very light tap. This also can occur in a radio repair shop where someone accidentally drops one, or it can occur in an aircraft when, for example, it is mounted on a baggage

mount, and someone throws a bag back against the unit, it can set it off. It can also occur, for example, when the line crew is parking your airplane, and they hook onto it to tow it, to back it into the hangar, and just a little bit of a jar can set the unit off.

And as demonstrated at first, no one knows it is going off unless you happen to be sitting there with a radio receiver tuned to that particular frequency.

So as a result, about 95 percent of the emergency signals that we are picking up are coming from accidental activations. We have also had problems with some of the units mechanically activating.

So the second problem perhaps is the most serious of all, in that when one of these are accidentally set off, you have first blocked your emergency channel. It prevents you from hearing bona fide emergencies. And second, you have a tremendous cost that is originated in that rescue teams are called out to trace down the signal, which 95 percent of the time we are finding to be either in a radio shop or in a locked hangar, or in the hangar where the aircraft is parked.

So one of the bills you have before you, H.R. 9071, which is a bill that I introduced, has two features. The first feature would make a technical change in the law which could allow the Federal Aviation Administration to waive and allow a one-time flight when equipment goes out on an airplane and he's out of station, to allow him to get back to his repair station to get it repaired. This is routinely done when you have other types of equipment that are out.

For example, my base station is in Dallas, or in Grand Prairie, which is very near Dallas, and it is in a terminal control area that requires me to have a transponder. Well if my transponder happens to mechanically fail, all I have to do is pick up the phone and call the Federal Aviation Administration, and say: "Look, my transponder is out; I'd like to fly it back home. I'll be arriving at approximately—a certain time—and I'll contact you by two-way radio, but I need to get back home where I can get my equipment repaired."

This is routinely done. The first change that H.R. 9071 recommends is to allow the FAA to give a similar waiver to an aircraft where the ELT is inoperative. In that case, the FAA normally would make him file a flight plan, so we still know his route of flight, his time of flight, et cetera.

The second recommendation in H.R. 9071 is to allow the Federal Aviation Administration field agents to break into a locked hangar, where they know that an ELT had been activated within the hangar.

Again using my own aircraft as an example—I am sitting in Washington, D.C., right now; if that ELT should go off, it would be rather difficult for me to get from Washington, D.C., to Dallas, Tex., to unlock that hangar. So in this instance, we feel that it is necessary to allow the FAA agents to go into a hangar.

Now, as presently written, H.R. 9071 would allow the agent not only to go into a locked hangar, but also to enter a locked aircraft. Mr. Chairman, when we go into markup, I will submit an amendment to H.R. 9071 to permit the agent to go into the hangar only, not to go into an aircraft. The reason is that we have found that by going into the hangar, they can take a wire, with an alligator clip or just a piece of baling wire, and tie it to the antenna of the unit, and simply ground it or tie the same wire to some metal part of the airplane.

This would minimize the radiation to where it would carry only about a mile, or if he happens to be in a steel hangar, it probably would not even transmit outside of the hangar.

So there is no necessity, we feel, for him breaking into an aircraft.

The second reason is that if we did permit a break-in into an aircraft, we have many models—pressurized models and others—where it would create tremendous damage to the aircraft itself, whereas by simply going into the hangar—which normally means breaking a lock—and deactivating the antenna by putting a shield device around the antenna, which is external to the airplane, and not requiring breaking into the aircraft, the problem would be solved. The amendment that I will introduce will also specify that the Secretary will have to resecure the hangar once he has gone into it.

This also presupposes that before entering any hangar, the FAA will make every attempt to contact the owner or airport manager to find means of gaining access to the unit to deactivate the unit, again without breaking and entering the property.

The precedent on this comes from a long-standing law which I believe is the law of the sea—I meant to bring it with me and forgot it this morning—but there is a precedent for this, where navigation is being hampered, where you are able to even blow a ship up, for example, if it is hampering navigation.

Mr. Chairman, that in essence is what I wished to present to the committee. I will be glad to answer any questions that any members may have.

Mr. HOWE. The gentleman from California.

Mr. GOLDWATER. Dale, I think it is really great that you brought that equipment so that everyone can see exactly what we are talking about; it makes it much more understandable.

One possible solution to one of the problems—that problem being that when that thing is activated, nobody knows it unless you happen to be tuned in to the emergency channel—would be to require, say, a simple loudspeaker to be hooked up to it, either outside the airplane, or at least inside.

Mr. MILFORD. You mean hooked up to this [indicating]?

Mr. GOLDWATER. Yes.

Mr. MILFORD. Mr. Goldwater, it would not be that simple. This is a transmitter only. In order to make your speaker work, you would have to have a receiver, and if you bought one of these VHF receivers, you are putting another \$100 to \$150 on the aircraft owner.

Mr. GOLDWATER. But couldn't you just hook up a speaker directly by wire to that?

Mr. MILFORD. No; because this is a transmitter only. You would have to have a receiver in order to do it. In other words, I had to bring this piece of equipment [indicating] in order to demonstrate it, and this is an aircraft-type receiver. You would be forcing onto every airplane an additional cost of, I would say \$150 to \$200, which perhaps would be a little rough, industrywide.

Mr. ABDNOR. Would the gentleman yield? How much does that unit, the transmitter, cost?

Mr. MILFORD. This one, I believe—is there anybody from NARCO here?

VOICE. \$200.

Mr. MILFORD. It would be about \$200.

Mr. ABDNOR. You have already put \$200 in the plane?

Mr. MILFORD. Yes; and a receiver. In other words, we have already forced every airplane flying more than 25 miles from home base—

Mr. ABDNOR. Well, we know what it cost, but would the \$150 extra really do the job?

Mr. MILFORD. Not really; because if, for example, my unit should go off back in Grand Prairie, in the hangar, right now, even if it had a speaker to it, nobody would know. These have batteries in them, and you can get a little bit of corrosion or something that can sort of short out the transmitter. We have a history of some of them, just for no reason, all of a sudden going off.

So if it is in a locked hangar, it could be sitting there working that speaker and still no one would know about it.

Mr. ABDNOR. Well, the minute one of those goes off accidentally, does it jam it for somebody else? Is that the idea?

Mr. MILFORD. Yes. In other words, that is what every receiver would be hearing. Then, if another unit was transmitting at the same time, the directionfinder would just sit and swing back and forth. We would not know where.

Mr. ABDNOR. I see.

Mr. GOLDWATER. If in fact you had a loudspeaker, wouldn't that be helpful, don't you think?

Mr. MILFORD. It might be. For example, if the linecrew is backing it into the hangar, and was a little bit rough with it, enough to where you could get a 5-g push on it, it would bring it to the attention of anybody that is right in the area. Most people park airplanes in T-hangars, and unless it went off while he was putting the airplane up, then again, no one would know.

So it would be of limited value, I would say, if you required him to add an additional receiver. You have a post-flight and pre-flight check. When the pilot leaves, his checklist calls for him to check his ELT before he kills the master switch, and it calls for him to check it before he takes off.

So he has already checked it. If something happens after the pilot leaves, either maneuvering at the airport, or—

Mr. GOLDWATER. You are assuming a lot.

Mr. MILFORD. In what respect?

Mr. GOLDWATER. That every pilot checks his ELT.

Mr. MILFORD. No, sir; I said the checklist calls for him to check it.

Mr. HOWE. Do I detect, Congressman Milford, that maybe the items on the checklist are not always checked out?

Mr. MILFORD. We better pilots always do, sir.

Mr. HOWE. Those that don't get into trouble, and that is why this equipment is so necessary.

Are there other questions of this witness? The gentleman from South Dakota.

Mr. ABDNOR. I would like to commend Congressman Milford. He has made it much easier for me to understand because he went to the trouble to bring this equipment and I want to thank him.

Mr. HOWE. The gentleman from California, Mr. Mineta.

Mr. MINETA. Thank you, Mr. Chairman. I am just wondering, Dale—and I really appreciate your bringing this equipment here—

part of the problem is the reliability of the equipment, is it not? Or is it the unintentional transmission?

Mr. MILFORD. Yes.

Mr. MINETA. And the problem there is that the statutory authority does not give any flexibility to the administrator for doing something when the aircraft owner has that kind of a condition.

Mr. MILFORD. Well, that is the problem. It means I cannot fly my airplane unless I have an operative ELT. If I have a mechanical failure while I am out, away from home, and you have thousands of fields that are unguarded, unsecured, where a transit comes in and he can't put it in a hangar. There is no hangar there, so he has to stake it down and leave it out.

And you know, it is not unusual to find some aircraft with as much as \$100,000 worth of avionics equipment, where a man with a big screwdriver can get in there and then with a small screwdriver, can walk off with several thousand dollars worth of avionics gear, and it is rough to force him to leave his airplane sitting on a field like that when there is a repair shop 20 miles away.

