



DEPARTMENT OF TRANSPORTATION

NEWS

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FOR IMMEDIATE RELEASE

June 19, 1969

STATEMENT BY FAA ADMINISTRATOR JOHN SHAFFER

FAA Administrator John Shaffer tonight condemned the abnormal absenteeism of the Nation's air traffic controllers at key cities across the Nation, which has caused disruption of both civil and military air traffic. He said the FAA is administratively investigating the circumstances surrounding this unusual and apparently concerted action. The foregoing statements were made in response to inquiries by the press as to what action was being taken by FAA to resolve the situation.

Mr. Shaffer also noted that as recently as Tuesday and Wednesday of this week he had restated his concern about the insufficient capacity of the air traffic control system during appearances before the Senate Commerce Committee. Mr. Shaffer further stated that there is recognized need for additional air traffic control staffing to meet the demands on the system and the FAA is, in fact, studying second career opportunities for controllers and/or early retirement as ways to make the air traffic controller career more appealing. The Administrator expressed his hope that the situation could be restored to normal before the weekend while noting that strikes by U.S. Government employees are not authorized by law.

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STATEMENT OF JOHN H. SHAFFER, ADMINISTRATOR OF THE FEDERAL AVIATION
ADMINISTRATION, DEPARTMENT OF TRANSPORTATION, BEFORE THE HOUSE COMMITTEE
ON INTERSTATE AND FOREIGN COMMERCE ON 21 JULY 1969, RESPECTING AIRPORT
AND AIRWAYS DEVELOPMENT

Mr. Chairman and Members of the Committee:

I appreciate the opportunity to appear before the Committee to discuss the problems and needs associated with the airport and airways system.

As Secretary Volpe indicated in his statement, the growth of aviation over the last several years has been impressive. During that same period, however, improvements made to the airport and airways system have not been adequate to permit the system to keep pace with the increasing demands placed upon it.

Our forecasts indicate that the present rapid rate of growth of aviation will continue over the next decade. As a result, unless action is taken to institute a major program of improvement and expansion, the capability of the airport and airways system to accommodate the demands will continue to deteriorate and potential beneficial growth will be curtailed.

We have submitted to the Committee for the record a separate paper outlining in considerable detail the forecasts of airport and airways requirements we envision for the next ten years. That paper contains a number of tables and other exhibits which we hope the Committee will find helpful in its deliberations on the airport-airways problem. It represents FAA's current planning efforts.

Now, however, I would like to discuss much more briefly our airport and airways estimates, and following that, discuss some of the problems we are experiencing because of the failure of the airport and airways system to keep pace with the times.

The current National Airport Plan establishes that 3,200 of the existing publicly owned civil airports in the United States are required in the national system. Today, there is an indicated need for improvements to the airfield portion of about 2,750 of those airports. In addition, we estimate that more than 900 new airports will be needed within the 1970-1980 time frame. Surveys made outside FAA indicate that substantial improvement is now needed to the terminal facilities at the nation's 60 largest airports.

We estimate that during the period 1970-1980, the total airport development requirements of the nation will be about \$8.5 billion (a discussion of those needs is contained in the opening pages of the separate paper we have prepared for the Committee). Of that amount \$5 billion would be for the development of the airfield portion of airports, and the remaining \$3.5 billion would be for terminal area development.

About 70 percent of the funds for accomplishing public airport development over the past five years has been provided by local governments. About 9 percent of the financial burden has been carried by the states,

while the balance of 21 percent has been carried by the Federal government. The issuance of revenue bonds has been the primary means of financing the development of large airports, although grants under the Federal Airport Act also have made a substantial contribution to such development. In the case of smaller airports, on the other hand, little revenue financing capability exists and, therefore, there has been greater reliance upon grants from state and federal sources and local general obligation bonds.

The ratio of Federal airport grants to requests for grants has sharply diminished over the last few years. For the past eight fiscal years, Congress has authorized appropriations under the Federal Airport Act in the amount of \$75 million annually. (Of course, appropriations have not always equalled the authorized amount.) During the period 1962 through 1966, airport sponsors' requests for aid for eligible development amounted to about twice the authorized amount. Since 1966, however, the requests increased to the point where we received in connection with the fiscal year 1970 program eligible requests amounting to \$455 million of Federal funds or five times the authorized program level.

Our airport problems will intensify during the next few years. We should not allow ourselves to fall behind, but should move to anticipate the need.

The airways program we have designed for the next ten years calls for the expenditure of a total of over \$12 billion (this figure does not include other FAA costs, such as those for the safety regulatory program).

Of that amount we estimate that over \$2 billion will be needed for our facilities and equipment. Over \$400 million is forecast for the automation of the en route portion of the air traffic control system, and approximately \$250 million for the automation of terminal air traffic control facilities, which in turn leads to still further increases in the effectiveness of our controllers. Estimates of other important items are \$90 million for air traffic control towers, \$200 million for the establishment and replacement of long range radars, and \$200 million for terminal area radar facilities.

Under our current airway appropriation level, we would fall far short of our ten-year forecasts.

Our research and development forecasts over the next decade include the amounts for keeping today's system operating and modernized, and the amounts for developing the "next generation" airways system. These estimates would require the expenditure of an average of \$60 million per year-- more than double our current effort.

In the area of maintenance and operations, we estimate that our needs over the next ten years will increase. For example, at the end of fiscal year 1969, the staffing level for our control centers, towers and flight service stations was approximately 21,000. By the end of fiscal year 1980 we estimate that the total will reach 43,000, an increase of about 22,000. On the maintenance side, our current total of technical personnel is 9,100. By fiscal year 1979, we estimate the need for another 4,200, bringing the total to 13,300. In order to provide for these personnel increases and associated costs, the funding level for maintenance and operations will increase by 50 percent in the next decade.

What will happen if we continue to operate under existing funding levels and an inadequate airport and airways system? There are no adjustments we can make in our regulatory program and in the air traffic control procedures which will overcome system inadequacies. Obviously we could and if necessary we will take care of the safety problem by restriction, but that approach is not a realistic alternative to providing additional capacity to meet demand.

No one wants traffic demand restricted. Therefore, we must accommodate current and expected growth in aircraft operations with appropriate improvements to the system. I believe the Administration's proposed bill is a comprehensive and forward-looking proposal, and will provide the program required to bring airport and airways facilities and services in line with the burgeoning needs of civil aviation in serving the public and all national interests.

