

DICKINSON COUNTY HISTORY -- FORD MOTOR COMPANY – FORD AIRPORT AND FORD AIRPLANES

[Compiled and Transcribed by William John Cummings]

Iron Mountain News, Iron Mountain, Dickinson County, Michigan, Volume 5, Number 2 [Monday, April 13, 1925], page 1, column 8

FORD MOTOR COMPANY PLANS AIR TERMINUS HERE

METAL PLANES WILL BE USED ON NEW LINE

Company Plans to Utilize Air in Speeding Up Orders

BUILDING FIVE SHIPS

First Airship Leaves Today on Maiden Trip From Detroit

The Ford Motor company today inaugurated what is said to be the first commercial air line in the United States when the "Maiden Dearborn," an all-metal monoplane, hopped off from Detroit for Hegewisch, Ill., near Chicago.

The plane, of the "air" Pullman type, took off from the Ford airport, Dearborn, with a cargo of company mail and express for the Ford plant at Hegewisch, near Chicago.

The plane, piloted by Eddie Hamilton, a former British flier[,] is one of two Duralumin planes to form the nucleus of an air service to link the Ford company here with the plants at Chicago, St. Louis, St. Paul and Iron Mountain. The second plane will receive its first tests within a few days.

No Details Received Here

The flight to Chicago is expected to require two and one-half hours, but speed is to be sacrificed for safety, a statement given out in Detroit by the Ford company said.

Plans for the institution of a Detroit-Iron Mountain commercial air plane [*sic* – *airplane*] line are known here but no definite instructions have yet been received, it was stated at the Ford plant offices this afternoon. No preparations have been made for a landing field nor other arrangements made for the planes.

The flight of the "Maiden Dearborn," [*sic*] marks the opening of a company operated airplane service which is to be extended gradually until several planes will be leaving Detroit daily on regular flying schedules.

Not For Public Use

The Ford Motor company, the announcement said "has operated heretofore its own railroads, ocean and lake steamship lines and motor truck lines. Now it utilizes under its own control every type of modern transportation."

The Ford air line, today's statement said, will not be available for public use, nor connected in any way with outside interests.

"The line is to be operated exclusively for company business and no outside business enters into the service," the statement continued.

All-Aluminum Body

The Maiden Dearborn is constructed entirely of aluminum, has a wing spread of 60 feet and its length is 46 feet, two inches. The plane has a maximum speed of 115

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miles an hour and a cruising speed of 100 miles an hour.

William B. Tout, designer of the plane, said that following completion of the second plane now under construction, five other *[sic – others]* will be built for other air transport lines.

They will have a terminus at St. Louis, Mo., another at St. Paul, Minn., where the new hydro-electric plant of the Ford company will be in operation and a third will terminate in Iron Mountain.

Iron Mountain News, Iron Mountain, Dickinson County, Michigan, Volume 5, Number 11 [Thursday, April 23, 1925], page 1, column 3

GET FIRST MAIL VIA FORD PLANE

Commercial Air Route Makes Fast Service Available Here

The Iron Mountain Ford plant last night received the first mail routed via the new commercial airline instituted a few days ago by the Ford Motor company.

The mail, sent from Detroit, was dispatched by the company's own airplane, the Maiden Dearborn, to Chicago. It left Detroit on Tuesday. At Chicago the mail was sent through the regular government postal service and arrived here last night.

The new service places the Iron Mountain plant in closer touch with Detroit by one or two days. Important mail from the Iron Mountain plant will be sent to Chicago by train where it will be picked up by special messenger, transferred to the company's airplane and rushed to Detroit.

When sent by this route a letter mailed here one day will reach Detroit about noon of the next day.

The Ford company is planning to extend its airplane route to Iron Mountain. This service will begin, it is believed, as soon as more of the Stout metal airplanes have been built.

A landing field will be graded at the plant so that planes will have the utmost safety in landing and taking off.

The planes will carry only company business.

Iron Mountain News, Iron Mountain, Dickinson County, Michigan, Volume 5, Number 11 [Thursday, April 23, 1925], page 6, columns 1-8

Day of Flying Flivver Near As Ford Enters Aviation

Motor Magnate Devotes Energy and Money to Aid Development

Iron mountain Is Terminal on Company's Commer- cial Route; Dearborn Air- port Modern in All De- tails.

**By HOWARD MINGOS.
(In the New York Times)**

HENRY FORD has gone into aviation. The man who revolutionized the automobile industry by popularizing the motor car has assigned to himself the task of popularizing

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the flying machine. The manufacturer whose production methods created one of the world's greatest industrial organizations expects now to use that same organization for the promotion of aerial transport.