So part 1 is to allow him to pick up the phone, call FAA and say: "Look, I am at Bug Tussle, Tex., right now; I want to fly over to Dallas, 50 miles away, and I will have to do that without an ELT, and I am going to take off from Bug Tussle at 10 o'clock and be in Dallas at 10:15."

So that is part 1. The other part is the accidental activation, which is driving the FAA—

Mr. MINETA. Let's just home in on that accidental unintentional transmission. Is that because the promulgated standards or criteria by which the equipment is made or manufactured are too weak? What is it that causes the accidental or unintentional transmissions?

Mr. MILFORD. Well, you have to remember, the principle of this—as I demonstrated earlier—

Mr. MINETA. I hope FAA doesn't have people flying around trying to look for this transmission that you are putting out on the air right now.

Mr. MILFORD. No. We have already called the FAA. Furthermore, I have this particular one so that it will not radiate very far [indicating], and I doubt seriously if we are getting outside the building, because this antenna is insulated, so that we are only radiating from a little single piece of metal, not from the full antenna.

Furthermore, we are in a steel building, and furthermore, still, I have called the FAA and told them we were demonstrating here, and they know it and they know our location, and we are not leaving the unit on more than a few seconds at a time, so it would not be interfering with a bonafide accident.

Mr. MINETA. It has also cleaned out my ears today.

Mr. MILFORD. But again, keep in mind the purpose of it; it is mounted in an airplane, and if that airplane gets into a sudden stoppage, such as a crash, or in this case, anything over 5 g's, why then—

Mr. MINETA. Is that too sensitive?

Mr. MILFORD. No; because—if you are going into trees, for example, and one of the standard procedures we teach in flying is that if you must make a forced landing in trees, you find yourself two trees and

try to hit between them, where it shears your wings, and that would be a relatively soft landing, and we do want it to go off.

So it is a matter that the best technical specification—and it has been agreed upon by FAA and industry and the rest—is about 5 g's, which is [indicating].

Mr. MINETA. How do we get at the problem of the unintentional or accidental transmissions? Is it through the equipment itself?

Mr. MILFORD. No; the equipment is well designed; it is the best the state-of-the-art can offer, and through advisory circulars and other means, the Federal Aviation Administration—they try to locate this. It must be accessible to the pilot, first of all, because if the pilot can't get to it, he cannot turn it off and on.

Mr. MINETA. Well, then, was the act that mandates this equipment passed before we really got to the reliability of the equipment itself?

Mr. MILFORD. Equipment reliability is good now, but like any mechanical device, they sometimes fail, and again, you have this feature that it is going to go off when you jar it. If somebody throws a bag back in the baggage compartment and hits this thing on the way, it exerts 5 g's or more, and she's going to go.

Mr. MINETA. And that person will not know that at that point it is being transmitted.

Mr. MILFORD. Right.

Mr. MINETA. So would there be some way of requiring some equipment, that is being discussed here, being able to notify—let that person know that the ELT is now on?

Mr. MILFORD. This is already done; it is mandatory on the checklist for the pilot.

Now, as I said, some perhaps are not as good as others, but that is the human factor that you are going to have to contend with as long as you want this thing mounted in the airplane.

Mr. GOLDWATER. Unless you could do something technically or mechanically to compensate for that error. That is why I was suggesting a loudspeaker or something like that.

Mr. MINETA. Or what about a light on the panel—the instrument panel—that would go off?

Mr. MILFORD. Well, again, if you are following your checklist, you are going to hear it on the radio.

Mr. MINETA. I see.

Mr. GOLDWATER. I made the point that—what if some pilots don't do the checklist?

Mr. MILFORD. As I said, you have human factors you are going to have to contend with in any case. All you can do is put out the best law possible, but still this does not negate the fact that you are calling out air-search teams at tremendous expense when one goes off.

Mr. MINETA. Let me get to something else. Hikers, mountain climbers, boatowners, might have an ELT?

Mr. MILFORD. They do.

Mr. MINETA. How does FAA distinguish between the boatowner with an ELT transmitting, and an aircraft in fact crashed someplace?

Mr. MILFORD. They cannot. The law simply states that this will be used only in the case of an emergency. They are quite widely used in Alaska.

Mr. MINETA. If it is as sensitive as that, to 5 g's, a mountain climber often sustains that force, for example, rapeling down a cliff and all of a sudden hitting.

Mr. MILFORD. Well, in the case of a mountain climber, he would not have it in what we call the armed position. There is a switch here that states: "armed position." That is set up for impact.

Now, in the case of a hiker, and if he had an emergency, he would put it on to the armed position [indicating]; that means he is controlling it, here, so it would be used differently in a boat or by a hiker, in the sense that they would not have the impact device turned on. In fact, their particular model would not even have an impact switch on it. The particular model they would use would simply have an on-off switch, and in an emergency they would turn it on. Otherwise, it stays off.

So it would be a differently designed piece of equipment from what this is, which is for aircraft only.

But the FAA can't tell which is which; it is just an emergency signal being transmitted on the international emergency frequency. The direction finder equipment then would pinpoint specifically where it is located.

Mr. HOWE. Are there other questions?

Mr. MINETA. Thank you very, very much.

Mr. HOWE. Other questions of this witness? If not, Congressman Milford, we appreciate your being here. The demonstration, I think, has been helpful to all of us, to give us a first-hand view of how the system operates. We appreciate that very much.

Mr. MILFORD. Thank you, Mr. Chairman.

Mr. HOWE. Our next witness will be Mr. Joseph Ferrarese, Deputy Director of Flight Standards Service of the Federal Aviation Administration.

Mr. Ferrarese, it is nice to have you with us, and we are sorry for the delay in getting our hearing started this morning. We are the victims of the procedure going on on the floor of the House, and I am sure you understand, we have to respond to requests for our attendance there. You have others with you, Mr. Ferrarese; if you would like to introduce them for the record, we will be happy to have their names.

TESTIMONY OF JOSEPH FERRARESE, DEPUTY DIRECTOR, FLIGHT STANDARDS SERVICE, FEDERAL AVIATION ADMINISTRATION; ACCOMPANIED BY BERNARD A. GEIER, CHIEF, GENERAL AVIATION DIVISION, FLIGHT STANDARDS SERVICE, FAA, AND BRUCE I. SELFON, CHIEF COUNSEL'S OFFICE

Mr. FERRARESE. Yes, sir. With me today is Mr. Bernard A. Geier, who is Chief of the General Aviation Division of the Flight Standards Service, on my left, and on my right is Bruce I. Selfon, from the Chief Counsel's Office.

Mr. HOWE. Thank you. You may proceed, Mr. Ferrarese.

Mr. FERRARESE. Mr. Chairman, members of the subcommittee; thank you for the opportunity to appear before you to discuss H.R. 7064, H.R. 8228, and H.R. 9071. These are bills to amend 601 of the

Federal Aviation Act of 1958, pertaining to emergency locator transmitters.

Prior to discussing the merits of these bills under consideration, I would like to take this opportunity to compliment Congressman Milford for his excellent exposition on ELT's and their use. It has made my task up here much easier, and I thank him.

Since both you and Congressman Milford talked a little bit about the background of the ELT legislation, I will dispense with that portion of my statement.

As Congressman Milford stated, there is presently no statutory provision permitting the operation of such aircraft without any ELT, or with an inoperative ELT. ELT's and their batteries require periodic maintenance. Also, as with any electronic devices, particularly new, untried, and relatively low-priced units, some ELT's have created problems. Some have failed to activate when needed, others have transmitted accidentally. In the course of investigations of these service difficulties, FAA has issued several airworthiness directives, which have required design changes.

For example, when a number of ELT units built by one manufacturer were found to be defective, resulting in the false indication that an emergency existed, an airworthiness directive was issued requiring the removal and return to the manufacturer of approximately 27,000 units. There were not enough units available to replace those removed pending inspection and correction of defects by the manufacturer.

The AD, therefore, effectively required the grounding of many of the aircraft involved. Current reports from airplane owners, and ELT manufacturers, indicate that the time required to remove, repair, and reinstall a defective unit is approximately 3 weeks to 2 months. The variation is dependent on the location of the airplane, the backlog of the manufacturer or the repairman, and the general availability of service.

For the most part, these AD's have necessitated removal of the ELT from the aircraft for servicing. Except in those cases where substitute ELT's were available, the aircraft operator was required to refrain from operating the aircraft. If the aircraft were operated without the ELT installed, the operator would be in violation of law.

The airplanes that have been and could be grounded as a result of not having an operable ELT are used in a variety of operations. Many are used for business and personal transportation, while others are used for pilot training. Considering the number of aircraft involved, and the variety of uses to which they are put, considerable hardship will continue unless a reasonable measure of relief is forthcoming.

The first bill I would like to discuss is H.R. 7064. As presently written, this bill would exempt from the ELT requirement those aircraft equipped with an ELT which has been temporarily removed for repair, modification, or replacement. We suggest that the word "temporarily" on line 10 be eliminated, and after "replacement" on line 11, the following phrase be inserted:

* * * and operated under conditions and limitations prescribed by the Secretary.

