

# PLANES

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MAY BE  
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## Airport Program Offers Broad Benefits to U.S.

Written especially for PLANES

by Hon. Clarence F. Lea, Chairman, Interstate and Foreign Commerce Committee, House of Representatives

Completion of the building program envisioned in the Federal Airport Act will be a long step toward the goal of becoming a "nation on wings." It will provide the basic requirement for the advancement of air navigation. When matched by local funds the \$500,000,000 Federal airport appropriation will enable thousands of communities to build new airports and improve their existing facilities. The construction of airports makes every existing airport more valuable and that means there are more facilities to use by air.

### A Local Airpark

Suggestions on how to develop a community airpark, as well as details on the new Federal airport building program, are presented on pages two and three of this issue of PLANES.

This feature is presented by the Aircraft Industries Association in an effort to stimulate public appreciation of the need for adequate landing facilities and to help communities avoid needless delays in planning such projects.

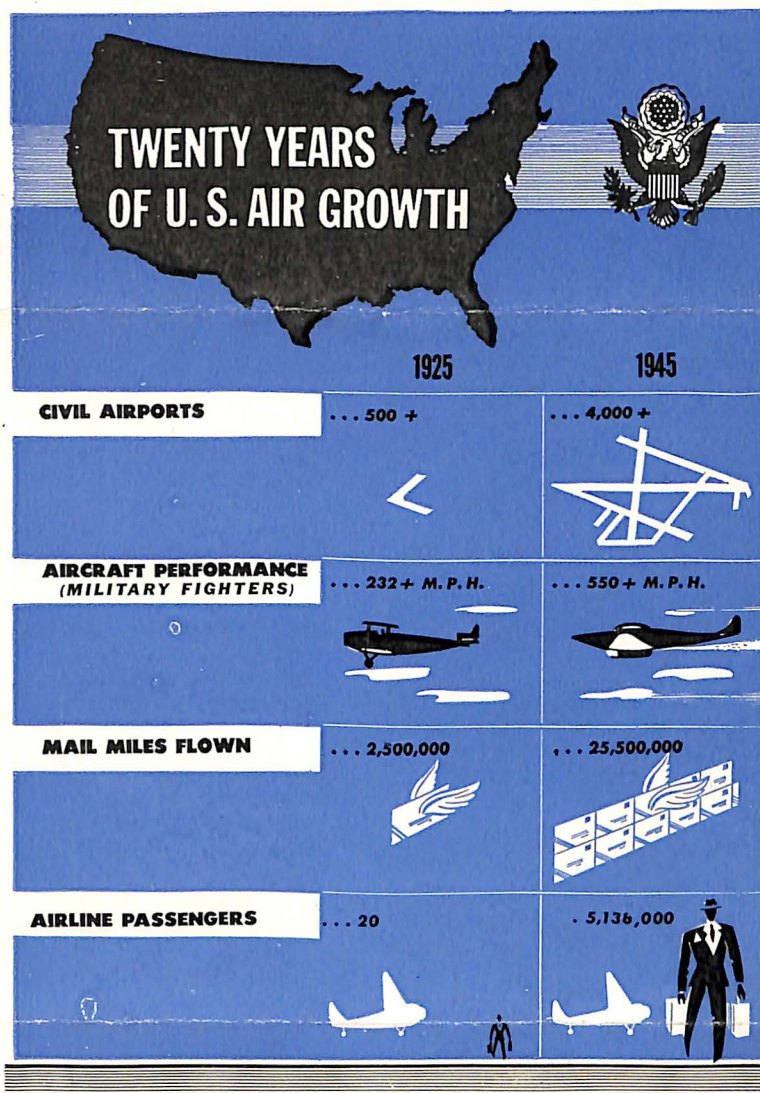
Scarcity of airports has been a primary factor limiting the general use of airplanes for personal travel. Our limited number of airports has held up maximum development of commercial air service in the nation. The situation is analogous to that of 25 years ago when for lack of good roads the automobile was a luxury and commercial trucking an infant industry. Since then we've spent \$25,000,000,000 for ever-improved roads.

Today there's a pent-up public interest in flying, just as there was in auto travel 25 years ago. An estimated 6,000,000 people have special interest or training in flying. The war services trained several millions as pilots or aviation specialists. A large percentage of them want to fly as civilians.

Many thousands of veterans are going to get their first taste of flying under educational provisions of the "GI Bill of Rights." Public opinion polls indicate that as much as 27 per cent of the adult population wants to fly. In addition, there are more than 250,000 people already holding Federal pilot certificates as against 32,900 privately-owned planes.

