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Howard Franklin Wehrle Scrapbook

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about flying ever since the Wrights first accomplished the trick at Kitty Hawk, N. C., in 1903 but there has been no particular effort on the part of anyone to bring home the possibilities of this new mode of transportation. We call flying a new mode advisedly because tradition and legend record many attempts to fly but nothing conclusive has been handed down that would lead one to believe the Wright Brothers claim to being the first man to fly, was not just.

Since we are to discuss the Phoenix Airport as it is and as it must be improved before we may expect any consideration from the flying world, it may be well to give the following nomenclature as outlined by the Department of Commerce, Aeronautics Branch; Aeronautics--The science and art pertaining to the flight of aircraft. Aviation--The art of operating heavier-than-air craft. Airport--A locality, either water or land, adapted for the landing or taking-off of aircraft, and which provides facilities for shelter, supplies and repair of aircraft; or a place used regularly for the receiving or discharging of passengers or cargo by air. Airway--an air route between air traffic centers which is over terrain best suited for emergency landing, with landing facilities at intervals, equipped with aids to air navigation and a communication system for transmission of information pertaining to the operation of aircraft. The term "Airway" may apply to an air route for either land or seaplanes, or both.

If we use the definition of airport as outlined above, and apply it to Phoenix we will have to stop after saying "a locality" for in reality that is about all the Phoenix Airport is at the present time. It is a locality consisting of one hundred and sixty acres of land five miles west of Six Points on the Christy road, purchased by the city for use as a flying field. By purchasing the land the city has taken what might be called an important step but it is only one of the many necessary steps to be taken in the creation of an up to date, standard airport that will be used by fliers instead of finding more suitable landing space on the desert, as was the case a short time ago with the two experienced army pilots who were assisting in the search for the lost war veteran.

A great clamor of criticism arose at the time but it did not come from persons who were thinkers or had vision enough to see beyond the incident. It costs some considerable amount to build an airport as will be shown later in this article. The city manager of Phoenix is very open minded and will probably do the proper thing in building up the airport but he must have funds to do it with and the funds will have to be provided. The Chamber of Commerce has worked for some time to get the airport going and it is reasonable to suppose the chamber will be in favor of and support any reasonable and feasible method of raising the necessary funds. H. B. Watkins, manager of the Chamber of Commerce says, "Phoenix, to maintain her standing among her sister cities in the United States, must have suitable facilities to handle all types of aircraft in existence today and we must build with vision enough to take care of the flying machines of the future."

The difficulty seems to be that no one is charged with and responsible for the specific job of having the flying field really made into an airport.

Henry Rieger, city manager, says, "I feel we are confronted with a very important problem and one that cannot be tabled. Cities without airports will automatically become cities of the second class."

Warren McArthur of McArthur Brothers and president of the Phoenix-



Arizona Chapter of the National Aeronautic association says very emphatically, "Phoenix must have an adequate airport to meet the needs of all classes of airplanes and second to none in equipment for both day and night flying."

Very recently the Pacific Coast Transportation Advisory Board appointed an aviation committee and P. G. Spilsbury, president of the Arizona Industrial congress was chosen chairman. It is a good omen for aviation when organizations of this caliber take such a wholesome interest. Just a short time ago Mr. Spilsbury flew from San Diego to Los Angeles in an army plane and later to San Francisco. Mr. Spilsbury said "Aviation is a modern mode of transportation. It will be a factor in commerce and the day is not far distant when it will assume a most important place in transportation, taking its place alongside of the steamship, the railway and the motor car. I consider the airport of Phoenix as second in importance only to Union station. Unless we have an adequate airport we will be in the same conditions as a seaport city without a harbor."