The word "temporarily," in our opinion, is redundant and inappropriate in the situation in which the ELT has to be replaced. This suggested language would permit the FAA to establish by regulation; appropriate time limitations and other conditions or safeguards for the operation of aircraft from which the ELT has been removed for servicing. We intend to assure that the relaxation of the requirement is no greater than is necessary to achieve its immediate purpose. Appropriate limitations might, for example, include the requirement in a special flight permit that an airplane without an operable ELT must be on a visual flight rule or an instrument flight rule flight plan.

Now, we don't mean to imply that for each flight we would require a special flight permit. That is just an example that we are giving.

The next bill is H.R. 8228, and it is similar to H.R. 7064 in that it would permit the continued operation of an aircraft during the period of time necessary for the repair or modification of the aircraft's ELT. However, H.R. 8228 does not possess the flexibility that H.R. 7064 would have if the suggested amendments to H.R. 7064 were included.

More specifically, H.R. 8228 would permit operation of an aircraft during the period of time necessary for the inspection, repair, or modification of an ELT only if such inspection, repair, or modification is required by the Administrator. Therefore, an aircraft operator may not be provided relief from the requirement to have an operable ELT even if warranted, unless the Administrator specifically foresaw and prescribed regulations to cover that particular circumstance.

This requirement could cause hardship to those aircraft operators whose situation was not contemplated at the time regulations were promulgated. Further, the bill does not appear to cover replacement of an ELT as opposed to its inspection, repair, or modification.

As between these two bills, the FAA therefore would favor the enactment of H.R. 7064 over H.R. 8228. If H.R. 8228 is enacted, however, we would like to suggest the following amendments. We suggest that on line 5, the word "or" immediately preceding "modification" be deleted, and the phrase: "or replacement" be added immediately after "modification."

The same change would be necessary on line 7. Additionally, we would suggest that a paragraph 4 be added to this subsection to read as follows:

The Administrator, from time to time, may grant temporary relief from the requirements prescribed by this subsection if he finds that such action would be in the public interest.

These suggested changes would permit an aircraft to be operated during the time necessary for the replacement of an ELT. Further, they would allow relief to be granted in those instances where—which were not foreseen at the time regulations were prescribed, but which would be in the public interest.

We would like to turn now to discussion of H.R. 9071. This is a bill which would permit the Secretary of Transportation or his agents to enter an aircraft to summarily deactivate an ELT and would enable the Secretary to grant temporary relief from the requirements of 601(d) of the Federal Aviation Act.

There have been occasions where ELT's have accidentally activated and created an interference with air commerce. We are presently considering various options to deal with this problem. One is a technological development of a means of deactivating ELT's from outside the aircraft. However, we are not as yet sure which, if any, method of external deactivation can be practically implemented. It may be that modifications to the ELT itself, or its installation procedures, will help solve the problems. There are other potential solutions besides entry into the aircraft that we want to fully explore.

With respect to subsection (f) of H.R. 9071, we support its formulation. This provision is, in our view, preferable to either H.R. 6074 or H.R. 8228, even if amended as suggested. This provision would provide temporary relief from the ELT requirement of section 601(d). We agree with the need—recognized in H.R. 8228—for the relettering of section 601 to eliminate the duplicate subsection (d).

Mr. Chairman, this concludes my prepared statement, and we would be glad to answer any questions you or the subcommittee might have.

Mr. HOWE. Thank you very much, Mr. Ferrarese. We appreciate your statement and your addressing yourself to these three bills before us today in this hearing.

From your statement, I gather that the FAA does recognize the problem with respect to the current ELT requirement, and your comments on these bills are very much appreciated.

Has the administration in fact recommended other legislation to the Congress on this matter?

Mr. FERRARESE. To my knowledge, no.

Mr. HOWE. Just a few other questions about several things in your statement. You state that the airworthiness directive requiring the removal of some 27,000 ELT units—"effectively required the grounding of many of the aircraft involved."

So that we might better understand the scope of the problem and the probable legislative solution, I am wondering if you can tell us whether those 27,000 units were actually grounded as opposed to only "effectively" grounded?

Mr. FERRARESE. Well, of course, I can't answer that, because, if a pilot decided to operate in violation, he could have done so without our knowing about it, I am sure.

But if he complied with the law, and removed the ELT from the airplane, he was prohibited from flying while the ELT was out of his aircraft.

Mr. HOWE. What penalty would he be subject to if he flew his aircraft in violation?

Mr. FERRARESE. Well, he could be subject to certificate action or to civil penalty.

Mr. HOWE. Has that occurred, do you know, in some cases?

Mr. FERRARESE. Yes, sir; we have filed a number of violations against operators. I have the information right here and I will give you the exact number.

Enforcement action taken in 1974; there were a total of 83 actions in 1974, and in 1975 there were 68; 24 of those were actions taken against operators of aircraft that did not have an ELT installed at all;

25 had ELT's on board, but they were not armed; 17 had expired battery dates, and 2 were installation violations.

Mr. GOLDWATER. Those were just the ones you detected?

Mr. FERRARESE. That is correct.

Mr. HOWE. Do the penalties, in your opinion, Mr. Ferrarese, reach the real problem as a deterrent to the violation of this rule?

Mr. FERRARESE. Well, I don't have the information on precisely what penalty was assessed—whether it was an administrative action or certificate action, or civil penalty.

Mr. HOWE. The question has been raised concerning the reliability of the current production of ELT's, and I think Congressman Milford was talking about some of these problems. Do you have any statistics, or your own opinion concerning their reliability in actual accident situations?

Mr. FERRARESE. We have some information here with respect to the number of ELT inadvertent activations. In 1974 there were 3,276 accidental activations of ELT's, and in 1975 there were approximately 3,000 so far. As you know, the problem is not only in the ELT; it is also in the batteries. We have issued something like five airworthiness directives in an attempt to correct the situation.

There is no question in my mind that ELT's have improved in reliability.

Mr. HOWE. In terms of actual situations of distressed aircraft, what is your opinion about their effectiveness?

Mr. FERRARESE. Well, from 1969 to 1975, we had some 270 "saves."

Mr. HOWE. 270?

Mr. FERRARESE. Yes, sir. And I personally think, and the FAA believes, that the ELT is an important device in the airplane to help find a lost airplane or an airplane that was involved in an accident.

It is not that expensive, and we think it is a requirement that is certainly justifiable.

Mr. HOWE. Let me read you just a little paragraph from a publication, Mr. Ferrarese, and get your comment on this:

In the last six months of 1974, according to the FAA, only 34 percent of ELT's in crash situations activated. In the first six months of this year, 1975, the percentage improved to 62 percent, for a total yearly average of 48 percent. Indications are that the reliability will fall again when the totals for the last six months of this year are computed.

That is, talking about the last 6 months of 1975.

Now, that is in the publication Flight-Line Times of November 1975. I don't know anything about the accuracy of that statement, but what is your comment on that?

Mr. FERRARESE. Well, yes, of course, we are very much concerned about reliability, and we have a directed safety investigation going on right now.

We started it on August 15, and it goes on through December 15, 1975. It is a survey of unwarranted ELT activations, repair station facility, ELT performance in accidents, repair station and manufacturers' analysis of ELT malfunctions, and manufacturers' repair records.

This is to permit the collection of specific data to pinpoint the problem areas in the installation and operation and design of the system.

Now, to facilitate the corrective action, we will have, as I say, completed the survey by the 15th of December; that is, we will have the

questionnaires by then. To date, we have 1,120 questionnaires which have been placed in our computer data bank at the Aeronautical Center, and the final report would be prepared some time in January, which hopefully will pinpoint the ELT problems, and will give us an opportunity to take the necessary corrective action, perhaps in the way of AD's, or changes in the technical standard order.

Mr. HOWE. Would you have any standard technical information at this time, Mr. Ferrarese, to counteract the statistics in that article?

Mr. FERRARESE. No. As a matter of fact, if my memory serves me correctly, those statistics are accurate.

Mr. HOWE. You think they probably are?

Mr. FERRARESE. Yes, sir.

Mr. HOWE. The gentleman from California, Mr. Goldwater.

Mr. GOLDWATER. Did you state that you are putting all this in your computer?

Mr. FERRARESE. Yes, sir.

Mr. GOLDWATER. In order to find out or pinpoint the problems?

Mr. FERRARESE. That is right; to pinpoint the problems with the ELT's. I have a copy of the information right here. The performance of the ELT's, the unwanted ELT activations, just to see where the problem really is, and then we can take corrective action in that particular area.

Mr. GOLDWATER. Well, the mandatory date of compliance was June 30, 1974?

Mr. FERRARESE. Yes.

Mr. GOLDWATER. And you are just now doing that?

