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REMARKS PREPARED FOR ALAN S. BOYD, SECRETARY OF TRANSPORTATION, BEFORE THE SENATE COMMERCE COMMITTEE, AVIATION SUBCOMMITTEE, ROOM 5110, NEW SENATE OFFICE BUILDING, TUESDAY, JUNE 18, 1968 10:00 A.M.

I appreciate the opportunity to appear before the Committee in support of S. 3645, the Administration's proposed bill to plan and provide financial assistance for airport development. Because the development of our Nation's airports and its airways system are integrally related, I also welcome this opportunity to set forth the Administration's proposals for long-range improvement of the airways system.

BACKGROUND

An intensive reevaluation of the Nation's air transportation system and the role of the Federal Government in providing or assisting in the development of that system began last September. In a letter to me of September 20, 1967, the President stated: "It is apparent that the rapid growth of commercial and private flying is creating demands for substantial expansion and improvement in the Nation's air traffic control system. . . I am therefore asking you to develop a long-range comprehensive plan for the facilities, equipment, and personnel required to meet these needs. This plan should be accompanied by a proposal for financing the improvements through a system of charges by which the users of the Nation's airways bear their fair share of its costs." I would like to examine briefly the nature and extent of the demands to which the President referred.

In the five-year period fiscal years 1963-67, the passengers enplaned by U.S. scheduled air carriers increased from 70.7 million to 126.4 million. The passenger-miles flown by these carriers increased from 45.9 billion to 86.3 billion. The mixture of the aircraft fleet required to provide this transportation changed from a predominantly piston fleet in 1963 (66 percent) to a predominantly turbine-powered fleet at the end of 1967 (75 percent). The dominance of air transportation as the prime intercity common carrier of passengers is evidenced by the fact that in 1966 the air carriers accounted for six out of every ten intercity common carrier passenger-miles. This is to be compared with only two out of ten in 1951.

This very healthy rate of passenger growth was exceeded by the rate of growth of air cargo. In the five-year period 1963-67, revenue ton-miles of cargo carried by U.S. certificated airlines more than doubled, increasing from 1.5 billion to 3.5 billion. The ton-miles flown in 1967 were more than five times the ton-miles flown in 1956. The rapid rate of growth in recent years is attributable not only to the buoyant economic conditions, but to the fact that the costs of shiping by air have been declining, particularly in relation to rates charged by other modes.

This growth in commercial aviation was paced by the growth in general aviation or non-airline flying. 1/ In the 1963-67 period, the general aviation fleet increased from 84,121 aircraft to 104,706. The increase in the performance capability of this fleet was more dramatic, however, as indicated by the more than four-fold increase in the turbine-powered component of the fleet. During this period the entrance into the fleet of 40,000 new aircraft, with an average selling price in 1967 of about $40,000, is another indication of the degree of improvement in overall quality. The hours flown by general aviation increased almost 50 percent, rising from 14.8 million hours in fiscal year 1963 to 21.9 million hours in fiscal 1967.

1/ This term is an inadequate but necessary one used to encompass a very diverse group of non-airline activity, including business, commercial, instructional, personal, etc.

The impact of this past growth on our Nation's airports can be measured in two ways. The 79 percent increase in enplaned passengers is one indicator of the strain placed on terminal building, parking, and other passenger service facilities. The total aircraft operations handled at airports with FAA traffic control service provides an indication of the load placed on runways, taxiways, ramps, etc. Operations at these airports increased from 29.2 million in 1963 to 47.6 million in 1967.

The impact on the airways systems can be measured in several ways. As indicated, operations handled by FAA traffic control towers during the period increased 63 percent. Instrument operations at these towers increased from 7.4 million to 12.1 million. Aircraft handled by FAA air route traffic control centers increased from 10.2 million to 15.1 million. Flight services provided by FAA flight service stations increased from 19.3 million to 34 million.

This growth in air transportation has been made possible by very substantial expenditures for airport and airway facilities. Capital investment in the Nation's airports during the last five years has been on the order of $1.5 billion, 20 percent of which, or about $300 million, was provided by the Federal aid program. The capital investment (including research and development) in the domestic airways system in the past five years was approximately $530 million. Annual obligations for operation and maintenance for the same period were approximately $2.0 billion.

While these expenditures are large, we need to put the cost of airway and airport support facilities in some perspective. During the 1963 to 1967 period, total expenditures for the purchase of air carrier and general aviation aircraft were approximately $3.6 billion and $1.4 billion, respectively. The total operating expenditures of the scheduled air carriers during the period were $22.8 billion. Revenues were $25.7 billion.

Because of Federal, state, and local investments in support facilities over the past five years, there is no "crisis" today in the Nation's air transportation system. However, we are running at the margin and stresses and strains are present and will intensify unless we act. While we need make no apology for the safety record of air transportation in the United States - in 1966, the fatality rate for our domestic scheduled air carriers was lower than either the rail or bus rate, and almost 30 times better than the automobile rate - a generally improving accident rate affords no grounds for complacency. From a low in 1966,

fatalities in domestic service did increase in 1967. The trend toward larger aircraft - 400 passengers will certainly not be a maximum - will transform a single aviation accident into a major catastrophe.

The sheer volumes of passengers enplaning and deplaning at some of the major terminals are placing severe strains on passenger handling facilities. At those same terminals, the peak hour demands frequently exceed the capacity of the airport runways and terminal control facilities, with the result that substantial delays frequently occur. The average number of minutes of delay per air carrier operation due either to airport congestion or airways congestion has increased in the last four years from about one minute to about one and one-half minutes. Viewed as an average, this amount of delay appears negligible. The fact is, however, that delays occur at relatively few of the airports served by the air carriers. At an average cost of $5.50 per minute, a 30-minute delay at Kennedy International is not negligible. The estimated cost to the airlines of these delays has risen from approximately $40 million per year to approximately $75 million per year in the last four years.

These delay figures point up a fact which must be emphasized in any discussion of the airways-airports "problem." It is a highly localized problem. The great majority of the 4,000 airports in the National Airport Plan are under capacity today. The concentration of traffic is at and between the centers of our Nation's commerce. Consequently, we must create additional capacity if we are to avoid imposing serious constraints on air transportation.

It is estimated that by 1974, the revenue passenger-miles flown by the airlines will rise to 200 billion or more than double the 1967 level. The hours flown by air carriers will increase from the 5.2 million flown in 1967 to 8.6 million by 1974, an increase of 65 percent. General aviation hours flown will increase by 50 percent, rising from 21.9 million to 31.8 million. The air carrier fleet will increase from 2,272 aircraft in 1967 to 3,320 by 1974. The composition of the 1974 fleet will be almost entirely turbine-powered. The general aviation aircraft fleet will increase from 104,706 in 1967 to 160,000 by 1974. Aircraft handled by FAA towers will more than double as will aircraft handled by the FAA air route control centers. The aircraft fleet will be increasing not

only in numbers but also in speed and quality with the result that the demand for the use of FAA facilities will increase at a faster rate than the increase in the number of aircraft. It should be noted that all of these forecasts are based on the assumption that there will be no limitations on growth because of a lack of system capacity. 2/

We have in place today a basically sound air transportation system - but one facing the challenge of rapid growth. In meeting the challenge we need first to undertake a fundamental reexamination of where we are, where we ought to be going, and how we ought to get there.

PRINCIPLES UNDERLYING PROPOSED NEW FEDERAL PROGRAMS

In formulating new Federal programs for the airways and the airports, we must be clear as to the policies we wish to follow, and we must marshal the facts which will shape our decisions. The policies which underlie the programs submitted by the Administration are:

1. A fundamental belief in the efficiency and superiority of the market mechanism as a system for allocating scarce resources. With respect to airports, this means that the full cost of all airport services should be fully identified and borne by the direct user. For example, improvements necessary to accommodate equipment planned to be put into use by air carriers should be primarily a matter for negotiation between the airport operator and the airline. The costs of the improvement should be borne directly by the airline and indirectly by its customer, the passenger or shipper. The same principle would apply, of course, to the general aviation user. Where there is a determination that subsidy is necessary for some overriding national objective, the subsidy should be direct, specifically identified, and its purposes clearly defined.

2. The Federal and the state or local interests in air transportation are not identical and must be distinguished. For any number of reasons, a community might wish to build more airport capacity than it might require by objective standards. By the same token, in order to induce greater use of the facility and thereby create indirect benefits to

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2/ Most forecasters in and out of government have, over the past five years, consistently understimated aviation growth. This has been a factor in facility planning.

the community, the community may choose to underprice the airport services it offers. These are all legitimate local decisions if Federal funds are not involved. And there is no reason for the Federal Government to attempt to influence airport investment decisions, where the primary objective is to create for a community or a state a competitive edge in the continuing contest to attract new business.

