Problems Met in Airport Construction

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Aviation, like alchemy, is one of the oldest dreams of mankind, though the word itself was not coined until modern times. Legendary stories are replete with heroes who attempted to emulate the birds and fly; but all their efforts ended in disaster. Icarus and his daddy Daedalus, of Darius Green fame, had their troubles. If the sun had not melted the wax from Icarus' wings and if the alchemists of old had been able to transmute the baser metals, by splitting the atom, it is very probable that the airplane, propelled by atomic energy, would have been here ages ago and many of the strifes and griefs of humanity would have been averted. However, it has been within the past two generations only that real progress in aviation has been made. While it is now moving at a rapid pace, both figuratively and in fact, the promotion of modern aviation has been slow in convincing the layman that it is more than a plaything for the few.

With aviation, as with every other advancement in the human social scheme of things, the first problem is to convince the mass of people, in this case to make them air-minded. To market any new product, the sales manager's first and hardest task is to overcome sales resistance. As you gentlemen already know from your own experience, the proposal for any new public project is always met with a storm of protest from various classes of citizens, both taxpayers and others. This is but natural and should not be resented, but rather should be considered as a spur to put forth greater endeavor to "sell the public". The public has an inherent right to kick, and be shown where its money goes and what it buys.

I know it is not considered in good taste to "blow your own horn"; but since I know most about the aviation problem at Richmond, I will confine my talk to our own experience, which after all is the safest ground, especially since Ben Petty requested that I do so. It is not my thought that the procedure followed by us to secure an airport was the best or should be considered as a pattern for others to follow. A brief outline of our aviation history may be of interest and set forth some of the problems generally met with which may be considered as typical.
The older ones of us will remember that the first thrill in aviation came in watching the hot-air balloon, at the county fair, carry the lady in the parachute up a few hundred feet and drop her in the adjoining corn field while the balloon itself turned upside down, let out its smoke, and came down near the lady.

The first real effort to make our people air-minded began in 1909, when a dirigible, with a gasoline engine, made two flights over the city. It simply was a stunt and had little educational value in aviation. In 1911 one of our leading citizens purchased a glider and used his auto as a source of power to make it fly, starting from a fairly level farm meadow. All the attempts to fly ended in crashes, luckily with no serious injuries. These attempts had a depressing effect and did more to discourage than to encourage our citizens to try to learn to fly. In 1913 the first real heavier-than-air flying was attempted. It was during a fall festival that a Chicago aviator brought a Curtis biplane to Richmond and attempted to take-off from the Earlham College athletic field. The plane was able to clear the fence around the grounds but crashed in the adjoining corn field. The only significance of this attempt at flying was that it created the Earlham Field as the first airport in Richmond, a designation of doubtful fame. In 1916, during the fall festival of that year, another Chicago aviator made the first successful flight from a farm field northeast of the city. This demonstration, because of lack of color and ballyhoo, created but little enthusiasm.

During the ten-year period above covered, practically all attempts at aviation were considered failures and did much to discourage progress. It was only through the perseverance of a few "die-hards" that the spark was kept alive. In 1919 the first designated airport was established north of the city by one Claud Berry, of big-league baseball fame. A stock company was organized, and several returned army fliers from World War I were secured to act as instructor pilots. Many local residents were taught to fly. The charge for a pleasure flight was one dollar per minute in the air. During this period a frequent visitor was, even then, a noted barnstormer, now known as Lieutenant General James H. Doolittle. If we just had him now as a frequent visitor, the aviation business in Richmond, would, no doubt, boom.

For the following ten years little progress in aviation was made, but every effort was made to preserve such interest as had been created. The Berry property north of the city gradually was abandoned as an airport and converted into residential property. In 1929 Mr. Berry purchased property west of the city and constructed what later developed into the first of Richmond's three airports, and is now still
known as Richmond Airport. It consists of a tract of 144 acres, with turf runways, the longest of which is but 3,700 feet long.

It was at this location that the City of Richmond, as a taxing unit, became interested in an airport and where the real problem of airport construction and operation began to be taken seriously. Interest in aviation had been created to the point where businessmen and factory owners were clamoring for air service for mail and express, as well as for passengers.

My sole thought in presenting the foregoing chronology is to acquaint you with the long and tedious effort it usually takes to put over any project where the mass of people are concerned or affected. This is no criticism of the mental processes of our people but simply a statement of fact that must be considered, especially when a new idea is being brought forward.

After the thinking people had begun to believe in the future of aviation, the demand for an airport grew to the point where the city administration had to become interested and take action to see that the city was placed on the air map. The owners of the airport property did not have the funds necessary to construct a modern field at the Richmond Airport. They did, however, succeed in inducing the county authorities and the federal government, through the work relief agencies of 1934 and acting under the 1929 Airport Act of the Indiana General Assembly, to spend considerable money in grading, drainage, and marking the field to make it available for commercial planes of small size.