Mr. FERRARESE. Oh, no; we have been looking at these things from time to time, and we have issued five AD's as a result. But we are not satisfied that we have really corrected the problem. Therefore, we are conducting this directed safety investigation now, to do a better job.

But we have issued five AD's already in this area. I think it is five.

Mr. GEIER. Yes, sir.

Mr. HOWE. Mr. Ferrarese, let me ask you another question and see if you have any statistics that can help us on analyzing—from a statistical standpoint—whether the ELT requirement has advanced the state of the art in the search-and-rescue operation.

This goes back to the question of the effectiveness of this instrument in actual cases of distressed aircraft. Do you have any statistics that indicate whether we really advanced the technique of search and rescue with this instrument?

Mr. FERRARESE. Well, all I can do is give you the figures that we have with respect to the number of "saves" by year. Aside from that, I have no other additional information. I could give you that, if you like.

Mr. HOWE. Why don't you give us those?

Mr. FERRARESE. In 1969, there were 50 saves; in 1970, there were 44; 1971, 42; 1972, 34; 1973, 41; 1974, 23; and to date, 1975, 36, for a total of 270.

Mr. HOWE. I notice some variation in those; in fact, they seem to be going down rather than up. Is that just a better safety record for us?

Mr. FERRARESE. Well, as a matter of fact, I think that has something to do with it, because the safety record of general aviation has improved.

Mr. HOWE. Even though we have more aircraft registered now?

Mr. FERRARESE. Right.

Mr. HOWE. Now, as to your comments on these particular bills, Mr. Ferrarese, let me ask you a couple of questions.

I know that you tried, and I appreciate that, in your statement to make some distinctions in your preferences regarding the language in these different bills. With reference to H.R. 7064, you made some comments about that one.

If we did not make the changes that you suggest in that bill—in the middle of your testimony—could you support that bill without those changes? Or are those changes mandatory to your endorsement of that bill?

Mr. FERRARESE. With respect to 7064, yes, we could support it, even without the changes. However, we would prefer to have those modifications made to the bill.

Mr. HOWE. And with respect to that same bill, you recommend the addition of the words: “and operated under conditions and limitations prescribed by the Secretary”?

Could you comment what is meant by these words, and would rulemaking be required to accomplish the purpose intended in H.R. 7064 containing the language you suggest?

Mr. FERRARESE. Yes, sir; rulemaking would be required regardless of which bill is enacted. We would propose—and we don’t have the exact words, nor do we know precisely what we are going to propose, but it would be something along the lines that the conditions under which the operator may operate his airplane.

For example, we might say: if you have a failed ELT, or you had to remove it to have it replaced, you can automatically operate the airplane for, say, 72 hours or longer, provided you file a flight plan, either a VFR or IFR, and then we might say that for a longer period we may require the operator to have a special flight permit, although we are not locked in on that yet.

Mr. HOWE. I think you have answered some of the questions I had in mind on that same bill.

Let me ask you this question: Are you familiar with the bill in the Senate, S. 910, that currently has been marked up by the Senate subcommittee?

Mr. FERRARESE. Yes; I am. I have some words here; I am not sure that that is the final S. 910. I have a marked-up copy.

Mr. HOWE. Let me read to you what we understand is the marked-up version of that bill and ask your comment on it. This would be an amendment to section 601(d):

The Administrator shall establish reasonable rules and regulations governing the installation and operation of emergency locator transmitters or other devices that serve the purpose of locating aircraft that terminate flight as a result of an accident.

That apparently would take the place of what we have at the present time.

Mr. FERRARESE. Right.

Mr. HOWE. What is your comment on that way to handle this problem?

Mr. FERRARESE. We certainly support that bill; we would prefer it over the others.

Mr. HOWE. You would prefer this to the language in these bills before us?

Mr. FERRARESE. We might want to make some changes to the language, but basically, we support it.

Mr. HOWE. For what reasons, Mr. Ferrarese?

Mr. FERRARESE. Well, it would give the Administrator more flexibility to establish the rules under which an operator may operate an airplane without an ELT.

Mr. HOWE. And wouldn't that also allow you the flexibility not to require them at all?

Mr. FERRARESE. Well, yes, I suppose it would, but we have no intention of eliminating that. We think the rule is good, we want the airplanes to have ELT's, and we have no intentions of relaxing it beyond what is necessary for an operator to operate his airplane while his ELT is being repaired or replaced.

Mr. HOWE. Mr. Goldwater, do you have a question?

The gentleman from California, Mr. Goldwater.

Mr. GOLDWATER. Let's understand this; I don't have a complete copy of the original act verbatim, but in the Senate version—section 601(d)—does that strike the requirement for an ELT?

Mr. FERRARESE. No, sir. Well—yes, I suppose it would.

Mr. GOLDWATER. Now, in the original—do you have the words of the original act, section (d)?

Mr. FERRARESE. Yes.

Mr. SELFON. Yes. Section 601(d) says, now:

"Except with respect to aircraft described in paragraph (2) of this subsection, minimum standards pursuant to this section shall include a requirement that emergency locator transmitters shall be installed—(A) on any fixed-wing powered aircraft for use in air commerce * * * et cetera, et cetera, and "(B) on any fixed-wing powered civil aircraft used in air commerce after 3 years and 6 months following such date."

And then, in subsection (d)(2), it goes on to list certain exceptions which are enumerated, to the requirement. That is a mandate now, that these aircraft must have ELT's in them; as we understand the marked-up Senate version, it would replace the entire text—

Mr. GOLDWATER. Well, if we are concerned about a permissiveness here that would in fact allow you to create rules not allowing them, when in fact it is the intent of the Congress that they be required, would it not be preferable to clear the air in that regard, to leave section (d) as it was originally written, and then at the end of there, the words "shall be installed" period.

Then start with this section: "The Administrator shall establish reasonable rules * * *" for implementing this. "The Administrator shall establish reasonable rules and regulations governing the installation and operation of emergency locator transmitters that serve the purpose of locating aircraft that terminate flight because of accidents."

Mr. FERRARESE. Well, of course, Mr. Goldwater, that would be up to the Congress, but without having the text of the proposed language before us to review, I could not very well—

Mr. GOLDWATER. Well, you have it right in front of you.

Mr. FERRARESE. Well, I have this [indicating].

Mr. GOLDWATER. I am talking about that language. Under this language, you say it in fact would allow you to create regulations not

requiring—and I am saying: well, if you like that language, which gives you complete flexibility to prescribe rules, if we are concerned about the possibility—which I don't think really exists—but the possibility that you could not require, why not leave section (d) as it was originally written, which says, in fact, emergency locator beacons shall be installed?

And then begin there with: "The Administrator shall establish reasonable rules . . ."? Does that not pin it down a little more?

Mr. FERRARESE. Well, yes, it would, and if the Congress is concerned, why it would be up to the Congress to—

Mr. GOLDWATER. I realize it is up to the Congress, but we are asking for your advice, your opinion.

Mr. FERRARESE. I have no problem with it; let's put it that way, because we have no intention of deleting the rule on the books.

Mr. GOLDWATER. I am sure that is true, but I think Mr. Howe raised a reasonable question. Under the Senate language, would that not in fact give you permission to not promulgate rules? And your answer was "yes" and so I am making the suggestion that if that is true, we had better tighten the Senate language down if in fact we agree that the Senate language may be the way to go.

I throw that out as a suggestion, as a way of cleaning up the Senate language.

Mr. Ferrarese, what does "TSO" mean?

Mr. FERRARESE. "TSO" is technical standard order.

Mr. GOLDWATER. And what does that stand for, and what is its purpose?

Mr. FERRARESE. The technical standard order is a document which prescribes the standards for a particular device, such as the ELT.

Mr. GOLDWATER. That is an official standard by the FAA?

Mr. FERRARESE. That is correct. Yes, sir.

Mr. GOLDWATER. And that would represent a minimum?

Mr. FERRARESE. That would be the minimum. Yes, sir.

Mr. GOLDWATER. Were there TSO's issued for the ELT?

Mr. FERRARESE. Yes, sir. The TSO issued for the ELT—when did we issue the ELT TSO?

Well, obviously we had to issue it prior to implementing the rule. I don't remember the exact date, but we did issue a TSO.

Mr. GOLDWATER. Has that TSO been changed or revised?

Mr. FERRARESE. Not yet but it will be. We have an ELT TSO revision which should come out some time in mid-1976.

Mr. GOLDWATER. What happens to those 100,000 or so that have already been installed; that would not meet that one?

Mr. FERRARESE. The TSO is not a retroactive document.

Mr. GOLDWATER. It is not?

Mr. FERRARESE. It only means that on the effective date of the TSO, all equipment—if it is the ELT, as an example—manufactured after that date would have to be manufactured under that TSO.

Mr. GOLDWATER. Is the manufacturer required to meet that minimum standard?

Mr. FERRARESE. If it is a required item to be installed, yes, they would have to meet it, of course.

Mr. GOLDWATER. If it is a required piece of equipment.