Increase of Airway Facilities

There are some 27,000 railway stations in the United States and some 52,000 postoffices. According to William P. MacCracken, Jr., assistant secretary of commerce for aeronautics, there are 864 airports and intermediate landing fields. These include 207 municipal, 163 commercial and private, 124 department of commerce intermediate fields, 287 miscellaneous intermediate fields, and 81 army, navy and national guard, 1 treasury department, and 1 department of agriculture. Mr. MacCracken estimates that [[cut off]]

Progressives of Other Cities

It is interesting to note the forward movement of some of our cities in preparing themselves for air traffic. Buffalo, N. Y., has built an airport of 518 acres at a total cost of \$727,255, since the passage of the Air Commerce act of 1926. Chicago is laying out an airport with 18 runways in all directions. It is to be fully equipped and prepared for both day and night flying. Oakland, Calif., is constructing an airport likewise. San Francisco is developing a modern air terminal to accommodate traffic from the transcontinental and Pacific coast lines. Sacramento is making very noticeable progress with its new municipal airport. Portland, Ore., is using Swan Island and will equip it for both land and seaplanes. New Orleans has proceeded with the development of its field which was made available for flying operations in November of 1926. Cleveland, Ohio, continues to improve its already well designed airport, adding hangers and other new equipment as the expanding business demands it. Many other cities are going ahead or have voted funds to build airports. Schenectady has a commercial airport representing an investment of \$120,000,000 while the city of Baltimore, Maryland, has voted \$1,500,000 for a municipal flying field. San Diego, Calif., has been authorized to proceed with a large airport for both land and seaplanes. Kansas City Mo., has developed aviation to the point where the old established and well known Richards field is inadequate and the city is spending \$500,000 on a new airport within five minutes of the center of the city. Moline, Ill., Saint Joseph, Missouri, Wichita, Kansas; Oklahoma City, Ponca City and Tulsa, Oklahoma; Fort Worth and Dallas, Texas, have improved their fields and installed night lighting. All this is in

addition to the department of commerce lighting program which calls for the lighting and marking of intermediate fields along airways between cities, not including 92 fields taken over from the Post Office department, 32 of such fields have been established in the past year. 80 more will be added by November of this year and 58 by June of 1928. In addition, beacon lights have been placed on five airways and are being installed on 7 others. These intermediate fields, placed about thirty miles apart and lighted from dusk until dawn, are used by mail pilots and others flying over the airways, in case of inclement weather, forced landings or in necessity, for temporary stops. Some of the above cities have had special incentive or inspiration to promote flying. Cleveland is the home of Glen L. Martin, one time world famous aviator and now the manufacturer of the equally famous Martin Bombers used by the army and marine corps. Buffalo New York was the home of the Curtiss Aeroplane and Motor company and this company has expanded its manufacturing to other cities. San Diego is the home of Ryan Monoplanes and furnished the plane Colonel Lindbergh flew across the Atlantic. Kansas City has a plant manufacturing airplanes and Wichita, Kansas, is the home of the well known Travel Air Manufacturing company, making both biplanes and monoplanes. It was Travel Air stock equipment that Smith and Bronte used in flying the Pacific shortly after Matiland and Hegenberger made the trip in Army equipment. Art Goebel, who won the Dole prize for flying to Honolulu also used a Travel- Air stock monoplane. The National Air Transport carrying the New York-Chicago mail and express and the Chicago-Kansas City-Dallas mail and express uses Travel Air monoplanes and Curtis Carrier Pigeons. Travel Airs won the Ford Reliability tour in 1925 and 1926 and all of this helped Wichita to make her mark in the aeronautic world. Detroit, considered the hub of the automotive world, is making every attempt to gain the same deputation for herself in the aeronautic world. Stinson-Detroiters are very famous monoplanes and one is on a flight around the world at this writing. All of these cities have been awake to the possibilities of the aviation industry and it might be said they have most everything conducive to the promotion of the industry except what might be called, "beginners flying climate."

With the Ludington Exhibition company and Pitcairn Aviation Inc., it might truthfully be said that Philadelphia does more flying than any other city but these two industries are handicapped in the winter season to such an extent that their training programs have to be discontinued. Either of these companies could operate a flying school in Phoenix the year around an if we had adequate facilities for their schools in the southwest. All aviation activity is contingent upon flying field facilities and until the airport itself is in first class shape the flying will be carried on elsewhere.