All this adds up to a tremendous increase in airplane manufacture, service and use as soon as we have an adequate system of airports. While the new Federal building program will not give us all the airports needed, it will have a very invigorating influence in reaching a progressive stage where the airport will become a self-supporting enterprise. It will contribute to the economic welfare of the nation.

Good roads made autos, buses, and trucks everyday conveniences. They opened up untold economic opportunities and created transportation and production facilities that enabled us to finally dominate the war. Expansion and improvement of our airport system will greatly augment the utility of the airplane. Its use will become more convenient and will give air travel an impetus comparable to that which paved roads gave rubber-tired vehicles.



"Planes"

### New Air Power Study Asked

Twenty years ago the tinkering era of U. S. aviation ended when recommendations of the 1925 Morrow Board resulted in the Air Commerce Act of 1926, the Air Corps Act of 1926, and the Naval Aircraft Act of 1926. An era of planned development followed, some highlights of which are illustrated in the above chart.

Now, we are entering a new era of air development, one calling for utmost exploitation of aviation for the betterment of world security. To help us set our sights in this new air age, a study similar to that conducted by the 1925 Morrow Board has been proposed by Senator Hugh B. Mitchell, of

Washington. Hearings were scheduled to open in May on his proposal for a nine-member National Air Policy Board.

When the last broad study of air policy was made, we had no atomic bomb, jet planes, super bombers, radio-controlled rockets and bombs.

Senator Mitchell's proposed policy board would review government aviation activities, both military and civilian, regulatory and research, and determine what coordination is necessary. It would study the need for a balanced and expansible aircraft industry and the size of peacetime air forces.

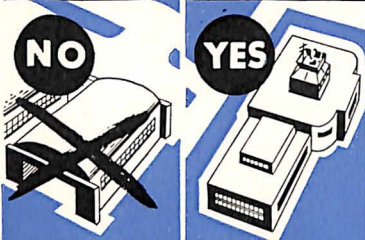
## WHAT THE FEDERAL PROGRAM DOES



**U. S. PAYS 50% OF AIRPORT COST**



**U. S. PAYS UP TO 25% OF LAND COST**



**MAY BE INCLUDED IN PROJECT COST**

**CAA APPROVED**

**CAA PROJECT APPROVAL NECESSARY**



**EMPHASIS IS ON SMALL PORTS**

# The Federal Airport Program

## Community Benefits

Several thousand community airparks are made possible by the new \$500,000,000 Federal Airport Act, which provides funds for up to 50 per cent Federal participation in the cost of building more than 3,000 new airports in the next seven years. The Airport Act is so written that the bulk of the funds go to build small airports (airports with landing strips 1,800 to 4,700 feet in length).

The program outlined in the Act is expected to give personal flying an impetus relative to that given auto travel by the \$25,000,000 national highway program of the last 25 years. Discharge of several million air-trained veterans, together with the great growth of public air-mindedness during the war years, has created a giant potential of civilian fliers, a good percentage of which is expected to take up flying when an adequate network of airports is created. Dr. George Gallup recently found that 27 per cent of all adults want to learn to fly.

**APPORTIONMENT OF FUNDS.** The Airport Act appropriates \$500,000,000 of Federal Funds to be matched by states and communities on an equal basis, making a total of \$1,000,000,000 for development over a period of seven years starting July 1, 1946. Money will be apportioned according to the needs of a new national airport program yet to be drawn up by the Civil Aeronautics Administration. Seventy-five per cent of the money will be distributed by states on a basis of area and population, with 25 per cent used by the CAA as a "discretionary fund" to balance out the national program. Twenty million dollars has been allocated for the territories of Alaska, Hawaii and Puerto Rico.

The new national program will give the United States a skeleton framework of the facilities necessary for making it a "nation on wings." However, the great majority of communities will not be included in the Federal plan. In order to provide an adequate network of airparks, each of the more than 16,000 incorporated communities will require a landing facility of some type.

**PUBLIC PROJECTS ONLY.** None of the Airport Act money can be used for the construction of private airports. The act restricts its use to public projects. This means that any state, territory, city, and municipality or other political subdivision is eligible for Federal airport building funds. Private airport developers, however, can get technical help on planning from their State aeronautics agency or the Civil Aeronautics Administration.

Nevertheless, the public airpark building program is expected to stimulate private airpark development as well. Flying clubs in various cities are planning group development of aviation country clubs. Many groups of air veterans are known to be interested in starting new airparks with "G I Bill of Rights" small business loans. Sports clubs and nationally famous winter and summer resorts, spas, and mountain and seaside recreation centers, will recognize the necessity of being on the air map.

