

U. S. DEPARTMENT OF TRANSPORTATION  
FEDERAL AVIATION ADMINISTRATION  
WASHINGTON, D. C.

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STATEMENT OF JOHN H. SHAFFER, ADMINISTRATOR, FEDERAL AVIATION  
ADMINISTRATION, DEPARTMENT OF TRANSPORTATION, BEFORE THE  
SUBCOMMITTEE ON AVIATION OF THE SENATE COMMITTEE ON COMMERCE  
REGARDING THE ADEQUACY OF AIR SERVICE TO NORTHERN NEW ENGLAND  
ON THURSDAY, 9 SEPTEMBER 1971.

Mr. Chairman and Members of the Committee:

I appreciate another opportunity to appear before you to discuss the adequacy of and need for scheduled air service in the northern New England area. It is also a great pleasure for me to address this important topic in the home state of Senator Cotton, a gentleman who is widely respected by the aviation community for his untiring efforts in the development and maintenance of a safe and reliable national air transportation system. With me today are Mr. Ronald W. Pulling, our Deputy Associate Administrator for Plans, and Mr. Clyde W. Pace, our Deputy Director of Airports Service.

The subject of U. S. commercial aviation and the adequacy of service that it provides is of vital concern to everyone of us. We in the Department of Transportation, Federal Aviation Administration, have the vital responsibility for encouraging and fostering the development of civil aeronautics and air commerce, and promoting and insuring aviation safety -- the safety of aircraft, aviation facilities, pilots, crews, passengers, and the people on the ground. We are also vitally concerned with aviation system development as just one mode of a pervasive and better balanced transportation

system. All societal activity involves transportation of one form or another, and all communities have a basic and fundamental need for an adequate and reliable transportation system to further their economic, educational, cultural, and recreational pursuits. Any community that lacks such a system, or adequate access to that system, seems doomed to regress into an isolated and remote ghost community.

The aviation business is dynamic and fast-growing, and in the past decade it has become increasingly apparent that the Nation's air transportation system is a prime resource in building the future. However, the complexities of our modern society have emphatically demonstrated that the growth of air transportation must take place consonant with air and noise pollution control, urban planning, and compatible land use. Our 10-year National Aviation System Plan is developed to insure that our airspace usage is coordinated with those factors, as well as with technological development and air transportation demand. To ignore the vital factors affecting both the present and the future is akin to developing a sophisticated aircraft without a directional control system -- while the finished product may be elegant, no one quite knows where it is going.

The Federal Aviation Administration is concerned with the adequacy and reliability of air service to smaller communities. As I mentioned earlier, air transportation is an instrumental element in the survival and growth of all communities, and particularly the New England area with its charming and picturesque surroundings, fine

schools, and ever growing commercial, cultural, and recreational centers. This area is dependent upon safe, adequate, and reliable air transportation; and the FAA is acutely aware of these needs. Moreover, adequate and sufficient air service between smaller communities and to regional centers is an effective means of alleviating the congestion that plagues our major air traffic hubs. Despite the advent and usage of the new, larger capacity, wide-bodied jets that will serve these major hubs, congestion will continue to plague major air traffic hubs until steps are taken to more evenly distribute this traffic to various regional and local airports.

I would now like to specifically mention the efforts that the Federal Aviation Administration is making to provide adequate air transportation to the northern New England area. However, let me emphasize that I will not address or comment on scheduling, routes, or rates charged by air carriers in this area as those matters are solely within the purview of the Civil Aeronautics Board. Instead, I will briefly touch upon some projected trends in the aviation and air transport industries that may significantly affect the northern New England area and point out how present programs of the Agency are impacting in and on this geographic area.

The FAA is heartened by the favorable public reaction to and acceptance of commuter and local service carriers. These smaller airlines will play an increasingly important role in this nation's total air transportation system in the years to come. For example, our projections indicate that nation-wide passenger traffic on

commuter airlines will increase at an average rate of 30 percent through the next five years, carrying 20 million passengers in 1975, compared to 4.1 million in 1969. The primary role of the commuter airlines is, and will continue to be, that of a "feed" system; that is, carrying connecting passengers to and from large, medium, and small hub airports. I would also like to emphasize that the Massachusetts-Maine geographic area is the third busiest area in the United States in terms of commuter airlines' passenger enplanements, representing 8.2 percent of all commuter airline enplanements throughout the country. The rapid growth of the commuter and local service carriers indicates that by emphasizing tight cost controls, promoting interline assistance, catering to the air service needs of smaller communities, and realistically pricing their services, these airlines can safely, efficiently, and economically serve the short-coupled, smaller communities in the less densely populated areas of our country. In addition, as the commuter market grows there will be a need for larger aircraft in the commuter fleets. Ultimately these new, larger aircraft will offer much lower seat-mile costs, lower break-even load factors, and far more passenger appeal.

