Early Action on Air Policy Is Basic to U.S. Stability

Livelihood of many thousands of Americans and the stability of scores of communities hinge upon early action on recommendations of the air policy studies now being conducted by the executive and legislative branches of the government.

Where a few years ago aviation was a scientific novelty, today it not only exerts a powerful influence on the national economy but has become the deciding factor in war. This, despite the fact that today aviation activities are only a fraction of wartime.

Thirty years ago there were no airlines, no air mail service, and less than a dozen airports in the U.S.

Many Employed

By contrast, employment in 1947 tops 1,100,000. This includes 750,000 civilian and uniformed personnel of the United States Air Force alone. In addition, about 30,000 other employees in civil aviation activities are working in various sales capacities. Additional thousands might be added to include firms supplying materials, parts, and services.

As for dollar volume, the operating expenses of the Air Force and the Navy air arm will amount to about $350,000,000. This includes about $200,000,000 for scheduled airlines and non-scheduled operators; and another $150,000,000 are working in various sales capacities. Additional thousands might be added to include firms supplying materials, parts, and services.

Because aviation has become such a great economic and political force, government leaders are alarmed by the serious financial plight of the air transportation and manufacturing industries, two of the most vital elements of the nation’s air potential.

Industry Problems

Almost without exception the scheduled domestic airlines are in the red, and their financial plight is paralleling that of the railroads. World War II. This year’s output is less than one-sixth the wartime peak and eight of the 12 major producers are reporting heavy financial losses.

In two wars the U.S., with several years’ warning, built practically from scratch victorious armed forces and the industry to back them up.

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Transport Reserve

Ways Sought to Bolster Air Transport System

America's peacetime commercial air network proved such a vital element in World War II that air policy planners view with great concern the air transport picture today. It is a maze of uncertainties, worldwide in scope.

Government concern stems partly from recent studies showing that national security requires a reserve of 5,000 large-capacity transports. Fleets of all U.S. scheduled carriers don't total 1,000 planes and the majority of them are small-capacity, obsolete, two-engine type.

In addition, with the politico-economic tempo of the world being geared ever closer to the speed of air movement, the stability of our national economy may well depend upon how thoroughly government and business are adapted to air transportation.

National Security

From the security standpoint, the question is one of how to maintain an adequate air transport reserve. Closely allied with this, on the economic level, is the problem of how to encourage the maximum growth of a self-supporting air transport system.

Denote Traffic

Technological and economic problems threaten growth of our air transport system. Steady increases in air travel—1947 showing an increase over 1946 of several million passengers—has taxed both air and ground facilities. Traffic on United States air ports was expected to exceed 15,000,000 landings and takeoffs in 1947.

Jet transports will mean further complication—they can't dawdle with slower traffic, may need separate handling. Even to handle today's traffic, Congress has been asked for $13,000,000 for additional radar and tower aid.

Economic impact of these problems is reflected in a net operating loss of $22,419,575 for 16 domestic airlines during 1947. In contrast, these carriers showed a net operating income of $12,675,129 for fiscal 1946. Suggestions for alleviating this situation include: development of a self-sustaining system similar to the railroads, stepped up coordination with surface motor transport, and merger of smaller lines.

Foreign Red Tape

With nearly 50 countries involved, such problems are multiplied on the international level. More than 60 international airlines operating 2,000 craft, employing half a million people, nevertheless flew nine billion passenger miles in 1946. Among their problems are currency restrictions, travel red tape such as visas, customs and immigration clearances, and need for navigational and weather facilities.

Troops By Air?

How to expedite development of completely airborne armies is one of a myriad of questions facing air policy investigators.

The Army has a 25-ton tank, is working on redesigning infantry and artillery equipment for air operations, and the Air Force is acquiring a sizeable number of "flying boxcars" troop-cargo planes.

Among the problems is that of coordinating the design and procurement of equipment for air and ground forces.

Airborne operations require special devices to protect jumpers, and chutes that will stand the shock of plan impact, mile-per-hour leaps. Ultrastrong personal body armor also is needed. The versatile helicopter likely will be fitted into the picture.

Airborne divisions of 17,000 men, including tank and artillery battalions, are planned. Recently the Air Force estimated its existing troop carrier units would need more than a year to carry such a force across the Pacific and back. Military experts say a major emergency would require 5,000 large planes on short notice.

U.S. Agencies Being Surveyed

When a new air policy is drawn for the U.S., it is expected to call for some changes in emphasis, direction, and a streamlining of government aviation machinery.

Late in 1947 there were 28 Federal agencies and bureaus, 17 Congressional committees and sub-committees, and 47 state agencies set up to supervise aviation.

In the main, the principal problem is how to modernize military procurement practices. Our air forces have been tied to 1925 procurement legislation, which requires that new contracts be drawn each year. Procurement of new equipment is costly and difficult because it takes five years to bring a new combat plane from the design to production stage. Many people feel that like naval ship construction, aircraft practices need to be geared to the long-range problem of production.