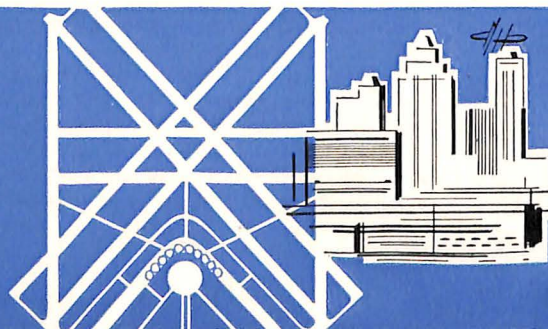
Development of vacation airparks is boosted by the Act's provision that the "discretionary fund" can be used to create airparks in national forests and national parks and recreation areas. The U. S. Forest Service and the National Parks Service are said to be interested in establishing such air parks for flying tourists.

**PROJECTS ALREADY STARTED.** It makes no difference if work already has started on an airport or airpark. Communities which have gone ahead on their own and financed airport and airpark projects are equally as eligible for Federal aid as those which are starting from scratch. While Federal funds can be spent only on construction scheduled for completion under the new CAA national plan, communities may find that with CAA help they can add improvements to their airports or airparks.

**DON'T APPLY FOR SIX MONTHS.** Funds become available July 1, 1946, but CAA says it will not be able to approve any expenditures for about six months after passage of the act. It will take that long for them to develop specifications and procedures and draw up the new program. CAA officials have emphasized that they will not even be able to consider applications for airports until their national study is complete. For this preliminary planning, Congress has given them a special \$3,000,000 fund.

**FEDERAL AGREEMENTS.** For airparks (Class III or smaller) the Government will pay a flat 50 per cent of the construction costs. For major airports (Class IV or larger), it will pay up to 50 per cent of the construction costs. The Government will pay more than 50 per cent of the airpark project costs in states containing large areas of public non-taxable lands.

Allowable costs, besides field surveys and preparation of plans and specifications, include those for administration buildings. Hangars cannot be built with Federal funds.



- 1 U. S. PAYS UP TO 50% OF COST**
- 2 SUCH MAJOR PROJECTS must be submitted to Congress for approval two months before start of fiscal year.**

**LARGE AIR TERMINALS**



1  
**CONTACT STATE AERO  
OFFICE ON PLANS**



2  
**DECIDE NEED**



3  
**PLAN PROJECT**



4  
**CONTACT CAA  
DISTRICT OFFICE ON  
PRELIMINARY PLANS**

# Planning a Community Airpark

## What Is an Airpark?

An Airpark differs from the conventional idea of an airport in that it is more of a community center. It embraces not only the standard landing facilities but also serves the public with recreational features such as are usually found in community parks — tennis courts, picnic areas, swimming pool, golf course, etc. A modern airpark is landscaped and is a scenic as well as utilitarian asset to any community.

**SEE STATE AERONAUTICS AGENCY** — The state aeronautics agency is the first place to go for help in developing a community airpark. Not only will state aeronautics boards, commissions, or departments play a big part in negotiations for the Federal airport program, but they can give planning and engineering help to anyone planning an airport or airpark. In some cases they will provide financial aid for construction of public airparks.

In connection with the Federal program the CAA will consider master plans prepared by the states, so the state aeronautics agencies should be able to advise communities on their chances of receiving Federal funds.

**WHAT KIND AND SIZE OF AIRPORT?** Armed with the information furnished by the state government, civic planners next should study their community's needs to determine size and scope of the original project. An airpark can be built on as little as 37 acres, but a suggested minimum is one landing strip at least 300' x 1,800'. It is good to remem-

ber that no matter how modest the first stage development is to be it always should be *laid out allowing for expansion in accord with community growth.*

**SITE SELECTION.** Along with deciding how large a project is needed, thought must go toward locating the airpark. Any area of 37 or more acres will be considered. An area should lend itself to development at reasonable cost so the most desirable site will be one which possesses the best natural attributes of soil, drainage, freedom from surrounding obstructions, *possibility of low-cost expansion*, and, very important, its accessibility to the community.

CAA must approve the site for any project on which Federal funds are to be spent. As part of the overall project cost, the Federal Government will pay up to 25 per cent of land costs.