The fact that we have found it administratively necessary to place restrictions on aircraft operations into and out of five airports in three of our largest metropolitan areas is a clear indication of the increasing demands being placed upon the system.

Enactment of the Administration's proposal is needed now. It not only is needed to meet the growing need for facilities, manpower, and equipment I have discussed, it is also needed to permit us to plan and manage our operations efficiently. We should have a financing mechanism that enables us to avoid the false starts and ups and downs that have made it so difficult in the past to design and carry out needed programs.

We also should have a mechanism that will enable us to take advantage of the technology we now have at hand and to employ evolving concepts and techniques in aeronautical planning, air traffic control, and air navigation.

Improvements in the conduct of airports and airways planning would be one of the most beneficial results of enactment of the Administration's proposal. Planning could then be realistically conducted on a long-range basis. We could look ahead to what the future airway needs will be, plan and establish programs to meet those needs, schedule the type of research and development needed to fulfill the long-range requirements, and have reasonable assurance that funds to support the programs will be available.

In implementing our plans, we could move ahead with improvements on an even keel. For example, capital improvements to the airways system could be programmed on a long-range basis. When undertaking to install a specific type of air navigation aid we could procure the equipment over a period of years with the reasonable expectancy that funds would be available several years ahead to finance their continued installation. In the case of the training of our air traffic controllers, we could operate with greater efficiency by maintaining the throughput of trainees at the appropriate level.

The legislation makes specific provision for an expanded national airport systems planning function in the Department, and for area airport systems planning at the state and local levels. Our planning would be conducted on at least a ten year basis and, unlike today,

would take into account airport terminal and access needs, as well as needs for improvement of the airfield portion of airports.

Another point I would like to make is that in conducting our overall planning function, we propose to encourage substantial involvement by the public. We have always looked to the aviation industry for a valuable input of ideas to help us in our operations. Under the program which we initiated this spring when we held our first annual National Aviation System Planning Review Conference, we intend systematically to provide for public participation in identifying long-range needs and helping us evaluate alternatives to meet those needs. We believe that such a procedure is particularly appropriate if we are to obtain from the users of the airport and airways system a substantial portion of the funds needed to finance that system.

In carrying out this overall planning, the Department continually works with other organizations which share a mutual interest. In this connection we look to the development of VTOL and STOL aircraft operations to provide a vital connecting link between airport, seaport, railway, and other transportation facilities in truly integrated transportation systems.

With respect to our need for air traffic controllers over the next decade, I believe we must think not only in terms of numbers, but in terms of the computerized environment in which the controller operates. The controller's job will change somewhat in that the automation we now have underway will relieve him of many of his present time-consuming duties. This will make him more rather than less crucial to the system.

The controller will spend more time making decisions -- managing instead of operating. As we do today, we will have to rely on him in particular to exercise sound judgment to cope with the unexpected.

I would like to say a final word here about the relationship of our proposed legislation to aviation safety. We believe the present safety record is generally good. We would like to see that record improved and we believe that it can be.

We have sufficient authority to impose regulations designed to provide a reasonable level of safety. But the challenge we face today in aviation is one of growth and, therefore, I believe that expansion and improvement of the system is the choice we must make. The alternative is the imposition of more restrictions and a stifling of progress.

Mr. Chairman, that concludes my prepared statement. I will be happy to answer questions the Committee may have.



DEPARTMENT OF TRANSPORTATION

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NEWS

FEDERAL AVIATION ADMINISTRATION

WASHINGTON, D. C. 20590

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REMARKS PREPARED FOR DELIVERY BY
JOHN H. SHAFFER, ADMINISTRATOR
FEDERAL AVIATION ADMINISTRATION
AT THE ANNUAL MEETING OF THE
AIR TRAFFIC CONTROL ASSOCIATION
LAS VEGAS, NEVADA
SEPTEMBER 30, 1969

This is the first occasion I have had to attend a National ATCA Convention. However, I deal on almost a daily basis with individual members of your organization, and I have met with ATCA officials a number of times since going to work at 800 Independence Avenue. I suggest our "first of a kind" meeting last July 24 was especially useful.

Let me say that I am grateful for the highly professional way ATCA defends the interests of the air traffic controller without offending the public interest. Mr. Riddle, Mr. Kriske, and the other officers of the association have shown by their leadership that they recognize and respect the controller's responsibility to the public; they also make quite clear what they consider to be the public's responsibility to the controller. In this respect, I can assure you there is no real gulf between what you as employees are seeking and what we in the agency want for you. In the broadest sense, we both want to make the air traffic control profession less taxing and more rewarding. We also recognize that we must

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work together to achieve a significantly better air traffic control system.

I came to the FAA last spring with two objectives in mind: To improve the airspace system in this country for all who use it; and to improve conditions for those who operate that system.

Evidently I have not communicated my intentions emphatically enough, or demonstrated my convictions forcefully enough. At any rate, I have been the target of some criticism -- both for things I have reportedly said and for things I apparently left unsaid; and the agency has been accused in some quarters of neglecting to provide properly for the safety of the airways, despite an accident rate that has declined while air miles flown have increased substantially.

In the face of this criticism I am tempted to side with Disraeli, who said: "How much easier it is to be critical than to be correct." But if criticism serves to focus national attention on civil aviation's needs and bring national resources to bear on the solutions to today's problems, then I welcome the critics as allies to my cause and partners with me in behalf of airport and airways expansion.

I realize that accidents like the midair collision near Indianapolis earlier this month raise questions in the public's mind about the safety of flying. In fact, as you and I well know, similar tragedies in the past have done more to generate public support for navigation aids and other facilities and equipment than all the studies, forecasts, and rhetoric the agency could muster. It is unfortunate that this should be the case; unfortunate, too, but understandable, that the public's confidence in what is intrinsically a good air traffic control system should be shaken.

Perhaps what is most disturbing to me is the inference which seems to be at large that nothing is being done or that little can be done at the Federal level to keep pace with aviation's growth, or to enhance the safety of flying in today's vastly busier skies. I'd like to talk for just a minute on the present and future of that subject.

First; as I have told members of the Congress, we need more and better airman education, and we intend to expend considerably more effort in that direction. The aviation community, perhaps, could also benefit from more public education, to better inform people that air traffic control today often depends on electronic and verbal contact between pilot and controller. I am of the persuasion that total dependence on the "see and be seen" principle is no longer acceptable, in light of today's growing traffic between and in the vicinity of hub cities, and the great disparities in aircraft sizes and speeds.