In addressing the growth rates of the commuter airline industry, we should not overlook the growth trends in general aviation and its role in the development of a viable recreational, industrial and corporate transportation base. For example, the number of active general aviation aircraft is expected to increase to approximately 222,000 by 1981, from the 1970 count of 131,000. In 1970 there were 442 active general aviation aircraft in New Hampshire, 596 in

Maine and 252 in Vermont. In addition, our projections indicate that from 1971 to 1976 the number of hours flown by general aviation will increase by about one-third. Like the commuter airline industry, we believe that general aviation will play an increasingly important role in the total air transportation system, and will serve to broaden the economic and recreational foundations of our nation.

The commuter airlines' substantial growth trend emphatically demonstrates that all classes of air carriers can provide excellent air service, and do so in a profitable manner, on short haul inter-city air transportation segments. In this vein, the FAA is moving ahead to take an active leadership role in developing a "QTOL" (Quiet Takeoff and Landing) aircraft, and has established a "QTOL" Special Projects Office that is assigned the mission of

- formulating and maintaining a comprehensive FAA plan of the development of a safe, convenient, economically viable, and environmentally acceptable V/STOL system,
- coordinating Government and industry V/STOL development,
- providing a focal point with the aviation community and other Government agencies, and
- vigorously pursuing an engineering and development program.

We are confident that our V/STOL system development program will generate untold dividends for the traveling public. Currently we envision a vehicle for the 1980 system (jet STOL or VTOL) that will seat approximately 100 passengers with a range of 500 miles and be capable of operating off a 2,000 foot STOL runway or VTOL port while

producing no more than 95EPnDb at 500 feet, which is a significant reduction from today's operations. This type of aircraft would be capable of operating from every runway in the United States and would also be very comforting in an environmental sense. We are working closely with NASA in the program to develop the quiet engine and V/STOL aircraft technology base necessary for industrial production and operation of the eventual system. In the meantime, turbo-prop powered aircraft, such as the De Havilland Twin Otter used by a number of commuter airlines, can begin to provide both high density inter-city and low density STOL service. A large turbo-prop STOL craft, such as the De Havilland DHC-7 (40 passengers), can help bring the short-haul system into being in an evolutionary manner during this decade.

Moreover, the FAA strongly believes that the trend towards a greater number of intercity non-feeder type flights will continue. With the advent of our second generation air transports, specifically the airbus versions of the cleaner and quieter wide-bodied jets, as well as with the expenditures authorized by the Airport and Airway Development and Revenue Acts of 1970 to purchase new navigational aids, improve airport facilities, and expand our air traffic control system, we have great hope for a pervasive, safe, and efficient air transportation system for the New England area that will serve small and medium sized communities as well as major air traffic hubs. Under the landmark Airport and Airway Development Act (ADAP), which was enacted through the instrumental efforts of this Committee, the Secretary of Transportation is authorized, for each of the fiscal years 1971

through 1975, to:

- o make grants of funds to airport planning agencies for airport system planning and to public agencies for airport master planning in an amount not to exceed \$75 million or \$15 million in any one fiscal year,
- o make grants for airport development in the amount of \$250 million for airports served by CAB certificated carriers and for airports whose primary purpose is to serve general aviation and to relieve congestion on high density airports,
- o make grants in the amount of \$30 million for airports serving segments of aviation other than CAB certificated carriers, and
- o obligate for expenditures not less than \$250 million for improving our navigation facilities.

Mr. Chairman, because of your Committee's dedicated support of this legislation and concern for the development of a safe and efficient air transportation system, we are now authorized to expend more funds than ever before on the improvement of our airport and airways system. Under ADAP we are able to improve the facilities in our high density areas, as well as fill the need for airport and airway facilities in less densely populated areas, and to expand the airport and airway system, as well as the air traffic control system, to a greater number of locations. For example, here in Lebanon a Mark 1B full-single ILS system is scheduled to be commissioned in December 1971. In addition, \$108,000 has just been allocated to Lebanon under ADAP to overlay and mark Runway 7/25 and to install lighting cables and transformers. Moreover, our planning grant program authorizes \$15 million per year to

enable states, regions, and local communities to plan airport facilities with full confidence that these programs will be in accordance with their own desires and needs. A more complete breakdown of how Planning Grants and Airport Development Aid Program grants have benefited the states of Maine, Vermont and New Hampshire is furnished for your information. (Exhibits 1, 2, 3, and 4)