Henry Ford and his son, Edsel, are undertaking the job together, believing that the time has come to realize some of the limitless possibilities of flying. They purpose to produce metal aircraft that can remain out in all kinds of weather to reduce the cost of both planes and dirigibles so that, *[sic]* they may be available for public use. In a sense, they intend to "Flivverize" the air.

"There is not a doubt in the world that commercial aviation can be successful," said Henry Ford at Dearborn the other day. "We are going to see that it is made a success."

"As soon as we get into quantity production the planes will be disposed of through the regular sales units of the Ford Motor Company," said Edsel Ford. He has made a special study of the technical aspects of flying and the scientific requirements of aircraft. He speaks the language of the aeronautical engineer. He is a young man, still in his twenties, and keen to make his own mark.

Edsel Ford's Ambition.

While he is President of the Ford Motor Company and has assumed no small share of the responsibility that his father once shouldered, Edsel Ford is ambitious to enter the new field in a big way and gain the same important position in aviation that his father occupies as a builder of motor cars. And Henry Ford is equally desirous of helping Edsel accomplish that purpose. He has authorized the statement that from now on they will continue to expand their aviation interests in every direction.

There is much speculation regarding a "flivver" airplane. It is not in existence, as yet. But several designs for a small flying

Ford have been drawn on paper, and at least one of them has been set up as a sort of model "to see how it would look," according to the engineer who made the pattern.

The flying "flivver" as it is now envisioned will carry loads of two, three and four persons, or the equivalent in cargo; toe cost to the purchaser will not be more than \$3,000 at the start with a gradual reduction in price as the design is further simplified and Ford production methods are applied.

But the small Ford plane must await the development of the Ford aircraft engine. Today experiments are being conducted in the laboratories at Dearborn. Henry Ford and his engineers are developing motors large and small, the large motors to take the place of the present military engines that were brought out during the war, such as the Liberty.

New Motor To Be Built.

Mr. Ford recognizes the fact that the military engines, as they exist today, are too heavy and too expensive to run for the work they can do. He expects to bring out lighter engines to do the same work and a smaller motor giving more power for its weight than existing types. This may take the form of a radial, air-cooled engine, or it may be *[a]* water-cooled engine and in the form of an inverted V. It may be one year and possibly two before the Ford engine sufficiently light and economical for air flivvers will be in the production stage. The small flying Ford depends on the perfection of such an engine.

Both father and son are devoting many hours a day to their new venture. A few days ago they helped load and send off the first plane of a fleet of cargo craft that will soon link together some of the important plants of the Ford Motor company in other cities. A second plane will be put in service next week, and five others will be added as soon as they can be built.

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These planes are not built by the Fords. They are turned out by the Stout Metal Airplane company, and William B. Stout, its president, is the inventor and engineering genius who created the plane which the Ford Motor company will soon be selling to other agencies engaged in aerial transport. However, Henry and Edsel Ford have played important parts in its development.

Detroiters Backed Stout

Stout conceived the idea of a metal plane for commercial use shortly, before the end of the war. He devoted his personal fortune to experiments with preliminary types which were employed on rigid flight tests. A thousand persons were carried safely in the trial machines. Two years ago he expanded his company, more than a hundred business men [*sic – businessmen*] in Detroit and Chicago contributing equal amounts to the venture. Edsel Ford was one of his supporters, and has been serving as a director of the company. He and his father have followed closely the radical methods by which Stout rivets together pieces of metal, invents jigs and special tools, methods that are the result of fifteen years of hard work and an expenditure of a half million dollars, a large part of which he himself had contributed.

One day last summer Henry Ford pointed to a chart showing the 12,000 acres of land he owns at Dearborn, some twelve miles from Detroit.

“What is the best location for a flying field?” he asked one of his engineers.

“The section adjoining the laboratories on the main road to Detroit”

“But that,” put in Ford’s secretary, is already plotted as a subdivision for workmen’s homes.”

“That was yesterday,” said Ford. “Today it is a flying field.”

Mr. Ford sent forty tractors out on the plot, and in eleven weeks 240 acres had been rolled and made smooth. He built two

runways 300 feet wide and more than half a mile long. He spent hours on the field talking with the workmen and engineers and getting their opinions on details that would help to make the field of permanent value to the Ford aviation program.

In talking to a pilot one afternoon he was informed that the high tension wires would menace aircraft landing and taking off. He spent thousands of dollars transferring them to conduits under the ground.

“What about wet weather?” he asked.

“Well, the rain and snow will make it very muddy around here at certain seasons of the year.”