Second; segregation of the airways and the positive control of all aircraft are highly desirable objectives, from the safety point of view, but require more facilities, equipment, and people than we have in the system at present, plus agreement on the part of the various users of the airspace. We have, however, issued today a notice of proposed rule-making aimed ultimately at the control and segregation of air traffic in the vicinity of all airports served by turbine-powered aircraft.

The plan announced today is the culmination of months of effort devoted to finding ways of reducing the possibility of midair collisions where traffic is the heaviest -- around the major airports. We also want to allow the maximum freedom possible for the operation of satellite and transient traffic. But, as you well know, the principal problem in a terminal airspace operation is the mixture of controlled and uncontrolled traffic. The way to a safer environment, therefore, is to achieve a true separation of aircraft in the terminal airspace.

At the large hubs, the confines of the controlled airspace under the new rule will vary somewhat from one terminal area to another, but generally each will extend 15 to 20 miles from the primary airport. All aircraft operating within that area will be required to have an ATC clearance for both IFR and VFR flights; the planes must have two-way radio, VHF navigation equipment, and a transponder beacon; student pilots will not be permitted; and the reported ceiling will have to be at least 1,500 feet for VFR aircraft to operate to or from an airport within the control area.

The first high density terminal area to come under the rule will be the Washington National-Andrews AFB area. We will expect to follow up this plan with announced controlled airspace configurations for O'Hare, Los Angeles, Kennedy, LaGuardia, Newark, Atlanta, San Francisco, Dallas, Boston, Miami, and Detroit. Beyond those cities, our next steps will be to outline similar plans for 12 more large hub airport locations, including Las Vegas.

It is our intent to follow this proposal with another general notice which will deal with the collision potential at all other air carrier airports. The operating rules for these locations will be less stringent, but there will be no compromise with our objective which is to provide a safer terminal airspace environment wherever congestion is reaching a critical level.

A third item I might mention under the "continuing effort" category is the acquisition of new facilities and equipment.

The agency has made full use of all the F and E money appropriated by the Congress, and we have been adding to the system as circumstances permit. During FY 1969, for example, 57 new facilities were commissioned, including six new control towers and six new instrument landing systems.

Computerization of the centers is continuing, and the terminal automation program -- the ARTS III system -- is underway. As you may know, we have general Gus Lundquist acting as "management central" for that program to be sure it gets undivided attention. The prospects appear very favorable now for acceptance of the first system in about 14 months. After that, the deliveries should build up to four a month, with all 62 locations completed by late 1972.

We also have a new generation of airport surveillance radar (ASR) equipment under contract and we plan to install ten of these dual channel, solid state systems at high density locations beginning in the fall of 1970. We expect substantial improvements in stability, reliability, and maintainability, improved performance in weather clutter conditions, and better flexibility for the controller in selecting receiver performance characteristics.

Incidentally, I want to make it unmistakably clear that the growing automation of the system will not result in any reduction in controller jobs. We added 2086 people to the air traffic control force during fiscal 1969; we have a thousand students in daily attendance at the academy; and we are anticipating 4300 enrollments in air traffic control courses during FY 1970. Through 1980 we forecast an increase of approximately 21,000 air traffic controllers -- an average annual increase of more than two thousand. The automation of the towers and centers will reduce the workload of the individual controller, but will by no means separate the man from the system.

Past and present efforts, however, fall far short of aviation's growth rates. To close the chasm between demand and supply, future programs must be based on a new charter for civil aviation, with the resources necessary and appropriate to an industry of aviation's size, vitality, and potential.

The real gap is a facilities one -- ranging from a shortage of runways to a lack of elbow room in some of our towers and centers. An enlightened and more realistic response to aviation's needs is imperative if any meaningful improvements are to be made in the nation's airports and airways. We're suffering today from a poverty of facilities in the midst of aviation plenty, and the imbalance has affected the people in the system who must take up the slack.

At root, the problem is a fiscal one. Legislation is necessary to produce the larger resources required to replace out-dated equipment, expand and modernize facilities, and accelerate automation, and otherwise relieve the strain and stress on the system and the people who man it.

Such relief is in view, but it depends on a consensus within the industry and a bolder public attitude toward aviation's needs. It may be true that "if we can put men on the moon we can do anything," but we had better add a willingness to invest accordingly and to commit the nation's resources proportionately.

President Nixon is greatly concerned by the transportation crisis in this country, and keenly aware of the contrast between the speed and precision of space flight and the "commuter's" problems here on earth. The President is pledged to nothing less than a transformation of transportation in the United States, for the surface traveler, the air traveler, and wherever the two interface. It's a big job that can't be done overnight, that can't be allowed to disrupt the present system, and that can't be financed adequately unless new initiatives and new revenues are realized.

The Administration's program for the overhaul of the air transportation sytem is spearheaded by the "aviation facilities expansion act of 1969" now before the Congress. This Bill seeks a taxing authority designed to generate more than nine billion dollars over the next ten years from the users of the airways, and a spending authorization for some 14-1/2 billion dollars -- the approximately five billion dollar difference to be provided from the general fund.

One objective of the legislative proposal is to make two thousand five hundred million dollars available to states and communities for airport construction and improvements. When matched 50-50 at the local level, the Federal money will help finance five thousand million dollars in new airport construction -- enough to build 900 new airports and improve two thousand seven hundred and fifty others.

A second objective of the Bill is to extend air traffic facilities to the smaller airports and speed up the automation of terminals and centers. This is also a two thousand five hundred million dollar project, all Federally funded. The ten year program anticipates expenditures of nearly one thousand four hundred million dollars for air traffic control, two hundred eighty five million for air navigation, and close to three hundred million dollars for support services.

A third objective is a revitalized research and technology program, with at least six hundred million dollars for that purpose during the next decade.

Fourth, and equally important in my opinion, the legislative program budgets eight thousand nine hundred million dollars to recruit, train and place the additional 21,000 air traffic personnel needed to fully man and maintain the national air traffic system facilities. These additions take into account a major logistical overhaul of the system and the replacement of much of the existing equipment. We recognize full well that an infinite increase in the controller population will not solve the congestion or workload problems alone. There is a limit to the logic of tackling a problem by assigning more people to share it than by seeking to correct it at the source. Without automated equipment and improved facilities, present personnel frustrations can never be entirely overcome.