Mr. FERRARESE. Right; if it is a required piece of equipment, they would have to meet that standard; that is correct.

Mr. GOLDWATER. Would you say, therefore, that we could conclude these failures—batteries, inadvertent turning on of these devices—were a result of a poorly written TSO?

Mr. FERRARESE. No, sir, I don't think we could conclude that. You could conclude that, having had this experience, the TSO needs updating, but I don't think we can say that because the TSO was deficient in some areas, and I am sure it is, that it has caused all the problems.

Mr. GOLDWATER. How many manufacturers are there of these devices?

Mr. FERRARESE. I really don't know.

Mr. GOLDWATER. Most avionics manufacturers manufacture one of these, don't they?

Mr. FERRARESE. They can, but I don't think they do. The three that we have listed here are: Garrett, Lay Systems, and the Pathfinder Corp. NARCO.

Mr. GOLDWATER. Well, there are many more than that.

Mr. FERRARESE. I am sure there are some others.

Mr. GOLDWATER. Mr. Milford was discussing some of the problems with the ELT, and one of the big problems is the inadvertent switching on of this device, and then the consequent jamming of the emergency frequency.

That seems to me to be the most serious problem, thus rendering the system not very effective, and not meeting the concern of the Congress.

I asked Mr. Milford about some sort of indicator, such as a speaker, or someone mentioned a light on a dashboard. Is this possible?

Mr. FERRARESE. Yes, sir, with respect to the light. The speaker would be a problem, of course; you would have to have—as Congressman Milford actually said—you would have to have a receiver, and of course the receiver would have to be on all the time, and then you don't know whether you are receiving your signal or someone else's ELT.

Mr. GOLDWATER. This is a transmitter.

Mr. FERRARESE. That is right.

Mr. GOLDWATER. Can it not transmit over a wire to a speaker?

Mr. FERRARESE. Well, I am not an electronics expert, but it would seem to me you would have to have a receiver, with all the components required in a receiver to receive that signal.

But with respect to the light, yes, it is possible. As a matter of fact, the new TSO we will be proposing next year would require it.

Mr. GOLDWATER. A light?

Mr. FERRARESE. Yes, sir.

Mr. GOLDWATER. On the ELT or on the instrument panel?

Mr. FERRARESE. On the instrument panel.

Mr. GOLDWATER. Why not have it on the top of the airplane?

Mr. FERRARESE. Well, what good is that? The pilot flying the airplane won't be able to see it.

Mr. GOLDWATER. Well, if it is sitting on the line—

Mr. FERRARESE. Well, if it is sitting on the line, you can see the light by looking in the window.

Mr. GOLDWATER. But you are addressing yourself to that problem?

Mr. FERRARESE. Yes, sir.

Mr. GOLDWATER. Congressman Mineta raised the question of the amount of sensitivity on impact to activate these devices.

What is the g-force now?

Mr. FERRARESE. I think it is 5 g's, which is not——

Mr. GOLDWATER. Very much?

Mr. FERRARESE. 5 g's is quite a bit, I think.

Mr. GOLDWATER. Well, Mr. Milford just—just by tapping that——

Mr. FERRARESE. I think he hit it harder than just tapping it, if I remember correctly. I think he slammed his hand against it.

Mr. GOLDWATER. That would appear to me to be a little bit too sensitive, if you can throw a bag against it and activate it, or hit it with your hand.

Mr. FERRARESE. Perhaps it is too sensitive. All I can say is that the people who have looked at it, who are expert in this area, when they worked on the TSO, the RTCA Committee made this recommendation, if my memory serves me correctly, and that was the reason—for using 5 g's.

You could have an accident that would disable the aircraft, and injure the crew members or the passengers, and—if you required more than 5 g's, it would not activate, if they were injured. They couldn't get back to activate it manually.

Off the top of my head, I would say that 5 g's is a good figure.

Mr. GOLDWATER. Is that something FAA is looking at on this new TSO?

Mr. FERRARESE. Well, no, because this is the first time that anyone has addressed that as a problem, or suggested that it was a problem, the 5 g's, that is.

Mr. GOLDWATER. Mr. Chairman, I have no further questions except to ask again, Mr. Ferrarese, if you were looking for the best kind of language on these bills, you would prefer, I would assume, the Senate language, which gives you pretty much full flexibility to promulgate rules?

Mr. FERRARESE. Yes, sir, we would.

Mr. GOLDWATER. Mr. Chairman, I would suggest that this be considered as we mark up. I think the FAA has the expertise and the ability to address itself to the question, and I am not so sure that we in the Congress are in a position to foresee all circumstances or possibilities.

Therefore, if we try in our limited way, we may find ourselves back in the same situation again. I think it should be made very clear, however, and it appears that this Senate language does not; that ELT's will be required; with the responsibility falling on the FAA, which would then have the flexibility to meet this requirement.

I think by that kind of simple language we get away from having to come back and, on a Band-Aid kind of approach, patch it up, and we can, through oversight function, review what the FAA is doing on a year-to-year basis.

I would only make that suggestion as a serious consideration to an alternative to all the bills that we are now considering.

Mr. HOWE. Thank you, Mr. Goldwater. I think that is a valid suggestion, and I am sure that the chairman of our subcommittee,

Mr. Anderson, who has just joined us here, will take that into account in the discussion with all of us as we come to markup time for this legislation.

Mr. FERRARESE. Mr. Chairman, could I say—taking up what Mr. Goldwater has said, I would hope that when you redraft this language, of 910, that we are careful not to include those aircraft that are clearly excepted right now.

Mr. GOLDWATER. "Excepted"? Exempt?

Mr. FERRARESE. The present act excepts certain aircraft from the requirement, and we would not want to inadvertently include those.

Mr. GOLDWATER. Are airlines exempt?

Mr. FERRARESE. Yes, they are.

Mr. SELFON. If I can, Mr. Goldwater, what is exempt—the largest class is turbojet powered aircraft, which is in large part, of course, of the air carrier fleet. I think the only technical point is that if you stop, as you were suggesting, orally, with the word "installed"—in other words, we require that an ELT be installed, we wouldn't want to give the impression that it was the intent of Congress—in other words, it is not the FAA's view that it would be the intent of Congress to have it now installed on aircraft that are currently exempted from the ELT requirement of 601(d), and so we are just calling the point to indicate in the drafting that that be made clear.

Otherwise, we might be faced with the situation where the FAA would be told that in fact Congress is now deciding that every aircraft in the United States would be equipped with ELT's, and I don't understand from what you have said that that is your intent.

Mr. GOLDWATER. No. Just, I think, to amend that section—601(d).

Mr. HOWE. Mr. Chairman.

Mr. ANDERSON. Are there any exemptions outside of the turbojets?

Mr. SELFON. If you like, I would be happy to read section 601(d)(2). It says: "(B) Aircraft while engaged in scheduled flights by scheduled air carriers certificated by the Board . . ."—that is the CAB—" (C) Aircraft while engaged in training operations conducted entirely within a 50-mile radius of the airport from which such local flight operations began; (D) Aircraft engaged in flight operations incident to design and testing; (E) New aircraft while engaged in flight operations incident to their manufacture, preparation, or delivery ***" and it goes on to several other categories after that.

Mr. GOLDWATER. Cropdusters, others.

Mr. SELFON. Yes, sir. "(F) Aircraft used for showing compliance with regulations, aircraft used in flight operations for the aerial application of chemicals and other substances for agricultural purposes."

Mr. HOWE. Mr. Mineta.

Mr. MINETA. I was just wondering, in the Senate language, let's say you take it upon yourself to give yourself 24 months under the Senate language, what happens in that time period?

Mr. FERRARESE. 24 months to do what?

Mr. MINETA. To go ahead and promulgate whatever rules and regulations.

Mr. SELFON. Congressman, right now, under the provisions of 91.52 of the Federal aviation regulations, there are regulations with

a time limit already requiring ELT's for the operation of these aircraft, so I am not sure there would necessarily be any hiatus whatsoever.

We are talking about the fact that we have picked up currently in our regulations what are the provisions of 601(d), so if 601(d) were struck out and replaced as suggested, the regulations would stay in force, and all we would have to be sure of is that we had picked up in our regulations all the aircraft that we intend to have operated with ELT's on board. So I don't think there would necessarily be that gap.

Mr. MINETA. Because of the line-of-sight nature of ELT, do you have the equipment or the detection equipment for all of these signals?

Mr. FERRARESE. Well, not all of them. We have—our flight inspection fleet—all of our FAA aircraft are equipped with monitors to pick up ELT signals, and there are certain FAA facilities that do have handheld equipment which can detect a signal on an airport, for example, but I don't know how many of those we have.

Mr. GEIER. NASA is working now on satellite development for future use in pinpointing ELT transmissions, and they are now in the laboratory stage of their evaluations on just what can be done.