3. The Federal Government has a greater interest in promoting the efficiency of the common carrier system of air transportation than it does in promoting private air transportation and, where a choice must be made, the common carrier system will receive preference. The Federal Government must insure that the Nation has and maintains a safe, efficient, convenient and economical system of common carriage by air. Under no circumstances can we allow the quality of that system to deteriorate. Within the limits of available funds, and taking into account the source of the revenues supporting the system, our objective will be to build a system which maximizes safety and efficiency for all users.

4. The Federal Government has a fundamental interest in promoting the development of a balanced national transportation system. To achieve a balanced national system requires that each decision to invest in one mode in preference to another mode be dictated by the inherent efficiency of that mode. Only in this way will growth be regulated by the customer making choices based on the full cost to him of the service offered. Wherever possible, the Federal Government should avoid distorting the process of choice by artificially reducing the customer's costs through direct or indirect subsidy. Where other national objectives override the objective of efficiency, for example in the granting of subsidy for local air carrier service to our smaller communities, we should be clear as to the objective being served. Viewing air transportation as a whole, it makes no sense when confronted with the problem of rapid growth to artificially stimulate or distort the course of that growth by direct or indirect subsidies! The first order of business in these circumstances is to assure that the users of air transportation pay for the full costs of providing that transportation!

5. To the fullest extent possible, all of the costs of providing certificated air carrier service should be reflected in the accounts of the air carrier. Carriers certificated by the Civil Aeronautics Board are certificated on the basis that it would serve the public convenience and necessity to give them operating rights in a protected market. They are entitled to earn a fair rate of return on the investment necessary to provide service in the markets for which they are certificated. The Congress has charged the Civil Aeronautics Board with determining the rates at which the carrier service ought to be provided in order to bring a fair rate of return on the investment. All of the costs of a carrier's operations should be before the Board in its review of proposed rates. Direct taxes on the passenger or shipper to pay for services and facilities for air carriers should be avoided. The existing and proposed taxes on tickets and freight waybills for the purpose of paying the air carriers' share of costs for the use of the Federal airway system started as an excise tax. When similar taxes were removed from other modes of transportation, the air tax was retained and identified as a user charge. This concept should not be used as a precedent for covering other cost elements of the carriers' operations. 3/

6. The provision of airport facilities and services should remain the responsibility of local communities. There should be a strong local role in decisions regarding the location, capacity, use, and management of airports. Such Federal influence as is necessary in the interest of assuring an adequate national airport system should be exerted primarily through economic and safety regulation of air carriers, the design of the airways system, coordination of Federal transportation assistance programs, as well as initiation and support of transportation systems planning.

7. In its management of the airway system, the Federal Government should seek full recovery of the civil costs of the airways, and related activity, on a relatively equitable basis as among users. As a corollary to this principle, expenditures which will be for the primary benefit of identifiable classes of users should be related to revenues contributed by those classes of users. There is no reason why the air carrier passenger, riding a public conveyance, should subsidize the operation of a private airplane

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3/ In developing the Administration's user charge proposal, consideration was given to a fuel tax for air carriers. Such a tax would be consistent with the principles set out above. However, because of the existence of the 5 percent ticket tax and the acceptance of this form of taxation by the air carriers, the decision was made to propose further use of a passenger tax. From the standpoint of the Administration, there is relatively little basis for choosing between the two taxes as revenue sources. Had there been no precedent, the preference would have been for a fuel tax since it is not a direct tax on the passenger and would be treated as an expense by the airlines.

whether it is owned by an individual or by one of our major corporations. To minimize capital investment as well as operating and maintenance expenses, regulatory authority should be judiciously used in meeting current and projected problems of safety and congestion. There is no other prudent course given the great demands on our Nation's financial resources and the fact that both airways and airport capacity are in themselves scarce resources.

The Administration's proposals now before this Committee have been developed in accordance with the foregoing policies. These proposals, which follow, cannot be considered independently of the principles upon which they are based. But their applicability is not limited in any sense to these programs. These are in fact the principles which must be taken into account in considering any program or proposal for the Nation's airways and airports.

PROGRAM PROPOSALS

Airports

With S. 3645, the Administration is attempting to chart a new course for Federal assistance to airport development. The bill would authorize direct loans for development of airports which are potentially viable but for which loans in the private market cannot be obtained on reasonable terms. The loans outstanding at any one time would be limited to $1,000,000,000.

To assist development of airports served by local service carriers receiving operating subsidy from the Civil Aeronautics Board, the bill would authorize grants up to 50 percent of the cost of projects attributable to service by the subsidized carrier. As a condition to a grant, the Secretary would have to find, after consultation with the Board, that the cost of the project did not substantially exceed the value of the service to be provided.

All of the proposed Federal assistance would be available only for development projects related to landing areas and safety facilities. It would not be available for terminal, hangar, parking, and other passenger service or industrial purposes.

The bill would require the Secretary to prepare, within two years, and revise at least every two years thereafter, a plan for the National Airport System. The plan must set forth for at least a ten-year period the type and estimated cost of all airport development required to meet the needs for airport facilities in locations served by air carriers, for the national defense and postal service, and for the economic development objectives of the states and their subdivisions.

Airways

With respect to airways, the Administration proposes a new program starting in FY 1969, the details of which are described below, which would be conditioned upon enactment of the following taxes:

-- increase the passenger ticket tax from 5 percent to 8 percent; impose a new tax on air freight waybills of 8 percent;

-- provide a full refund to air carriers of the four cents per gallon gasoline tax;

-- increase the effective tax rate on gasoline used by general aviation from the present two cents per gallon to seven cents per gallon in fiscal year 1969, to eight cents in fiscal 1970, to nine cents in fiscal 1971, and to ten cents in fiscal 1972;

-- impose a new tax on jet fuels used by general aviation of seven cents per gallon in fiscal year 1969, rising by annual one-cent increments to ten cents per gallon in fiscal year 1972.

Over the next five-year period FY 1969 through FY 1973, these new taxes would bring in additional revenues of $1.5 billion. Total revenues from the existing taxes plus the increments will amount to $3.1 billion in the five-year period. The civil share of money expended for domestic airways, improvements, operations, and maintenance during the five-year period will total $5.5 billion. The civil share of expenditures over the same period will total $4.4 billion.

The Revised FY 1969 Airways Program

Based on the additional revenues from these taxes in FY 1969, the Department would propose the following additional $176 million program for FY 1969 which would be in the form of a proposed amendment to the President's Budget currently before the Congress:

-- An increase in the Facilities and Equipment Appropriation of $121.5 million

1. En-Route Facilities and Services, $22.4 million

a. The en route radar system will be expanded and improved through establishment of new radars at eight locations and modification of existing radars at 21 locations. This expansion and modification is required to provide the radar coverage required by the air traffic control system and to permit the extension of automation capability in the national airspace en-route system - $15.5 million.

b. Existing center facilities would be expanded and modernized to meet present operational needs. This program includes expansion and improvement of the ARTCC structure, improvement of electrical power systems, relocation and expansion of air/ground communications, and provision of radar video recording - $6.9 million.

2. Terminal Area Facilities and Services, $77.2 million

a. Airport surveillance radars, including an air traffic control radar beacon system with direct altitude and identity readout, would be established at 36 locations having an approach control tower with 50,000 or more annual itinerant operations and 10,000 or more annual air carrier operations. This program is designed to bring radar service to more air traffic hub locations and selected non-hub locations having comparable air carrier traffic activity - $27.4 million.

b. Automated radar traffic control capability would be installed at 76 locations to expedite handling of traffic in busy terminal areas. Of this number, 20 high-density terminal areas would be provided with the capability of displaying alphanumeric identification and calculated ground speed of beacon equipped aircraft plus altitude readouts from aircraft with mode C transponders. Fifty-six lower activity airports would be provided with direct altitude and identity readout on radar displays of all beacon equipped aircraft - $18.2 million.

c. Air traffic control towers would be constructed at 30 publicly owned airports with 24,000 or more annual itinerant operations including air carrier operations and at eight general aviation airports recording 50,000 annual itinerant operations. This program would provide tower service at those high activity locations where passenger safety requires the separation of aircraft - $10.2 million.

d. Existing terminal area radar services would be improved primarily through provision of radar bright displays in tower cabs, establishment of full time vectoring and sequencing of all terminal radar facilities, modification of the ATC beacon system, and provision of radar video recording equipment - $12.5 million.

e. Existing terminal facilities would be improved through relocation and modernization of towers, communication facilities, and provision of digital weather displays for controllers - $8.9 million.

3. Flight Service Stations, $3.0 million

This program would provide for rehabilitation of the busier operating facilities, including relocation of quarters where required, replacement of obsolete equipment, and improvements to communication facilities.