Andy Anderson is going to spend tomorrow afternoon with you on the subject of FAA personnel policies and programs, and I won't pre-empt his remarks now. Let me just say that the merit of your profession is not lost upon any of us in Washington. I'm very conscious of the difficult conditions under which many air traffic control personnel are working, and I am not unsympathetic to the need for certain changes. As you know, we are not at liberty within the agency, or the Department, to effect some of these changes unilaterally. We intend, however, to continue to work with the Congress, the Civil Service Commission, and the Bureau of the Budget on those matters where cooperative efforts are required. We were successful in achieving the true time-and-a-half legislation, and I am confident that the considerations that have been accorded your unique profession in the past will also be applied to present and future proposals. So we have by no means given up on the "people problems" which are very much a part of the airways expansion and improvement program.

The special task force I established last April had as its charter the systems approach to the personnel situation; that is, the project was aimed toward the development of a total system for the employment of air traffic personnel. As in the past, the purpose of the study was not only to determine whether certain actions in behalf of the employee should be taken, but also how best to achieve some of the goals we had in mind.

I have never felt that longer pay or shorter hours are, in themselves, satisfactory solutions to employee grievances. Neither is early retirement necessarily an ultimate ideal, when a "second career" -- planned and prepared for -- may be far more fulfilling to the individual.

Our "systems approach" to job improvement and career progression has centered around a four-fold program:

One: Expansion of our current program for medically unqualified controllers.

Two: Development of the grade retention proposal we have made to the Civil Service Commission to permit reassignments from high density facilities to lower stress locations.

Three: Further pursuit of the early retirement option. Early retirement for controllers was first proposed, I believe, by Dave Thomas back in 1959.

Four: Development of an occupational retraining program to permit air traffic employees to transfer to other skill or administrative positions when the need arises.

In addition to these four objectives, we will make continuing efforts to reward FAA employees through grade adjustments, salary increases, and career promotion opportunities wherever possible. As a result of the new classification and qualification standards last year, 8,861 air traffic controllers received promotions last December. During the next six months, another 2,650 promotions were recorded in the air traffic career field options for a yearly total of more than 11,500.

I can't predict today the extent to which our own personnel recommendations will parallel those of the air traffic controller career committee -- the "Corson Committee." But the objectivity of their examination into air traffic personnel problems and potentials should establish a new base line of agreement from which your association and our agency can move forward together toward mutually beneficial goals -- improvements in the airways, and in the airway professions.

Thank you for inviting me to join you for your annual meeting. I have had a number of opportunities to talk with members of the air traffic control profession, at your places of work and at mine. I am glad to have had this chance to further extend that personal contact. I assure you that the two objectives I mentioned earlier will continue to get my undivided attention. I shall pursue the realization of a better airways system as earnestly as I will press for the attainment of better conditions for those who make that system work. Both are deserving of the best.

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The ECONOMICS of SUPERSONICS

John H. Shaffer
Administrator
Federal Aviation Administration

Federal Aviation Administration
Department of Transportation

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An Address to the
Long Island Association of Commerce and Industry
Manhasset, Long Island,
November 17, 1969

The subject I want to explore with you is the supersonic transport. It is typical of aviation that even before we have one family of new airplanes (the wide body jets) certificated we are, of necessity, at work on the next.

When we speak to the SST—the American model—we are talking primarily about airline operations of the 1980's. Ten years is truly a generation in terms of the changes it brings in air transportation. It was just a little over ten years ago that we witnessed the introduction of the jet transport to the world's traveling public.

The decade before that—the 50's—was the period of expansion with four-engine propeller equipment. To go back to the decade before that is to revisit light twin-engine equipment (DC-3).

Now just a little more than ten years after the start of jet service, we are about to introduce another new generation of equipment with the 747, to be followed shortly by the DC-10 and the L-1011. These wide bodies will give the airlines a new look, and I hope, not incidentally, they will replenish the industry's coffers.

You are all familiar by now with air traffic growth projections and their profiles ten, fifteen and twenty years from now. The volume of business involved will not only provide the opportunity for the newer and faster equipment that the state of the art permits, but will *demand it*.

Last September 23, the President announced his unconditional support of the SST program.

He recognized that the decision could affect the course of the aviation industry and the economy of our Nation for decades to come; but the program must still go through Congress, and as usual in these situations, we are hearing objections.

There is a natural tendency to underestimate something new. It happened with the steamship, the locomotive, the automobile and the airplane, each of which ultimately led to tremendous follow-on developments and ushered in new eras in transportation. But doubts persist. You may recall that not too many years ago there was a widespread belief that the pure "jet" could not possibly compete with piston engine and turbo-prop powered aircraft. The "jet" promised more speed but its economics were thought to be marginal or even inferior. Many thought it would be necessary to tow the airplane to the runway to save fuel. Others believed that clear path landings and all first-class fares would mark the jet operations. But it turned out much differently. The older airplanes could not compete with the jet. Today the Boeing 2707-300 (SST) faces almost identical arguments, under similar circumstances.

There are other headwinds to the launching of the prototype SST program. We appear to be in a period when protest is "the thing." There is a protest in general against what free enterprise is doing and even against business as an institution. There is protest against what Government is doing. To anyone in such a frame of mind, the SST program is a large and symbolic target.

Supports Employment Growth

There is also the genuine interest in social problem-solving, and this is to be applauded. But it is a mistake to set these efforts off categorically against such efforts as the development of a supersonic transport. Since the social objective includes employment and wage improvement and the increased business activity necessary to keep up with growing populations, something has to support this larger employment movement. History has shown that dividends of advancing technology play a

large part in providing the means.

They are the germinator of new activity. In the case of space activities for instance, these dividends derive from the spinoffs of new technology. In the case of the 2707-300, there will be similar dividends. Improved techniques for processing titanium is just one example. But more importantly, the program will have tremendous earning power in its own right. The prototype investment will be paid back with interest from royalties on production aircraft. In addition to this, the corporate and individual income taxes of those involved in the production program will provide Federal revenue in an amount more than double the amount of the Government's prototype investment.

These revenues will be needed to support other Government programs in the years ahead, when population pressures will add to the problem-solving requirement. We cannot forever foster programs that disburse funds without also giving attention to programs that generate revenues.

Opposition to the SST program falls generally into three categories: those who believe the money should go to something else; those who believe the SST is a frill and a mistake; and those who are concerned about the environment, principally about the sonic boom.

Let's talk for a minute about the sonic boom. There is a lot of misunderstanding about this issue and frankly, I'm not too surprised. Speculation on the sonic boom has run rampant of late. All sorts of dire consequences are being predicted. I personally believe that these "scare stories" will be dissipated in time, first, as we learn what the boom *would* be rather than what it's reported to be; and, second, as we demonstrate that we do, indeed, intend to respect the wishes of our citizens and respond to their watchfulness in this matter.