“We will drain the field,” said Henry Ford. He sent for another gang of men and they sank more than twenty miles of draining tile which empty into two eight-inch mains and keep the field dry in any kind of weather.

At one side of the field, one the main road to Detroit, Mr. Ford put up an airplane factory building in six weeks. He was on the job personally supervising the work each day that he was in Dearborn, or vicinity. Though he had chopped down more than a hundred maple and walnut trees on the field to make safe landings for the planes, he caused the foundations of the factory building to be moved over three feet when he discovered the building line touching a crab-apple [*sic – crabapple*] tree.

Kills the Trees He Loves

“There is no use destroying something which requires so long to grow,” he explained. “Let it live.”

And then a squadron of army planes flew in from Selfridge Field one afternoon. Henry and Edsel were there to greet them, as they usually are when there is any activity on the field. As they came in some of the pilots staged a little aerial circus, looping about, barrel-rolling and hedge-hopping, until they came down low enough to brush their landing gears against the

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treetops in a grove of maples that flanked a corner of the field.

As he noticed this, Henry Ford became excited.

“Cut every one of those trees down,” he ordered. “Cut them down immediately. I don’t want to see one of those fine young fellows killed.”

When he assured the pilots that they need no longer fear to land at his airport because the trees would be taken away, none had the heart to tell him that they had been hitting the tops by design in order to give him a thrill.

After the Fords had put up the factory building at the Ford Airport they invited the Stout company to move out from Detroit and make itself at home. In so doing they advanced the position of the company three or four years, for it is estimated that it would have taken that long to get into production had Ford facilities not been supplied. For that reason the Stout machine and the manner in which it is produced are of paramount interest.

Believe in All-Metal Plane

The Fords have placed their faith in the all-metal plane because of what they have observed at the Stout plant. Henry Ford divides his time between the plant and his laboratory. In his laboratory he spends many hours at a blackboard drawing designs and illustrating his ideas with chalk talks before groups of engineers. Then he jumps into his car and goes over to the airplane plant, where he follows intently the manner of building a flying machine.

It is made of duralumin, a copper-aluminum alloy almost as light as paper and as strong as steel. The metal is soaked in a temperature of 75 degrees Fahrenheit, after which it is pliable, and crystallization is eliminated. This also makes the machine weather-proof and it requires no shelter. A single coat of varnish makes it impervious to rust and other deteriorating agencies.

One of the experimental planes has been outside for months with no sign of damage.

The Fords have adopted it because it can be produced in unlimited quantities. They will expand the Stout company to provide for mass production. They may possibly take it over in order to have a free hand in determining its policies. Whether or not they do this, the Fords are going to make airplanes and engines, and their methods will be based upon the series of production cycles not unlike those employed in the Ford factories and assembly plants, which now have a capacity production of two and a half million cars a year.

The entire plane is built and assembled on a single floor. The present factory has a capacity of one plane a day. When Henry Ford found that the building would not accommodate the planes after they had been completed, he walked down the side of the field a few hundred yards and marked off a new building, which is nearly completed. It will be used to “service” the machines while they are in operation.

Ford’s offices are besieged with hundreds of inquiries as to how it is possible to make an airplane so quickly. Here is the answer. The duralumin sheets come from the heat-treating baths to machines which cut out the patterns and then press them into corrugated form until they have the appearance of oversized washboards. The corrugations contribute to the unusual strength. Thence the metal pieces are moved over to the jigs, which are permanent steel patterns set in the concrete floor so there is not the slightest variation. There the sheets, spars and braces are riveted together by means of compressed air and electric tools. Women and girls could do nearly all the work.

The metal covering on the wings and body is only as thick as four sheets of paper, but it will stand many times the

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maximum pressure that can be laid against it anywhere. After the wings have been made they are swung over and set into the body of the plane, the U-shaped spars of duralumin extending clear through the upper part of the body. The engine comes next, and as it is locked into the framework of the nose, the hood is fastened into place by means of four bolts. The pneumatic tires are put on, and as they are inflated they raise the plane enough to jog it off the jigs and free itself automatically.

Engineers have praised the plane highly. Though it is not a small machine, it is the parent type of those that the Fords intend to produce in quantities, matically *[sic]*, just as steamships slips *[sic – slip]* from the ways when the key structure is removed. When the engine is started the machine can be run off the factory floor under its own power.

That system appeals to the Fords, who see in it an opportunity to make planes almost as rapidly as they make cars. And they are overlooking no opportunity to familiarize themselves with the art. Their friends say that Henry Ford and his son have a vision of filling the skies with Ford planes.