4. Air Navigation Facilities, $14.6 million

a. Instrument landing systems with approach lights and runway alignment indicator lights would be installed at 70 locations. This number includes those airports presently served by air carrier turbojet aircraft or forecast to have jet services by the end of 1968 which do not presently have an ILS. In addition, ILS facilities would be provided at the higher activity airports with an existing ILS - $10.7 million.

b. At 15 locations, ILS systems would be improved to provide Category II approach capability - $1.7 million.

c. Provision is made for installation of terminal navigational aids and visual approach slope indicators, and improvements to existing facilities which are required to maintain an adequate and up-to-date domestic airway structure - $2.2 million.

5. Training Facilities, $4.3 million

This program would provide for the purchase of one light twin-engine turbojet transport aircraft and one B-727/DC-9 type flight simulator which are required to meet requirements for training of flight standards inspectors. Provision is also made for modification of one aircraft to permit Category II training.

-- An increase in the Research and Development Appropriation of $23.0 million

1. Air Traffic Control, $15.2 million

Under this program, funds would be utilized to speed the development of control facilities, devices, and procedures essential to improvment of air traffic control. Primary emphasis will be placed on systems

modernization needs, particularly the en route and terminal area automation programs, and development of advanced concepts, procedures, and techniques applicable to National Airspace System needs in the post-1975 period.

2. Navigation, $5.9 million

This program would speed up efforts leading to modernization of the approach, short-distance navigation, and flight inspection systems.

3. Aviation Weather, $1.6 million

This program would permit the expansion of efforts to complete the engineering, development, and testing of equipment and techniques for acquisition, processing, forecasting, transfer and display of weather information.

4. Aviation Medicine, $.3 million

Under this program, research efforts would be designed to provide early detection of significant diseases in airmen.

-- An increase in the Operations Appropriation of $31.5 million

1. Operation of Traffic Control System, $20.4 million

Under this activity, funds would be utilized to finance a staffing increase of about 3,000 positions which are required primarily to meet added workload due to the substantial increases in air traffic beyond that contemplated in the original 1969 estimate. This position increase includes 1,723 positions which would be allocated to the air route traffic control centers, 607 positions to terminal facilities, and 557 positions to flight service stations. This position increase would restore a reasonable balance between traffic control manpower and workload. The revised position levels provide for an average annual output per employee in 1969 well above 1967/1968 levels. The estimate further provides for expansion of traffic control services at high activity terminals, transcribed weather broadcasts and pilot briefing services, and assumption of military traffic control services which were funded in fiscal year 1968 on a reimbursable basis. Also included are requirements for expansion of related training programs and administrative functions to support the program growth.

2. Maintenance of Traffic Control System, $8.8 million

Additional funds under this activity are requested primarily to finance an increase of about 700 positions required for maintenance of new facilities, advance recruitment of personnel in order to meet the present schedule for implementation of an automated air traffic control system, maintenance of radar facilities no longer required by the Department of Defense but which are required for present and future air traffic control, and maintenance of facilities and services funded by the military on a reimbursable basis during fiscal year 1968. Also included are requirements for expansion of basic and journeymen training for maintenance personnel, modifications and improvements to operating facilities, and procurement of test equipment.

3. Administration of Flight Standards Program, $2.3 million

Under this activity, funds requested would permit a staffing increase of 264 positions which are required to provide minimum levels of safety inspection and surveillance commensurate with the increases in overall activity. Related training programs would also be expanded to provide initial training for newly employed operations and maintenance personnel.

The Proposed Five-year Airways Program

The following represents the full five-year program, FY 1969 through FY 1973, which the Department would propose. The Committee, of course, realizes that these are not precise amounts and cannot be taken as exact dollar commitments or personnel levels. They are our best judgments at this time, and are indicative of the general program elements involved. Obviously it would be unwise to fix upon the details of the program so long in advance. In keeping with prudent management practices we would expect to make modifications from time to time to adjust for changing needs and new technology.

Over $1 billion of Federal funds would be needed to purchase and install new facilities and equipment needed to bring the Nation's air traffic control system up to the level of future demands. This sum also covers the purchase and installment of facilities required for the supporting navigation and communication systems and other services plus the necessary accompanying research and development.

En Route. The most immediate major program in air traffic control is the continued automation of air route traffic control centers. This would take four years and cost $250 million.

The improvement of en route traffic control would require expanding long-range radar coverage. The estimated cost for the program period is $50 million.

There would also be a need for improvement in the center buildings themselves--some expansion and the installation of fail-safe electrical systems. These improvements would cost $60 million.

Air Traffic Control in Terminal Areas. The problem of congestion and safety in the terminal areas requires immediate attention. In the next five years over 125 air traffic control towers would be established at airports now lacking tower service. The towers and their equipment would cost $40 million.

Automation of the air traffic control system at certain major terminals would cost $140 million.

At the busy terminal areas there would be a requirement for 75 airport surveillance radars costing $65 million.

The busy terminals would also need a system which permits the controller to see on radar in the tower cab surface movements in remote corners of the airport. These radar systems would have to be installed at the rate of 10 a year in the larger and medium sized carrier airports.

Air Navigation. The first requirement in air navigation is a substantial increase in the number of instrument landing systems (ILS). These electronic devices send out directional beams which guide a pilot down to a landing when poor weather restricts visibility. The installation of these systems plus the installation of associated lighting aids necessary for landing during restricted visibility would require an expenditure of $100 million through 1973.

These ILS's and their complementary lighting systems must be further refined to permit landings in lower weather minimums than are now permitted. This program would cost $15 million during the next five years.

The program also includes landing aids for VTOL operations at a cost of $5 million and improving the accuracy of en route navigation aids at a cost of $50 million.

Communications. The greatest need in the communications field is the installation of an electronic voice switching system (EVS). This would permit our air traffic controllers greater flexibility in communicating with aircraft through any of several local or remotely-located radio transmitters and receivers. The EVS would also permit controllers to communicate locally with each other and with others in adjacent facilities. The advantages of EVS are its speed, reliability and versatility as opposed to the present time consuming, limited mechanical system. The required research and the consequent facilities and equipment for all aviation communications would cost $100 million during the next five years.

Research and Development. The ultimate objective of a Government research and development program is to spend the taxpayer's money wisely and well. Expenditures of more than $825 million in new and improved facilities and equipment are planned over the next five years. To develop the best possible tools--to seek new ways of doing the job more safely and more efficiently--we propose to spend in the same period $250 million in research and development.

The most significant and expensive research and development would be put to work in automating the air traffic control system. Other R&D programs would cover in-service improvements and long-range development of replacement systems.

Subsystems. The full development of the aviation system requires far more than the purchase and installation of towers, radars, electronic instruments and airport runways. There is a need, too, for additional personnel. FAA would need to take on in the next five years many more air traffic controllers.

There will be a need, too, for continuing change in procedures and operations. There must be an updating of aeronautical charts and flight information publications. There must also be an increase in the use of automation for the Notice to Airmen system. And there must be an improvement and expansion of weather services. All this assistance rendered to airmen would cost an estimated $10 million in the next five years.

A dependable air transport system would also require the manufacture of a number of mobile traffic control, navigation and communication facilities. These would minimize service outages resulting from equipment breakdowns, necessary repairs and maintenance. These should be built and on hand within the next five years at a cost of $15 million.

The program also provides for new installations at FAA's research and development center, the National Aviation Facilities Experimental Center at Atlantic City, New Jersey. These improvements would cost $40 million over the next five years.

The FAA Fleet. The several thousand navigation and control facilities maintained by the Federal Aviation Administration must be regularly checked for accuracy. This flight inspection is done by a specially-equipped fleet of flight check aircraft operated by the FAA. Some of these aircraft must be replaced; others must have new equipment. FAA also maintains certain aircraft for training purposes--to train its flight inspectors who must monitor the piloting performance of our airline pilots, for example.

To renew these fleets and to carry out research and development in new types of aircraft would require $75 million during the next five years.

Noise. No master plan of future aviation development would be complete without provisions for the abatement of aircraft noise. Research would be continued on quieter engines, further study would be made on improved noise abatement takeoff and approach procedures, and research would be continued on developing standards for land use planning.

Flight Service Station. The flight service stations (FSS), operated by the Federal Aviation Administration, are the collectors and distributors of aviation weather information and other essential flight data. They are, as well, the general aviation pilot's front door into the air traffic control system. These stations accept flight plans, enter them into the air traffic system and provide weather and other flight advisory assistance.

The existing 300 FSS's would be consolidated and updated into a network of approximately 153 facilities. The remainder would be reorganized into a network of 1,000 secondary stations. This program would cost $20 million by 1973. Another $160 million would be required for smaller programs to keep the system operating at peak efficiency.

PROGRAM DISCUSSION

Airports

Our best estimates of public-owned airport development requirements, excluding hangars, terminals, and other passenger and cargo handling facilities, for fiscal years 1969 through 1973 is about $2 billion. Our best estimate of terminal and other passenger facility requirements for the same period is between $1.5 and $2 billion.