The fact is that the "boom" is a sudden sound, similar to a thunder clap. It can be startling if you are not expecting it. The sonic boom from the American SST will not damage anything on the ground or on the sea, but it could surprise—or startle—people if they are unprepared for it.

Now I want to make this point about the SST and sonic boom, or as we water people say "now hear this." There will be no sonic boom nuisance or annoyance because the whole program is based on the President's policy that the plane will not be operated at boom-producing speeds over populated areas.

The 2707-300 program is based on supersonic operations *only* on overwater routes (it's a "water bird") and unpopulated areas, such as those north of the Arctic Circle. This doesn't mean it can't be flown—subsonically—over land, or that it can't serve certain major inland cities. The plane is designed so it can be flown efficiently at subsonic speeds for considerable distances. It will fly subsonically when approaching or leaving airports, and during those times when its flight routes take it over populated areas.

Now a little plain English on what the sonic boom would be like if you *could* hear it. The boom created by our SST flying at high altitude is only three or four per cent as powerful as those which could—and have—caused damage to buildings. The effect of the boom from the SST is much overrated and almost universally misunderstood. Sonic booms of 50 to 100 pounds per square foot can be destructive; but the boom from the SST is two pounds per square foot during cruise and four pounds per square foot during supersonic climb *and is not destructive*. The difference in pressure (which makes the sonic boom) caused by our SST is about the same as you would experience in descending 50 feet in an elevator.

Some concern has been expressed about the sonic boom at sea, and I assure you that this has not been disregarded in our thinking. It has been calculated that a three-foot wave hitting the side of a boat in a 30-knot wind creates a load on the structure of the boat that is *100 times greater* than the pressure wave (sonic boom) from the SST at cruise speed (2.7 mach or 1800 mph) and I would point out that there is a lot of water on this globe, and that the sea lanes and the air lanes are not generally superimposed.

Airline Business at Stake

Now, the Administration believes that the airlines, along with the aerospace industry, have a great deal at stake in the SST appropriation request now before the Congress. The future business of the major airlines with overseas routes is directly involved; the business of all domestic carriers will be affected as feeders to the supersonic global routes.

I realize that there have been some misgivings about the program within the airlines themselves. Partly these have been based on a concern over the timing, which has to a very considerable degree been forced by the European Concorde program and the Russian Tupolev 144. But the Concorde and the TU-144 *are on the way*. Competition being what it is, the airlines will make the move to supersonic-type aircraft. It therefore becomes in the industry's interest to have the most desirable airplane to offer the public so that supersonic operations when they come, will be, economically speaking, successful. That is why the U.S. airlines have participated in setting the specifications for the American SST and why many have given active support to the program and have made financial contributions to it which are at risk.

A second source of some misgiving has been a concern over the economics of SST operations. For a time we were proceeding on a certain amount of faith, hope, and prayer as to the economics. We knew that the airplane would be attractive competitively because of its speed, and we were encouraged that it was getting close to the operating cost of the 707s and DC-8s, if not the 747. We knew we had a way to go, but in a prototype program one expects a certain amount of improvement along the line.

We then began to take a more searching look at the operating cost question. Boeing and General Electric have quite a lot at stake, too, in the answer to that question, namely about 285 million dollars in the prototype program alone.

During the past year an all-out study of

simulated operation on SST routes in the 1980's was carried out. The study got into a highly sophisticated breakdown of operating costs and the effect of the escalation of these costs with time. The findings of these studies were quite illuminating and highly encouraging. In fact, it has been the best thing that has happened for the SST outlook in a long time, with the exception of President Nixon's decision to ask Congress for the funds to build 2 prototypes and perform 100 hours of test.

Regretfully, these economic facts are not yet well known to the public or to the Congress. We are telling the story; I hope you will help. Let me outline briefly what the studies show us.

Originally, the comparison between the SST and the subsonic jets was made in terms of direct operating cost (D.O.C.) only, and in terms of present-day values. On that basis, mainly because of higher fuel consumption, the SST barely matched the 707-320B and fell quite a way behind the Boeing 747.

Cost Compared with 747

But when one makes the comparison on the basis of *total* operating cost rather than D.O.C., still using 1969 values, the SST beats the 707 substantially and comes much nearer to equaling the impressively low 747 costs. This is true because various elements of ground support and overhead costs gain the advantage of the SST's greater productivity in terms of seat-miles flown *per hour*. The 2707-300 is two thirds as big as the 747 and it flies three times as fast, so it will do twice as much as the 747 (and 4½ times the 707 or DC-8) in the same time period.

Projecting a little, we find that the advantage of the SST's greater productivity increases each year as labor costs go up. A faster airplane is less labor sensitive than a slower airplane. For instance, even with premium pay to crew members, their productivity is greater per dollar in a faster airplane. On the other hand the faster airplanes use more fuel so you could say they are more fuel sensitive. But the pattern of inflation has been that kerosene (basically a raw

material) has not increased in price as rapidly as labor.

In the study, each element of cost was projected separately at its average rate of increase over the past ten years. Accordingly, the crew cost was escalated at seven and a half per cent per year, which is consistent with its average over the past ten years, and other labor at four and a half per cent per year. Fuel was escalated at one half per cent per year, consistent with the historical increase in new materials costs and in spite of the fact that in the past ten years *the cost of aviation fuel has decreased*.

We found that by 1978, which is the introduction date for the American SST, its total operating cost comes within one-tenth of a cent per seat-mile of matching the 440-seat economy version of the 747. By the eighties, when larger numbers of SSTs would be in service, their total operating cost is projected to be approximately equal to the 747's. From the later 1980's on, the Boeing 2707-300 shows up as *more economical to operate than the 747*. Once again, as we have seen before in the history of transportation, an advance in productivity fits into the pattern of growth at the time it is needed.

Furthermore, during the first few years of service, the SSTs should experience very favorable load factors due to high demand and short supply, as was the case when the jet transport was first introduced. When one gives weight to this increased profitability in the early years, the SST turns out to be economically competitive with the 747 through all the years of its operation. The study was based on the same fares that apply to subsonic equipment and without any surcharge.

Noise Under Attack

Another concern that is being voiced relates to the noise of the 2707-300, apart from sonic boom, let's look at that. There are three types of noise to be considered—community noise under the flight path on climb-out, community noise on approach, and sideline noise at the airport itself during ground run and takeoff.

