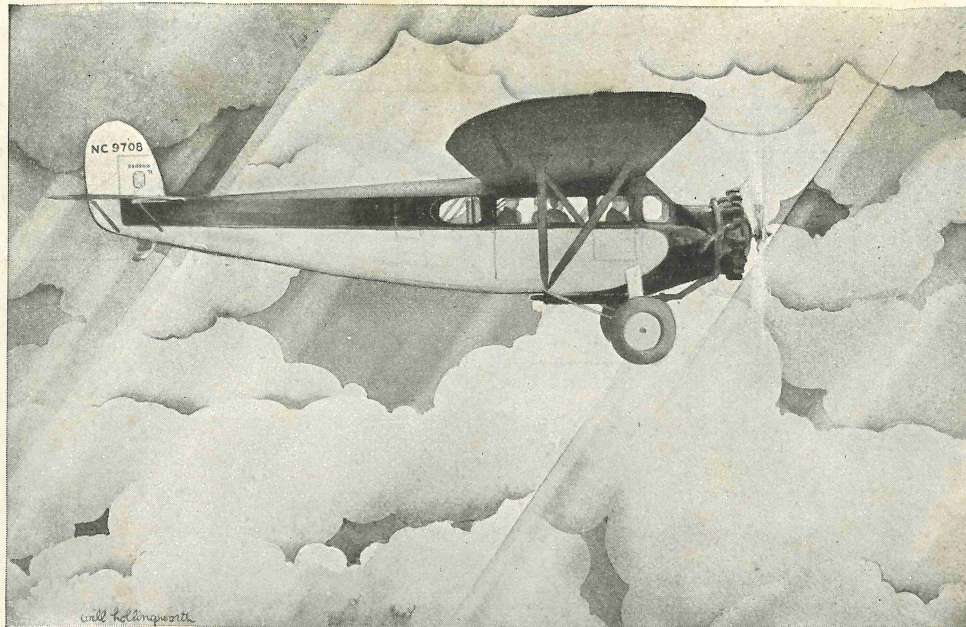


# SKY TRAFFIC



# YOU WANT A Production Job



**B**ECAUSE Fairchild sold more dollars' worth of commercial air transportation units in 1928 than any other manufacturer, Fairchild is far in the lead in the application of modern production methods to the manufacture of airplanes.

Every Fairchild "71" performs like every other "71" because these ships are built to rigid specifications of design, materials, and construction. All parts are interchangeable, including wing and tail surfaces. At its price the Fairchild "71" represents the greatest value in a single-motored transport plane now being offered to the public.

This is equally true of the "41" and the "21." Every

ship is flight tested before it is sold, and every ship carries an engineering log to facilitate rendering service to Fairchild users. We believe that Fairchild planes can be serviced more rapidly and more economically than any other planes now being built.

Whether you are a training school operator, a transport operator, or a business executive who is prepared to buy a plane, we submit that a regular production job will serve you better and more economically.

For detailed information concerning any or all of the current Fairchild models—the "21," "41," and "71"—write or telegraph Fairchild Airplane Manufacturing Corporation, Farmingdale, L. I., New York.

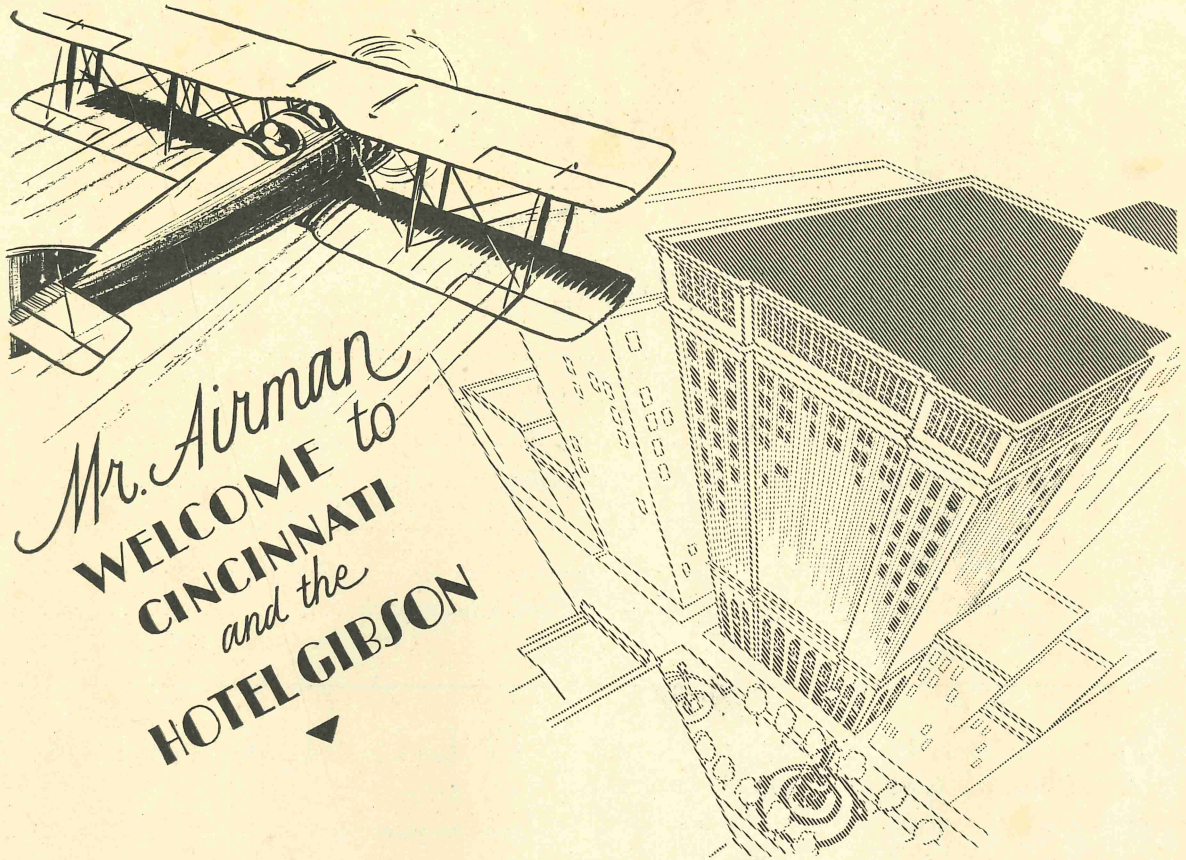
**T**HE FAIRCHILD "71" seven-place cabin monoplane for transport, mail, and commercial uses. A larger passenger and cargo capacity (145 cu. ft.) than any other 400 h.p. plane of its speed. Folding wings. Floats or skis installed in a few hours. Fine interior finish. Sound-proofing. Heater. Disposable load 2500 lbs. High speed 138 m.p.h. Cruising range 750 miles at 110 m.p.h.

# F A I R C H I L D



## AIRPLANES





THE long afternoon's cross-country is over . . . the haze creeps up from the horizon and lights wink from a million windows . . . and at the Gibson a thousand restful rooms welcome you with service and conveniences that make the fatigue of the hop just a memory . . . . . happy landings!

# HOTEL GIBSON

RALPH HITZ, *Managing Director*  
CINCINNATI



# CONTENTS

	Page
Editorial .....	3
United States vs. European Lines (by Burt Schellenbach) .....	4
Technical Information .....	5
The Executive Looks at Aviation (by Powel Crosley, Jr.) .....	6
The Embry-Riddle School of Aeronautics (by Wright Vermilya) .....	7
Along the Road from Then 'til Now (by Ted Hubbell) .....	8
Passenger Schedules and Tariffs .....	9
Contract Air Mail Schedules .....	10-11
Using the Air Mail (by Carl Anderson) .....	12
Lighting the Airport from the Air (by W. E. Stillwell) .....	14
Give 'er the Gun (by Ted Hubbell) .....	15
The Flying Personnel .....	16
Pointing the Aerial Camera Toward Business (by Burt Schellenbach) .....	18

## THE EMBRY - RIDDLE COMPANY

T. HIGBEE EMBRY, President  
 SUSAN H. EMBRY, Vice-President  
 JOHN PAUL RIDDLE, General Manager, Secretary and Treasurer  
 D. A. SCHRYVER, Comptroller

E. W. Chatfield, Ass't. Comptroller

Helen Bauer, Secretary to President and General Manager

### OPERATIONS AND MAINTENANCE

Manager—Stanley C. Huffman  
 Assistant Manager—W. R. Vine  
 Operations Clerk—Harold Pielemeier  
 Eugene Jones

### PILOTS

C. C. Wehrung  
 Frank Merrill  
 Thomas Hill  
 Sam Sharpe  
 James Douglas  
 Earl D. Barnes  
 Chas. Vermilya  
 Harold Distlehorst

### MAINTENANCE

Assistant Manager—Rex Harker  
 Hangar Foreman—Don Griffith  
 Assistant Hangar Foreman—John Millholland  
 Ben Craycraft  
 Lionel Eckberger  
 James Clark  
 Lionel Stephan  
 Ellis Jones  
 Vernon Dennison  
 M. C. Hall  
 Ray McNay  
 Miller B. Allen  
 Wm. D. Hankey  
 Robert Martin  
 Albert Shultz  
 Eckford Hodgson  
 Russell Garrigan  
 Chester Huffman  
 Samuel Carson  
 Earl Purdy  
 Dominick Angier

William Nutty  
 Joseph C. Maher  
 Edward Doome

### SCHOOL OF AERONAUTICS

Director—Wright Vermilya  
 Assistant Director—C. O. Meguire  
 Director Ground School—W. H. Cunyus  
 Maxine Wiegand, School Secretary  
 Mary Sellers, Records

### PROMOTION

Director—Ted Hubbell  
 Traffic Assistant—Carl R. Anderson  
 Advertising and Photography—B. W. Schellenbach

### SALES

Manager—J. H. Stewart  
 E. P. Davis, School Representative  
 John Sutherland  
 John R. Johnson  
 Lloyd Easterling  
 Irene Backer

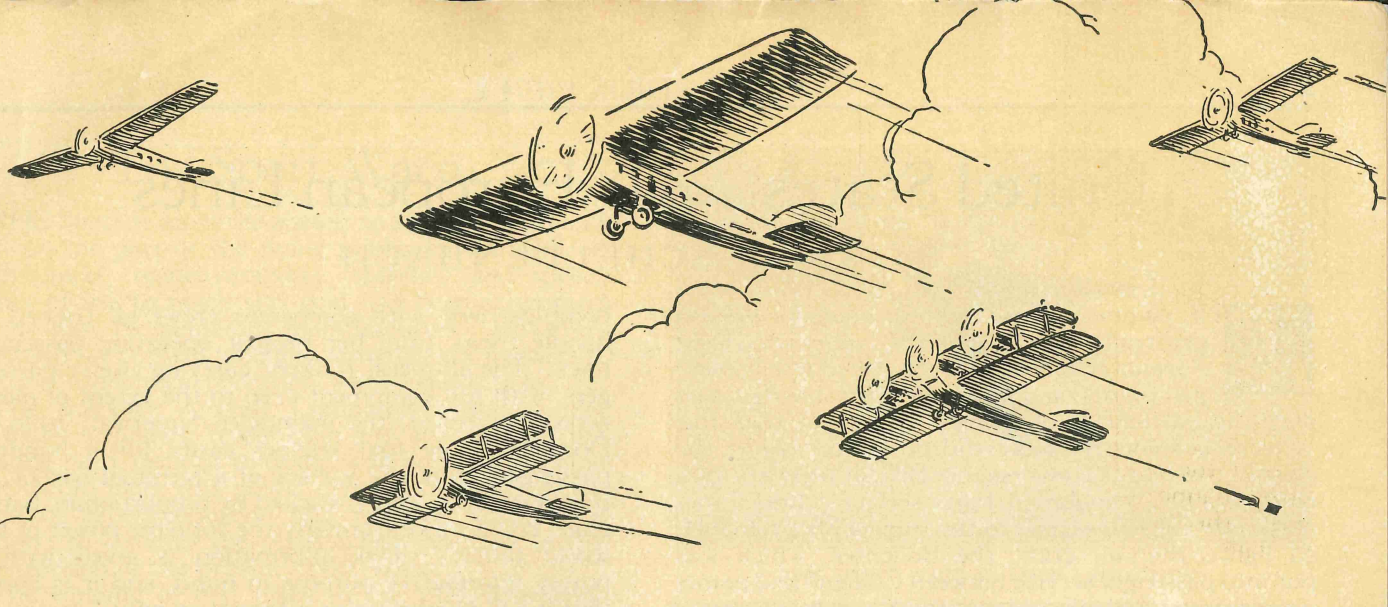
### OFFICE AND RECORDS

Manager—J. M. Clements  
 Theodore Dugan, Bookkeeper  
 Martin Devaney, Bookkeeper  
 Mae Jordon, Bookkeeper  
 Ruth Huff, Information Desk  
 Eva Jung, File Clerk  
 Daniel O'Leary, Night Clerk  
 John Battie, Porter

### REPRESENTATIVES

Chicago—Frank Ware, Gray Goose Hangar, 63rd & Cicero  
 Indianapolis—D. A. MacConnell, Stout Airport, Mars Hill  
 Ashland—Ed. Burgess—Tel. 59.  
 Portsmouth—Ray Jones, Raven Rock Airport  
 Cleveland—A. G. Schnitzer—Tel. Main 3111.