Of the $2 billion in non-terminal area development, $1.4 billion is required at airports used by air carriers and $560 million is required at airports used only by general aviation. Within the air carrier airport group, 33 airports, or 7 percent of the total, account for approximately 40 percent of the total development requirements. Within the general aviation airport group, 199 airports, or 6 percent of the total, account for one-fifth of the total development requirements. It is fair to assume that the terminal area costs are distributed in approximately the same proportions.

It is clear from the concentration of requirements at high-density airports that the airport development problem is not a uniform problem requiring a uniform solution. Thus, 290 airports served only by local service carriers account for $660 million, or 47 percent of the total air carrier airport requirement of $1.4 billion. Yet, these 290 airports handle less than 4 percent of all air carrier passengers. In developing a Federal program, there is no reason to assume that we could or should deal with this group of 290 airports in the same manner as the 33 air carrier airports in the large hub areas, which handle about 68 percent of all air carrier passengers.

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From the standpoint of financial need, the public-owned airports can be placed in five categories: (1) Trunk air carrier airports where, given reasonable charges, traffic will be sufficient to amortize development costs; (2) trunk air carrier airports where, given reasonable charges, traffic will not be sufficient to amortize development costs without subsidy from some source; (3) local service air carrier airports where traffic will be insufficient to amortize development costs and which, virtually by definition, require subsidy; (4) general aviation airports where, given reasonable charges, traffic will be sufficient to amortize development costs; and (5) general aviation airports where, given reasonable charges, traffic will not be sufficient to amortize development costs without subsidy from some source.

Applying the principles discussed earlier, the Federal Government should not provide any assistance to any airport if private lenders are willing, on reasonable terms, to underwrite development--and extensive discussions with the financial community confirm that, generally speaking, they are both willing and able.

Airports in the first category certainly should be able to obtain financing on reasonable terms in the private market.

With respect to the airports in the second category, the low-density trunks, the source of the subsidy is the real issue--should the subsidy be provided by the community served, by the Federal Government, or by the air carrier? By far the overwhelming share of the projected development costs at these airports are for runway lengthening, strengthening, and other improvements necessary to accommodate larger, higher capacity, higher performance air carrier aircraft. As such they are clearly attributable to air carrier operations. The analyses we have done convince us that the trunk carriers can subsidize airport improvements at the low-density points on their routes with very minor adjustments in their overall fare structure. An analysis of the airport requirements on the system of the trunk carrier with perhaps the highest number of low-density points indicates that a per passenger charge of 25 cents would be adequate to amortize all projected airport development costs allocable to it.

With respect to airports in the third category, those served only by local service carriers, the Federal Government has already determined that at those communities the public interest warrants subsidizing the provision of scheduled air carrier service. The decisions to grant operating subsidies are made by the Civil Aeronautics Board on a case-by-case basis in accordance with policies and procedures established by the Congress. Airport development costs at these airports are, in effect, a further subsidy for the operation of the local service airline and should be recognized and treated as such. A process similar to that used for determining operating subsidy, and using similar criteria, should be established for providing the capital subsidy necessary to permit this service.

In the case of both local service airports and low-density trunk airports, the alternative to making large, fixed investments ought to be carefully examined by the Government. Very often the costs of airport improvements necessary to permit certificated air carrier service by jets could be avoided by using aircraft less demanding of concrete. In other cases, the appropriate solution might be to discontinue trunk or local service and substitute service by the so-called "third level", "commuter", or "air taxi" operators.

When the continuation of trunk service to a low-density airport will require a capital investment whose amortization for the next 20 years may cost in excess of $100 per passenger carried, it is time to reexamine our air transportation service and Federal aid philosophies. The same reexamination is called for when it is evident that the amortized costs for the next 20 years of proposed airport development may be in excess of $15 per passenger carried at many local service air carrier airports. This cost is to compare with the average price of a local service ticket, which is only $17.

With respect to airports in the fourth category, general aviation airports where reasonable charges will amortize development costs, there is certainly no economic rationale for Federal assistance, nor do we believe there is any over-riding Federal interest which warrants Federal subsidy. Very few airports in this category now charge any landing fee to the general aviation aircraft user - a survey of the airports in six states indicated that only 1.3 percent did. Many of these airports do levy other charges in the form of tie-down fees and fuel flow-through fees. The point, however, is that for a very nominal increase in existing fees, of whatever type, many of these airports could amortize their full development costs. In a sample of 41 general aviation airports which received Federal grants in the period 1962-66 and which had control towers (thus giving us accurate traffic counts), we found that all but seven could have amortized both the Federal grant and the local community's contribution by charging itinerant aircraft one dollar or less per landing, and charging local operations nothing! Five of the seven could have amortized all costs by charging only itinerant operations $1.30 or less; one by charging $3.06; and one by charging $8.80. The latter two are atypical in that they had a disproportionately large number of local operations necessitating a large airport investment. If local operations at those two airports were also charged a fee, the cost per operation would decline to $1.32 and $1.95, respectively.

The impact of a $1 airport development fee for each itinerant landing by a general aviation aircraft would be negligible. An analysis of operating costs of ten different types of undepreciated general aviation aircraft in the one- and two-engine piston and jet categories shows that a $1 fee per itinerant landing would cost one-half cent or less per mile flown in every case but one. In the one case, the cost would be .7 cent per mile. Looked at in terms of total operating expenses for these ten aircraft, the $1 fee would add 1 percent or less to the total operating cost of five of the aircraft, less than 3 percent for three aircraft, and less than 4 percent in the case of the remaining two aircraft.

With respect to the fifth category, general aviation airports where traffic will be insufficient to amortize development costs without the imposition of unreasonably high fees, a fundamental issue of Federal versus state or local interest is raised. Federal aid is sought for many of the airports in this category on the ground that an airport is necessary to enable community X or state X to attract new industry, an area of intensive competition between communities within a state and between states. Is there a Federal interest in providing aid which influences the outcome of this competition? We think not. The real beneficiaries of the competition for new industry are the states and communities who succeed in broadening their tax bases, increasing their payrolls, etc. If airport subsidy is required to do this, it should come from the state or local community.

Furthermore, the evidence is quite clear that those in industry and other commercial pursuits who depend on private air transportation for the conduct of their business are capable of bearing the full cost of airport services. The statistics for 1966 indicate that almost 80 percent of the hours flown by general aviation aircraft were deductible as a business expense of the aircraft operator. A substantial portion of any additional charges for airport improvements are therefore susceptible to being written off. A survey by Time Magazine of persons who purchased new aircraft in 1963 for private use would tend to confirm this. According to the Time survey, the median income of the buyers was $33,333; 78 percent of these were businessmen and 70 percent were in top management jobs; 75 percent of their flying was for business purposes; and 85 percent flew 10 hours or more per month.

If the program principles are sound, and if the facts available to us are substantially correct, the airport assistance program which the Administration has proposed will protect the Federal interest in a national airport system. Equally important, this program and the policies which underlie it will create an environment in which the fundamental issues of the quality, quantity, and cost of our air transportation system can be more rationally examined and decided.

The local service airport grant program will provide the necessary matching funds to those airports where the airport costs do not exceed the value of the service provided. Where the costs are found to exceed the value of service, the Government can examine other courses of action which will permit continuation of an appropriate type of service on a more economical basis if it appears justified.

The loan program which the Administration proposes will assure that necessary airport development is accomplished under two differing sets of conditions. In the first, it will make loans available even to the financially most healthy airport if, because of tight conditions in the money market, financing is not available on reasonable terms. In the second, it will make loans available to those airports which are potentially viable but whose condition is marginal and not attractive to private capital except on unreasonable terms.

Finally, it will place national airport system planning on a much more comprehensive basis, both in terms of identifying total airport development needs and in terms of relating airport development to other transportation programs. It will create a planning environment which will permit Federal, state and local governments to work more closely together and with industry in identifying and relating local and national airport system requirements.

The argument is sometimes made that a large Federal grant-in-aid program is essential to assure that airport capacity is provided when it is needed and where it is needed. Yet, no amount of Federal money can solve the problem of whether a fourth jetport is needed in the New York City area, or where it should be located. Here, environmental issues have predominated in the decision-making process and, ultimately, these must be resolved at the local level. Problems of this type will be solved sooner, and more in keeping with our concepts of private enterprise and creative Federalism, through a cooperative planning system in which the common interests of the most immediately affected parties - the airport operator, the users, the airport neighbors, and other segments of the community - are determinative of airport development.