Taking these one at a time, we have so much power in this airplane, to enable it to accelerate through the transonic regime, that it takes off in a short (8000 ft.) distance (10,300 ft. field length) and climbs out like a "homesick angel."

The airplane will be about twice the usual altitude at the classic three and a half mile distance from brake release point (1,800 ft. and climbing). Likewise, we expect the SST to be quieter than today's jets on approach. This is accomplished primarily by means of a choke on the supersonic air inlets that keeps much of the sound from coming out of the front.

We do have a problem on sideline noise, but we have a development program going on between Boeing and General Electric to improve this. One means of attacking that part of the noise problem has been identified which involves breaking up the low frequency sounds into higher frequencies which do not carry as far. We understand the problem, we are working at it, and we expect, by the time the production airplane rolls out, that this problem will have yielded to the intensive and extensive development efforts being waged on aircraft noise.

As you may know, we issued the FAA's new noise regulation on November 12. This rule establishes noise standards and maximum noise levels for all new subsonic transport aircraft, including some now under development.

This is by no means our final word on the subject of noise; actually, it is just our first. We're looking at the practicality of retrofit standards for aircraft now in use. And we will have a rule relating to supersonic transports—the foreign as well as our own. I had hoped that we could get that proposal out by the end of 1969; I said as much to a Congressional committee early last month. Although it appears that early or perhaps mid-1970 is a more realistic target date for a formal Notice of Proposed Rule Making now that the subsonic rule has been adopted, I intend immediately to solicit comments from interested persons concerning the applicability of these requirements to the SST.

One thing I am sure of—the Federal regulations pertaining to the supersonics will be in effect well before the planes are in commercial use.

Another concern frequently expressed has to do with the congestion situation on the airways and at our major airports. Why, we are asked, should we add to that problem? Or shouldn't the SST money and effort be applied to that problem?

Actually, supersonic-type aircraft will help relieve airways and airport congestion problems rather than add to them. On the airways they will utilize an entirely new level of airspace, operating at 55,000 feet (ours usually above 60,000) and above. In the terminal area it will help relieve congestion in a relative sense because its shorter en route trip times will permit completely different departure and arrival schedules. For example, departures to Europe out of Kennedy now peak in the evening between 6:00 and 8:00 p.m. The SST can leave any time from early in the morning to 1:00 p.m. and arrive the same day on the continent. Westbound, one simply cancels out the time change. The SST leaves any time of the day one wants, and gets to its destination at the same hour "sun time"; this simple fact affords all kinds of schedule flexibility.

Additionally, the SST will be equipped with inertial navigation, on-board computers, and automatic flight management equipment to fit the ground electronics going into the national air traffic control system. It will be an "any-time" operation, without question.

Please bear in mind, too, that the improvements in the Nation's airports and airways, which enactment of the Aviation Facilities Expansion Bill now before the Congress will make possible, will show up in the system well before the SST is introduced to the public. The automation of our terminal and en route air traffic control capabilities, the addition of more personnel, and the growth of airports are developments now programmed or under way which will add substantially to the Nation's capacity for delay-free, congestion-free air transportation.

Soaring Traffic Potential

Let me talk a little bit now about the airplane itself.

We're gaining a very confident feeling about the SST design: it is solid technically; it is viable economically; and it is appropriate to the growth requirements of air transportation. When we look at the forecast of revenue seat-miles, with a sixfold increase from 1968 to 1990, we are looking at a world different from that of today. We must prepare now to meet those conditions. Even by the time of the SST's introduction in 1978, the potential supersonic portion of the world's air routes will involve as much traffic as the *total* world air traffic today.

We now have a design that has shaken down to a good, airline-type airplane. It has a neat balance of performance, flying qualities and operational features. The Delta wing has a wide span and a lower sweepback angle than either the Concorde or the TU-144 and we use a conventional horizontal tail. These elements, plus the incorporation of simple high-lift devices on the leading and trailing edges of the wing, provide normal landing and takeoff characteristics. Importantly, they permit subsonic flight for approaches to inland terminals (Chicago, Las Vegas, Cleveland, Dallas, Atlanta, St. Louis) with acceptable flight economy.

The design stems from a long process of exploration of alternatives, thousands of wind tunnel hours and endless testing of structures and components. The engineering time spent on the project is already many times that which went into the original 707 prototype. We are now ready to begin cutting metal.

U.S. Lead in Jeopardy

A word about schedules and timing: our analysis indicates that our SST will be substantially superior to the other SSTs in range and payload, passenger comfort, safety, community noise and operating economics. But we obviously cannot take lightly the fact that other countries have prototypes flying. If the Gov-

ernment-supported British-French combination were to offer a second model within a few years, taking advantage of the flight experience they will have obtained, and the American SST program were not well under way, the Europeans could take away the lead which American industry has held for so long in world air transport production. In a nutshell this was the situation that Secretary Volpe and President Nixon correctly assessed and which the Congress is now considering with all its effects on our balance of payments problem, employment, and the beneficial growth of our national economy.

The SST will not be a small or inconsequential program. Direct employment of 50,000 people is involved at the production stage, including the prime contractors and subcontractors. The work will reach into communities across the country.

The potential balance of trade effect, in terms of the difference between export of U.S. SSTs to foreign countries and the additional purchase of foreign-built SSTs that would be required if the American product were not available, is 16 billion dollars.

An adverse balance of payments is in some ways like the bubonic plague. The man in the street really doesn't know what it is, but he knows that it is bad news. And indeed his intuition is substantiated by the facts.

The balance of payments affects the average U.S. citizen very directly in three vital areas: interest rates, employment, and prices. A deficit in the balance of payments means the U.S. Government must keep *interest rates high* in order to keep domestic and foreign capital invested in the U.S. and prevent further gold outflows. For the consumer this is reflected in high interest charges for mortgages and consumer loans. Not only are rates high but credit is tight. High interest rates for business can also mean lower levels of domestic (business) investment, which translates into *less employment* for the worker and a profits squeeze for the business firm. The cost of money is one component of prices for most items in our economy, and as the cost of money increases

significantly, *prices rise* on many commodities. There are a number of other aspects to the balance of payments subject but high interest rates, low employment and higher prices suffice to underscore the importance of the aircraft export account to the United States.

The potential direct return to the U.S. Treasury from contract royalties on production airplanes, when 500 are sold in accordance with present estimates, is one billion dollars *more* than the Government's prototype investment. (Incidentally, that 500-plane sales estimate is with sonic boom restriction to overwater and non-populated land in force.)