## EDITORIAL

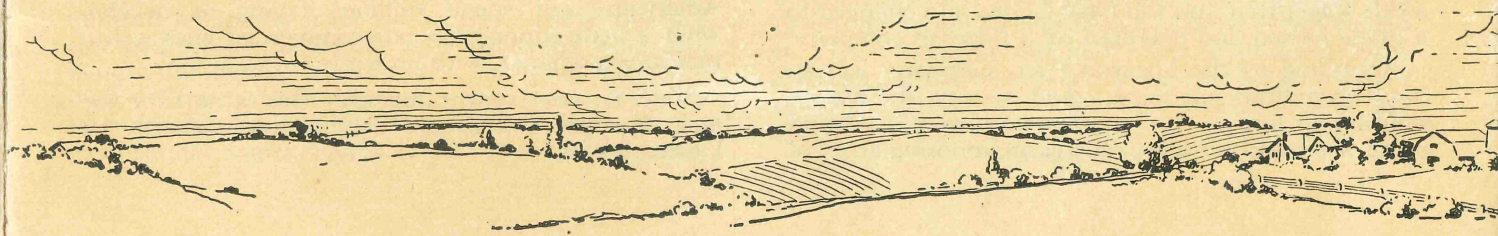
**W**HAT if our today's difficulties do overshadow our yesterday's triumphs and obscure the bright visions of tomorrow.

What if the jolts of misfortune threaten to jar loose our judgment from its moorings. What if our plans upset and whole days and weeks of effort seem to crystallize into a single hour of concentrated bitterness. In aviation we must always keep foremost in our minds those sunny summits of success typified by our remembrances of flying upward through fog, rain and darkness, relying upon the instruments and knowledge of our ship until we burst through above the clouds and fly in a world apart, with the sun shining on the fleecy white mountains and valleys, which so shortly before held terrors and anxiety for us. Of course, the road has hills to climb as well as valleys to cross, but what pioneering road ever was smooth? Often we come to a chasm of discouragement through which runs a torrent of dis-

pair. To admit the void impassible, to surrender to despair, is neither the spirit nor the methods of those great hearts who have gone before. If by any sacrifice of ours—if by any knowledge we may gain—if by any plans we make, this great industry, to which our lives are devoted, is advanced and the people safeguarded, we are willing to do and make. Let us not forget that in the grease and grime of the shop—that in the sweat and dust of the factory—that in the routine and dullness of the office, there is responsibility in every way comparable to that of the actual pilot and that these too, are integral parts in the picture of the whole. Let them not go unsung!



Permit our toast to aviation. In the past on the front line in France, we remember, "To Death, And The Next One To Die;" - - It is changed. Today we toast "To Life! And The Glorious Future Of Aviation!"





# United States *versus* European Lines

By BURT SCHELLENBACH

**T**HE commercial use of the airplane for passenger traffic began in 1919, when, in Paris, Farman bombers were converted into passenger planes and used on sight seeing tours over the battlefields of France. The fact that this venture was entirely successful prompted, before the close of the year, a conversion of British bombers for a cross-channel, London to Paris service. Simultaneously, the Germans came to the front with a remodelled lighter-than-air craft, the Bodensee, which was put into passenger service between Cologne and points on the upper Rhine.

In America, the first transportation service was conducted by the U. S. Army Air Service, who pioneered the Dayton, Ohio—Washington—New York schedule for official use. But American Big Business must have speed. Money and securities accumulated costly interest even while speeding from city to city in mail trains. Thus was made apparent the founding factor of air transportation in the United States—the Air Mail. Backed by the Post Office Department, the first line, between Washington and New York, was put into operation in 1918. Although not an outstanding success, this route showed the feasibility of air mail service, so it was followed by the New York-Chicago line.

And from this two hundred mile line in 1918, the air mail service has grown and multiplied into a vast network of nearly eighteen thousand miles to-day. Yet only recently have passenger facilities at all comparable to those found on European lines been provided on these scheduled carriers.

The question of why Europe excels us so obviously is one that is hard to answer. Is it their cosmopolitan attitude? Is it because the war brought aviation home to them? Or is it because of the heavy Government subsidies which are certainly a major inducement to the founders of lines. Or **are** they excelling us? True, they operate fleets of huge airliners over closely coupled schedules - - true, all-metal transports are the commonly accepted means of transportation, but are these heavy subsidies a blessing or a curse?

During summer months, German airliners will fly a million and a quarter miles, carrying twenty thousand passengers and a quarter million pounds of freight, besides 123 tons of personal luggage and 100 tons of postal matter. During the same month, our Air Mail carriers will haul 225 tons of mail, flying over nine hundred thousand miles.

But when we consider the question of Europe's air transportation facilities, there is one great outstanding fact that hangs like an ominous shadow over it all: go any direction, from any city to any other, and before you have been in the air four hours it is a safe wager that you will have landed and changed to a plane owned and operated by a German company.

According to the Locarno Pact, Germany was to have no military air force. And, to-day, she has no military air force, yet, if another world conflict should come, she could certainly muster an imposing array of

bomb-carriers, with competent crews all trained to handle them, from her present operating passenger lines. The all-metal Junkers, carrying twelve passengers, with full equipment even to the extent of meals served on board; the mammoth Superwal, built by Dornier, whose four engines easily lift a hundred passengers from the surface of a terminal harbor - - this fleet alone, were it backed by proportionate battle craft, could make Germany the supreme power of the world to-day. This information is given with a purely informative purpose in mind, and it is hoped that it will be received as information only.

Probably the fact that Europe's air lines operate over comparatively short distances is a deciding factor in the minimizing of their rates. Besides this, their volume, or passenger-miles, reaches a high peak on account of short hauls with large ships.

Those who are striving against heavy odds to operate a passenger line in this country often wonder in desperation why the good, solid, Babbit-type of citizen who firmly declares that he will "keep one foot on the ground" breaks down and flies from London to Paris or a similar journey when he goes abroad. This is the most discouraging fact; not bad weather, not lack of equipment, nor lack of passengers, but the fact that Americans who will not fly on American lines willingly go up in Europe and come back to boast about it.

Europe boosts her air lines. People have accepted the airplane as commonplace. It fulfills a definite need in their lives, so they reward it for this fulfillment by a steadily increasing patronage, and an express business of nearly all the diamonds and jewelry which are shipped, not to mention a myriad of more necessary, less valuable articles which must be somewhere else, quickly.

There is one more element - - night flying. Hardly a ship takes off from a European airport at night without a sizable list of passengers settling back against the comfortable, slanting cushions of their chairs.

While passenger transportation at night in the U. S. has not reached the proportions attained by European lines our lines are rapidly being equipped with facilities for night service. In fact many U. S. lines are already operating by night.

So, not until the bulk of the American executive class accept aviation as a thing for themselves, and not for "the other fellow" will we be able to equip our great trunk lines with beacons and radio equipment for night flying. And not until then will we use only multimotored, all-metal transports.

If the occasion for war ever arises, consistently the Americans will spend millions trying to develop what a little support for our commercial lines would maintain prepared, with no waste.

With no government subsidy—this is no time for lack of support from the big business men of the United States.



## The Sport Waco

THE Sport Waco is the answer to a long felt demand on the part of the flying public for an airplane with power, maneuverability, stability and speed. Many efforts to reach this goal had been attempted in the past by numerous manufacturers. However, the majority of them failing to recognize the important factor of economical operation, were doomed to failure.

The Advance Aircraft Company, manufacturers of Waco Airplanes, recognizing and appreciating the existing need, decided to design and build an airplane that would meet this public demand, and, after two years of experimentation and research work, were enabled to develop the plans which resulted in the construction of the present Sport Waco.

The winning of first place in the 1928 Transcontinental Derby proved the mettle of the Sport Waco. John Livingston, the winner, reports an average cruising speed of 129.4 miles per hour for more than 10,000 miles of flying in his Sport Waco.

Faultless workmanship and rigid inspection -- the "invisibles" responsible for Waco reputation make for performance marvelously combined with such phenomenal stability that the ship flies "hands off" much of the time.

The Sport Waco is designed with tapered wings, and the purchaser exercises the choice of color of wings, fuselage and upholstery. The improved type of cowling is a standard feature.

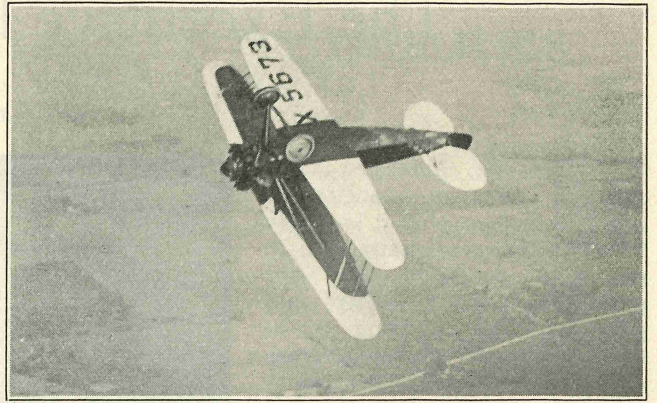
Full equipment includes upholstered cockpit, luggage compartment, streamlined undercarriage, Bendix brakes, 30 x 5 wheels, metal propeller, hand starter, primer, compass, tachometer, air speed indicator, altimeter, oil pressure, oil temperature and gasoline gauges, navigation lights, fire extinguisher and emergency kit. Pedals take the place of the old type rudder bar.

The Sport Waco is powered with either the 225 H. P. J-5 Wright Whirlwind, or the J-6 300 H. P. Wright Whirlwind motor.

## Allmetal FLAMINGO Seven Passenger Transport

THE Allmetal FLAMINGO seven-passenger transport built by the Metal Aircraft Corporation of Cincinnati, is a high winged cabin monoplane built of metal throughout. The outstanding features are the safety of allmetal construction and the greater profit-earning power of this large capacity, high speed, allmetal transport plane.

In the design of the FLAMINGO an intensive effort was made to design for manufacturing under modern production methods without detracting from the aerodynamical features. This has been accomplished to a remarkable degree. For instance, the wing is untapered in plan and form, which allows the use of uniform wing ribs from tip to tip. These ribs are stamped out of duralumin with lightening holes and flanged for increased stiffness. The wing spars are built up from a stiff duralumin plate which has two extruded duralumin angles riveted to the top and two more similar angles riveted at the bottom of the plate,



THE SPORT WACO IN LOOP EXHIBITION

giving a true "I" beam section. Stiffening angles of duralumin are riveted to the spar at frequent intervals. The advantages of this spar from a production standpoint are simplicity of design and the use of readily obtainable duralumin shapes. The tail surfaces are made with duralumin spars and stamped duralumin ribs.

The duralumin surfacing for the wings and empennage is attached directly to the ribs by a unique method of external riveting. This system not only speeds up production but also makes possible an easy change of the covering sheets in the field if a minor accident happens to damage some of the surfaces. The covering for both the fuselage and wings is alclad duralumin of .014" thickness, corrugated on 3" centers with a semi-circular corrugation. This corrugation gives some stiffness to the covering plates but does not set up a severe aerodynamical resistance. The ailerons are of generous area and set in one foot from the wing tips.