Airways

The basic justification for the airways program which the Administration is proposing lies in the projected growth of air transportation. I have already reviewed our five-year traffic projections. We can obtain no solace from the ten-year projections. These indicate a 300 percent growth in revenue passenger-miles; a doubling of aircraft hours flown; a doubling of the general aviation fleet; a tripling in the number of aircraft handled by the air route traffic control centers; and a quadrupling of aircraft handled by airport towers.

One basic premise underlies these forecasts - it is that there will be no constraints placed upon the growth of traffic. Thus, the system of support facilities and the forecasts are inseparable. Either we increase the capacity of the system or revise the forecasts.

Since our five-year program for meeting the forecasts has already been described in some detail, I would like to turn to the issue of user charges and present our reasoning as to the size of the increases and the allocation of costs among the users.

In his letter to me of September 20, the President made it quite clear that one condition to an expansion of the airways program was that the users of the system bear their fair share of the costs.

Within the definition of airway costs, we have included all costs of the Federal Aviation Administration except those incurred directly for or in support of the two National Capital airports, the Federal-aid airport program, and the supersonic aircraft development program.

On an annual expenditure basis, our proposed five-year program will total $5.5 billion. $1.1 of that amount can be attributed to military aviation, leaving a net civil aviation share of $4.4 billion. Of this civil share, $3.0 billion has been attributed to air carriers, and $1.4 billion to general aviation. The allocation of costs between military and civil users and, within the civil group, between the air carriers and general aviation was done by identifying and allocating all costs solely attributable to one segment or the other, and then apportioning costs common to all on the basis of their relative use of the system.

Over the five-year period, revenue from the ticket and waybill taxes proposed for air carriers will total $2.8 billion, and cover 95 percent of the costs attributable to them. Revenue from the fuel tax proposed for general aviation will total $290 million, and cover 20 percent of the revenues attributable to them. The deficit of $1.1 billion for general aviation must come from general tax revenues.

Are the cost allocation and tax levies equitable? By its very nature, cost allocation requires innumerable judgmental decisions, and judgments differ. Cost allocation is a very subjective matter. The "best" method in the view of one being charged is quite naturally that which minimizes his costs. General aviation would argue that virtually the whole system is for the air carrier or the military; but it is quite likely that the booming business segment of aviation would not be booming if there were not available a safe, all-weather system that could carry a corporation president as safely in a business-jet as in a scheduled airliner. The airlines, on the other hand, would argue that much more of the system costs are attributable to the military than we would be prepared to concede. We can only say that we have used our best judgment given the operational and cost data at hand.

With respect to the equity of the tax levy, we have struck as close a balance as possible with respect to air carriers. Given the necessity to forecast costs for five years and revenues for five years, we believe that a 95 percent recovery should be considered full recovery. As to general aviation, the relative degree of equity is quite apparent. Assuming the accuracy of the cost allocation method, the Federal Government's airway expenditures for general aviation in excess of revenues received amount to about $1,500 per year for each aircraft in the general aviation fleet. Obviously, the benefits to those aircraft which seldom use the system are much less than this amount while the benefits to the frequent users such as the business jets are very much more.

It was the judgment of the Administration, however, that a fuel tax in excess of that proposed for general aviation would work substantial inequities on some elements of general aviation and still not significantly close the gap between costs and revenues. The fact that this large gap exists, however, would indicate that all future airway expenditures for general aviation must be very carefully considered.

Our analyses of the operating costs of ten representative types of undepreciated 4/ general aviation aircraft show that a fuel tax of 10¢ per gallon would:

(1) increase the costs of the four single engine piston aircraft by less than 1¢ per mile, and increase their total expenses by less than 4 percent;

(2) increase the costs of the four 2-engine piston aircraft by less than 2¢ per mile, and increase their total expenses by less than 3 percent; and

(3) increase the cost of the 2-engine jet by less than 6¢ per mile, and increase its total expense by 6.4 percent.

Given the fact that the purchase prices of these undepreciated aircraft range from $7,300 for the smallest single-engine piston, to $650,000 for the small twin-engine jet, and their annual operating costs range from $2,789 to $203,775, the taxes proposed are not considered to be unreasonable, or likely to adversely affect the growth of general aviation. In this respect, it is worth reiterating that about 80 percent of general aviation flying is business related and presumably a deductible item for income tax purposes.

4/ Depreciation is a significant cost factor. Consequently, the impact of a fuel tax, as a percentage of cost, will be higher on a fully depreciated aircraft.

ALTERNATIVES CONSIDERED

Airports

A number of alternative airport programs have been proposed by various groups from time to time. The approach now favored by the Air Transport Association is the establishment of a trust fund for airport development to be funded with a 2 percent tax on airline tickets and a $2 head tax on airline passengers departing the U.S. The fund would be used to pay up to 75 percent of the principal and interest on securities issued by local communities to finance airport development. All air carrier airports and general aviation reliever airports operated by public agencies would be eligible for assistance. All development projects in connection with the operation of an airport, including landing area, terminals, parking, etc., would be eligible for assistance. This program would be in addition to the grant program authorized by the Federal Airport Act.

The Administration opposes this proposal for several fundamental reasons:

1. It involves the Federal Government in a funding program as a collection and disbursement agent for no sound reason. All of the funds would come from the air carriers' passengers and most of the funds would go to finance costs incurred due to the air carriers' operations. With just as much logic, we could establish a tax on the air passenger in order to make payments to aircraft manufacturers for aircraft required by the airlines.

The only plausible argument in support of this approach to air carrier airport development is that there is a fundamental resource allocation problem which cannot be solved without Government intervention. The allocation problem arises from the fact that the air carrier passengers are not evenly distributed by airports, necessitating a mechanism for transferring funds from the high-density passenger terminals to the low-density terminals.

This same type of allocation problem exists universally for public utilities but typically the utility itself, not the Federal Government, does the reallocating. It charges higher-than-cost rates to low-cost users to permit it to charge lower-than-cost rates to high-cost users. The airlines have high-cost routes and low-cost routes and, in their present rate structures, the low-cost routes are subsidizing the high-cost routes. There is no reason why airport costs should be excluded from this process and the Government brought in to act as a broker. As stated earlier, our anlyses indicate that in one of the potentially worst cases for a trunk airline's entire system, the airline could finance all of the added airport development costs on its system, attributable to its operations, for a systemwide fare increase of 25¢ per ticket. There is no doubt whatsoever that this would be much more economical and much more efficient than invoking the taxing and spending powers of the Federal Government, just to obtain essentially the same result.

Two other arguments advanced for the proposal are also unpersuasive. One is that, through the use of reallocated tax revenues for debt service, a "multiplier effect" can be achieved which will make substantially larger amounts available for airport development. This same result can be achieved by direct financing. It does not require Government intervention.

Secondly, it is argued that Government intervention is necessary to avoid diversion of aviation revenues to non-aviation purposes. This is unpersuasive. The only means available to the Government to prevent diversion is through contracts with the airport operators. Similar covenants in airline-airport operator contracts would be fully as enforceable.

2. The bill would impose no tax on the general aviation user but would finance the development of reliever airports for the use of general aviation. The logic of this is not apparent. Within the limits of available resources, the system should be expanded to accommodate all classes of users as efficiently as possible in response to their needs. However, consistent with the principles set out above, all users should bear their fair share of costs.

3. The ATA bill would continue the present Federal grant-in-aid program. Federal grants to airports constitute direct subsidies to air transportation. The users of air transportation come, predominantly, from the most economically self-sufficient group in the Nation and do not require Federal subsidy. Given a rate of growth which is several times higher than the rate of growth of the economy as a whole, artificial stimulation of air transportation through subsidy is a self-defeating policy. The Administration's program recognizes an exception to the general policy in the case of local service airports.

4. Finally, the ATA approach would dilute management responsibility. It creates a situation in which neither the airlines, the airport operators, nor the Government can have a full sense of the responsibility that comes when one is "spending his own money". Certainly, an individual airline cannot be expected to be as cost conscious in requesting facilities to be paid for by a tax dollar collected from an "industry" passenger as it would be of a fare collected from a passenger on its route. In the latter case, both the revenue and the expense are run through the airline accounts and show up in the form of profits or losses.

Other proposals for airport development, such as the one contained in S.2379, would call for large Federal grant programs financed from direct taxes on air passengers or increased taxes on aviation fuel. S. 2379, in addition to the grant program, would authorize interest subsidy payments on municipal securities issued to finance airport development.

The Administration is opposed to S. 2379 for essentially the same reasons cited in its opposition to the ATA proposal.

Airways

The principal alternative considered in connection with the Administration's airways proposal was whether to recommended adoption of trust fund financing. The decision against the trust fund approach was based on the fact that under no equitable tax structure did full financing of the total civil share of airways costs appear feasible. Several hundred million dollars would be required each year from general appropriations to sustain the fund. Under these conditions, the concept of a trust fund is illusory. It carries for the Government the principal disadvantages of trust fund financing (inflexibility in fiscal management due to the earmarking of funds) and does not provide the principal benefit (full financing from special taxes on users).