The corporate and industrial income taxes to be paid into the Treasury by those directly involved in the production program would be approximately three billion dollars, and nearly twice that if income taxes from secondary employment in services and trades and the like are considered, through what is known as the multiplier effect.

The Congress is being apprised of these facts. But there is still a great deal of skepticism at large, due mostly to misconceptions about the program. Members of Congress need to know how this country feels about the SST—how and why it fits into the requirements of air transportation's growth and progress—why it is important to this Nation to have this work go forward and not forfeit the SST market to Europe and/or the Soviet Union.

I submit that our future is more and more dependent upon Governmental and public understanding and action. I am, to an increasing degree, getting outside my office (everyone there supports it) to enlist help in solving the various problems that constitute constraints to aviation progress. When a columnist says it makes no sense to travel at three times the speed of sound only to spend three hours getting home from the airport, the point he is *accenting* is not that we should hold back air progress, *but that we need to make more progress faster in the rest of the system.*

Thank God we still have time to do this in the years before the SST enters service. We must clear the passage from airport to city and

from city to suburb. It will involve rapid transit; there will be STOL service, or a combination of these; the disposition and utilization of land around the airport are also part of the problem. Compatible land use must have a greater appreciation and a larger acceptance.

The establishment of a Cabinet-level Department of Transportation signaled the necessity of approaching the problems of integrated transportation at the local level as well as nationally. There is great need for involvement, on the part of more of us, in the planning and in the civic and the political processes affecting these matters. This is going on; I am urging more of it.

At this particular time, there is a great need for a better understanding of the place of the 2707-300. I hope you will agree that it is in the national interest to take a prompt and active part in bringing about this better understanding. The SST makes economic sense, for our Country's commerce. Looking ahead, the productivity of the 2707-300 may become the principal means of countering rising costs and providing the new dimension that will be necessary for continued air transport growth and profitability. The *starting point* is the building of the prototype airplanes. *Now is the time!*

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STATEMENT OF JOHN H. SHAFFER, ADMINISTRATOR, FEDERAL AVIATION ADMINISTRATION,
DEPARTMENT OF TRANSPORTATION, BEFORE THE SUBCOMMITTEE ON ADMINISTRATIVE
PRACTICE AND PROCEDURE OF THE SENATE COMMITTEE ON THE JUDICIARY ON DECEMBER 9,
1969, RESPECTING THE DEVELOPMENT AND IMPLEMENTATION OF AVIATION SAFETY
REGULATIONS

Mr. Chairman and Members of the Committee:

I am John H. Shaffer, the Administrator of the Federal Aviation Administration, Department of Transportation. I have with me today Mr. George Moore, our Associate Administrator for Operations, Mr. Oscar Bakke, our Associate Administrator for Plans, and Mr. Nathaniel H. Goodrich, our General Counsel. I appreciate this opportunity to appear before you today to discuss the manner in which we develop and implement rules to carry out the FAA's primary mission: Aviation Safety. For the information of the Committee, Exhibits 1 and 2 show the overall organization of the FAA and the standard FAA Regional organization.

The FAA is a regulatory agency established within the Department of Transportation under the Department of Transportation Act (49 U.S.C. 1651-1659) and the Federal Aviation Act of 1958 (49 U.S.C. 1301-1542). Exhibit 3 quotes several provisions of those Acts reflecting the policy guidance and rule-making authority we have from the Congress. We are guided by the fact that the Congress has made the foundation for our action the public interest. The 1957 report of the House Committee on Interstate and Foreign Commerce cogently stated what this means:

" . . . Any tendency by governmental agencies to proceed with caution in promulgating or enforcing regulations to promote safety must be avoided at all costs, even at the risk of being charged with undue harshness.

" . . . the test must be protection of the public rather than tolerance of calculated risks"

We act with the clear knowledge that the Congress and the people of this Nation both expect and demand that we will do what we must to make flying safe!

The agency's efforts to involve the aviation community and the public in our decision-making on aviation safety matters cover the whole spectrum of the FAA's day-to-day, year-to-year operations. They begin long before we publish a formal rule-making proposal. Exhibit 4 discusses some of the many informal communication mechanisms that we use. To push the threshold for this public participation back to the earliest possible point, we have this year begun an effort to open our long-range planning process to public participation.

The National Aviation System Plan is a major effort to achieve more effective long-range planning to meet the demands of the National Aviation System. Experience has shown how difficult long-range planning is. The almost unbelievable development of aviation over the past 10 years has made the need for long-range system planning more than just a highly desirable goal. The need has become an absolute necessity if we are to continue to adequately provide for safety in aviation and for the coming needs of air transportation. In our long-range system planning effort, we have developed a regular means to involve the aviation community and the public in our decision-making at the earliest point in time -- the time when we consider the really basic alternatives, the new avenues to aviation safety.

On April 23-25, 1969, we inaugurated the Annual National Aviation System Planning Review Conference. We used extensive publicity to notify the public so that everyone with an interest in any aspect of the aviation

safety program could participate in the Conference. Exhibit 5 shows our Federal Register Notices and Press Releases. As a result, more than 700 participants, representing more than 94 organizations and the public, attended this first conference. They included representatives of virtually every group which is testifying before the Committee during these hearings. Although this first conference could not cover every aspect of the National Aviation System Plan, we did focus on that part of the Plan that relates to the movement of air traffic. In the future, these annual conferences will have to consider future air traffic demands, aircraft design, airport planning and design, environmental factors, improved safety standards, and many other things as well. The entire concept of an Annual National Aviation System Planning Review Conference is based on our desire to ensure that the general public and each individual and organization interested in aviation has an appropriate and adequate opportunity to participate early in the long-range planning development of the National Aviation System.

Another means that we use to ensure the participation of outside groups in our planning and operations are advisory committees. Exhibit 6 lists most existing advisory committees. Many outside organizations having an interest in aviation safety are represented both on these existing committees and the many others which have completed their efforts. By independently advising us on a great many aviation safety problems ranging from the prevention of mid-air collisions to an expert evaluation of aviation medical problems, the public has the opportunity of working toward the solution of more specific aviation safety problems. These advisory committees, and their

many predecessors, perform an invaluable service by laying the groundwork for formulating new rules or revising existing rules, by developing the basis for specific plans and policies, and by assisting in the improvement and advancement of aviation technology related to aviation safety.