The FLAMINGO is the first large allmetal transport plane to utilize a welded seamless steel tubular construction throughout the fuselage. By utilizing tubular steel for the fuselage, better production methods are feasible and repairs in the field simplified.

The cabin seats six passengers in comfortable arm chairs which are supplied with a head rest. A toilet room is installed as standard equipment, but if the purchaser desires, the toilet room will be omitted and the extra space can be used for a seventh passenger.

Directly aft of the passenger compartment is a 40 cu. ft. compartment which can carry up to 500 pounds of mail or baggage. This mail compartment has a separate outside door to comply with provisions of the Post Office Department. The main cabin is very spacious, being 50 inches wide, five feet high and 14 feet long. It is furnished in embossed micarta board trimmed in cloth and with a cloth ceiling. There are ten feet of continuous windows 14 inches wide on each side of the cabin. The glass surrounding the pilot's compartment is non-shatterable.

The pilot's compartment is fitted with a vertical windshield which pilots have found to keep free and clear from accumulations of rain or snow in bad weather. The vision from the pilot's seat in all directions is excellent. Dual control is provided with a throw-over wheel on the control column. Bendix brakes are provided selectively operated by foot pedals. A

*Continued on page 17.*



# The Executive Looks at Aviation

POWEL CROSLY, JR., President

*Crosley Radio Corporation*

**T**O me, aviation is an unknown quantity. I believe that it is nearly universal with men in executive positions that the press of business affairs has prevented our keeping in as close touch with this new science, or art, or business (it belongs to all three) as we might wish. We make use of it, through the air mail and express, and, occasionally, when illness or the almighty dollar enters in, we use it for fast travel. Some of us are quite ready to invest in it. But it has not yet become a part of our lives. Were it taken away from us, to-day, we feel that we could do without it.

The most important advantage of air transportation is, of course, speed. Speed, saving interest on money and securities; speed, saving lives; speed, hurling the nation's mails from city to city, and conserving the precious working hours of busy men—speed is the prime factor.

Then, strange as it may seem, I believe that in the years to come, safety will become the next advantage. For the operation of the airplane, as I have sketchily followed it, through the newspapers and periodicals, seems governed by a far stricter surveillance than any other means of transportation. Before a passenger or mail carrier leaves the ground, everything relating to its control and safety has, according to reports, been given the most careful scrutiny. The pilot holds a license gained by long hours of experience flying in all sorts of weather and by intensive technical training on the mechanism of his plane. He, by reason of this experience, knows every part of his ship - - envisions the racing parts within the motors and judges the speed best suited to their most efficient operation. Then too, in the air, the troublesome "other fellow" who is responsible for many fatalities in our world of motor cars, is reduced to a negligible quantity. And the men in responsible positions are men better suited to fill them than are the bus drivers and railroad engineers of to-day, for the men recruited to the ranks of aviation are men from colleges and business men who have seen the vision of this new field.

Yet, with all our safety measures, a great trimotored transport with a full load of lives flutters to the ground at Cleveland with all three engines dead - - saved by the circumstance of a nearby landing field. The fault? No one knows - - water in the fuel may have caused it. Again, in New Jersey, another of these great airliners, regarded by the general public as the safest of all, fails in the takeoff and thirteen lives are sacrificed on the altar of advancement! An inexperienced pilot



is the consensus of opinion as the cause of this tragedy, but again, we are not sure.

Yet it seems to be scientifically possible to raise the safety factor of air travel. Unlimited levels of the air offer many different trunk highways for various speeds of transport, and violations of limiting rules can be easily observed from ground control stations.

Yet with all our careful plans and blueprints and paper routine by which we hope to avoid accidents in the air in the future, we must not forget that even if all our care was perfect or if there were no human elements of fallibility to enter into our routine—still would the law of averages cause some trouble. The railroads, with years of experience to guide them and safety devices as perfect as engineers can make them, still have wrecks of startling proportions. It seems to me the aviation crash still occupies the

front page. In spite of efforts by the press to reduce it to its proper comparison—aviation accidents loom larger in the public eye than they are in reality.

By comparisons made in proportion to other industries, aviation accidents are not in excess over the normal rate. The automobile by actual figures is much more a juggernaut of destruction than the air ship. Yet we never hear anyone say to-day, "I would not ride in that machine unless I could keep one foot on the ground". We do not question that the nation is already automobile-minded; when it will become air-minded is a matter of conjecture.

It seems to me that the lighter-than-air craft offers more possibilities for volume passenger carrying than the airplane. The rigid dirigible can comfortably carry four or five times the number of passengers as the largest practicable airplane, and should the motors stop, the ship is in no immediate danger of falling.

The dirigible, then, will probably find its place in the extended, non-stop flights required for transcontinental and transoceanic travel, while the airplane will solve the problem of rapid city-to-city passenger and mail service. The privately owned airplane of a large corporation will certainly save its sales executives inestimable time and money and will greatly increase their efficiency.

So, aviation looks to me - - I am for it, of course, as I am for anything which may allow the great, complicated machine of our present day lives to run more smoothly, and may swing our widespread United States into the nearness of a day's travel.



# The Embry-Riddle School of Aeronautics

By WRIGHT VERMILYA



WITH the rapid development and expansion of Civil aviation, many questions of vital importance are confronting the Industry. The manufacturer, distributor, commercial operator, are all making extensive plans for future operation and expansion.

The Federal Government has assumed the tremendous task of regulating and controlling Civil operations. Municipalities are bending every effort to provide adequate facilities for Terminal and Base operations. Capitalists are financing aviation projects without stint. Industries and business along other lines of endeavor are investigating Aviations' usefulness to them, and countless individuals are interested in aviation from a recreation and pleasure standpoint.

The Embry-Riddle Company having been closely connected and borne their share of the burden during the development stage, is now prepared to take a leading role in present expansion of Civil Aviation. With the able assistance and close co-operation of the Department of Commerce and Aeronautical Chamber of Commerce, The Embry-Riddle Company will put into effect one of the most comprehensive and thorough student training programs ever attempted. No expense or effort will be restricted in consideration of safe and thorough training.

After many years of successful school operation The Embry-Riddle Company is well qualified to judge the errors and short-comings of past training methods and have incorporated in their school every subject, and means of training to place the student upon graduation in a position of importance in Commercial Aviation.

## Scope of Training

The scope of training as given in The Embry-Riddle School has been very definitely worked out to take the student step by step through the various courses.

The first step is the Primary Ground School Course, giving thirty lessons (from the Embry-Riddle Copyrighted Text) covering the following subjects: Department of Commerce Rules and Regulations, Aeronautical Nomenclature, Six lessons in Aerodynamics and Theory of Flight, Six lessons in Construction of the Airplane, Propellers, Eleven lessons in Power Plant, Meteorology Navigation, Aerial Photography and mapping.

## Memo Movies

Lectures are given in the Classroom on each subject and with the aid of Memo Movies taken in Airplane and Engine Factories. Specific reference and instruction is given on design, construction, etc. The Primary Ground Course will be available for an extension course at a nominal sum, and when completed by correspondence and home study, the student may take the Embry-Riddle flying courses with the amount paid for Ground course being applied on the flying course. Time required will be six weeks.

## Advanced School

The Advanced Ground School Course covers sixty lessons from the Embry-Riddle Copyrighted Text.

This course is an expansion of the Primary Course with additional instruction, giving the student a thorough knowledge of airplane and engine construction, operation, maintenance, and repair, and qualifying him to pass the Department of Commerce written examination for Limited Commercial and Transport license. Time required for this part is twelve weeks.

## Taxi Planes

The Primary Flying Course includes the Primary Ground School Course, ten hours dual instruction and ten hours solo, qualifying the student to pass the Department of Commerce Private Pilot's Examination. The Primary Flying Course is divided into ten stages. The first stage is instruction on "Taxi Plane". This plane being limited so it cannot fly, but has all the controls, instruments, etc. that other planes have. After being instructed in the use and operation of the various parts of the plane, the student is permitted to taxi the plane about a restricted part of the Airport, acquainting himself with the feel of the controls and handling the plane on the ground.

## Use of Gliders

The second stage is an entirely new innovation in present flying school instruction, namely the use of training type gliders. The Embry-Riddle Company has been watching with a great deal of interest the advancement of gliding and soaring flight, and its place in the flying school is a proved fact by results obtained in Germany. There is no question but that gliding and soaring flight will make great strides in this country in the near future. Its safety, if properly conducted, is definitely assured. By use of the training glider the student will learn the feel of flying controls used in balancing and handling of an airplane.

The third stage will be actual flying in a power driven plane with instruction in straight flying and gentle banks and turns to right and left.

In the fourth stage the student will begin take-offs and landings, making a flight around the airport on a given course.

The fifth, sixth, and seventh stages will cover special outlined instruction in airwork on steep banks, eights, 180° and 360° landings.

## Stunting

The eighth stage will be stunts with special attention in spins and wing-overs. In this stage a special ship will be used with instructor and student both wearing parachutes.

The ninth stage will be precision landings—forced landings.

The tenth stage—Final check and solo.

In the Primary Course special built dual instruction ships of the latest type and approved by the Department of Commerce will be used. Time required for this course will be six weeks.

## Transition School Periods

The Advanced Flying Course will include 50 hours of solo flying, supervised and directed through five stages of flying and the Advanced Ground School.

*Continued on page 14.*



# Along the Road from Then 'til Now

By TED HUBBELL

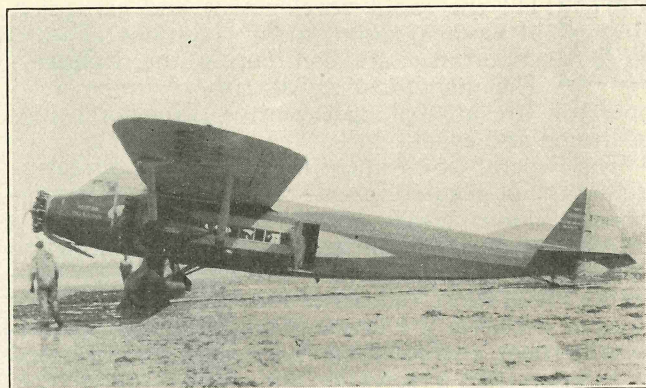
**F**LYING above the blue waters of Lake Erie with the bright, hot sun sparkling 6200 feet below me, with Detroit, Toledo, Windsor and many other cities in range of our vision, I felt the heat of the sun through the cabin windows. In a Ford Tri-Motored plane with the three Wrights revving merrily away, flying becomes as mechanical as walking and my thoughts roamed lazily away to the legends of long ago.

My mind settled upon Icarus, whose wings were fastened on with wax and in his attempt to reach the heavens and the abode of the Greek Gods, they were melted by the sun and he was plunged to his death in the Aegean Sea. Unconsciously I looked anxiously at the wing motor fastenings and felt relieved to realize they were not put on with wax but hard nickel chromium steel and that we were in security.

Even though all three motors should fail, a very remote possibility, we could glide to any of several inviting fields on the shores of the lake.

We had just passed over Cedar Point and were heading out over Put-In-Bay for the Dearborn Airport in Detroit. As I glanced down at the cove far below where Commodore Perry fought his famous "Don't Give Up the Ship" battle—I reflected how startled those old sailor warriors would have been to have looked up and glimpsed a huge bird larger than the most monstrous eagle, rushing swifter than the wind and making a noise like the barking of many coyotes. Indians used to travel the Lake below and in my mind's eye I saw them sailing swiftly along in their light birch bark craft around the peninsula which we were just crossing over. This would be a two day's journey for them. We were now passing over it straight as an arrow, in ten minutes. Twenty miles across—ninety miles around.

A sense of security and peace came over me as I glanced behind into the cabin. Some of the passengers were reading peacefully, two were eating sandwiches,



THE PATRICIAN

another had gone fast asleep while the last one I looked at was perched up in his wicker deck chair with a small portable typewriter on his knees, pounding away for dear life as industriously as if he were in his office or hotel room.