We have also implemented general research and development programs to benefit the smaller, more remote communities. We are currently in the development stage of a microwave Instrument Landing System (ILS) which will enable smaller communities, particularly those with rough terrain features, to have reliable ILS's. These new microwave systems are not subject to the terrain problems presently encountered by existing systems and thus will be more expedient to install at a lower cost to the community, the Federal Government, as well as to those who use the facilities. We are also working in the field of Area Navigation Systems that will broaden the base of the airway system. Under this program, the present number of enroute navaid facilities will do a more effective job of providing navigational aid by increasing the number of routes as well as the margin of safety.

Aviation research and development efforts have resulted in the design of modular air traffic control towers. These standardized turn-key installations will enable us to establish Air Traffic Control Service at some of the less busy airports. Their modular design permits them to be permanently installed at a lower cost than conventional towers even though they perform the same function. In addition, these

modular towers are capable of being extended if conditions at the airport change such as a growth in the physical plant, or an increase in air traffic.

Underlying our grant programs and our research and development efforts is our belief that airports will eventually be centers for whole new cities. Just as the harbors, highways, and rail junctions of the past spawned new cities, so will the airport create new, carefully planned cities which will become our gateways to the world. In these cities, the airport will not be the awkward, sometimes troublesome appendage on the perimeter of the population center that it so often is today. Rather, it will be the heart - the dynamic and driving center - of the city, pumping lifeblood and commerce into the surrounding area. Our past errors in airport development were due to the fact that we regarded the airport as a mere whistle stop rather than as a fundamentally needed transportation center that would attract commercial and residential development as well as other modes of transportation facilities. In this light we note that the Bangor International Airport is one of the fastest growing airports in the country, and is serving as a vital link between northern New England and other sections of our country, as well as between the northeastern United States and our friends in other countries. Bangor is a perfect example of a transportation facility that meets the needs of an emerging and important area of our country.

In addition to our emphasis on rapidly expanding air service and air transportation facilities to the more remote and less densely populated sections of our country, we have also zealously dealt with

potential environmental problems that might result from this expansive program. We have undertaken steps to insure that airports, while serving their vital transportation function, will still remain good neighbors to the surrounding communities, and to insure that the remarkable amount of technology that we have acquired during the past seventy years of aviation growth will be used to solve man's environmental problems, as opposed to creating new ones. Our environmental programs are concentrated on two major fronts - air and noise pollution. As a matter of fact, the FAA was among the first Federal agencies to demonstrate its concern for environmental quality when we established the Office of Noise Abatement in 1966. Recently, we expanded the responsibilities of this Office and restructured it as the Office of Environmental Quality. This Office now has the overall responsibility within the FAA to develop policies and procedures on aircraft noise, smoke emission, exhaust pollution, aircraft waste programs, and to spearhead a cooperative Government and industry-wide program to handle the broad spectrum of environmental challenges facing aviation today as well as new ones on the horizon.

As can be seen, Mr. Chairman, a great portion of the progress that the FAA has made in improving the quality and the size of our national airport and airway system has been done with a full appreciation for the great potential of our presently less populated areas. We are aware of the fact that American initiative and innovative spirit had its origins here in New England. Just as we do not wish to ignore the air transportation needs of this area's inhabitants, we also do not wish to close these beautifully picturesque surroundings to those who live and work elsewhere. In his State of the Union Message on

January 22, 1970, President Nixon stated:

"The seventies will be a time of new beginnings, a time of exploring both on the earth and in the heavens, a time of discovery. But the time has also come for emphasis on developing better ways of managing what we have and of completing what man's genius has begun but left unfinished."

Given the technology that we have accumulated in past programs, in addition to our new insight into social, political, economic, and environmental realities, I feel that the FAA's multi-faceted approach that I have outlined for the development of an adequate and reliable national air transportation system specifically for smaller communities and more remote areas and northern New England in particular, is the best possible approach to take to insure that all segments of our population benefit from a balanced transportation system. However, although we think that our program is a good one - it can be much improved. We can achieve our goals more quickly with the support of individuals in local communities. I recall that just a couple of years ago, when it became apparent that the Federal Government would not be able to fully fund an Air Traffic Control tower for New Haven, Connecticut, the people in that locality took the unusual step of raising \$160,000 of the needed \$220,000 for the tower, as well as financing a \$150,000 addition to their terminal building. I applaud local ingenuity and dedication of this nature and consider it as an essential element in the development of a comprehensive National Airport System Plan.