Handling Company Business

They are now operating machines with the idea of reducing the cost of maintenance. They paid the Stout company \$25,000 each for the two planes already delivered. It is believed that the large types can be produced in quantities for a fourth or perhaps a fifth of the present price. But even with the present cost of production they are making money on their experiment. The new Ford lines will handle only company business at first. Mail, small parts, and emergency packages are carried between the plants in Detroit and Chicago.

The company mail between those branches averages 800 pounds, or 32,000 letters a day each way. More than seven

hours are required to transport it by railroad. The planes carry it in two and one-half hours. Each plane saves \$1,250 a day in postage alone.

The same idea applies to the other private lines projected. They will be put in operation as quickly as other planes are available. One will extend to St. Louis. Another will tie up the Twin Cities branches and a third will be an air line *[sic – airline]* between Detroit and the Ford sawmills and other plants at Iron Mountain, Mich. By the time the planes are completed, emergency landing fields and service depots will have been established over the last route. No passengers will be carried for some time to come.

Will Carry A Ton

The present Ford plane is built to carry a ton load. Its wing measures 60 feet between tips and the body is nearly 50 feet long. Yet it weights *[sic – weighs]* 1,000 pounds less than the average large sedan. It carries a 75-gallon gasoline tank in the wing on each side, at a point where the wing is 32 inches thick. In order to prevent ice forming on the plane and weighing it down, thus reducing its carrying capacity, small leads have been extended from the exhaust pipes throughout the interior of the wings and body. This keeps the machine warm.

The entire nose, including engine, hood and instrument board in front of the pilot, can be removed as a single unit and another installed in its place within twenty minutes. In fact, the machine has been simplified to an extreme both in structure and maintenance. The small flying Fords will be similarly constructed.

Meanwhile the market for the large transport and passenger planes will be developed. More than 9,000 Ford agencies will play an important part in this. District managers will exploit their territory and act as consultants in organizing air routes, and

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establishing landing fields, marking towns so that they can be seen from the air, establishing radio stations and weather bureaus so that the pilots may have the advantage of advance information before setting out from a field.

To Eliminate Fire Hazard

The fire hazard will be eliminated in these transport and passenger planes. Invented [*sic – Inverted*] Liberty engines will be used until the Ford engines are available. By inverting the Liberty any fire in the motor can be immediately drained out underneath the plane without touching it. While they are perfecting engines, the Fords will also develop new methods of handling aircraft on the ground. The Ford Airport at Dearborn is, [*sic*] being made into a model that will astonish people who visit it late in the summer.

A huge permanent steel and brick hangar is being completed. It will shelter the machines and crew while they are “servicing” the planes, for the Ford fleet is to be increased until machines are leaving and arriving on the field every hour of the day and night. The name Ford will lie in the center of the field, in white letters 200 feet wide. It will be illuminated at night, and be visible at an altitude of 10,000 feet. Grilled lights set in the runways will show pilots where to touch their wheels to the ground in landing. Flood lights will mark the boundaries of the field, and aerial beacons, illuminated wind cones, and other auxiliaries for night flying will be installed.

Will Also Build a Dirigible.

The Fords are as interested in airship production as they are concerned with producing economical planes. They are principals in the Airship Development Corporation, which makes its headquarters at the Ford laboratories in Dearborn and will employ the facilities of the Stout factory in producing the world’s first all-metal dirigible, which will be comparable in size to the navy

Los Angeles. The metal airship is the idea of Ralph Upson, formerly chief engineer of the Goodyear balloon department. Upson and Mayo have been conducting laboratory experiments at Dearborn for more than three years, and today the Fords are preparing to build a metal airship and apply to it the same rigid flight tests that proved the worth of the Stout airplane.

The Fords are not seeking financial support from the public in their aeronautical ventures. They believe that small investors, for the present, at least, would do well to let commercial aviation alone until it has passed the development stage. Nor do they believe in Government subsidies, as so many others in the aircraft industry have demanded. They are convinced that people will use aircraft where they are profitable and reasonably safe. They are basing their program on that theory, at any rate. But they also believe that the Government can help by placing its ground facilities at the disposal of operating companies.

Advocate Public Landing Fields.

The Ford resources are capable of producing all the necessary raw materials for the equipment. The Ford plants now manufacture everything required in the construction of aircraft and auxiliary apparatus. But they cannot make landing fields. They believe that the Federal Government should provide landing fields, weather data, wireless service, aerial beacons wherever possible, just as harbors and lighthouses are provided for surface craft.