I glanced ahead. Fourteen minutes away, I could see the spires, skyscrapers and the towers of the magic city of Detroit. We will have a record run today with the strong South-East tail wind. We are now doing 140 miles an hour ground speed. Detroit will be 48 minutes from Cleveland.

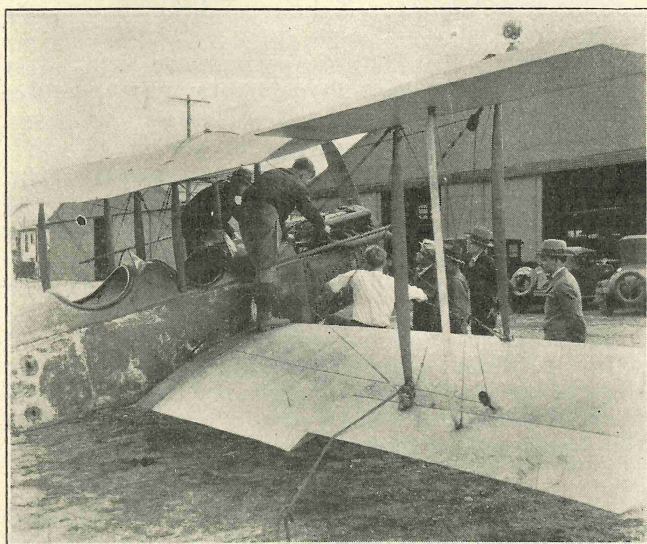
Again my imagination turned back to 1912 when I witnessed Glenn Curties in his frail, bamboo framed, pusher wending his way over this same route from Cleveland to Cedar Point, where he promptly nosed over in the soft sand, the engine missing his left ear by inches as it tore away from the "hay wire" it was fastened on with.

A new idea ran through my brain. What if there had been Department of Commerce Rules then? All of the pioneers would have been grounded permanently for violations. Why has man always longed to imitate the birds? I wonder if some ancient Neanderthal man of a forgotten age did not come to grief by leaping from some rocky pinnacle with leaves or feathers or woven grass arranged in some manner to attempt support and a glide.

I imagine that the insurance rate went up an appreciable amount when Bladud, the ninth king of Britain was killed by tumbling off the battlements of his castle in an attempt to fly in a glider of his own manufacture. Having no ailerons, flippers or rudder to say nothing of a stabilizer, he naturally went into a flat spin and broke his neck.

We have had many distinguished pilots who were noted for their accomplishments other than flying. Some are musicians, some ride horses, while others bet on them, some pretend to be brainy and write for "Sky Traffic" and others are sharp with the cards and dice. However, I personally can always lose myself before a reproduction of any of the great masterpieces of that versatile genius Leonardo DaVinci and in his rich colors and meaningful faces I find a certain

*Continued on page 17.*



AN EARLY HISSO WACO

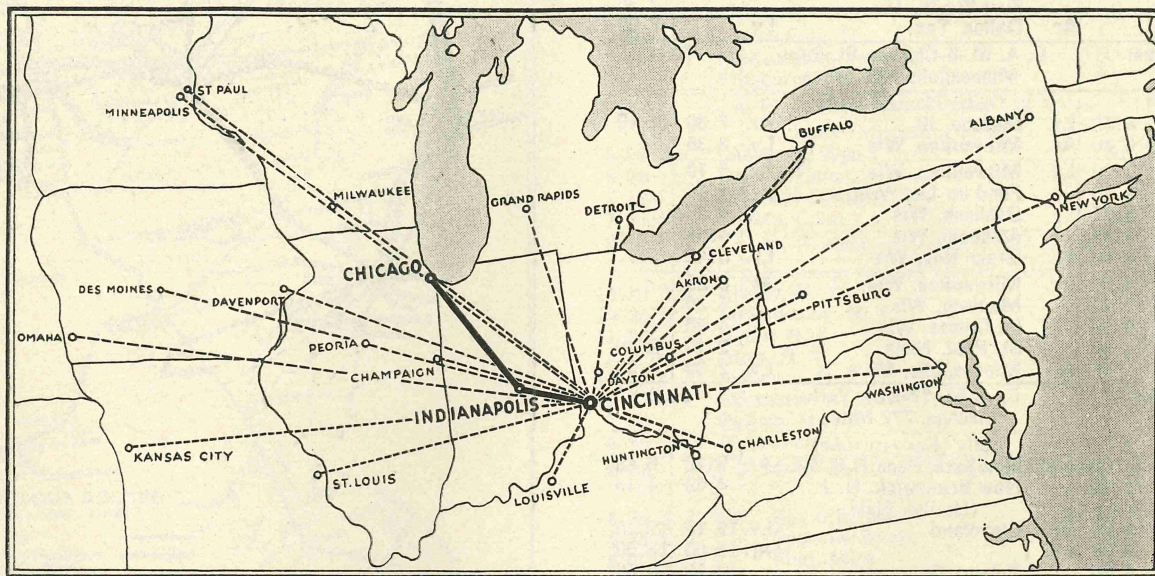


# Passenger Schedules and Tariffs of The Embry-Riddle Company

## OFFICES

General Offices—Lunken Airport, Cincinnati, O. Tel. East 4700.  
Chicago Office—Municipal Airport, Tel. Prospect 1752,  
Cleveland Office—711 Union Bldg., Tel. Main 3111.

Indianapolis Office—Indianapolis Airport, Tel. Belmont 4979,  
Portsmouth Office—Raven Rock Airport, Tel. 3588-R.  
Ashland Office—Tel. 59.



### Chicago-Indianapolis-Cincinnati

Miles	Read Down	(Daily)	Read Up	Miles
6:00 A.M. CT	Lv. Chicago	Ar. Indianapolis	7:00 P.M. CT	275
170	7:55 A.M. CT	Lv. Indianapolis	Ar. Cincinnati	105
275	10:00 A.M. ET	Ar. Cincinnati	Lv. Cincinnati	5:00 P.M. ET

### Passenger Fares

Cincinnati—Indianapolis	\$17.00
Indianapolis—Chicago	22.00
Chicago—Cincinnati	35.00
Chicago—Cincinnati and return	65.00

### AIR TAXI RATES

#### TO A FEW OF THE PRINCIPAL CITIES

	One Way	Rd. Trip
Asheville, N. C.	\$300.00	\$330.00
Ashland, Ky.	105.00	115.00
Atlanta, Ga.	370.00	400.00
Atlantic City, N. J.	550.00	600.00
Baltimore, Md.	435.00	475.00
Birmingham, Ala.	405.00	445.00
*Boston, Mass.	765.00	784.00
*Buffalo, N. Y.	420.00	460.00
Chattanooga, Tenn.	285.00	133.00
*Chicago, Ill.	260.00	285.00
Cleveland, Ohio	225.00	275.00
Columbus, Ohio	100.00	110.00
Dayton, Ohio	48.00	53.00
*Detroit, Mich.	247.00	297.00
*Hartford, Conn.	675.00	742.00
Hot Springs, Ark.	570.00	625.00

	One Way	Rd. Trip
Huntington, W. Va.	\$120.00	\$132.00
*Indianapolis, Ind.	105.00	115.00
Jefferson City, Mo.	410.00	462.00
Kansas City, Mo.	562.00	618.00
Knoxville, Tenn.	217.00	238.00
Lexington, Ky.	75.00	82.00
Little Rock, Ark.	515.00	566.00
Louisville, Ky.	90.00	100.00
Memphis, Tenn.	405.00	445.00
Milwaukee, Wis.	345.00	379.00
Nashville, Tenn.	247.00	271.00
*New York	630.00	693.00
Norfolk, Va.	475.00	522.00
*Philadelphia, Pa.	510.00	561.00
Pittsburgh, Pa.	262.00	288.00
Providence, R. I.	742.00	816.00
St. Louis, Mo.	312.00	343.00
South Bend, Ind.	210.00	231.00
Springfield, Mo.	502.00	552.00
Syracuse, N. Y.	540.00	594.00
Toledo, Ohio	195.00	214.00
Washington, D. C.	405.00	445.00

\*See Air Mail Schedules and connections.

Taxi trips may be made to any point in U. S., Canada or Mexico, at any time. Rates to any points not listed may be secured by calling any of the offices of the Embry Riddle Co.

### General Information

Baggage—Each passenger allowed 25 pounds of baggage free. Additional 50c per pound.



# RATE—5c FIRST OUNCE, 10c EACH ADDITIONAL OUNCE

COMPLETE SCHEDULES OF U. S. CONTRACT AIR MAIL LINES.

C. A. M. Route numbers listed below correspond to numbers in circles on map.

Effective as of April 1st, 1929

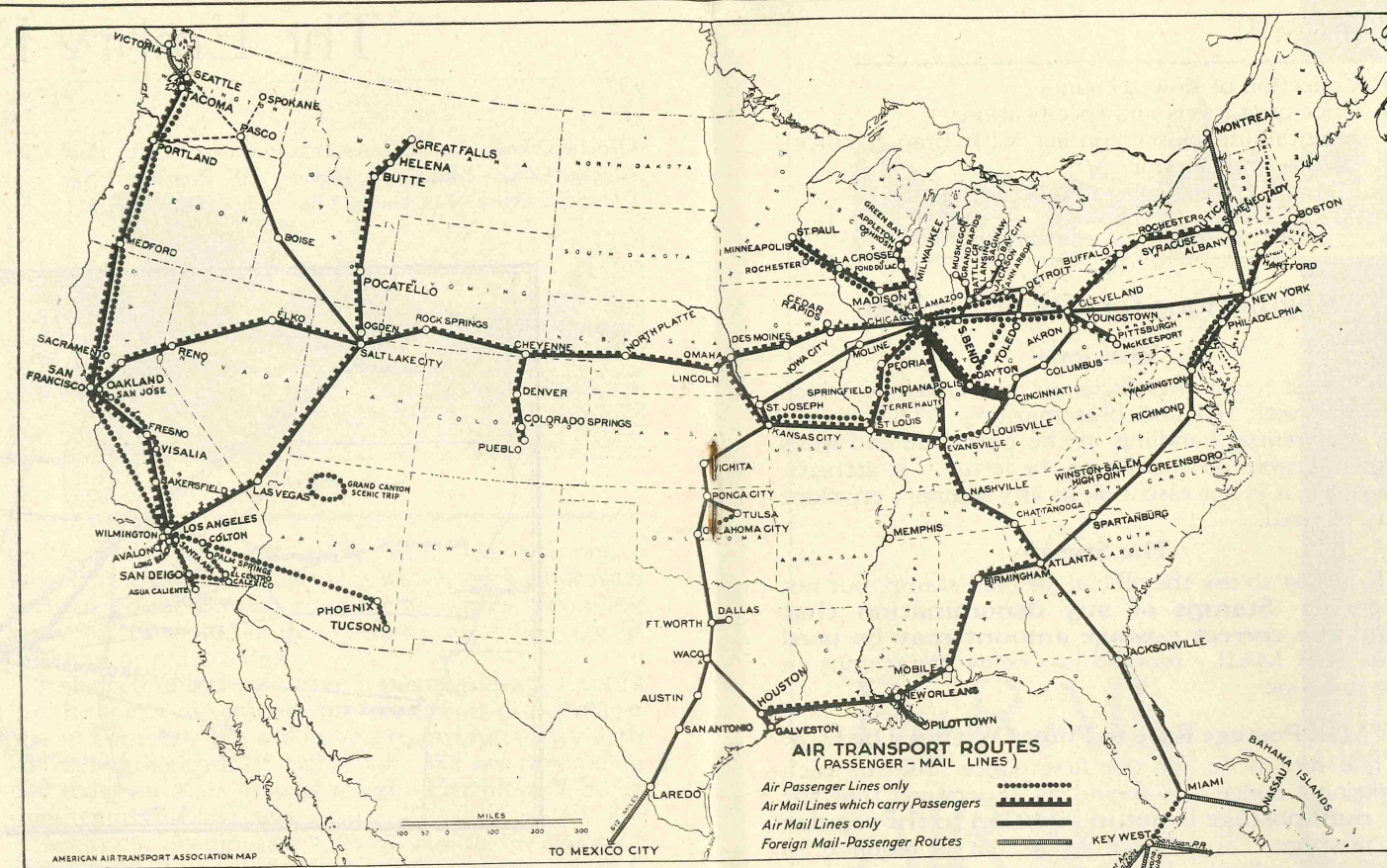
South		C. A. M.-3-Chicago-Dallas, 1,059 Miles		North		
Daily (Central time)						
8.00	7.30	Lv.	Chicago, Ill.	Ar.	7.20	5.40
9.50	9.30	...	Moline, Ill.		5.30	4.20
	12.30	...	St. Joseph, Mo.		2.40	
1.10	1.00	...	Kansas City, Mo.		2.05	1.10
3.15		...	Wichita, Kans.			11.10
4.10		...	Ponca City, Okla.			10.20
5.20		Ar.	Tulsa, Okla.	Lv.		9.00
5.25		...	Oklahoma City, Okla.			9.20
7.35		...	Fort Worth, Tex.			7.30
8.00		Ar.	Dallas, Tex.	Lv.		7.00