Choice of Site

Archibald Black, former Consulting Engineer, U.S., Air Mail Service and author of "Transport Aviation", enumerates fourteen cardinal points to be considered in selecting a landing field. They are as follows:

1. Meteorology, local and general.
2. Orientation of site.
3. Location of site with respect to other flying fields.
4. Types of airplanes to be provided for.
5. Expansion provisions and extent of immediate use.
6. Soil and drainage.
7. Transportation
8. Communication.
9. Cost of property and constructions.
10. Road and runway construction.
11. Building arrangement and construction.

12. Fire protection.
13. Insurance Protection
14. Equipment

Of course in the preparation of a detailed layout for a specific airport such as Phoenix will require, the above main points will have to be made up into more distinct subdivisions. However, in the case at hand only land flying equipment is to be considered. Getting the layout and data together can better be done by those who have had experience in such matters and who have had experience in actual flying. Experience has shown that only those thus trained have been able to produce satisfactory results.

Aviation Committees

"Aviation," America's leading aeronautical journal and recognized internationally, states editorially in their issue of August 8, 1927; "No airport should be located without a committee of transportation experts passing on the site. Too many cities have relied on committees of pilots whose only thought was to get a flying field somehow and somewhere. Little or no thought has been given to the development in the future of the air transport needs of the city. If the interest that the railways appear to be taking in the introduction of aircraft as a means of speeding up a part of their traffic is real, it may be found that many airports are very poorly located and may revert to the status of mere flying fields. Too much emphasis is being placed on the necessity of having an airport located near the center of large cities. This is not only unnecessary but may be very ill advised. When air transport becomes a great national system carrying its millions of passengers a year, then it may be possible to create airports near the center of cities. But at present, with only a few planes arriving and leaving each day, it is probably better to rely on the railroad or existing transportation systems to complete the journey to the center of the cities. In fact, it would appear that a joint effort of the railroads and the air transport operators was a logical solution of the problem. The former have terminals and are prepared to render every possible service. To duplicate these for air transport will not only be costly but very possibly unnecessary. If every city will have on its airport committee, transportation experts, there will be very great improvement in the reports made to those in charge of finally selecting sites for airports."

Building for the Future

The airport should, obviously, be as large as possible, easy of air-approach from four directions, and quickly reached. It should be planned to care for future rapid increases in aeronautics. At first municipal hangars will probably be made available for housing private planes and air transports, and these can be serviced at the airport. Later when traffic becomes heavy, the airport may become simply a place for taking on and discharging passengers, mail, express, and baggage, similar to a railway terminal. After unloading, the planes would be flown to a larger field near the city, where they would be serviced and held until ready for return trips. Each airport has to be constructed under conditions peculiar to its own locality and quite naturally presents individual problems. While this article is not intended to serve as a guide in the construction of an airport it is the result of some 11 years experience in building airports both commercial and military and is somewhat a compilation of data gained. Details should be worked out and carried through to completion by experienced talent.

The most desirable fields are square, clear of obstacles on all sides, well drained and free from ruts and hummocks. The runways should not be less than 2800 feet and in cases where 160 acre fields are to be considered the runways can be made longer. The main consideration is to have the field of sufficient size to insure safety.

It will be noted on the drawing accompanying this article that the present site owned by the City of Phoenix is quite ample for good runways of sufficient length to safety provided the obstructions shown are removed. It must be remembered when constructing an airport, that heavily loaded transport planes require quite a long runway to get off safely. It is never quite to a passenger to jeopardize when he depends on the pilot safety. Make the runways as possible for every foot of length makes for added safety have runways less than 2,500 length is always hazardous and never be accepted only when place to land is available and both ends are clear. The length

 A triangular plane runway
Screens Indicate Direction A Prevailing Winds
Runway Runway

 a square map
50 Acres Owned by City Used for Agriculture
50 Acres Owned by City and Used as an Airport
A+W of Cottonwood Stumps 5 feet high
Large Tree Should be Removed

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