Mr. MINETA. The thing that concerns me is the fact that we have, I guess, 500 false signals each month, and you recited, in 1972, 34 rescues, 1973—41, 1974—23, and 1975 so far, 36, and so forth. So far, what we have is 270 rescues.

When you relate actual rescues to the number of false alarms, that really goes back to this reliability question, and I have some very serious reservations about that.

Is the regulation so far ahead of the state of the art that maybe we—under FAR 91—we ought to eliminate the requirement?

Mr. FERRARESE. FAA would be opposed to eliminating the requirement for the ELT. I think what we have to do, as a result of our directed safety investigation, which will be concluded this month, is to attempt to pinpoint the problems and try to correct them, and I think they can be corrected, or at least reduced to an irreducible minimum.

Five hundred false alarms a month is not an irreducible minimum, in my judgment.

Mr. MINETA. How many of these rescues that you have cited here could have been made without ELT's?

Mr. FERRARESE. I don't know. I can't answer that. And incidentally, these rescues may not have been made by FAA; in fact, I doubt that they were made by FAA. They were probably made by the Coast Guard or the Air Force, or the CAP.

Mr. MINETA. Without the necessity of relying on ELT to find that person?

Mr. FERRARESE. No, no; what I am saying is, I can't answer the question as to how many "saves" might have been accomplished without the ELT. I don't know, and I was only correcting when you said, "saves that you have made," indicating the FAA.

I am saying they were probably made by some other agency such as CAP, or Coast Guard, or Air Force.

Mr. MINETA. Do they have ELT detection equipment?

Mr. FERRARESE. Yes, sir.

Mr. MINETA. So that in terms—well, maybe not; let's say, in terms of—because of the ELT being on board, how many of these "saves" would you say you could attribute to the existence of the ELT?

Mr. FERRARESE. You realize that in all 270 saves, the ELT was instrumental.

Mr. MINETA. I see.

Mr. FERRARESE. I thought the question was: is it possible that the saves were without the ELT, and there is no way I could answer that.

Mr. MINETA. Thank you, Mr. Ferrarese, and Mr. Chairman.

Mr. HOWE. Now I would like to recognize the chairman of our subcommittee, Mr. Anderson, who has joined us. We appreciate his being with us. Mr. Anderson has been busy with some other matters on our ADAP legislation this morning.

Mr. MINETA. Excuse me, Mr. Chairman; you say that the flight checklist says that the pilot ought to test whether or not the ELT is functioning?

Mr. FERRARESE. No, we didn't say that. Mr. Milford said that.

Mr. MINETA. The thing is, if I go to 121.5, how do I know whether it is mine or someone else's on the flight line?

Mr. FERRARESE. That is the point; you don't know. But there is a test feature on the ELT that Mr. Milford was alluding to. There is a test position, and you can tell by the light coming on—that indicates your ELT is operative. And you can turn your receiver off and see if it quits. In other words, if you turn on your receiver, to 121.5, and turn your ELT on, you get a signal, if you turn off your ELT that signal should go off the air.

Mr. MINETA. Thank you very much, Mr. Chairman.

Mr. HOWE. Any other questions of this witness? If not, we appreciate, Mr. Ferrarese, your being with us, and your testimony.

Mr. HOWE. Now we will be pleased to hear from Mr. David Scott, the Washington representative of the Experimental Aircraft Association.

Mr. Scott, I note from the information we have that you are appearing on behalf of the General Aviation Manufacturers Association, the National Business Aircraft Association, and the National Pilots Association.

We appreciate your coming today, and we are sorry for the long delay in getting to your testimony.

TESTIMONY OF MR. DAVID SCOTT, WASHINGTON REPRESENTATIVE, EXPERIMENTAL AIRCRAFT ASSOCIATION, ACCOMPANIED BY STANLEY GREEN, VICE PRESIDENT, GENERAL AVIATION MANUFACTURERS ASSOCIATION, AND WILLIAM FANNING, NATIONAL BUSINESS AIRCRAFT ASSOCIATION

Mr. SCOTT. I am David H. Scott, Mr. Chairman, representing the Experimental Aircraft Association, and also presenting a statement on behalf of several aviation associations.

To my right is Mr. Stanley Green, vice president of the General Aviation Manufacturers Association, and to my left is Mr. William Fanning, of the National Business Aircraft Association.

We appreciate the interest of this committee and that of the Members who have sponsored legislation to correct deficiencies in the present legislation. The amendments to the Federal Aviation Act of 1958 proposed now in H.R. 7064, H.R. 8228, and H.R. 9071,

are all intended to provide relief to the rigid provisions of section 601(d) of that act, and relief is needed.

The basic problem with section 601(d) of the Federal Aviation Act is that it singles out a specific piece of safety equipment for regulation by the Congress, while delegating other regulatory responsibilities to the Administrator of the Federal Aviation Administration. The problem is not solely one of seeking the best balance between legislation and regulations, but includes the very practical aspects of legislating detailed regulatory matters of a technical nature in a changing technology.

The mere fact that no relief for temporary operation of an aircraft while waiting for repair of an emergency locator transmitter, or ELT, is possible without an act of Congress is best evidence that the responsibility for detailed regulations should be delegated to the proper regulatory authority.

We are not seeking relief from the intent of section 601(d), as the carriage of emergency locator transmitters is now firmly embedded in part 91 of the Federal aviation regulations, and is in practice.

Several months ago, an unforeseen problem developed with one type of ELT, which caused the FAA to issue an airworthiness directive to remove those units for repair. Inasmuch as thousands of airplanes were involved, the corrective process of modification or replacement was lengthy and these thousands of airplanes were grounded by the order. The FAA had no authority to permit the continued operation of those airplanes, and as a consequence, the airplanes were grounded or flown in violation of section 601(d). No one really knows the extent of either of these two possibilities.

Obviously, H.R. 7064 and H.R. 8828 are designed to give relief to just that type of situation, but we doubt that it covers every situation that needs relief today, or in the future. For example, a major problem has been in replacing batteries, either for normal replacement or for corrosion, or to avoid explosion in a few cases. While battery replacement may be labeled "repair," the entire transmitter need not be removed to make the repair. Therefore, it is questionable whether an airplane could be flown while waiting for a dealer to obtain fresh batteries unless the entire transmitter was removed.

The above is cited to illustrate problems that arise from attempting to regulate by basic statutes. We believe the Congress, and the public, would be better served if language is included which allows the Administrator to establish reasonable rules and regulations governing the installation and operation of emergency locator transmitters, or other devices that serve the purpose of locating aircraft which terminate flight as the result of an accident.

We recommend that section 601(d) be amended as follows:

601(d). The Administrator shall establish reasonable rules and regulations governing the installation and operation of emergency locator transmitters or other devices, that serve the purpose of locating an aircraft that terminates flight as the result of an accident.

The suggested change would be to continue the effect of the present law as it is embodied in part 91 of the Federal Aviation Regulations. However, it would also give the Administrator the ability to cope with changing the emergency conditions, as well as determining whether

additional exceptions or exemptions should be made in the interests of safety and orderly regulation of air commerce.

We recognize that many will desire to continue the exemption now contained in section 601(d). These exemptions would be automatically continued as they are now included in FAR 91, and would remain as they now are unless and until changes are made under normal rule-making procedures. However, if Congress wishes to retain control over the classes of aircraft exempted, we would recommend the classes now listed in section 601(d).

If the committee does not feel inclined to give additional regulatory authority to the Administrator, then we urge the adoption of H.R. 7064, with one modification, as to the best solution to current deficiencies in section 601(d).

H.R. 7064 provides for most foreseen circumstances of operating aircraft, while waiting for repair, modification or replacement of the emergency locator transmitter. But there may be other circumstances not now foreseen, that require exemption. Therefore, we recommend that H.R. 7064, if adopted, be modified to give the Administrator authority to specify other circumstances that would permit the operation of aircraft without an emergency locator transmitter.

H.R. 8228, although providing some relief to the current law, covers only the narrow circumstance where the Administrator has issued a specific rule, such as an airworthiness directive, requiring inspection, repair or modification of an ELT. The bill would provide no relief in the case of failure, modification or improvement or replacement at the option of the owner, and other circumstances where inspection, repair, modification or replacement is necessary, but not foreseen, in a rule by the Administrator. Therefore, we believe H.R. 8228 would not provide adequate relief from the strict provisions of section 601(d) of the Federal Aviation Act of 1958.

H.R. 9071 would give agents of the Secretary of Transportation the authority to enter forcibly any airplane suspected of having an active emergency locator transmitter. We recognize the serious problem caused by unwanted transmissions from emergency locator transmitters interfering with legitimate transmissions or, more likely, disrupting routine monitoring of the emergency frequency by air traffic control facilities. Certainly some answer must be found to prevent unwanted transmissions from interfering with monitoring and search activities, but we believe a cure involving any DOT employee, using a hatchet or crowbar to enter an airplane is worse than the disease. Years ago, Department of Commerce inspectors could vandalize airplanes under the guise of grounding allegedly unairworthy airplanes, but that practice has long since been regulated into obscurity. Nevertheless, improper forcible entry by law enforcement officers makes the front pages often enough to cause grave concern over the prospects of giving such broad entry authority to other Government agents.