West		C. A. M.-9-Chicago-St. Paul- Minneapolis, 485 Miles			East	
Daily (Central time)						
3.00	5.50	Lv.	Chicago, Ill.	Ar.	7.30	12.10
	6.40	Ar.	Milwaukee, Wis.	Lv.	6.35	
	7.30	Lv.	Milwaukee, Wis.	Ar.	5.10	
	8.10		Fond du Lac, Wis.		4.35	
	8.25		Oshkosh, Wis.		4.20	
	8.40		Appleton, Wis.		4.05	
	9.00	Ar.	Green Bay, Wis.	Lv.	3.45	
	6.50	Lv.	Milwaukee, Wis.	Ar.	6.25	
	7.40		Madison, Wis.		5.30	
	9.30		La Crosse, Wis.		4.00	
6.30	11.30		St. Paul, Minn.		2.40	8.40
6.45	11.40	Ar.	Minneapolis, Minn.	Lv.	2.30	8.30

West		C. A. M.-17-New York-Chicago, 772 Miles			East	
Daily (Eastern time)						
8.00	11.00	Lv.	New York (Penn.R.R.Sta.)	Ar.	6.40	6.43
9.35	12.15	...	New Brunswick, N. J. ....		4.45	4.45
(Hadley Field)						
2.15	4.20	Ar.	{Cleveland.....}	Lv.	12.15	12.15
2.30	4.35	Lv.	{.....}	Ar.	12.00	12.00
3.20	5.20		Toledo, O.....		10.50	10.50
5.30	.....	Ar.	Detroit, Mich.....	Lv.	.....	10.05

(Central time)						
5.35	7.00	Ar.	Chicago, Ill.	Lv.	8.00	8.00
West		C. A. M.-18-Chicago-San Francisco, 1918 Miles			East	
(Central time)						
5.45	7.50	Lv.	Chicago, Ill.	Ar.	5.45	7.30
	9.40		Iowa City, Ia.			5.30
8.00			Cedar Rapids, Ia.			4.30
9.00			Des Moines, Ia.		1.30	4.30
10.10	12.20	Ar. }	Omaha, Nebr.	{ Lv.	12.30	3.15
10.15	12.35	Lv. }		{ Ar.	12.15	3.10
10.45		Ar.	Lincoln, Nebr.	Lv.		2.45
	2.50		North Platte, Nebr.			
	2.00	Lv.	(Mountain time)			
	4.30	Ar. }	Cheyenne, Wyo.	{ Lv.	7.30	
	4.45	Lv. }		{ Ar.	7.15	
	7.05		Rock Springs, Wyo.			
10.00	Ar.		Salt Lake City, Utah.	Lv.	3.00	
9.20	Lv.		(Pacific time)	Ar.	1.45	
11.15			Elko, Nev.		11.00	
	1.30	Ar. }	Reno, Nev.	{ Lv.	9.00	
	1.45	Lv. }		{ Ar.	8.45	
	2.45		Sacramento, Calif.		7.45	
	4.30	Ar.	San Francisco, Calif.	Lv.	7.00	

South		C. A. M.-19, New York to Atlanta, 763 Miles		North	
		Daily, except Sunday and Holidays (Eastern time)			
5.00	9.40	Lv.	New York (Hadley Field)	Ar.	4.35
5.35	10.24	...	Philadelphia, Pa.		3.56
...	11.45	...	Washington, D. C.		2.35
...	1.02		Richmond, Va.		1.28
...	2.59		{Winston-Salem, N. C. Greensboro, N. C. High Point, N. C.}		11.21
...	4.32	...	Spartanburg, S. C.		9.50
...	6.17	Ar.	Atlanta, Ga.	Lv.	8.00



South	C. A. M.-24-Chicago-Cin'ti, 270 Miles				North
	Daily (Centrgl time)				
6.00	Lv.	Chicago, Ill	Ar.	7.00	
7.55	...	Indianapolis, Ind		5.15	
	(Eastern time)				
10.00	Ar.	Cincinnati, O	Lv.	5.00	

South		C. A. M.-21-Dallas-Galveston, 320 Miles		North	
Daily (Central time)					
7.45	Lv.	Dallas, Tex.	Ar.	7.37	
8.15	...	Fort Worth, Tex.		7.15	
9.20	...	Waco, Tex.		6.15	
10.50	...	Houston, Tex.		4.45	
11.30	Ar.	Galveston, Tex.	Lv.	4.00	

South	C. A. M.-22-Dallas-Laredo, 417 Miles				North
Daily (Central time)					
7.45	Lv.	Dallas, Tex.	Ar.	7.35	
8.15		Fort Worth, Tex.		7.15	
9.20		Waco, Tex.		6.15	
10.25		Austin, Tex.		5.10	
11.20		San Antonio, Tex.		4.15	
12.55	Ar.	Laredo, Tex.	Lv.	2.35	

South	C.A.M.-23-Atlanta-N.Orleans, 479 Miles				North
(Central time)					
5.30	Lv.	Atlanta, Ga	Ar.	6.30	
7.10	...	Birmingham, Ala		4.55	
9.30		Mobile, Ala		2.35	
11.00	Ar.	New Orleans, La	Lv.	1.00	

South		C. A. M.-2-Chicago-St. Louis, 278 Miles		North	
Daily, ex. Sunday (Central time)					
5.50	Lv.	Chicago, Ill.	Ar.	7.30	
7.25	...	Peoria, Ill.		6.10	
8.15	...	Springfield, Ill.		5.20	
9.15	Ar.	St. Louis, Mo.	Lv.	4.15	

South		C. A. M.-26-Great Falls-Salt Lake City, 493 Miles		North	
Daily (Mountain time)					
8.30	Lv.	Great Falls, Mont.	Ar.	4.30	
9.25	...	Helena, Mont.		3.45	
10.10		Butte, Mont.		3.00	
12.45	...	Pocatello, Idaho		12.40	
2.05		Ogden, Utah		10.50	
2.25	Ar.	Salt Lake City	Lv.	10.20	

West		C. A. M.-4-Salt Lake City- Los Angeles, 600 Miles		East	
Daily (Pacific time)					
9.10	Lv.	Salt Lake City, Utah	Ar.	1.45	
2.25		Las Vegas, Nev.		10.40	
5.25	Ar.	Los Angeles, Calif.	Lv.	7.35	

West	C. A. M.-5-Salt Lake City-Pasco, Wash., 530 Miles			East
Daily (Pacific time)				
9.45	Lv.	Salt Lake City, Utah	Ar.	12.50
1.15	...	Boise, Idaho	...	9.20
4.35	Ar.	Pasco, Wash.	Lv.	6.00

South	C.A.M.-8-Seattle-Los Angeles, 1,000 Mls.				North
Daily (Pacific time)					
11.45	Lv.	Seattle, Wash.	Ar.	2.00	
1.30		Tacoma, Wash.		1.30	
		Vancouver, Wash.			
7.10		Portland, Ore.		11.30	
9.30		Medford, Ore.		9.00	
1.15		San Francisco, Calif.		5.00	
5.10		Sa Jose, Calif.		6.15	
3.15		Fresno, Calif.		3.00	
4.45		Bakersfield, Calif.		1.30	
6.15	Ar.	Los Angeles, Calif.	Lv.	12.01	

South	C. A. M.-25-Atlanta-Miami, 622 Miles				North
(Eastern time)					
6.45	Lv.	Atlanta, Ga.	Ar.	7.30	
10.00		Jacksonville, Fla.		4.25	
1.45	Ar.	Miami, Fla.	Lv.	12.30	

FOREIGN AIR-MAIL ROUTES  
Connected with United States Air-Mail Routes

South		F. A. M.-1-New York-Montreal, Can. 332 Miles		North	
4.15	Ar.	New York, N. Y.	Lv.	7.00	
2.45	Lv.	Albany, N. Y.	Ar.	8.30	
2.30	Ar.		Lv.	8.45	
12.15	Lv.	Montreal, Can.	Ar.	11.15	

F.A.M.-2-Seattle-Victoria, B. C., 84 Miles	
Lv. Seattle, Wash. . . . .	Ar.
Ar. Victoria, B. C. . . . .	Lv.
F.A.M.-3-New Orleans-Pilotown, 80 Miles	
Lv. New Orleans, La. . . . .	Ar.
Ar. Pilotown, La. . . . .	Lv.

South		F. A. M.-4-Key West-Havana, Cuba		North	
9.15	Lv.	Miami, Fla	Ar.	5.15	
11.30	Ar.	Havana, Cuba	Lv.	3.00	
MEXICO					
Connecting with route C. A. M. 22 from Laredo, Tex					

Connecting with route S.A.M.-22 from Laredo, Tex.					
South		Daily		North	
8.30	Lv.	Nuevo Laredo, Tam.	Ar.	6.25	
10.25		Monterrey, N. L.		4.40	
11.25		Saltillo, Coah.		3.45	
2.30		San Luis Potosi S. L. P.		12.45	
4.20		Queretaro, Qro.		11.00	
5.40	Ar.	Mexico City, Mexico	Lv.	9.15	

Connecting with route C. A. M. 22 from Laredo, Tex.

South		C. A. M.-16-Cleveland-Louisville, 339 Miles		North	
(Daily (Eastern time))					
12.45	2.45	Lv. Cleveland, O.	Ar.	4.10	11.30
1.10	3.20	Akron, O.		3.45	11.05
	4.40	Columbus, O.			9.45
	5.25	Dayton, O.			9.00
	6.05	Cincinnati, O.			8.20
	6.15	Ar. Louisville, Ky. (Cen. time)	Lv.		6.00

South	C. A. M.-11-Cleveland-Pittsburgh, Pa. 123 Miles				North
Daily (Eastern time)					
12. 15	Lv.	Cleveland		Ar.	4. 00
1. 00	...	Youngstown, O			3. 15
1. 45	Ar.	McKeesport, Pa		Lv.	2. 30
		Pittsburgh, Pa			

South		C. A. M.-12-Cheyenne-Pueblo, 199 Miles		North	
Daily (Mountain time)					
5.00	Lv.	Cheyenne, Wyo.	Ar.	7.00	
6.20		Denver, Colo.		6.00	
7.10		Colorado Springs, Colo.		4.50	
7.45	Ar.	Pueblo, Colo.	Lv.	4.15	

West	C. A. M.-20-Albany-Cleveland, 443 Miles				East
Daily, except Sunday (Eastern time)					
10.10	Lv.	Albany, N. Y.	Ar.	6.15	
10.25		Schenectady, N. Y.		6.05	
11.20		Rome, N. Y.		5.15	
		Utica, N. Y.			
11.55		Syracuse, N. Y.		4.35	
12.55		Rochester, N. Y.		3.40	
1.55		Buffalo, N. Y.		2.50	
4.15	Ar.	Cleveland, O.	Lv.	12.20	

West		C. A. M.-27-Bay City-Chicago, 534 Miles				East	
		Daily					
4 25 E. T.	Lv.	Bay City, Mich		Ar.	12 05 E. T.		
4 35 E. T.	...	Saginaw, Mich			11 55 E. T.		
5 05 E. T.	...	Flint, Mich			11 25 E. T.		
5 45 E. T.	...	Lansing, Mich			10 40 E. T.		
5 35 C. T.	Ar.	Kalamazoo, Mich		Lv.	8 55 C. T.		
4 20 E. T.	Lv.	Pontiac, Mich		Ar.	12 00 E. T.		
4 40 E. T.	...	Detroit, Mich			11 40 E. T.		