In 1935 agitation was started by a small but influential group to have the city acquire the Richmond Airport and improve the field and operate it as a municipal project. The city authorities were in a quandary as to what to do. An active minority was urging the purchase and another equally active minority was opposing it. The vast majority of citizens were indifferent and expressed no opinion. The owner of the property had set what appeared to be a fair price for its purchase, and the city council had decided to accept the offer. However, before the deal could be concluded the owner raised the purchase price, which action killed the deal. The whole airport project then lay dormant for about six years. In 1941, on petition of a number of local aviators, an ordinance was introduced in council providing that the City of Richmond acquire an airport but not specifying that the small field known as the Richmond Airport be the one to be selected. Acting under the ordinance and with the authority granted by the 1929 Airport Act of the General Assembly, the Mayor appointed a Board of Aviation Commissioners. That body, which took office in 1942, immediately took steps to secure a suitable site for an airport.
The first act was to call in representatives of the Civil Aeronautics Administration, for advice as to how to proceed, where to locate, what size port to build, and what facilities to provide. It was unfortunate for the country that a war was forced upon us, but the need for many modern airports by the federal government proved fortunate for us locally. After giving extensive consideration to all phases of the problem, the Civil Aeronautics Administration representatives advised that if the city would purchase a suitable site, one that would meet all their requirements, and agree to certain stipulations as to use, clearances, damages, etc., the federal government would build a complete, modern airport, exclusive of hangars and other buildings needed for full operation of a commercial airport. One of the requirements was that the United States armed forces would have priority in the exclusive use of the airport during the period of the war and for six months thereafter. After the expiration of the federal-use period the airport would then be released to the exclusive use and ownership of the City of Richmond.

Upon the acceptance of these conditions on the part of the city, the Civil Aeronautics Administration's engineers suggested that the city make surveys, mainly from the air, of six sites that appeared to lend themselves to satisfactory development. This done, the Civil Aeronautics Administration agreed to have their experts investigate in detail each site and then determine the one best suited for airport purposes.

The Civil Air Patrol, which luckily was well organized at Richmond, made flight surveys and spotted six sites which appeared to be satisfactory. The City Engineering Department then made sketch layouts of the various sites and submitted these to the Civil Aeronautics Administration. After thorough examination and analysis by the several experts, even including soil analysis, the site consisting of 652 acres southeast of the city, and near the town of Boston, was selected for the Richmond Municipal Airport as being the only one that would meet all the Civil Aeronautics Administration requirements. The site of the Richmond Airport west of the city was disapproved because of the limited acreage, which did not lend itself to further expansion, and also because of the close proximity of a high-tension electric line.

The site selected consisted of seven different farms ranging in size from 30 to 122 acres, and the owners were bitterly opposed to selling. The farms were ideal; and the soil, for general farm purposes, was the best in the world. After tedious negotiations between the members of the Board of Aviation Commissioners and the owners, options at fair prices were finally secured. The fight to raise the necessary funds, by issuing general obligation bonds, then began. After the usual opposition and remonstrances, bonds in an amount of $180,000 were issued and the
property was bought. The fact that the whole project was looked upon as a war necessity did much to smooth out the procedure and speed up action on the part of the Civil Aeronautics Administration.

An engineering party was at once put to work, plans and specifications were prepared, and the construction contract was awarded early in 1943. Work began immediately.

All during the progress of the work the usual aggravating problems arose. The adjoining farmers and other residents were sure their properties would be ruined. The question of drainage seemed to be the main bone of contention. As you know, one of the prime requisites in airport design is to provide quick run-off and adequate field drainage. When the nearby neighbors saw the elaborate drainage system being installed where nothing but small field tile had existed before, they were sure their lands would be flooded and ruined. During construction, when all turf and vegetation was removed and the run-off was greatly speeded up, it did appear that they had cause for worry. Several cloudbursts occurred before the field could be reseeded, so that unusually severe floods did happen. However, the condition was but temporary, for when sod was again established, the run-off was retarded and no further cause for worry existed. Another problem was that of providing proper clearances in the approach zone areas. Trees had to be removed and wire lines relocated or placed underground. If you think a tree is not valuable, just try to cut one down on the other fellow's ground. The prosecution of all work outside the limits of the airport proper was an obligation of the city. Funds for such work were provided for in the bond issue.

Some difficulty was experienced with local flyers wanting to use the runways before they were all completed. The local Civil Air Patrol group fell out with the owner of the Richmond Airport west of the city, which they had been using, and wanted to locate at the new Municipal Airport. Permission being refused, they established a private flying field of their own, known as the East Richmond Airport, about two miles east of the city.

The Civil Aeronautics Administration, early in 1945, completed the new Municipal Airport consisting of three bituminous paved runways 150 feet wide, two being 5,500 feet long and one 4,600 feet, with 50-foot taxiways. Contact runway lights and a beacon and wind tetrahedron, but no other operating facilities, were also provided. The war apparently being near an end, the armed forces advised they would not need the new airport; so it was at once dumped into the city's lap to be thence operated and maintained as a municipal utility. It was accepted by the city and dedicated as the Richmond Municipal Airport on July 4, 1945.
We now have, basically, a fine airport that is not being used except by stray flyers. Many of the hardshell "antis" poke jibes at us and ask, "When are you going to use the airport and what for?" However, we are not pessimistic but are certain that the future will develop satisfactory results. The Transcontinental and Western Airlines, Inc., is entering into a contract for the use of the field as a major stop for certain planes of its transcontinental fleet. Plans are being ironed out for an administration building, which we hope to place under contract in the early spring. Other facilities will be provided as the need for them arises. In this we are following the advice of other airport operators and the airlines not to make elaborate expenditures for facilities until we learn from our experience just what is needed.