We believe that reasonable technical solutions, not involving forcible entry and destruction of property, can be found by the FAA through normal rulemaking processes, and if the amendment to section 601(d) that we suggested is adopted, the unwanted transmission technical problem could be solved by the FAA and the industry without further abrogating the property rights of individuals.

Therefore, we oppose the adoption of these provisions of H.R. 9701. Thank you for the privilege of appearing before you on these important bills, and that concludes my statement.

Mr. HOWE. Thank you, Mr. Scott. That was a very fine statement, and we appreciate your delivering it to us this morning.

I have a few questions relating to your testimony. I gather from your testimony that you would prefer the language of the Senate version, S. 910, which appears to be—as far as I could tell from your testimony—identical to the suggestion that you are making, to the language in the bills that we have before us.

Mr. SCOTT. Yes, sir, that is correct, and I think Mr. Green would like to speak to that point, in connection with the FAA's privileges under that provision.

Mr. HOWE. We would be glad to hear from you, Mr. Green.

Mr. GREEN. Congressman Howe, the language in this Senate bill, which we do prefer, is basically identical in the lead-in part to that authority given to the FAA to promulgate its safety regulations governing the design and construction of aircraft. I don't think FAA has been remiss in administering the will of Congress, that it is to regulate these aircraft by that language.

The discretion that Congressman Goldwater mentioned as to not promulgating rules, I don't think exists under the language, because it clearly states: " * * * the Administrator shall establish reasonable rules"—but rules, in any event, governing the installation and the construction of the transmitters.

That type of language has existed for years before the 1958 act, even under the 1938 act, and we have good aircraft because of it. I think we can have good ELT's in the same manner, and ELT's on all aircraft that should have them.

Mr. HOWE. You are saying that you think the language would not leave the door open for the FAA to indicate by rule that we would not have the requirement for ELT's?

Mr. GREEN. I can not see how it could leave that door open. By the same token, it would leave the necessary exceptions—the agricultural aircraft is a clear-cut case. If he is flying low, everybody knows where he is, he has a couple of flagmen watching him, they know where he has gone down, if he goes down. He does not need one.

Mr. HOWE. Mr. Scott, in your statement, you state there that the language you suggest would continue the effect of present law. Would this not depend upon administrative decision on the part of the FAA?

Well, apparently by an inadvertence, we have made reference, not in your statement, but back to the Senate version, which we talked about a few minutes ago, which you said you would prefer.

That goes back to this question I was discussing with Mr. Green. When the FAA people were here with us, Mr. Ferrarese seemed to indicate that he thought that that would leave discretion to them.

What is your opinion about that?

Mr. SCOTT. I would have to agree with Mr. Green, even though we did not talk about that before this session. But I feel, the way the law is written, I just don't believe that the FAA could completely eliminate all aircraft, even though, of course, if would not be their intention to do so.

Mr. HOWE. Yes, they made that quite clear, I think.

Mr. SCOTT. Yes, sir, but in my opinion the FAA is still going to write rules for specific ELT aircraft, and may I just add one thing here, that we have discussed some of the exemptions and I believe one of the more important exemptions is single-place aircraft.

Mr. GREEN. Mr. Howe, if I can give an illustration of one case that perhaps would give some idea of why I believe the FAA needs a little bit more authority that they have in the rule—we export, as I am sure you are aware, quite a few aircraft which, under the laws of the foreign countries, are not required to have ELT's. No. 1, they don't have the systems to utilize them. But right now, an aircraft, for instance, that is being sent to Europe via the long route, around the northern route—being flown to Europe, would have to carry an ELT up to the border, and then would no longer be required to have one.

Now, we had asked FAA if it is possible, by stretching the language of the law now, could they give us that exemption, and they ran into some difficulty such that we now have to have an ELT in an export aircraft until you get to the border, and of course he does not drop it off there; he carries it with him to Europe and then he has to bring it back.

So that additional small piece of flexibility would be desirable. We would rather not put it in there; if the man is going to be on a flight plan, his route is known.

Mr. HOWE. Apparently, Mr. Green, that appears to be, under this section—subsection (3)—already exempt.

Mr. GREEN. Yes, that was one of the first—well, when this bill was amended after the first time, when the time for compliance was extended, that was put in, but again, to come to Congress for—I don't want to call it a minute item, but an important, though rather small in the terms of what you people have to deal with, I think it is unnecessary.

I think the FAA could have, under the language in the Senate bill, permitted such an exemption without the need to come to Congress.

Mr. HOWE. Mr. Goldwater.

Mr. GOLDWATER. Is it your understanding that these aircraft that are used for fighting forest fires are exempt? Or do you know?

Mr. SCOTT. I just don't know. I don't have with me the list; I guess Mr. Ferrarese has left.

Mr. GOLDWATER. I should have asked Mr. Ferrarese that question. We were talking about aircraft and flight operations incident to the application of chemicals and other substances for agricultural purposes.

Mr. SCOTT. That would not include firefighting equipment in my opinion.

Mr. GREEN. Mr. Goldwater, in fact, the FAA has exempted them on the grounds that the protection of the forest is an agricultural purpose, and has allowed it, but it did require stretching.

Mr. GOLDWATER. The gentleman from the National Business Aircraft Association, Mr. Fanning.

Mr. Fanning, I notice that in the exemptions, aircraft that are turbojet powered are exempted. Now, business aircraft come in various sizes and shapes, some of which are turbojet powered; others

are piston powered. Don't we have a situation here, as it pertains to business aircraft? Some are required to have it and some are not?

Mr. FANNING. That's correct, sir.

Mr. GOLDWATER. Has this met with any kind of difficulty as far as business aircraft users are concerned?

Mr. FANNING. Well, I think that most of the business aircraft, even though they are not required to have them, do have them.

Mr. GOLDWATER. You mean turbojet powered?

Mr. FANNING. Yes, sir, even though they have mixed fleets—both types of aircraft in there—they have found that the ELT is a valuable piece of equipment to have, and it serves a good purpose, and therefore they put it in their aircraft, even though it is not required.

Mr. GOLDWATER. This is a general practice? It just appeared to me that you were treating business aircraft somewhat differently—some of them—than others.

Mr. FANNING. Well, the aircraft—generally the turbojets—you know, they fly right behind the Eastern airliners or the American airliners, and they are high performance, just like the other ones, so therefore, when they were exempted, we just used the word "turbojet."

Mr. GOLDWATER. But there are some turboprops that fly right alongside, maybe not quite as fast, but they fly in the same controlled airspace.

Mr. FANNING. Yes, sir, but they are required to have them.

Mr. GOLDWATER. Well, that certainly is another problem.

But I take it, from your statement, Mr. Scott, that you feel that the FAA does have the capability and should have the flexibility, because of the changes in technology and the change in requirements, and unforeseen situations, to have the flexibility to promulgate the rules.

Mr. SCOTT. Yes, sir. That is our position, and I think it is almost intolerable for us and you to have to deal with these details of aircraft operations every time that something unforeseen comes up, and I would hope that this legislation, if adopted, would relieve you of the time that you have to spend on these operational details.

Mr. GOLDWATER. Mr. Scott, just one last question. Does the Experimental Aircraft Association have any trouble with the current regulations as they apply to experimental aircraft?

Mr. SCOTT. Yes. We have opposed the mandatory installation of ELT's on experimental aircraft, because these aircraft, by and large, are flown for recreational purposes in their local areas, and not only that, they are low-cost airplanes and they are operated by people with very modest means, and to ask them to put a couple of hundred dollars in a device which, to them, is going to be of no value, has been a rather "bone in the throat" which is the phrase that has been used in the last few years.

So I would say, generally speaking, that experimental—that the Experimental Aircraft Association has felt that the law was somewhat unwise. There are certainly areas in the country and operations where ELT's should be used, but we have opposed the mandatory requirement because when you are going to spend \$200 on an item, maybe there is something that the owner could spend that \$200 for and get a lot more safety than an ELT.

Mr. GOLDWATER. What is the FAA's attitude toward this? Have they expressed one?

Mr. SCOTT. Well, we have talked to the FAA for a long time about it. The FAA is willing to go along with a congressional mandate. I think they thought it was premature—this is my personal opinion—to require the ELT's for all the aircraft fleet, and at the time the legislation was proposed, they told me, off the record, they felt it was a little premature and unwise.

As has been mentioned here this morning, perhaps it was a little ahead of the state of the art, and we have gotten into all of these problems that could not be foreseen. My personal opinion again is that if the FAA had its choice, they would have gone to development—through a developmental period, not only for development of reliable ELT's, but a good system of monitoring, and if maybe in a few years they would have then come out with a law that everybody would have accepted.