**PRELIMINARY PLANS.** While surrounding open spaces are being studied, project plans can be prepared. Preliminary sketches of runway layout and airport buildings can be drawn. Then the cost of acquiring the land, and of clearing and preparing it for development, and for construction work proposed in the rough sketches, can be estimated. Tentative bids can be received from contractors. The nearest CAA office now can be consulted for advice on final site selection, development of finished plans, and, if the project will need Federal support, how to apply for funds.

Any community can borrow from the Federal Works Agency to finance planning costs, whether or not it intends being included in the Federal program. FWA will make interest-free advances through its Bureau of Community Facilities, such loans to be repaid if and when construction is started. Information will be supplied by the Bureau's offices in New York City, Chicago, Atlanta, Kansas City, San Francisco, Fort Worth, Seattle, and Denver, or by the Bureau's home office, Washington 25, D. C.

**FINISHED PLANS.** When the land has been acquired, finished plans are prepared according to CAA design and safety recommendations. Whether or not Federal funds are to be asked, CAA specifications generally are prescribed. With the finished plans drawn, the project is ready for financing.

**FINANCING.** There are more than 16,000 incorporated communities, each of which should have some kind of landing facility if we are to have an adequate network of flying fields. Since the new Federal program provides for about 3,000 new airports the majority of communities needing landing facilities will have to get along without Federal financial help.

**Without Federal Funds.** Some communities may be able to underwrite the entire cost of a project with local funds or by issuance of bonds, as has been done in some cases, notably that of the Eldon, Missouri, Airpark Bond Issue. In other instances, when the Community has not been able to afford the total cost, county or state governments have participated in the financing.

**With Federal Funds.** The Federal program generally requires that sponsors finance at least 50 per cent of the cost of a project. Communities qualifying under this program can pay the sponsor's share entirely from local funds, or by bond issue, or they may get county and state governments to act as co-sponsors and share the cost.

**STARTING WORK.** It is important to note that projects financed locally can be started immediately. State or Federal aid will require that projects be approved by the state agencies or the CAA, as the case may be.



5  
**APPLY TO CAA FOR  
APPROVAL AND FUNDS**



6  
**HOW PLANS  
ARE ROUTED**



7  
**CAA APPROVAL**



8  
**YOU MUST FINANCE  
50% OF COST**



9  
**LET CONTRACTS  
AND START WORK**

# Flying Farmer Groups Meet

## Plane Is Seen as

### Key Farm Tool

Agricultural experts predict that the present-day personal plane eventually will become an essential piece of equipment on the average American farm.

Flying is more than a sport or occasional convenience to the farmers of the nation. In many cases they would rather own a plane than an auto. And it's getting so that flying farmers and ranchers seldom use their automobiles for trips over 25 miles.

Interest in the agricultural possibilities of planes is running high. Personal plane manufacturers report a good portion of their backlog of orders is from farm states. In addition, rural plane owners are forming flying farmer and rancher organizations to exchange ideas and push the development of aircraft designed especially for agricultural use. Active chapters of these farm flier groups already are located in Oklahoma, Nebraska, Montana, Illinois, Wisconsin, Kansas, and Michigan, and report more than 1,000 members.

### "AERIAL ROUNDUPS"

They have held several meetings in recent months to discuss ways of promoting such groups in each state, with a national meeting planned for this fall. Success for their efforts is indicated by plane registration and pilot certificate records, which show that flying interest is great in all agricultural states.

At Lincoln, Nebraska, last February, nearly 90 planes from all over the state arrived for a get-together in what was described as "impossible" flying weather. Flying farmers from several states met at Stillwater, Oklahoma, last fall. Montana's flying ranchers have been visiting back and forth for several years.

Kansas flying farmers were to meet May 24 at Hutchinson. Oklahoma's flying farmers will meet at Oklahoma A & M College, Stillwater, Okla., August 1. And Midwest flying farmers are planning a field day at Purdue University in Indiana on the same date.

The stories they exchange at aerial roundups reveal the wide range of new jobs they're continually finding for their "flying saddlehorses."

### JOBS FOR FARM PLANES

During harvesting season, when machinery breaks down, several widely-separated towns may have to be visited in search of replace-

# PLANE QUIZ

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

1. Last year as many as 7,500 military aircraft were produced in one month in the U. S. During March 1946 our production had dropped to (a) 122; (b) 23; (c) 850.



2. America's youth are taking to the air as never before either as pilots or passengers. What percentage of those under 29 years old do you think have been up in a plane? (a) 24 per cent; (b) 50 per cent; (c) 85 per cent.

3. There are 1,077 cities in the U. S. with 10,000 or more population. How many have scheduled airline service? (a) 160; (b) 406; (c) 980.