# Using the Air Mail

By CARL R. ANDERSON

**I**N 1919 carrying mail by air plane began as an experiment. At first it was used only through curiosity and as a novelty, lacking confidence as to safety and surety of delivering messages of importance and articles of value. Now 10 years later air mail lines form a net work covering the entire United States. Air mail is being carried regularly night and day through rain, sleet, and snow over frozen grounds, treacherous mountains, and desert lands. Air mail planes travel more than thirty thousand miles carrying an excess of half a million letters daily. "The Air Mail Must Go Through" has become to mean among air pilots what "Don't give up the ship", means to the captains of their ships at sea.

Through the bravery and heroism of the men who actually pilot the planes carrying the mail, and because of the perseverance and precision of the many others who have given of their money, time and knowledge to the industry, the dependability and safety of the air mail has been made manifest.

Progressive business firms and business men who wish to keep abreast of the times are using the air mail now as a matter of course. In these days of keen competition, small profits and quick turnovers, they realize the importance of speed.

Listed below are some of the reasons why the alert business man uses the air mail:

1. Speed, of course, is the prime reason for using air mail.
2. Distinction, which is given the air mail letter due to the characteristic color markings, of the envelope.
3. Prestige gained by using the most modern and fastest method of sending mail.
4. Importance attached to an air mail letter. It receives as much if not more attention than a telegram or special delivery letter.
5. Romance is also a factor not to be forgotten. Anything pertaining to aviation appeals to the romantic nature of most people of today and each air mail letter recalls the romance of this great new industry.

## Some Practical Uses that are Made of the Air Mail

1. Handling of all correspondence between offices where a saving in time can be made over train mail.
2. Announcements about new products.
3. Soliciting new accounts.
4. Replacement of night telegrams.
5. Saving of interest charges on funds in transit.
6. Rush shipments of samples and out of stock merchandise.
7. Emergency shipment of spare parts.
8. Mail that would be delivered Saturday morning instead of Monday morning by ordinary train mail.

9. Collection of slow accounts.
10. Price quotations and specifications.
11. Maintaining closer contact with branch offices, agents, and salesmen.
12. Filing of tracers by traffic department.



## Regulations for Use of Air Mail

### Envelope

It is best to use the official air mail envelope, which is white with red and blue marking. This insures the preferential handling in the postoffice and lends unmistakable distinction to the letter. It attracts. However, it is not essential, as any ordinary envelope may be used.

### The Stamp

It is best to use the official air mail stamp, but not essential. **Stamps of any denomination that total the correct postage amount may be used** and "AIR MAIL" marked just below the stamps on the envelope.

### Air Mail Postage Rate to Points Within The U. S.

The rate is 5c for the first ounce, 10c for each additional ounce. It should be understood that the **air mail postage is not in addition to the regular 2c postage.** 5c postage is all that is required to send an ordinary letter of four pages anywhere within the U. S.

### What May Be Sent Air Mail

Any mailable matter, except perishable matter liable to damage by freezing, may be sent by air mail. Parcels may be sent by air mail, providing they do not exceed 50 pounds in weight or 84 inches in length and girth combined.

### Special Delivery

Special delivery air mail can be sent the same as ordinary special delivery at the regular rate. When arrival time is after 2:00 P. M., a special delivery stamp may be added for delivery on that day.

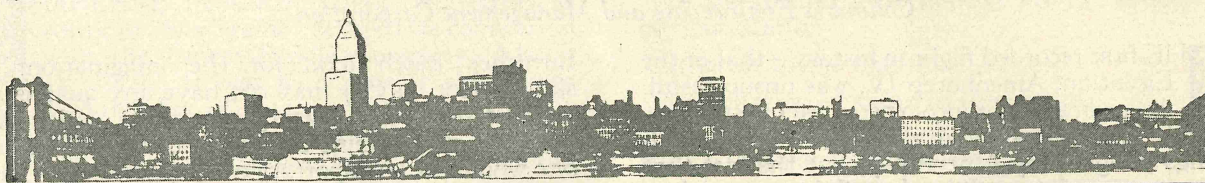
### Registered Mail

Air mail can be registered the same as ordinary mail by payment of a registration fee of 15c for \$50.00 and 20c for \$100.00. International registered mail rate is 15c. Insured and C. O. D. Air Mail can be sent the same as ordinary mail at the regular rates. Valuables exceeding postal insurance maximum may be insured by private companies handling Marine Insurance.

### Mail Boxes and Chutes

Air mail may be posted in any mail box or chute, but time should be allowed to permit mail to reach landing fields. Most mail boxes are labeled with the air mail closing time, but if there is doubt this information can be obtained from the Post Office.





By RAIL  
AIR *or*  
MOTOR



WHATEVER your favorite mode of travel, when you arrive in Cincinnati you find in the Hotel Sinton the comfort, convenience and courteous attention that you so much desire.

Letters acknowledging appreciation of the hospitable, home-like atmosphere of the Hotel Sinton have come to us from our distinguished guests from all over the globe. The Hotel Sinton is also chosen by discriminating Cincinnatians for their social activities.

Tastefully, newly decorated throughout, the Hotel Sinton is one of the most attractive hotels in the Middle West. Bath and servitor service in every room. New Simmons beds throughout.

*Excellent cuisine in five separate dining rooms  
... each distinctive in its particular service.*

**Hotel Sinton**  
*Cincinnati's Finest Hotel*

**John L. Horgan**

MANAGING DIRECTOR



# Lighting the Airport from the Air

W. E. STILLWELL

*Columbia Engineering and Management Corporation*

**T**HE first recorded flight in history—that of the Egyptian, Amenhotep IV, was unsuccessful. According to Egyptologists, the cause of the failure was not faulty structure of the bird-like wings designed by Amenhotep, but the fact that through a misunderstanding the oil lamps used to illuminate the landing field were not lighted at the proper time, and the pilot was forced to land in the dark.

Of course the old Egyptian secret of flight—which was also known to the Greeks in the time of the philosopher Thales—was re-discovered by Orville and Wil-

furnishes much food for the imagination. The skilled pilot may or may not have any qualms about flying around the countryside in the dark, but the ordinary run of mine citizen (and after all **he** is the one whom air transportation companies must satisfy) is not willing to trust his life to a ship floundering around in the Stygian reaches of uncharted heavens. On the other hand the idea of being able to press a button on the instrument panel to see the nearest ground beacon, whether it is one mile or twenty-five miles away, light up, or perhaps to see several million candle power of light flood an airport below, will contribute a great deal to the peace of mind of the average passenger.

It is easy to conceive that if every large passenger plane of the future were equipped with such an apparatus as we have developed, the pilot, in landing, would be independent of ground crews. Emergency uses of intermediate fields on regular lines would be made safe because the pilot would be in command of flood lights below. It would also be of value to air transportation lines which contemplate lighting their own air ways. Such air way lights could be placed for example at twenty-five mile sections. The plane flying the air way could turn the lights on and off as they were needed during the progress of the journey.



WHERE THE LIGHTS WERE TURNED ON

bur Wright; but the problem of control of airport illumination from the cockpit of an incoming ship was never successfully solved until recently.

At nine o'clock in the evening of March 20th a Waco biplane, flown by an Embry-Riddle pilot, left Lunken Airport, for a flight over the business district of Cincinnati, five miles away. Once over the city, the pilot pressed a contact key and a mile below him Fountain Square was flooded with two million candle power of light. The plane circled above the city a number of times as the pilot controlled, at will, the large battery of flood lights located on the roof of the Hotel Gibson overlooking the Square. The problem that had been a hinderance to the development of night flying since the day of Amenhotep IV, had finally been solved.

While it is not an opportune time to publish the details of the apparatus used in the first demonstration of the control of airport landing flood lights from the cockpit of an incoming plane, the far reaching effects of this latest development in the science of aviation



THE "E-R" SHIP THAT PUT IT OVER

## The Embry-Riddle School of Aeronautics

*Continued from page 7.*

First stage will be devoted to continued precision land practice.

Second stage continued practice in air work, doing steep banks, eights, reverse turns, etc.

Third stage—Acrobatics—Loops, spins, rolls, wing-overs. This instruction to be given in special built ship using parachutes.

Fourth stage—Transition of other type planes and Forced Landing practice.

Fifth stage Cross Country flying. Both Primary and Advanced flying Courses given in new production licensed planes by transport licensed pilots, according to Department of Commerce rules and regulations.

## New Equipment

The Embry-Riddle Company has under construction for completion before April 15th new shop and hangar buildings, class rooms, school library, student locker rooms, and access to all conveniences and improvements on Lunken Airport, Cincinnati's two million dollar airport program. Club, dormitory and restaurant facilities will be added as soon as possible.

To one who is only slightly familiar with the procedure of most flying schools, it will be obvious that the course described above presents distinct advantages. One who has learned under the old, slipshod methods will appreciate that the Embry-Riddle Company, in instigating it, is taking a great stride ahead with civil aviation.



# Give 'er the Gun

By TED HUBBELL



**HARLES E. PLANCK**, publicity director and editor of "Sky Traffic" severed his connection with the Embry-Riddle Company, March 18, 1929. It was with considerable regret that we faced the task of having to carry on the work which he so ably conducted in the past.

Mr. Planck was the originator of many individual ideas which resulted in great benefit to the Embry-Riddle Company through the publicity involved. He was a well known man about town and was well acquainted with the newspaper and magazine people of Cincinnati. It will be a very hard task for us to fill the niche he occupied.

To him goes the credit for originating "SKY TRAFFIC", the magazine which has been received by you, our readers, so appreciatively. The question arose whether we could carry on "SKY TRAFFIC" at all without him. That question remains to be answered. All we can say is, we have done our best and we trust our efforts will be accepted for what they are worth.

Too much credit cannot be given to the two young men, Carl Anderson of the Traffic Department, and Burt Schellenbach of the Photographic Department, whose excellent ideas and hard work made this issue possible.

Seriously, we are endeavoring to keep pace with the tremendous strides aviation is taking. The last issue of "Sky Traffic" had a circulation of 2700. This issue goes to 27,000 readers. This fact does not startle anyone who is intimate with aviation, as that is about the reasonable rate of growth in the industry throughout the country.

In the future, these policies are to be observed in our publication:

Interest to the reader.

Information of value to the reader.

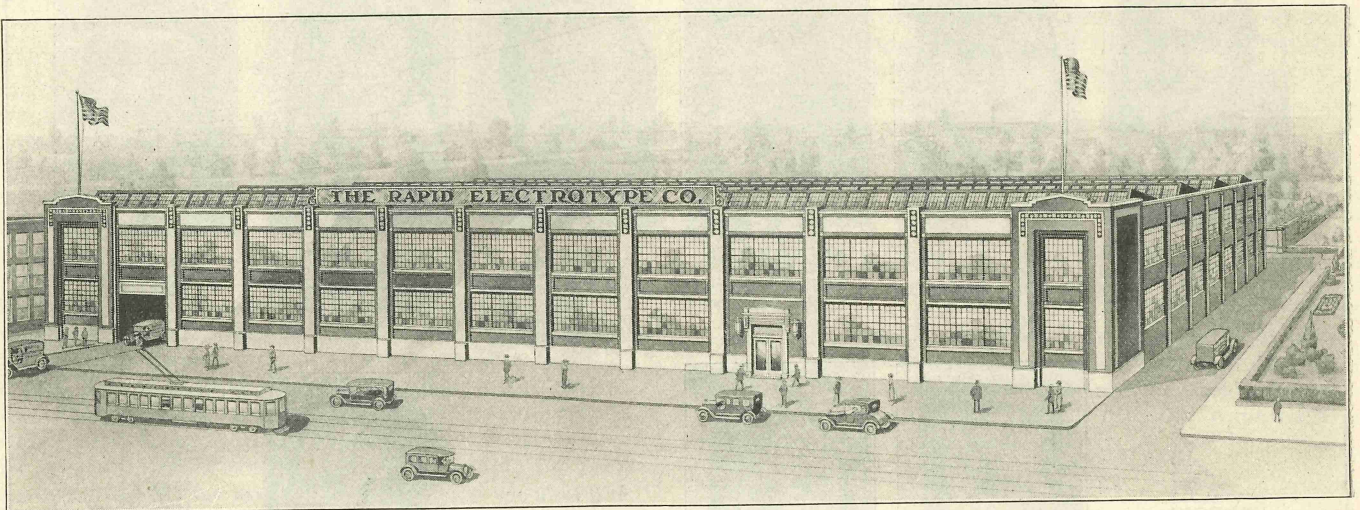
We are not attempting to prove that the Embry-Riddle Company is the finest and most efficient operating company in the United States (even though we think so ourselves), but rather that we are doing our best to keep pace with the leaders.