That concludes my prepared statement, Mr. Chairman. My associates and I will be pleased now to respond to any questions that you may have.

MAINE  
 AIRPORT DEVELOPMENT AID PROGRAM  
 Fiscal Year 1971

<u>Airport City-State</u>	<u>Federal Funds</u>	<u>Description of Work</u>
Bar Harbor Bar Harbor, Maine Grant Agreement 3/9/71	\$10,500	Land, clear zone runway end 17.
*Machias Valley Machias, Maine	\$10,000	Overlay Runway 18/36, taxiway and apron, including marking.
*Portland, International Jetport Portland, Maine	\$120,120	Construct fire and crash equipment building, including installation of utilities, apron and access road.
*Rangeley Municipal Rangeley, Maine	\$40,000	Pave and mark Runway 14/32.
*Knox County Regional Rockland, Maine	\$122,500	Land, clear zones Runway 3/21; approach and transitional clearing Runway 3/21; reconstruct aircraft terminal apron; reconstruct, light & mark stub taxiway to Runway 13/31; reconstruct, light & mark stub taxiway to Runway 3/21; install medium intensity approach lights, Runway 3; construct lighted wind cone & segmented circle.
Sanford Municipal Sanford, Maine Grant Agreement 6/24/71	\$5,000	Acquire land, airport development.

FEDERAL-AID AIRPORT PROGRAM  
 Fiscal Year 1970

<u>Airport City-State</u>	<u>Federal Funds</u>	<u>Description of Work</u>
Presque Isle Municipal Presque Isle, Maine Grant Agreement 4/6/70	\$243,430	Land; reconstruct & overlay Runway 1/19, including all weather marking; clearing for medium approach light system with runway end identifier lights site grading for glide slope.

\*Allocation made; not yet under grant

VERMONT  
AIRPORT DEVELOPMENT AID PROGRAM  
Fiscal Year 1971

<u>Airport City-State</u>	<u>Federal Funds</u>	<u>Description of Work</u>
Burlington International Burlington, Vermont Grant Agreement 6/24/71	\$181,400	Land, clear zone, Runway 1; reconstruction of N/S run- way, including drainage & marking.
Rutland State Rutland, Vermont Grant Agreement 6/28/71	\$35,500	Reconstruct drainage system, Runway 1/19.

FEDERAL-AID AIRPORT PROGRAM  
Fiscal Year 1970

<u>Airport City-State</u>	<u>Federal Funds</u>	<u>Description of Work</u>
Edward F. Knapp State Barre-Montpelier, Vermont Grant Agreement 12/19/69 EDA Funds \$60,000	\$192,500	Reconstruct Runway 17/35, including marking, clearing of Runway 17/35 transition.
Franklin County State Highgate, Vermont Grant Agreement 8/11/69	\$150,000	Land-N/S runway clear zones and airport development; construct paved runway; stub taxiway & apron, including marking; install segmented circle & wind cone; ob- struction clearing.

NEW HAMPSHIRE  
AIRPORT DEVELOPMENT AID PROGRAM  
Fiscal Year 1971

<u>Airport</u> <u>City--State</u>	<u>Federal Funds</u>	<u>Description of Work</u>
*Boire Field Nashua, New Hampshire	\$265,300	Land for clear zone, Runway 14; construct aircraft parking apron and connecting taxiway; construct access road; install safety fencing.

FEDERAL-AID AIRPORT PROGRAM  
Fiscal Year 1970

<u>Airport</u> <u>City--State</u>	<u>Federal Funds</u>	<u>Description of Work</u>
Skyhaven Rochester, New Hampshire Grant Agreement 12/1/69	\$13,516	Medium intensity light Runway 14/3 including rotating beacon, taxi entrance guidance signs and light existing wind indicator.

\*Allocation made, not yet under grant.

STATUS OF PLANNING GRANT PROGRAM IN  
THE STATES OF MAINE, NEW HAMPSHIRE, AND VERMONT  
1 SEPTEMBER 1971

MAINE:

A grant for \$82,566 in Federal funds has been granted to the City of Bangor and the State of Maine, Department of Aeronautics for the performance of a Master Planning Study at Bangor International Airport (formerly Dow Air Force Base).

A study proposal for the performance of the Maine Airport System Plan has been submitted to the New England Region by the State Department of Aeronautics. It is anticipated that this proposal can be finalized and submitted as an application in the near future.

NEW HAMPSHIRE:

An application for \$63,062 in Federal funds has been submitted by the City of Manchester, New Hampshire for the performance of an airport master plan study at Greiner Field, Manchester Municipal Airport.

VERMONT:

No application received.