4. The world record for non-stop distance flights is held by (a) Russia; (b) United States; (c) Great Britain.

5. The atom bomb to be dropped this Summer in the Pacific is expected to heat the water in the spot where it falls to (a) 12,000° F.; (b) 120,

000° F.; (c) 1,000,000° F.

6. The principle of jet propulsion was discovered (a) five; (b) 20; (c) 400; (d) more than 2,000 years ago.

7. Historians credit the great Italian genius, Leonardo da Vinci, with conceiving the parachute in the 15th Century, but development of the first practical parachute did not occur until the (a) 17th; (b) 19th; (c) 20th century.

8. The first world record for airplane speed was set in (a) 1903; (b) 1906; (c) 1911.

9. "All weather" flying, the number-one aim of the airlines, hinges on perfection of "blind flying" aids. How long have we been making "blind" flights? (a) 25 years; (b) 14 years; (c) 8 years.

10. Atomic bombs may someday be used to control the weather, to make rain or smash hurricanes. True. False.



ment parts. By air such a shopping tour can be made in a few hours. Ranchers tell how they check stock at a glance by air, and even count flocks and herds from the air. And it's just the thing for locating stray stock after storms. They tell about using the farm plane for mercy runs, like the time in Montana when three ranch planes flew injured people from the scene of a train wreck to the nearest hospital 75 miles away.

One man from Nebraska reports on his aerial success killing grasshopper swarms in his fields—he sprinkles poisoned sawdust from 300 feet. Another farmer, whose family lives in town during the winter so the children can attend school, commutes daily to his farm acreages.

Besides determining for manufacturers the kind of a plane that will best serve the farmers' needs, and how much they will pay for it, these flying farmer groups are out to remove some of the operational hindrances to expansion of rural aviation. Chief among these are unpredictable repair and maintenance charges and inadequate service at airports.

### Plane Making Safe

Aircraft manufacturing is one of the safest industries for workers, Department of Labor statistics for the last quarter of 1945 reveal.

With a disabling work injury rate of only 5.8 per million employee hours worked, aircraft manufacturing stood seventh among 121 industries.

## HOW U.S. LED WORLD PRODUCTION



ANNUAL PLANE OUTPUT 1942-44

"Planes"

### AIR GUARDSMEN

A state national guard program calling for 47,648 airmen in 84 squadrons has been announced by the War Department. They would be "first line" reserve units similar to the "City" squadrons of Great Britain, which repulsed the first German air raids on England.

# Facts and Figures

A man falls freely at about 118 m.p.h., but with a standard parachute he falls at about 14 m.p.h.

In 1944 the airmail operation of the Post Office Department returned a profit to the government of \$29,000,000.

The Navy reports that approximately 65 per cent of their pilots forced down during the war were rescued or found their way to safety.

It takes about three weeks under ideal conditions to convert a military transport for use as a commercial airliner.

A New York department store recently bought 16,000 airplane tow targets from the government, planning to make ladies' underwear from the rayon.

Air Power, based on the latest and most efficient airplanes and air weapons which can possibly be built, is the best peace insurance the U. S. can buy.

### Answers to Plane Quiz

- (a). The President's Air Coordinating Committee set an average monthly production of 350 military aircraft as a minimum for national safety.
- (b). A recent public opinion poll revealed that 50 per cent of those 29 and under, 49 per cent of those 30-49, and 31 per cent of those 50 and older, have been up in a plane.
- (b). The Civil Aeronautics Board's annual report for 1945 shows that 406 cities had scheduled air service at the end of 1945.
- (b). On November 20, 1945 a B-29, stripped of excess weight, flew the 7,933 miles from Guam to Washington, D. C., in 35 hours and five minutes.
- (c). This compares with 20,000,000° F. or more in the center of the stars.
- (d). Hero, of ancient Greece, made the discovery more than 2,000 years ago.
- (c). The present-day parachute was developed for the U. S. Army Air Service during the 1920's.
- (b). The first world record for speed in the air was a 25-mile-per-hour mark set by Santos Dumont, of Brazil.
- (b). On May 9, 1932 Captain Albert F. Hegenberger made the first completely blind flight at Dayton, O.
- False. According to Dr. F. W. Reichelderfer, head of the U. S. Weather Bureau, the air ocean over the earth weighs more than a ton per foot of land surface, and since rain and hurricanes cover very great areas, an atomic bomb would have little effect on the millions of tons of air masses involved in a rainstorm or hurricane.