The means that we use to directly ensure aviation safety is the development and implementation of the Federal Aviation Regulations. Exhibit 7 lists the more significant rules issued in 1969. In 1961, one of the advisory committees just discussed was established composed of several eminent lawyers. The committee was asked to study, among other things, our predecessor agency's procedures for adopting regulations. The resulting "Project Tightrope" Report (furnished to the Committee Staff) found fault with many aspects of the rule-making procedures, and many of the recommendations dealt with the lack of responsiveness to the public. Almost every recommendation of "Project Tightrope" was implemented, and today those recommendations represent the basis of rule-making policy of the FAA. Exhibit 8 is Part 11 of the Federal Aviation Regulations, "General Rule-Making Procedures."

We now make a real effort to involve the public before, during and after each regulatory action. We work with the aviation community before formulation of a proposed rule. Under sections 551-553 of title 5, United States Code, we must issue a "Notice of Proposed Rule Making" and publish it in the Federal Register when we are formulating new aviation safety rules. But often the FAA also publishes an "Advance Notice of Proposed Rule Making". Here, we outline broad areas in which the agency proposes to act on aviation

safety. We do not propose any specific regulation, but we go to the public and, in essence, ask them to tell us how they think we should approach an aviation safety problem. Sometimes, these Advance Notices have a broad scope, or they may deal with a limited area. They are an effort to involve the public in our formal rule-making processes at the earliest moment.

Under some circumstances, we are not required to afford interested persons an opportunity to participate in the making of a proposed rule, and we may issue regulations without first publishing a Notice of Proposed Rule Making. Nevertheless, policy of the Federal Aviation Administration is to make every effort to issue a Notice in every rule-making action, even when the law does not require Notice, and to dispense with a Notice as seldom as possible.

Our procedures allow the public to petition us for action in many areas of safety rule-making. A person may ask us to issue, amend or repeal a rule, or he may ask us for a temporary or permanent exemption from a rule. In addition to a Notice of Proposed Rule Making, we provide for other additional rule-making procedures (see §11.33 of Exhibit 8) and for informal appearances to present, adjust, or determine a question or controversy involving our rule-making function (see §11.37 of Exhibit 8).

We believe the openness of our safety rule-making process is the equal of any other regulatory agency. When immediate issuance of a safety regulation is necessary because any delay would jeopardize aviation safety, however, then we must take prompt action. In these situations, public involvement must take second place to the public interest in aviation safety.

As we "make of our mind" about a proposed aviation safety rule, the FAA Office or Service responsible for the substance of the proposal reviews each comment that we receive in response to the Notice of Proposed Rule Making. Often, the lawyer-draftsman reviews these comments as well. When we issue a safety rule, we discuss the principal reasons and conclusions for our action in the preamble to that rule. This usually involves a discussion of the substance of the comments received.

As an example of full utilization of the FAA rule-making process, I would like to outline the steps involved in a recently issued FAA rule - Amendment 135-12 (see Exhibit 7). On March 17, 1967, we issued an Advance Notice of Proposed Rule Making presenting a number of areas which we felt needed additional regulatory controls for safety in air taxi operations. While we had identified the areas and had some tentative solutions, we asked the public for their suggestions as to the best course of action. Approximately 75 comments were received, including detailed comments from trade organizations. After further study and careful analysis of public comments on the Advance Notice, on January 24, 1969, we issued a Notice of Proposed Rule Making proposing specific amendments. We allowed 90 days for comment, but we extended the time for comment for another 30 days at the request of an air taxi organization. About 156 comments were received on this Notice, many of them were in great detail. After study and evaluation of the comments, we issued the amendments to Part 135 on November 26, 1969, to become effective April 1, 1970. We believe that this example demonstrates that our rule-making procedures allow the public to participate in our regulatory activities to the fullest extent

reasonably possible.

In addition to our regulatory procedures and actions, the FAA issues Advisory Circulars to inform the aviation public in a systematic way of nonregulatory material of interest. Unless incorporated into a regulation by reference, the contents of an Advisory Circular are not binding on the public. They are issued in a numbered-subject system corresponding to the subject areas in the codified Federal Aviation Regulations, and they are available to the public, often without charge. We also publish the Federal Aviation Regulations (through the Government Printing Office) so that the public can receive new rules within about 30 days after they are issued. We believe them to be excellent means of getting our new rules and other aviation information to the public.

One of the basic, non-regulatory means of carrying out our responsibility for aviation safety arises from our work with the National Transportation Safety Board. The NTSB has the primary responsibility for investigating aviation accidents to determine their probable cause and to make recommendations for avoiding their recurrence. The FAA cooperates with the NTSB from the moment word is first received of an aviation tragedy through the NTSB hearings to determine its probable cause. The agency greatly benefits from this cooperation, and as a result, we often find that quick regulatory action is necessary in the early stages of the accident investigation. These actions might include, for example, issuance of an airworthiness directive or tightening our surveillance of air carrier en route procedures.

After completing its investigation and hearings respecting an accident,

the NTSB forwards to us its findings of probable cause and, if appropriate, recommendations for additional action or policy which it finds may prevent similar accidents in the future. My very difficult duty is to then determine what further action to take. Obviously, if any rules or laws have been violated, I must take appropriate and prompt action. To the extent that I have not done so, I must determine whether the NTSB's additional recommendations should be implemented, and how that should be done. The recommendations of the NTSB must be considered in the light of our basic duty to strike a balance between maintaining an acceptable level of safety in aviation and not imposing an undue burden on any segment of the public, including the aviation industry. Then based on the facts and information known to us we decide whether or not to accept the recommendations made by the NTSB. We usually find that NTSB recommendations are acceptable. On some occasions, I must make the hard decision that the public interest does not require adoption of the specific details of the recommendation. When I do, I must state fully the reasons for my decision to the Chairman of the NTSB. Mr. Chairman, this is one of the most grave responsibilities that the Federal Aviation Administrator bears.

In summary, Mr. Chairman, the communications we receive from individuals and groups outside of FAA help us in the job of maintaining and improving aviation safety. They have, and will continue to have, a major role in the shaping of our plans and policies. But in the final analysis, Mr. Chairman, after we gather and evaluate all of the substantive views, comments, and recommendations of the public through all the means we have

available, we have the basic responsibility to proceed with the action that best serves the public interest. We must do this despite the fact that all the interested parties may not be in agreement with the action we take. We must seek the hard facts and factors. Then we must reason, and we must decide. Our action must be taken without fear or favor!

Mr. Chairman, that concludes my prepared statement. We will be pleased to answer questions the Committee may have.