Over-regulation?

Air policy investigators are also reviewing the impact the recent armed services unification reflected on the overall aviation picture.

From the civilian standpoint, plane producers and owners feel that airworthiness regulations are too detailed. Mass production and ownership is being held back, they claim, by stringent requirements that extend down to nuts and bolts. Producers point out that a company can't stay in business with unsafe planes so why duplicate precautions necessarily taken.

A great need is seen for closer coordination and cooperation between federal and state agencies. A problem of multiple taxation and duplication of safety regulation has arisen between federal and state governments. And the states feel that federal agencies don't consult them enough.

Pending Legislation

Many people believe a long-range air policy requires much greater federal emphasis on promotion of aviation education in the nation's schools. A staff of nine Civil Aeronautics Administration men thus far has helped 23 states to develop statewide aviation education programs.

Pending bills would empower the Civil Air Board to fix rates for operation to operate air services; provide an independent safety agency; place aviation regulation under the Interstate Commerce Commission; establish an overall inspection agency; separate CAB from the Commerce Department; place CAB wholly under Commerce; and provide higher salaries for top CAA and CAB jobs.

Planes Quiz

A 70 per cent score on this quiz is excellent. Sixty per cent is good. Answers on page 4.

1. When was the first flight by a regularly scheduled U.S. international airline? (a) 1923; (b) 1927; (c) 1929.

2. Although the first helicopter license was issued in March 1945, basic design for all the type aircraft goes back (a) 72 years; (b) 600 years; (c) about 400 years.

3. The world's international scheduled airlines are operating over a route network totaling (a) 94,000 miles; (b) 500,000 miles; (c) 158,000 miles.

4. First year that five cent air mail was in effect, approximately (a) 1900 miles; (b) 78,000,000 lbs.; (c) 2,000,000 lbs. of it were dispatched.

5. True. False. The following are all products turned out since VJ Day by U.S. aircraft manufacturers: canoes, washing machines, artificial limbs, motor scooters, and caskets.

6. Aviation's apparent impact on human society has convinced how many states of the need for state-wide aviation education programs? (a) 45; (b) 48; (c) 73.

7. At sea level the speed of sound is 690 mph. At 40,000 feet it is (a) greater by 62 mph; (b) less by 98 mph; (c) increased in direct ratio to drop in temperature.

8. Figuring 40 letters to a pound, postage for a ton of air mail letters sent from New York to Paris would cost (a) $7,700; (b) $4,100; (c) $12,000.

9. The National Aviation Clinic is (a) a non-profit foundation for study of aero medicine; (b) a home for retired pilots; (c) an annual meeting of experts from all branches of aviation to exchange views and develop unity of action in promoting U.S. aviation.

10. Carriers are (a) between 7,500 and 8,000; (b) approximately 900; (c) nearly 1,400. Many are devoted to maintenance and repair of aircraft.
Adequate Air Forces

U.S. Studies Air Power Impact on Defense Setup

The U.S. Air Force is tasked with maintaining adequate air forces to ensure a consistent supply of aircraft and equipment, ensuring that the U.S. is prepared for any possible aggressor. The Air Force is equipped with guided-missile development programs, guided-rocket planes, submarine aircraft, aircraft carriers, and anti-aircraft weapons, shaping the fleet with emphasis on complete mechanization. The focus is on replacing the conventional military planes this year, about 1,800, which is much less than the 25% annual replacement needed to keep these air forces equipped. At this rate, normal attrition would drain them within a few years. Military and naval planners are hoping for a "go ahead" signal on a long-term program to build the air forces up to required strength and keep them there.

Other Nations Out to Build Air Power

While the U.S. government is studying the pros and cons of promoting aviation's growth, reports from abroad show what action other countries have taken. Among the countries already embarked on broad programs to develop their air potential are Britain, Canada, France, Russia, Czechoslovakia, Italy, Denmark, Sweden, the Netherlands, Belgium, Uruguay, Argentina, Peru, Brazil, India, China, Australia, the Philippine Republic, and New Zealand.

The question of how much emphasis should be given to aviation research—Britain's defense establishment, reorganized in 1946, put Sir Henry Tizard, a leading air authority, in charge of all research. Britain also has taken initiatives toward standardizing its air weapons and munitions to U.S. sizes and patterns. Russia has announced a five-year research program, aimed primarily at aviation, to cost hundreds of millions of rubles.

On the question of government support for personal flying activities—movies arriving in 1947 show Eastern European states now provide flight training to civilians. South American countries long have subsidized flying clubs. The U.S. is wondering how to encourage wider introduction of aviation into curricula of United States schools. At the same time, aeronautics has been a basic course in Russian elementary schools for years.

How Air Policy Is Developed

One of the basic questions to be resolved by current federal air policy studies is that of how to maintain an aircraft industry ready at all times to spring into volume production. One year is believed to be the longest warning we might expect. In World War II we had at least three years to prepare for an attack, and this time never was wasted by aerial activity. Experience of two wars shows we must be ready to reach in a hurry to the extent of aircraft and air transport industries; how to encourage development of these industries; and how to expedite government organization and procedures.