From the aviation industry's standpoint, the principal argument in favor of a trust fund is that it assures that aviation tax revenues will be spent for aviation purposes and not diverted to non-aviation uses by the Federal Government. If the revenues from either the present or the proposed special use taxes on aviation were anywhere near the Government's expenditures in behalf of aviation, the aviation industry could be justifiably concerned over the possibility of diversion. We are a very long way from that situation, however, for the industry as a whole.

There is a further consideration, and in my judgment a real danger, which those of us who are interested in aviation and have a responsibility for its growth and development should keep in mind. If funds are earmarked by legislation for aviation, there will inevitably be a long-run tendency on the part of many to try to hold Federal expenditures for aviation to the amount of revenues generated by the users and paid into the so-called trust fund. This amount, I believe, would be substantially below the requirements for continued expansion of air transportation.

The air carrier passenger's contribution under the proposed tax would amount to 95 percent of the costs attributable to the air carriers based on present cost allocation methods. We see no danger in the next five years of their contribution exceeding 100 percent of the expenditures attributable to them. We will within the next five-years reexamine the methods of cost allocation and the tax structure to assure that inequity will not arise in the period beyond the five-year program currently being proposed.

CONCLUSION

Air transportation is facing a challenge of very rapid growth. In responding, we must undertake a fundamental reexamination of where we are, where we are going, and how we ought to get there.

There is not the slightest resemblance between air transportation as it existed in 1946, when the Federal Airport Act was enacted, and air transportation as it exists today. The conditions are literally decades apart. To attempt to respond now as we responded then would be to ignore 22 years of the most dynamic changes which have ever occurred in the history of transportaton. We have gone from a very expensive, uniformly subsidized air carrier system providing an elite transportation service built around the DC-3, to a relatively inexpensive, largely unsubsidized air carrier system providing an economy transportation service built around a predominantly jet aircraft fleet. The transformation in general aviation has been equally dramatic. We must cut our cloth to fit these facts.

We have a privately-owned, privately operated common carrier air transportation system. Our policies should preserve and encourage the role of private enterprise in this system. To the fullest extent consistent with protecting the public interest, management decisions should be made in this context.

We have a locally owned, locally operated airport system. Our policies should preserve and encourage this healthy Federal/State/Local relationship. There is every reason, particularly given the prosperity of the aviation industry, why airports should prosper and be fully self-sustaining enterprises under this system.

We have a Federally owned, Federally operated airways system which provides the safest and most efficient air transportation in the world. Our policies must assure its adequacy to meet growing demands on a sound financial basis.

We have a Federal Government faced with great demands on its capacities to govern, and on its resources. We should carefully avoid either injecting, or leaving the Federal Government in areas of private or local government enterprise except when there is no other way to protect national interests.

The Administration's airways and airports program will fully protect the national interest in a safe, efficient air transportation system and create a sound environment for future growth.

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List of Exhibits

1. President's Letter to Secretary Boyd of September 20, 1967
2. Aviation Statistics and Forecast
3. Projected Use of FAA Facilities and Services
4. FAA Appropriations
5. Proposed FY 1969 Program, FAA, Summary of New Obligational Authority
6. Comparison of Civil Share of Domestic Federal Airway Expenditures With Estimates of Revenues Under Proposed User Charges, FY 1969-73
7. Estimated Funding Requirements, Airfield Area Development by Purpose of Funds, FY 1969-78
8. Estimated Operating Costs of Representative New General Aviation Aircraft
9. Annual Impact of Various Landing Fees on Operating Expenses of Representative New General Aviation Aircraft
10. Annual Impact of Various Fuel Taxes on Operating Expenses of Representative New General Aviation Aircraft
11. Estimated Cost Per Aircraft Landing of Annual Cost of FY 1962-66 FAAP Expenditures at General Aviation Airports With FAA Traffic Control Service
12. Six-State Sample of Landing Fees Charged at Airports

Ex. 1

THE WHITE HOUSE

WASHINGTON

September 20, 1967

Dear Mr. Secretary:

It is apparent that the rapid growth of commercial and private flying is creating demands for substantial expansion and improvement in the Nation's air traffic control system. The Federal government is the manager of this system. System improvement will, therefore, require large additional outlays of Federal funds for investment and operations. Those who will benefit most from such expenditures, the aviation industry and the flying public, should pay their fair share of the costs of the system needed to handle the increase in air traffic while maintaining a high level of safety. I do not believe the general taxpayer should be asked to shoulder this burden.

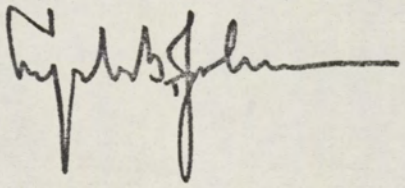
I am, therefore, asking you to develop a long-range comprehensive plan for the facilities, equipment and personnel required to meet these needs. This plan should be accompanied by a proposal for financing the improvements through a system of charges by which the users of the Nation's airways bear their fair share of its costs.

Looking toward the immediate future, I am today submitting to the Congress a budgetary amendment designed to provide a more effective use of Federal Aviation Administration funds in the operation of the air traffic control system. I am also requesting you to direct the Administrator of the Federal Aviation Administration to conduct a review of current air traffic regulations, flight rules, and standards with a view toward making such changes as he considers necessary to maintain air

safety. Should this review indicate that the maintenance of safety requires changes which involve some traffic delays, the Administrator should nevertheless make such changes.

This Nation has an enviable record of air safety. I know that you and your associates can maintain this record.

Sincerely yours,



Honorable Alan S. Boyd
Secretary of Transportation
Washington, D. C. 20590

AVIATION STATISTICS AND FORECAST

	1962	1967	1974	1979
Passenger Miles (Billions)	42.5	86.3	200.0	342.0
Number of Passengers (Millions)	66.6	126.4	272.5	444.0
Hours Flown				
Air Carrier (Millions)	4.2	5.2	8.6	9.7
Gen'l Aviation (Millions)	14.0	21.9	31.8	40.5
Aircraft				
Air Carrier	2,100	2,272	3,320	3,860
Gen'l Aviation	80,632	104,706	160,000	203,000
Use of FAA Facilities				
Airport Operations Where FAA Services (Millions)	27.4	47.6	101.9	167.4
Aircraft Handled - FAA Centers (Millions)	10.1	15.1	31.8	44.9

Projected Use of FAA Facilities and Services
(in millions)

	Air Carrier			General Aviation			Military		
	Actual 1967	1974	1979	Actual 1967	1974	1979	Actual 1967	1974	1979
Itinerant Operations at Airports with FAA Towers	8.6	15.7	20.6	19.0	41.1	66.5	1.6	1.3	1.1
Local Operations at Airports with FAA Towers	--	--	--	16.7	42.4	78.0	1.7	1.4	1.2
Aircraft Handled Enroute Control Centers	8.5	19.7	25.7	2.2	7.1	14.7	4.3	5.0	4.5
Aircraft Contacted Flight Service Stations	.7	.8	.9	7.9	13.7	19.1	.7	.5	.5

Ex. 3

FAA APPROPRIATIONS
(In Millions)

	1967	1968	Requested 1969
Operations	575.3	605.2	633.0
Facilities and Equipment	28.0	54.0	70.0
Research and Development	28.5	27.0	28.0
Airport Grants	71.0	66.0	70.0

PROPOSED FY 1969 PROGRAM
Federal Aviation Administration
Summary of New Obligational Authority
(Dollars in Millions)

Appropriation	Request Pending In Congress	Additional Proposed	Total
Facilities and Equipment			
1. Enroute Facilities and Services.	$ 65.0	$ 22.4	$ 87.4
2. Terminal Area Facilities and Services.	2.6	77.2	79.8
3. Flight Service Stations.	-	3.0	3.0
4. Air Navigation Facilities.	2.4	14.6	17.0
5. Training Facilities.	-	4.3	4.3
Total Facilities and Equipment	$ 70.0	$121.5	$191.5
Research and Development			
1. Air Traffic Control.	$ 21.2	$ 15.2	$ 36.4
2. Navigation.	3.0	5.9	8.9
3. Aviation Weather.	0.4	1.6	2.0
4. Aircraft Safety.	1.7	-	1.7
5. Aviation Medicine.	1.7	0.3	2.0
Total Research and Development	$ 28.0	$ 23.0	$ 51.0
Operations.			
1. Operation of Traffic Control System.	$295.3	$ 20.4	$315.7
2. Installation and Materiel Services.	80.4	-	80.4
3. Maintenance of Traffic Control System.	162.4	8.8	171.2
4. Administration of Flight Standards.	96.7	2.3	99.0
5. Administration of Medical Programs.	5.0	-	5.0
6. Research Direction.	10.7	-	10.7
7. Administration of Airports Program.	12.6	-	12.6
Total Operations	$663.1	$ 31.5	$694.6
(Positions)	(43,302)	(3,991)	(47,293)
Total All Appropriations	$761.1	$176.0	$937.1