Edsel Ford agreed last week to become a principal in a nation-wide air transport company now being organized with a capitalization of \$5,000,000. He and some of the others have already deposited in a Detroit bank their share of the money as evidence of good faith. The company is being formed to carry mail and express at

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first with the idea of instilling confidence in the public before it is asked to ride through the air. Among the other principals are Howard Coffin, Vice President of the Hudson Motor Car Company, Detroit, William Wrigley Jr., and Marshall Field of Chicago and C.M. Keys, President of the Curtiss Aeroplane and Motor Corporation of New York.

New Mail Routes a Possibility

This company will organize new air mail routes in view of the success of its first experimental line between New York and Chicago. It has been definitely decided, but there is strong possibility of the first route branching off to Detroit, later on extending to St. Louis and to New Orleans. Under the Kelly act, passed at the last session of congress, the postmaster general is authorized to let out the flying mail contracts to responsible operators who have proved their ability to carry the mails. The law authorizes payment to the operators of four-fifths of the special air mail postage.

The new company expects to operate other routes between Boston and Buffalo, New York and Atlanta, via Washington; Chicago to Salt Lake City and thence to Los Angeles; *[sic - ,]* San Francisco and Seattle. The Fords are interested in this project because it will be the first extensive and organized air line *[sic – airline]*, and they hope to produce the planes with which it will be operated. Later they hope to make airships that will carry passengers on non-stop flights between the Atlantic and Pacific and across the water to Europe.

The plans of Henry Ford and Edsel are not confined to the United States. It is reliably stated that they will enter the South American market, where an increasing demand for aircraft is apparent. In the larger republics of the South and in many European centres *[sic]* they have established assembly plants for their

products, and these, it is planned, will eventually be used for the assembly of Ford planes.

Speaking of Europe, the entry of the Fords into aviation is looked upon as one of the biggest events since the armistice. When the Ford Motor Company was reorganized in 1919 its charter provided for aircraft construction, and observers from foreign governments have been trying to ascertain to what extent the company will produce aircraft equipment. They have followed the manner in which the Ford Liberty engines have won a reputation for reliability both in the United States and elsewhere. The British air force and even the Russian Soviet are using Liberty engines built at the Ford plant in Detroit. The Army Air Service and the Navy Bureau of Aeronautics have depended upon Ford Liberties for unusual work over long distances, and today the company is reputed to be in the first class in aircraft motor production.

Those same observers visiting the Ford plants have been amazed at the capacity for production. Many of them are in Detroit today trying to glean enough information to warrant comprehensive reports to their respective governments. For a flying machine is an important military weapon whether it is created for transport or fighting. And all the large powers are now competitors in the world race for aerial supremacy. If the Fords enter the production field on a large scale, America will have facilities for turning out thousands of airplanes in the quickest possible time, far more quickly than any other nation could produce them, even by devoting all its available resources.

They're Doing It

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Henry Ford and his son, Edsel, the latter president of the Ford Motor company, have given commercial aviation a tremendous aid by the starting of an air line *[sic – airline]* linking the Detroit, Chicago and Iron Mountain factories. Edsel Ford is also one of the backers of a new proposed air line *[sic – airline]* that will engage in outside business. The Fords have taken a big field at Dearborn and turned it into an airport. The factory of the Stout Metal Airplane company, which the Fords are also backing, is located at this field.

[NOTE: The above account is in a box in columns 5-6, along with bust photos of Henry Ford and Edsel Ford.]

Iron Mountain News, Iron Mountain, Dickinson County, Michigan, Volume 5, Number 12 [Friday, April 24, 1925], page 7, columns 3-4

AIRFORDS BEAT DARIUS' TEAM

Filvver King's Air Plan Includes Light Machine

[Need to copy beginning portion of article in column 3.]

passengers in addition to the seat reserved for the pilot.

It is the intention of the "flivver king of the air" to ultimately produce these machines at the low figure made possible by "quantity" production. The first two or three planes, being in the nature of experimental machines, were quite costly, as is the case in all initial production of any

sort of machinery. The speed of these "Airfords" will be 10 miles an hour for pleasure cruising, and a capacity of 40 to 50 miles an hour in addition to that, for war use.

It is Mr. Ford's intention that the first commercial lines of his activity will be the transportation of letters, express and valuable freight.

The dream of Darius Green and his flying machine fell far short of what the Fords expect to accomplish. In addition to these airplanes, or rather "Airfords," the Fords are building an all-metal, lighter-than-air machine. The portion containing the gas will be made of duralumin, which is 90 per cent aluminum, 4 per cent copper, and a little cobalt. These gas containers will actually weigh less than the silk bags with their interior "cells" now used in the everyday dirigible. The great advantage of this metal container is that it is non-combustible and practically safe against lightning.