From time to time you will find between these covers names of distinguished men, whose thoughts on policies and phases of aviation we consider to be of value. We are endeavoring to keep you fully informed as to changes in schedules, rates, ships and equipment, bearing in mind that we must maintain a fair attitude to lines and ships other than our own.

We ask all of you for suggestions at any time and tell you that if you will submit them to "SKY TRAFFIC" in care of The Embry-Riddle Company, we will be very happy to consider and publish them. The only reservation being that we may change the articles as we see fit without misquoting you and that there is no financial recompense for such writings.

The Embry-Riddle Company has gone to considerable pains and expense to obtain the photographs illustrating this issue and will continue to do so. In the future, if any of the readers have photographic material that would be of interest, we ask them to submit it.

*Continued on page 17.*



## WE USE THE AIR MAIL

**\$7,800.00** air mail postage used in February, 1929 ~ One ton and one hundred pounds mailed in February  
**THE RAPID ELECTROTYPE CO. McMicken Ave., Cincinnati, Ohio**

"The Embry-Riddle Co. operators, C. A. M. 24 rendered perfect service and cooperation on our shipments to the westward. The air mail to the west left Cincinnati Tuesday afternoon at 3:20 P. M. and arrived at San Francisco at 4:30 Wednesday afternoon—some speed!"

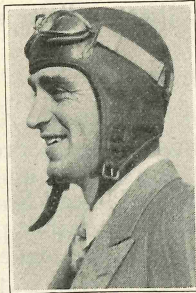
(Signed) W. H. KAUFMAN, President.



## The Flying Personnel



T. HIGBEE EMBRY  
Transport 1645  
505 Hours



JOHN PAUL RIDDLE  
Transport 1021  
850 Hrs. Military  
150 Hrs. Air Mail  
1,700 Hrs. Commercial



STANLEY C. HUFF-  
MAN  
Transport 436  
400 Hrs. Military  
2,500 Commercial  
500 Air Mail



JOHN H. STEWART  
Transport 3785  
350 Hrs. Military  
210 Hrs. Commercial



FRANK C. MERRILL  
Transport 2986  
1,900 Hrs. Commercial  
730 Hrs. Air Mail



SAMUEL H. SHARPE  
Transport 752  
700 Hrs. Military  
2,150 Hrs. Commercial  
30 Hrs. Air Mail



THOMAS J. HILL  
Transport 2087  
910 Hrs. Commercial  
310 Hrs. Air Mail



CHAS. C. WEHRUNG  
Transport 1117  
595 Hrs. Commercial  
120 Hrs. Air Mail



CLARENCE O.  
MEGUIRE  
Transport 1430  
210 Hrs. Commercial



REX HARKER  
Limited Commercial  
1496  
85 Hrs. Commercial



ECKFORD  
HODGSON  
Limited Commercial  
2241  
100 Hrs. Commercial



JAMES CLARKE  
Private 3720  
40 Hrs. Commercial



LIONEL STEPHANS  
Limited Commercial  
4710  
55 Hrs. Commercial



ELMER P. DAVIS  
Private 3386  
45 Hrs. Commercial



DON GRIFFITH  
No License  
500 Hrs. Military  
1,500 Hrs. Commercial



HAROLD  
PIELMEIER  
Limited Commercial  
4050  
105 Hrs. Military  
30 Hrs. Commercial



WARREN R. VINE  
Transport 671  
550 Hrs. Commercial  
750 Hrs. Air Mail



JAMES DOUGLAS  
Transport 493  
1084 Hrs.



TED HUBBELL  
Transport 2770  
742 Hrs.



HAROLD  
DISTELHORST  
Transport 2623  
600 Hrs.

*At present on  
cross country  
trip in Texas*

CHAS. VERMILYA



WRIGHT  
VERMILYA  
Transport 35  
3250 Hrs.





## Along the Road from Then 'till Now

*Continued from page 8.*

kinship between us for he was the first scientific flight student. He never obtained any dual instruction because there was no one who knew more than he did about flight even though the fact was that he knew nothing to start with. There is no record of the number of hours Leonardo has in the air but we do know he was the inventor of the ornithopter a type of ship that flaps its wings like a crowing rooster, the helicopter an adaptation of which operated successfully across the channel a few months ago. Blessings on his head the parachute invention is credited to him also.

The logical reasoning follows that if this inspired artist had never looked at the sky and yearned for wings Lindbergh would never have flown the Atlantic. DaVinci's idea of the parachute saved Slim's life four times before he made his memorable flight. They say Charles A. never wears one now. The game must seem pretty safe to him now.

Which brings us to now. My title was, "Along The Road From Long Ago Until Now". We are here.

The Embry-Riddle Company will operate a regular schedule of planes Northbound and Southbound every day during the Detroit Show. The Northbound will leave Cincinnati at 9:30 A. M., arriving in Detroit near noon, and the Southbound will leave Detroit at 4 P. M., to arrive at Cincinnati about dinner-time.

The cost of this trip is unusually low: fifty dollars covers the round trip and thirty is the one-way fare. While this schedule would make it possible to spend four hours at the Show and return the same day, it is thought that most of the visitors will prefer to return the day following, allowing a full day and a night in Detroit. Reservations must be made to obtain passage on this trip.

With days growing longer, a larger number of student fliers may be seen each evening at the airport, practicing landings and maneuvers and piling up time for the next highest license. The late afternoons of Spring and early Summer, with their light, steady breeze and fine visibility, are probably the most desirable flying time of the year.

The "Monoprep" side-by-side training ship, which is due to arrive Saturday, April 6, from the factory of Mono Aircraft, Inc., at Moline, Ill., will mark a decided step forward in the student training facilities of the Embry-Riddle Company. The arrangement of student and instructor in the same cockpit permits the student to gain at all times an excellent view of the method of control of the ship, while the pilot can instantly notice and correct the faults of his pupil. The high wing construction allows unusual visibility for landing and taking off.

The Embry-Riddle Company has just completed a contract with Gliders, Inc., of Orion, Michigan, builders of motorless airplanes, for distributing their products through territory in Ohio, Kentucky, West Virginia and Indiana.

The Embry-Riddle Company has decided to make gliding an important part of the course offered in

their Aeronautical School. Both a sport and an excellent means of technical training in the controls of the airplane, gliding is making rapid progress in schools and the sport circles of Aviation. Two of the gliders have been ordered for delivery April 18th.

## Allmetal FLAMINGO 7 Passenger Transport

*Continued from page 5.*

particularly complete instrument board is supplied and Pioneer instruments are used throughout. The landing gear has a 10 foot tread, insuring steadiness in taxiing. Oversized tires are used, size 36"x 8". Aerol shock absorbing units are installed. A pneumatic tail wheel is mounted on ball bearings.

The seven-passenger FLAMINGO with a heavy baggage load and 150 gallons of gasoline, has a high speed of 135 m. p. h. with a Wasp 410 h. p. engine and 140 m. p. h. with a Hornet 525 h. p. engine.

It can be seen from the above that the Allmetal feature is secured without sacrifice of performance and as it sells in the same price range as fabric covered planes, there is no added expense for the Allmetal feature.

## GIVE 'ER THE GUN

*Continued from page 15.*

"SKY TRAFFIC" will be edited by aviators, containing all possible aviation information for people who are interested in aviation.

Give 'er the gun! The motor is turning 27,000 R. P. M. circulation Rate Per Month. Let's take off for the Test flight.

Perhaps you, as one of "SKY TRAFFIC's" readers, have felt a desire to frame the beautiful cloud picture which forms the cover. It was made by the photographic department of the Embry-Riddle Company.

At the time the picture was taken, the plane was at an altitude of eighty-five hundred feet directly over Lunken Airport. The cloud banks shown in the photo were nearly a mile in height, from the rounded domes to the bottom.

The new BBT floodlight on Lunken Airport delivers 2,000,000 candle power, which is sufficient to light all of the field for night landing, yet the rays are kept depressed so that the pilot of a plane is not blinded by direct rays.

## Air Express

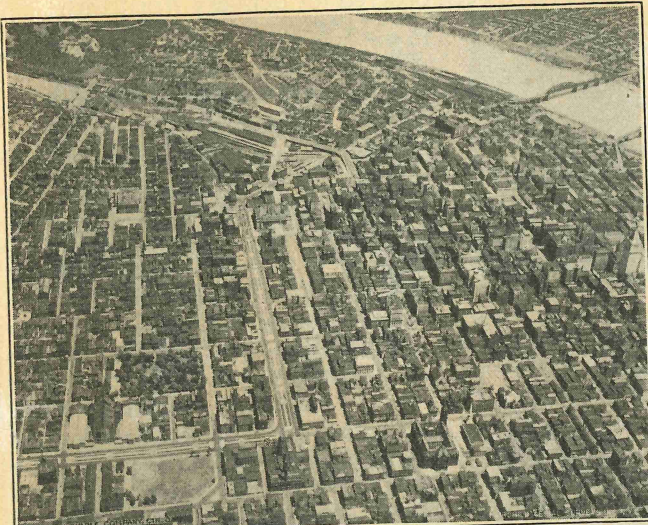
The American Railway Express Co.'s Air Express, an auxiliary to its nation-wide railway express system, is now at the command of patrons for the dispatch of their more urgent business.

The combination of regular railway express service with the air express service provides **the swiftest system of transportation available for merchandise shipments.**

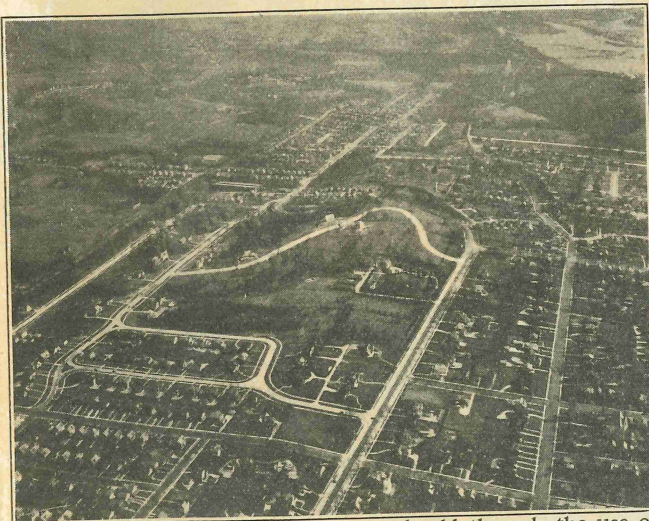


# Pointing the Aerial Camera Toward Business

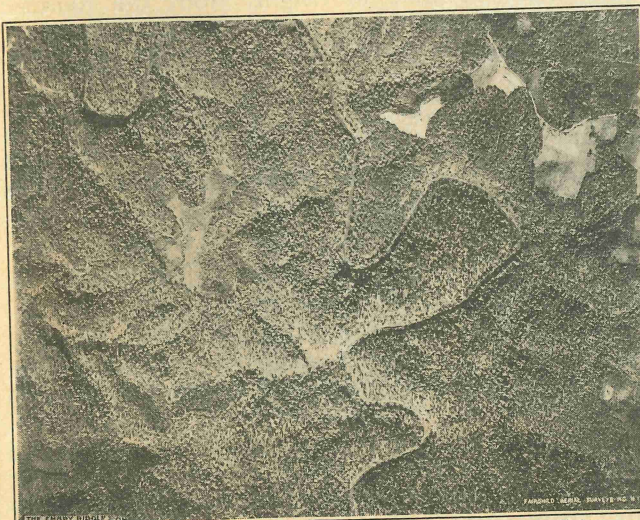
By BURT SCHELLENBACH



Planning engineers of great cities use aerial views in eliminating grade crossings, zoning, and routing traffic.