Comparison of Civil Share of Domestic Federal Airway Expenditures
With Estimates of Revenues Under Proposed User Charges
Fiscal Years 1969 - 73

(Dollars in Millions)

Item	Fiscal Year 1969	1970	1971	1972	1973	Five Year Total
1. Share of airway expenditures allocable to:						
air carriers	$ 459.8	$ 553.3	$ 598.4	$ 666.0	$ 699.5	$2,977.0
general aviation	229.8	260.7	291.3	317.1	340.0	1,438.9
Total, civil aviation	689.6	814.0	889.7	983.1	1,039.5	4,415.9
2. Revenues under proposed airway user charges, air carriers:						
8% ticket tax	$ 407.2	$ 452.8	$ 500.0	$ 549.6	$ 602.4	$2,512.0
8% waybill tax	48.0	55.2	63.2	73.6	84.8	324.8
Total, air carriers	455.2	508.0	563.2	623.2	687.2	2,836.8
3. Revenues as a percent of expenditures, air carriers	99.0	91.8	94.1	93.6	98.2	95.3
4. Revenues under proposed general aviation fuel tax	$ 39.9	$ 49.6	$ 58.5	$ 69.0	$ 73.0	$ 290.0
5. Revenues as a percent of expenditures, general aviation	17.4	19.0	20.1	21.8	21.5	20.2
6. Revenues as a percent of expenditures, all civil aviation	71.8	68.5	69.9	70.4	73.1	70.8

Ex. 6

ESTIMATED FUNDING REQUIREMENTS, AIRFIELD AREA DEVELOPMENT
BY PURPOSE OF FUNDS, FISCAL YEARS 1969-1978
(Millions of Dollars)

Purpose of Funds	Estimated Number of Units, FY 1969-1978	Requirements FY 1969-73 Amount	FY 1969-73 Percent	FY 1974-1978 Amount	FY 1974-1978 Percent	FY 1969-1978 Amount	FY 1969-1978 Percent
Air Carrier Airport Development	460	$1440	72.0%	$2210	88.4%	$3650	81.1%
Trunk Carrier Airports	170	780	39.0	1700	68.0	2480	55.1
New Airport Construction	20	420	21.0	1530	61.2	1950	43.3
Existing Airport Development	150	360	18.0	170	6.8	530	11.8
Local Carrier Airports	290	660	33.0	510	20.4	1170	26.0
New Airport Construction	15	100	5.0	450	18.0	550	12.2
Existing Airport Development	275	560	28.0	60	2.4	620	13.8
General Aviation Airport Development	3100	$ 560	28.0%	$ 290	11.6%	$ 850	18.8%
New Reliever Airport Construction	225	100	5.0	200	8.0	300	6.7
Other New Airport Construction	645	200	10.0	10	0.4	210	4.6
Air Taxi-Commercial	445	130	6.5	10	0.4	140	3.1
General Purpose	200	70	3.5	-	-	70	1.5
Existing Airport Development	2230	260	13.0	80	3.2	340	7.5
Congestion Relievers	180	150	7.5	-	-	150	3.3
Air Taxi-Commercial	1300	70	3.5	50	2.0	120	2.7
General Purpose	750	40	2.0	30	1.2	70	1.5
TOTAL	3560	$2000	100.0%	$2500	100.0%	$4500	100.0%

Ex. 7

ESTIMATED OPERATING COSTS OF REPRESENTATIVE NEW GENERAL AVIATION AIRCRAFT

Aircraft Type	Price[1] F.A.F.	Number of Seats[2]	Approximate Block Speed	Average Use (Hours)	Annual Costs			Fuel/Hr. (Gal.)	Aircraft Miles/Year	Available Seat/Mi./ Year[6]	Total Cost Per			
					Total	Variable	Fixed				Hour	Aircraft Mile	Available Seat Mile[6]	Passenger Seat Mile[7]
1-Engine Piston														
"A"	$ 7,300	2	110	150	$ 2,789	$ 760	$ 2,029	5.6	16,500	33,000	$ 18.59	$.169	$.085	$.169
"B"	10,000	2	125	150	3,404	1,000	2,404	9	18,750	37,500	22.69	.182	.091	.182
"C"	13,700	4	130	175	4,471	1,350	3,121	9.5	22,750	91,000	25.55	.197	.049	.098
"D"	27,500	4	180	175	6,775	1,770	5,005	14	31,500	126,000	38.71	.215	.054	.108
2-Engine Piston														
"E"	40,250	6	189	250	23,146[3/4]	4,990	18,156	17.2	47,250	236,250	92.58	.490	.098	.196
"F"	49,500	6	190	250	26,010[3]	6,180	19,830	22.8	47,500	237,500	104.04	.548	.110	.220
"G"	81,000	6	221	275	35,310[3]	8,660	26,650	28.4	60,775	303,875	128.40	.581	.116	.232
"H"	143,320	9	200	375	59,861[3]	20,670	39,191	36	75,000	600,000	159.63	.798	.100	.200
2-Engine Turboprop														
"I"	482,000	10	250	400	125,399[5]	27,636	97,763	62	100,000	800,000	313.50	1.25	.157	.314
2-Engine Jet														
"J"	650,000	8	460	500	203,755[5]	80,380	123,375	260	230,000	1,380,000	407.51	.886	.148	.296

1/ Prices are for basic aircraft and an appropriate amount of avionics and other equipment.
2/ Includes seats for crew, but not optional extra seats.
3/ Includes pilot's salary and expenses.
4/ Total cost excluding pilot salary would be $13,446, or $.285/aircraft mile; $.047/seat mile; $.094/psgr. mile at 50% L.F. (counting the pilot as passenger).
5/ Includes pilot's and copilot's salaries and expenses.
6/ Excludes seat(s) for crew. Based on densest passenger seating configuration.
7/ At 50% load factor.

Note:--Operating costs are based on manufacturers' data and other published estimates. Variable costs include fuel, oil, inspection and maintenance, reserve for overhaul, miscellaneous expenses (parking and landing fees, taxi, phone, etc.), spare parts and pilot expense. Fixed costs include depreciation insurance, hangar rental, pilot's salary (where applicable) and miscellaneous expense (subscriptions, dues, manuals, charts, modernization, etc.). Aircraft "A" through "E" are depreciated over a 10-year period with a residual value of 20 percent. Aircraft "F" through "J" are depreciated over a 6-year period with a residual value of 30 percent.

Exh. 8

ANNUAL IMPACT OF VARIOUS LANDING FEES ON OPERATING EXPENSES
OF REPRESENTATIVE NEW GENERAL AVIATION AIRCRAFT

Aircraft Type	Annual 1/ Landings	25¢ Per Landing			50¢ Per Landing			$1.00 Per Landing			$2.00 Per Landing			$5.00 Per Landing		
		Amount of Tax	% Total Expense	Cost/ A/C Mi.	Amount of Tax	% Total Expense	Cost/ A/C Mi.	Amount of Tax	% Total Expense	Cost A/C Mi.	Amount of Tax	% Total Expense	Cost/ A/C Mi.	Amount of Tax	% Total Expense	Cost/ A/C Mi.
1-Engine Piston																
"A"	90	$ 22.50	.8	$.001	$ 45.00	1.6	$.003	$ 90.00	3.2	$.005	$ 180.00	6.5	$.011	$ 450.00	16.1	$.027
"B"	90	22.50	.7	.001	45.00	1.3	.002	90.00	2.6	.005	180.00	5.3	.010	450.00	13.2	.024
"C"	160	40.00	.9	.002	80.00	1.8	.004	160.00	3.6	.007	320.00	7.2	.014	800.00	17.9	.035
"D"	160	40.00	.6	.001	80.00	1.2	.003	160.00	2.4	.005	320.00	4.7	.010	800.00	11.8	.025
2-Engine Piston																
"E"	250	62.50	.3	.001	125.00	.5	.003	250.00	1.1	.005	500.00	2.2	.011	1,250.00	5.4	.026
"F" 2/	250	62.50	.2	.001	125.00	.5	.003	250.00	1.0	.005	500.00	1.9	.011	1,250.00	4.8	.026
"G" 2/	275	68.75	.2	.001	137.50	.4	.002	275.00	.8	.005	550.00	1.6	.009	1,375.00	3.9	.023
"H" 2/	375	93.75	.2	.001	187.50	.3	.002	375.00	.6	.005	750.00	1.3	.010	1,875.00	3.1	.025
2-Engine Turboprop																
"I" 2/	400	100.00	.1	.001	200.00	.2	.002	400.00	.3	.004	800.00	.6	.008	2,000.00	1.6	.020
2-Engine Jet																
"J" 3/	500	125.00	.1	.001	250.00	.1	.001	500.00	.2	.002	1,000.00	.5	.004	2,500.00	1.2	.011

1/ Number of landings is based on an estimated average flight duration of one hour. Includes only itinerant flights. ("F" - "J" 100%, less for "A" - "E").
2/ Total expense includes pilot's salary and expenses.
3/ Total expense includes pilot's and copilot's salaries and expenses.