The two groups do not duplicate each other. Testimony and exhibits submitted to the Presidential Commission are studied by the Congressional Board, which, aided by an advisory committee of industrial and business leaders, then reviews the entire field. Any citizen is free to submit his or her views to either group.

The two groups do not rely entirely upon verbal testimony but visit laboratories, airports, factories, and flight test centers before sitting down to work out their reports. Findings of these two air policy studies are expected to provide blueprints from which the White House and Congress can build a strong program of aviation development.

Two Groups

Members of the President's Commission are Thomas K. Finletter, New York attorney; Chairman; George P. Baker, Harvard transportation professor; John T. McCone, West Coast industrialist; Palmer Hoyt, Denver publisher; and Arthur D. Whiteside, who heads a N.Y. business research firm.


Adequate Industry

Plane Output

One Year Warning

Because national security planning must be based on the assumption that America would be the first target of any future aggressor, the problem is one of providing for expansion of plane output to volume proportions within a year. One year is believed to be the longest warning we might expect. In World War II we had at least three years to prepare for an attack, and this time never was wasted by aerial activity. Experience of two wars shows we must be ready to reach in a hurry to the extent of aircraft and air transport industries; how to encourage development of these industries; and how to expedite government organization and procedures.

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Not Subsidy

Present annual output of about 1,800 military planes is not enough to support an industry capable of rapid expansion for such an emergency. Neither is this output adequate to meet normal peace-time replacement needs of the air forces. As industry leaders point out, the question is not one of subsidy but—what kind of industry in size and number of units is required to support our national defense? Is it a question of maintaining the minimum industry required by defense mobilization plans. Aircraft producers ask that if the nation decides not to maintain this minimum industry that the decision be made not as a matter of default but as a result of deliberate national policy.

The government of Australia is planning to send all first class mail by air.

Average hourly earnings in airframe plants are now more than 80% higher than in 1939.
Adequate Research

U.S. Faced by Shortages In Science Leadership Race

With the world at the threshold of great developments in aeronautical science—supersonic speeds, flight above the atmosphere, pilotless aircraft and missiles, atomic powered aircraft, inter-spatial travel—government air policy investigators find the U.S. lacking in many things.

Intensive war research so far accelerated our technology that not only do we find ourselves near the limits of present knowledge, but we are also short on equipment and personnel to meet today's challenges.

Tunnel Shortage

Nearly 100 wind tunnels, built before or during the war, have been obsolealed by the advent of jet and rocket propulsion. A few new tunnels are under construction, designed to accommodate supersonic testing. The Air Force is developing a large rocket-testing center in California.

Such efforts do not compare with foreign research drives nor do they satisfy the magnitude of the aeronautical problems facing the U.S.

To remedy our shortcomings, just in the field of supersonic flight, a billion-dollar, 100-square-mile development center is under consideration by the government. This would be a joint undertaking of the Air Force, Navy, and the National Advisory Committee for Aeronautics.

Much more emphasis must be placed on development of fuels and propulsion equipment if we are to advance further in this field. Fuels for super-speed planes now cost up to $10 per gallon. The rocket-propelled XS-1, America's first supersonic design, burned out a ton of fuel a minute on its first test flight.

National security requires that we stay out front in the race for guided missile development. This means lots of study in the control of fast planes and missiles, and special facilities for flight-testing them. Despite the impetus of the German V-1 and V-2 development, U.S. experts say we are at least five years away from a practical short-range guided missile for combat use. Long-range missiles are still further away.

Need Personnel

Several years away from possessing such vitally-needed research facilities, we also are some distance from obtaining scientists and technicians in sufficient numbers to operate such projects. The wartime draft and voluntary enlistments caused irrecoverable loss of young science talent. A National Science Foundation has been proposed as a general approach to this personnel shortage. The challenges of aeronautical science, however, are believed by many sufficiently important to the nation's existence to warrant specialized treatment.

Arguing for a careful analysis of the existing research organization, both government and private, is the urgency of solving such problems and the possibility that air leadership may cost billions of dollars over a period of years. Estimates for initial production quantities of a super-size rocket, for example, run as high as three and a half billion dollars over a period of more than 15 years.

Reams of Air Data

Thoroughness of the U.S. air policy studies is demonstrated by the fact that in five months the Presidential Air Policy Commission accumulated approximately 10,000 pages of testimony from more than 100 people.

The list of witnesses in one six-week period of hearings included 22 from different airlines, and one private citizen, eight from railroads and freight handling agencies, and two bankers. Eighteen top civil and military government officials testified, as well as 26 aircraft and equipment manufacturing experts, and scientists, educators and labor unions.

National Aeronautics Association, Air Reserve Association, Veterans of Foreign Wars and American Legion also appeared.

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