Subdivisions are developed, built up and sold through the use of pictures like this one.



From Photographs like this one, power companies and oil interests predetermine the routing of their transmission lines and pipe lines.

**T**HE demand for the services of the engineer in all lines of business is fast increasing. He is needed to plan cities, revise industrial plant layouts, and determine the routing of highways, electric transmission lines and pipe lines. He lays out railroad yards and terminals, and develops subdivisions.

To the engineer, a factor of major importance is the knowledge of actual working conditions governing the execution of his work. There is no question about the reliability of the story told in an aerial photograph of a proposed site. Hills, valleys, watercourses, and even trees and shrubbery are clearly represented, and it is not difficult to determine the logical course for a transmission line or highway, through the roughest country. If taken vertically downward, the photograph may be scaled, and can then be used as a scaled map.

## Capitalizing Aviation

The advertising man who makes use of aerial views in his layouts capitalizes on the tremendous public interest which aviation and all things related to it are enjoying today, and he builds up a certain prestige for his client that can be gained only through this novel presentation.

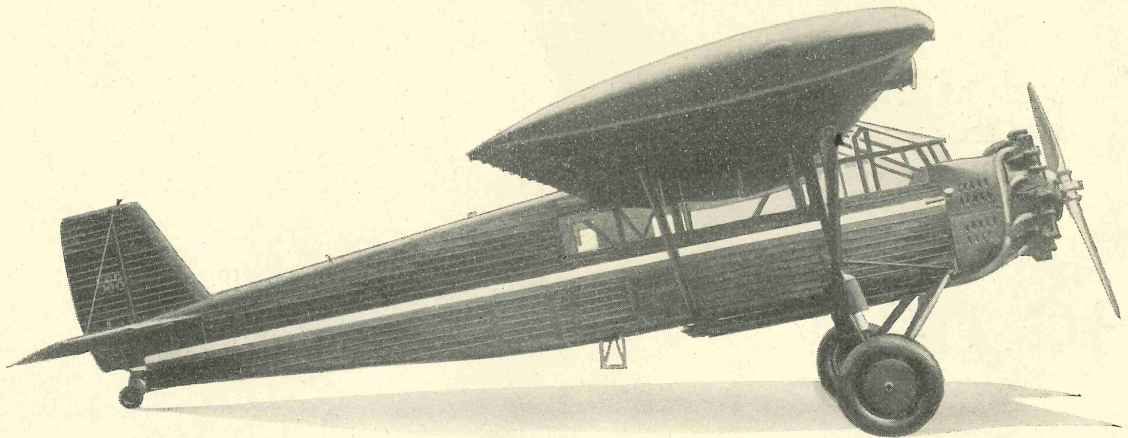
The use of airplane photos in subdivision work does not stop when the subdivision is planned and the streets are in, for lots must be sold, and what better way to do it than from an aerial view? "Here", says the representative of the real estate firm to his prospect, "is the lot that I have in mind for you. You will notice the beautiful shade trees in the front yard, and you can see that the street is paved and very wide and that we have erected boulevard lights. The school is here, only two squares away, and the church is on this corner."

"The hilltop location gives this property fine light and air, and an excellent view from all sides. You can see the country club, in the background. It is within convenient driving distance." Thus the aerial photo is consulted until the proper lot is chosen, and a drive to the property is necessary only to close the deal.

Great industrial corporations find aerial views of their various plants very effective in convincing the prospective investor of their size and assets. Before plans are made for improving their property, these photographs are consulted, that obstacles may be removed, buildings symmetrically located, and the materials flow through the plant rendered as efficient as possible.

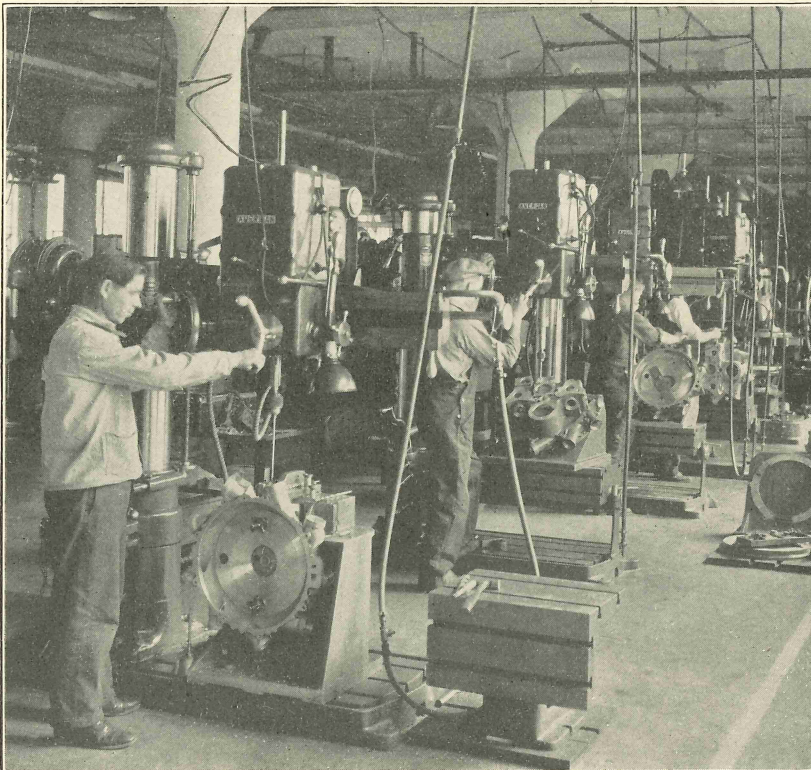
So we find the aerial camera taking an unchallenged place in the accessories of our modern life. It has come to stay, and when great cities of the future rear their structures toward the sky; when undreamed of industries erect their vast factories, and the forests of today become the homesites of tomorrow, the aerial photographer and his camera will have played a vital part in these yet visionary developments.





*The Allmetal Flamingo will be used on the Embry-Riddle Air Lines between Cincinnati, Indianapolis and Chicago.*

**METAL AIRCRAFT CORPORATION of CINCINNATI**  
LUNKEN AIRPORT



*THE American Tool Works Company, Cincinnati, builders of "AMERICAN" Lathes, Radials and Shapers, has found the Embry-Riddle Air Service on mail and express shipments to distant points to be very reliable and a decided assistance in serving customers when speed is an important factor. This company appreciates the Embry-Riddle service, and will continue to avail itself of the advantages offered whenever justified by circumstances.*

*The accompanying illustration shows a battery of "AMERICAN" Sensitive Radials in the Wright Aeronautical Company's plant hard at work on the production of Wright Whirlwind Motors. These Sensitive Radials are widely used in the Automotive and Aeronautical Industries.*



**The American Tool Works Co.**  
**Cincinnati, Ohio - U.S.A.**

**LATHES — RADIALS — SHAPERS**



# See the new WACO's at the Detroit Show

AT the Detroit Show, all eyes will be focused on WACO's new offerings for 1929. For, mindful of WACO's past success and records of performance, the air minded have come to expect of WACO the last word in refinement of design and excellence of performance.

And the makers of WACO, recognizing the obligation thereby imposed, have developed and will present for the first time at Detroit, new models which reflect and amplify the best traditions of WACO.

WACO as an institution is mindful of the obligation imposed by its position in the aviation industry. Leadership, in any endeavor, is not simply an honor. It is an uncompromising taskmaster. He who would keep his mettle dares not presume to rest upon his laurels.

Ability to do . . . obligates to do.

Thus, just as the WACO models introduced last year proved their superiority by garnering during the past season the majority of the honors in the important air events, these new WACO's may be expected to give a similar account of themselves during the year 1929.

Any truly fine product is instantly recognizable as such. The makers of WACO, therefore, confidently invite your inspection of the latest and finest aircraft bearing the mark of WACO.

WACO has again kept faith.

---

THE ADVANCE AIRCRAFT COMPANY, TROY, OHIO

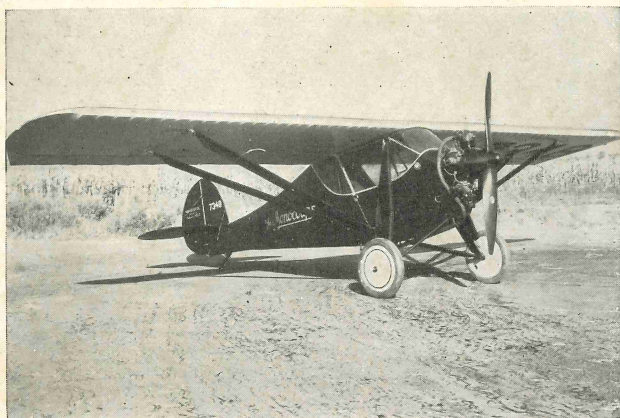
---



*"Ask Any Pilot"*



# America's Foremost Values



**The Monocoupe** The first successful American light plane in production. Built in accordance with requirements set forth by Aeronautics Branch of the Department of Commerce -- High safety factors throughout -- has made possible private ownership and fast economical transportation by air -- no weather too cold, too wet or too rough -- many superior structural and aerodynamic features.

Span 32 feet; length 20 feet; height 7 feet; weight 800 lbs.; gross weight 1350 lbs.; disposable load 550 lbs.; rate of climb 800 feet first minute; high speed 97 miles per hour; landing speed 37 miles per hour; cruising range 500 miles; miles per gallon of gasoline, 28; ceiling 13,000 feet—Price at Moline, \$2675.



**The Monoprep** Designed for safe economical training -- Flying schools often can put two Monopreps on the line for the same money that bought one new production plane before -- One dollar each hour buys fuel -- Is less fatiguing to instructors -- Students ready for solo sooner -- Monoprep students graduate more quickly to fast modern types.

Span 32 feet; length 20 feet; weight 825 lbs.; gross weight 1350 lbs.; high speed 89 miles per hour; cruising speed 75 miles; landing speed 33 miles per hour; gas supply 4½ hours -- excellent vision -- padded cockpit -- doors both sides -- heavy oilhydraulic split type landing gear -- consolidated instrument panel -- \$2675.



**The Monocoach** A four place cabin, dual control monoplane. Span 40 feet; length 26 feet 8 inches; weight empty 1825 lbs.; gross weight 3250 lbs.; climb 800 feet first minute; cruising speed 108 miles; high speed 129 miles; landing speed 42 miles; steel propeller, Eclipse starter, roller bearing wheels with brakes -- oilhydraulic landing gear and tail wheel struts, safety glass windows -- removable, adjustable front seats -- large luggage space accessible during flight -- seats upholstered in genuine leather -- Consolidated indirect lighted instrument panel -- Pioneer compass and air speed indicator -- insulated cabin ventilation and heater. Wright Whirlwind J5 at \$7950 at Moline.

**MONO AIRCRAFT CORPORATION**  
MOLINE, ILLINOIS



# Skies of Safety

**S**INCE April, 1928, three hundred thirty passengers have been carried over the Cincinnati-Indianapolis-Chicago contract air mail line. During this same period seventy-five students of the Embry-Riddle Flying School have made their solo flights, and over sixty-five hundred passengers have gone aloft in sightseeing planes of the Company. Including this period and since the inception of The Embry-Riddle Company in 1924, we have never had a serious accident nor a single loss of life.

*Truly, then, "Skies of Safety" are those in which ply Embry-Riddle airliners, flown by Embry-Riddle pilots and manned by Embry-Riddle crews . . . skies into which venture fledgeling pilots, products of the Embry-Riddle School . . . skies through which Embry-Riddle mail ships hurtle from city to city.*

**The Embry-Riddle Company**  
LUNKEN AIRPORT, CINCINNATI  
OPERATORS C.A.M. 24

## DEALERS For

Wright Aeronautical  
Corp.

Fairchild Airplane  
Mfg. Corp.

Advance Aircraft Co.

Mono Aircraft, Inc.

Metal Aircraft Corp.

April 1929