Ex. 9

ANNUAL IMPACT OF VARIOUS FUEL TAXES ON OPERATING EXPENSES
OF REPRESENTATIVE NEW GENERAL AVIATION AIRCRAFT

Aircraft Type	2¢ Per Gallon			4¢ Per Gallon			6¢ Per Gallon			8¢ Per Gallon			10¢ Per Gallon		
	Amount of Tax	% Total Expense	Cost/ A/C Mi.	Amount of Tax	% Total Expense	Cost/ A/C Mi.	Amount of Tax	% Total Expense	Cost/ A/C Mi.	Amount of Tax	% Total Expense	Cost/ A/C Mi.	Amount of Tax	% Total Expense	Cost/ A/C Mi.
1-Engine Piston															
"A"	$ 16.80	.6	$.001	$ 33.60	1.2	$.002	$ 50.40	1.8	$.003	$ 67.20	2.4	$.004	$ 84.00	3.0	$.005
"B"	27.00	.8	.001	54.00	1.6	.003	81.00	2.4	.004	108.00	3.2	.006	135.00	4.0	.007
"C"	33.25	.7	.001	66.50	1.5	.003	99.75	2.2	.004	133.00	3.0	.006	166.25	3.7	.007
"D"	49.00	.7	.002	98.00	1.5	.003	147.00	2.2	.005	196.00	2.9	.006	245.00	3.6	.008
2-Engine Piston															
"E" 1/	86.00	.4	.002	172.00	.7	.004	258.00	1.1	.005	344.00	1.5	.007	430.00	1.9	.009
"F" 1/	114.00	.4	.002	228.00	.9	.005	342.00	1.3	.007	456.00	1.8	.010	570.00	2.2	.012
"G" 1/	156.20	.4	.003	312.40	.9	.005	468.60	1.3	.008	624.80	1.8	.010	781.00	2.2	.013
"H" 1/	270.00	.5	.004	540.00	.9	.007	810.00	1.4	.012	1,080.00	1.9	.014	1,350.00	2.3	.018
2-Engine Turboprop															
"I" 2/	496.00	.4	.005	992.00	.8	.010	1,488.00	1.2	.015	1,984.00	1.6	.020	2,480.00	2.0	.025
2-Engine Jet															
"J" 2/	2,600.00	1.3	.011	5,200.00	2.6	.023	7,800.00	3.8	.034	10,400.00	5.1	.045	13,000.00	6.4	.057

1/ Total expense includes pilot's salary and expenses.
2/ Total expense includes pilot's and copilot's salaries and expenses.

Ex. 10

ESTIMATED COST PER AIRCRAFT LANDING OF ANNUAL COST OF FISCAL YEAR 1962-1966 FAAP EXPENDITURES
AT GENERAL AVIATION AIRPORTS WITH FAA TRAFFIC CONTROL SERVICE

Airport	Total expenditures FY 1962-1966 1/			Average 2/ annual cost	1966 Aircraft landings		1966 Average cost per landing	
	Total	Land	Other		Itinerant	Total	Itinerant	Total
No. Philadelphia, Pa.	$452,200	$395,000	$57,200	$24,040	39,857	74,557	$0.60	$0.32
Ogden Mun., Utah	287,911	-	287,911	21,594	16,887	30,477	1.28	.71
Teterboro, N.J.	-	-	-	-	61,529	140,100	-	-
Okla.City-W. Post, Okla.	775,038	260,000	515,038	51,628	48,473	96,187	1.07	.54
New Orleans, Lakefront, La.	1,972,962	-	1,972,962	147,972	48,330	112,425	3.06	1.32
St. Paul,Minn.	308,229	71,800	236,429	21,321	32,187	82,057	.66	.26
Dallas-Redbird, Tex.	-	-	-	-	40,978	85,203	-	-
Plainview, Tex.	115,500	105,000	10,500	6,038	13,274	38,059	.45	.16
Troutdale, Oreg.	-	-	-	-	24,146	49,626	-	-
Kansas City, Fairfax, Kans.	52,400	5,000	47,400	3,805	49,617	141,644	.08	.03
Hillsboro, Oreg.	9,715	-	9,715	729	44,725 3/	97,424 3/	.02	.01
La Verne-Brackett, Calif.	79,031	-	79,031	5,928	47,589	97,270	.12	.06
Hawthorne, Calif.	122,420	-	122,420	9,182	72,722	149,489	.13	.06
Moses Lake Grant, Wash.	-	-	-	-	17,306 3/	56,334 3/	-	-
Milwaukee-Timmerman, Wisc.	120,431	-	120,431	9,033	27,991	60,565	.32	.15
Hayward, Calif.	494,094	23,600	470,494	36,468	47,300	124,427	.77	.29
Akron Mun., Ohio	139,000	12,500	126,500	10,113	28,759	60,194	.35	.17
Greenville, S.C.	108,480	-	108,480	8,136	16,790	24,191	.48	.34
Spartanburg, S.C.	92,528	-	92,528	6,939	10,950	18,227	.63	.38
Concord, Calif.	506,493	-	506,493	37,988	51,693	145,165	.73	.26
West Chicago, Ill.	174,112	77,141	96,971	11,131	33,621	90,342	.33	.12
Renton, Wash.	-	-	-	-	38,086	92,907	-	-
San Diego-Gillespie, Calif.	674,550	235,621	438,929	44,700	46,294	103,276	.97	.43
Shreveport-Downtown, La.	43,544	-	43,544	3,266	23,692	41,690	.14	.08
Fresno-Chandler, Calif.	251,788	-	251,788	18,884	35,664	56,239	.53	.34
Opa Locka-Miami, Fla.	1,693,751	880,700	813,051	105,015	178,925	279,070	.59	.38
Napa County, Calif.	107,444	-	107,444	8,058	34,276	74,423	.24	.11
Palmdale, Calif.	-	-	-	-	11,989	44,430	-	-
San Diego-Montgomery, Calif.	120,153	-	120,153	9,012	27,165	103,280	.33	.09
Torrance, Calif.	1,258,513	548,875	709,638	80,667	62,053	174,892	1.30	.46
St. Petersburg, Whittier, Fla.	86,287	-	86,287	6,471	38,452 3/	70,743 3/	.17	.09
Tamiami, Fla.	6,087,070	3,722,000	2,365,070	363,481	41,311	186,560	8.80	1.95
DeKalb-Peachtree(Chamblee) Ga.	577,324	577,324	-	28,866	45,868	86,017	.63	.34
East Alton, Ill.	1,156,109	292,450	863,659	79,398	65,148 3/	120,330 3/	1.22	.66
Minn. Crystal, Minn.	324,950	123,350	201,600	21,288	45,498	124,561	.47	.17
Minn.Flying Cloud, Minn.	84,580	10,269	74,311	6,087	45,535	177,832	.13	.03
Jackson-Hawkins, Miss.	16,459	-	16,459	1,235	23,062	41,980	.05	.03
Cleveland-Burke Lakefront, Ohio	525,906	-	525,906	39,443	36,102	47,982	1.09	.82
Tulsa-Riverside, Okla.	202,107	145,051	57,056	11,533	33,726	86,719	.34	.13
Dallas-Addison, Tex.	-	-	-	-	46,974	86,647	-	-
San Antonio Stinson, Tex.	-	-	-	-	15,850	42,897	-	-

1/ Includes Federal and local funds. 2/ Average annual cost estimated on basis of 5 percent interest on investment in land and 20-year depreciation on other investment plus 5 percent interest on average investment. 3/ Estimated on partial year's operations.

Ex. 11

Six-State Sample of Landing Fees Charged at Airports *

Results were:

State	# of Airports	# with Landing Fees	%
California	493	9	1.6
Florida	231	5	2.2
Illinois	309	4	1.3
Mississippi	142	0	0
Nebraska	251	0	0
Pennsylvania	491	8	1.6
	1917	26	1.3

Charging Practices	# Following Practice
Charge only to business use	2
Fees waived or reduced for purchases	2
Fees include all-day parking	3
Fees charged only to light twins and up	1
Fees charged to all planes by weight	17
Fees charged to all but personal aircraft	1
Fees charged to planes over 10,000 lbs.	1
Fees charged to all corporate aircraft over 10,000 lbs.	1

* Data taken from 1968 AOPA Airport Directory.

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