Mr. GOLDWATER. How would you word that if we were to, say, put an exemption in here for—would it be experimental aircraft used for local recreational purposes? Because there are experimental aircraft that are used for more than just recreation.

Mr. SCOTT. Yes, you are correct. I think we would have to give very careful thought to that. I frankly was not prepared to give you language this morning that I think we would approve, but you have a good point, in fact, that there are experimental aircraft that are used for transportation purposes, and they do fly across country, and in those cases, I think if they are flying in the Rockies, or over desolate areas, why obviously, an ELT is a good safety thing, if it is properly developed and it can be monitored.

Mr. GOLDWATER. Of course we could always approach it by including a subcategory (j), and if we are in fact giving the FAA Administrator the flexibility, in the language you suggest, we might also give him the flexibility to exempt or even not exempt or to eliminate one of these exemptions.

Mr. SCOTT. Well, I think we would be willing to handle the problem if you choose to accept the language here, by taking our case to the FAA and seeing if we could get some desirable relief there.

Mr. GOLDWATER. Thank you.

Mr. HOWE. The gentleman from California, Mr. Mineta.

Mr. MINETA. No questions, other than to thank the witness for coming before us.

Mr. ANDERSON. No questions.

Mr. HOWE. The gentleman from Missouri, Mr. Taylor.

Mr. TAYLOR. Thank you, Mr. Chairman. I apologize for my tardiness; I will read the testimony and thank the witness for his appearance.

Mr. HOWE. Thank you gentlemen; we appreciate your coming today, and your testimony.

Our next witness will be Mr. John Yodice, the Washington counsel for the Aircraft Owners & Pilots Association, accompanied by Mr. Robert T. Warner, special assistant to the vice president, and Mr. David Salmon, congressional affairs.

TESTIMONY OF JOHN YODICE, WASHINGTON COUNSEL, AIRCRAFT OWNERS & PILOTS ASSOCIATION; ACCOMPANIED BY ROBERT T. WARNER, SPECIAL ASSISTANT TO THE VICE PRESIDENT; AND DAVID SALMON, OFFICE OF CONGRESSIONAL AFFAIRS

Mr. YODICE. Thank you, Mr. Chairman.

Mr. Chairman, as you know, our association has a very important interest in the legislation being considered by your committee.

The Aircraft Owners & Pilots Association is a nationwide non-profit membership association of 180,000 aircraft owners and pilots, more than one-half of whom own aircraft, and all of whom fly general aviation aircraft. Our membership has been substantially affected by the emergency locator transmitter requirement, and we would be substantially benefitted by any remedial legislation reported out by your committee.

We support enactment of H.R. 7064, which would amend the Federal Aviation Act to permit operation of an aircraft without an emergency locator transmitter, required by the act, if the ELT has been temporarily removed for repair, replacement, or modification.

Over our objection, the requirement of an ELT was enacted by Congress in 1970 and was amended in 1974. In general, this law requires all civil airplanes of United States registry to be equipped with emergency locator transmitters, and lists certain specified exemptions, as for example, turbojet aircraft scheduled airliners, training, testing and exhibition flights, and single-place aircraft. After some experience with the ELT requirement, it became manifest to us, through numerous complaints from our members, that the law made no provision for continued operation of an aircraft if its ELT was removed for repair, modification or replacement.

Because the ELT concept is relatively new, we have been experiencing considerable malfunction of the ELT units in service. Many aircraft have been temporarily grounded. FAA, while being sympathetic with the problem, has consistently taken the position that it does not have the authority to grant exemption from the ELT requirement in these instances.

In this connection, I think it is significant for the committee to be aware that an aircraft is required to carry other pieces of electronic equipment for certain specified operations, as for example, two-way radio, navigation receivers, transponders, and altitude encoders. If any one of these pieces of equipment malfunctions and is taken out for repair, the aircraft is not grounded. It is only the ELT which carries this consequence. This is because the ELT is required by statute, whereas the other required electronic equipment is required by regulation. There would seem to be no justification for this difference of treatment, and H.R. 7064, if enacted, would cure this difference.

With respect to H.R. 8228, while we also support this bill, we would prefer H.R. 7064. H.R. 7064 will provide certain and immediate relief to the problem. H.R. 8228 will require rulemaking to implement, and the specific remedy will be left to the discretion of the FAA Administrator. This will delay relief at least several months beyond its enactment, and the relief is uncertain.

With respect to H.R. 9071, we are opposed to its enactment, in its present form. I understand from Congressman Milford's testimony that he plans to propose an amendment to that language in the markup session which would make it more acceptable to our membership. I think we would still be opposed to the breaking and entering into hangars, on the same principles espoused in my written statement.

For the reason that the bill will be modified, I will eliminate that part of my prepared statement, and in conclusion, thank you for taking cognizance of this troublesome defect in the law, and for considering proposals to cure it. We would be happy to entertain any questions on the matter.

Mr. HOWE. Thank you, Mr. Yodice. We appreciate your statement very much. Let me ask you: We do note your endorsement of H.R. 7064.

With regard to that bill, the FAA—I think you were here and heard their testimony this morning—have suggested that there be a change to that bill which would add the phrase: “* * * and operated under conditions and limitations prescribed by the Secretary.”

What do you think about that change? Do you have any comments on that? Would that improve it?

Mr. YODICE. Yes, sir. I think the fact which distinguishes H.R. 7064 from all of the other bills is the fact that it would provide immediate relief. I disagree with FAA; I understood them to say that rule-making would be required with respect to any of these proposals.

I don't think that is true with respect to H.R. 7064. I think H.R. 7064 says very clearly that if you remove your ELT for repair, modification or replacement, you can continue to temporarily operate that aircraft.

Mr. HOWE. Of course, if you add the phrase that they are talking about, then that does put it right back into the rulemaking requirement, doesn't it?

Mr. YODICE. Precisely, sir.

Mr. HOWE. But that would be your preference over all this language; is that correct?

Mr. YODICE. Yes, sir.

Mr. HOWE. Does that take into account the language that you have heard us discuss with other witnesses, that the Senate subcommittee has come out with, which is really a matter of total discretion, as I read it, for the FAA?

Mr. YODICE. We would support the Senate version. I would have this additional comment, Mr. Howe. If we would—if the Congress would rescind section 601(d) altogether, it will have the same effect because the FAA does have the authority under the remaining portions of section 601 and other provisions of the act, to promulgate the ELT requirements. So we could accomplish the same thing by merely rescinding the 601(d).

Mr. HOWE. That of course does not give any direction to the Department, but it does leave it completely at their discretion. But you say you think they are still compelled by other provisions to make that requirement?

Mr. YODICE. Well, the FAA would not be compelled to impose an ELT requirement, but as we have seen, they are disposed to do so.

Mr. HOWE. That was their testimony.

Mr. YODICE. In our experience, sir, they have never been hesitant to impose additional requirements on us.

Mr. HOWE. Mr. Goldwater, do you have any questions?

Mr. GOLDWATER. Do I understand you to say that you have no problem with a discretionary kind of language as proposed by the Senate?

Mr. YODICE. Yes, sir, that is correct. We would support that. We would prefer your bill, but secondarily we support the Senate version, as well as H.R. 8228, which I think has the same effect. I don't find the defects in H.R. 8228 that the FAA does, or the other speakers have found. I think the FAA can promulgate rules requiring repair, and that that would, in addition, promulgate regulations that would permit operation while the repair was being made.

Mr. GOLDWATER. Thank you very much.

Mr. HOWE. The gentleman from Missouri, Mr. Taylor.

Mr. TAYLOR. Mr. Chairman, you indicated that you had had considerable difficulty with the ELT. What causes these ELT's to go off, as I have heard many pilots actually say they will? What causes this malfunction, do you know?

Mr. YODICE. Well, as a general response, sir, we believe that the requirement was imposed far ahead of the state-of-the-art.

Now, specifically what was involved was determining what g force for what period of time would trigger the ELT, and FAA came up with 5 g's, plus 2 g's for 11 milliseconds. This has turned out to be a force which is encountered in many other instances other than air crashes. In addition, they have had problems with batteries, where the batteries would corrode, causing the ELT to activate.

Mr. TAYLOR. Have there been technological improvements made in the ELT since its inception?

Mr. YODICE. I understand, sir, that the Radio Technical Commission for Aviation has under active consideration new criteria for ELT's which I am certain will lead to improved ELT's, but I don't think we have them yet.

Mr. TAYLOR. Thank you, Mr. Chairman.

Mr. HOWE. Are there any other questions of these witnesses?

If not, gentlemen, we appreciate your coming very much, and your interest in this legislation.

That concludes all the witnesses that the committee was to hear from this morning. I do have one announcement before we adjourn; that is that the subcommittee will be continuing its hearings on noise problems in room 2167 tomorrow morning at 10 a.m. with witnesses to appear from NASA, for your information.

The subcommittee will stand adjourned.

[Whereupon, at 12:31 p.m. the subcommittee adjourned.]



