

MID-CONTINENT AIRCRAFT CORPORATION

Planegram

AIRCRAFT YEAR BOOK 1929 - Part 3

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"What is routine today is uncommon history making in 1929." Dick Reade

Chapter XIV

TECHNICAL DEVELOPMENT

The possibility of increasing efficiency by refinement was demonstrated in the radial engine cowling developed late in 1928 by the National Advisory Committee for Aeronautics. The cowling was designed especially for the Wright "Whirlwind" J-5 engine. When tested on an AT-5A Army plane an increase of from 10-19 miles an hour in speed resulted.

The cowling encloses the engine completely except for small openings in the front permitting circulation of cooling air around the specially designed interior. Experiments leading to its development were conducted by Frederic E. Weick in the new 20-foot propeller research wind tunnel at Langley Field. A number of manufactures at the end of the year were planning to incorporate the cowling in their new planes.

Among the new cylinder in line types of air cooled engine of lower horsepower were the new Wright "Gypsy" and the Aeronautical Products Company's "Scorpion. Both engines are designed for light sport and training planes.

A phase of power plant design which attracted some attention during the year was that of superchargers. When the efficiency of supercharged engines, even at some altitudes below 10,000 feet, is considered, it is safe to predict even more rapid development in this direction.

There was also a notable improvement in propellers, both in efficiency and in the processes by which they are manufactured, and which tended to re-

duce costs. Metal propellers gained such popularity during the year that they threatened to supplant wood entirely. At the same time much was being done to develop the variable and adjustable metal air screws.

Many new instruments and accessories were developed during 1928. Self-starters were coming into more general use and electric lighting systems were being supplied as standard equipment on a large percentage of planes.

Single unit, indirectly lighted instrument panels, with rheostats to control the intensity of illumination, have also become popular and there is a tendency toward standardization in instrument sizes.

Among the new instruments of the year were the fuel flow meter, which indicates the relate of flow of gasoline through the fuel lines and there fore the consumption of the engine; the Air Distance Recorder, which measures through the sue of a venturi tube the actual distance flown; the Ice Warning Indicator, which indicates in the pilot's cockpit the temperature of the air around the wing and thus warns the pilot when he is approaching the critical temperature for ice formation, and the Titterington Micrometer Compensator, which simplifies the process of magnetic compensation.

Several types of amphibian landing gear were developed and at least two land planes designed with retractable landing gear.

The use of Bendix brakes and wheels instead of tail skids is purely an American development. While a number of planes produced in the United States had wheels and brakes, with the

practice becoming general, none of the European machines wee equipped with tail wheels.

Much airport equipment was produced and considerable research work accomplished, tending to improve lighting of fields and airways. Special lamps for airport lighting were developed by the Westinghouse and General Electric companies and several new types of lenses and projectors designed. A device which turns on the field lights automatically when a plane approaches was demonstrated by the Westinghouse Company. The apparatus is a microphone system and an audio frequency amplifier which actuates the lighting control relay when the sound of the approaching plane reaches the microphone. Neon lights wee used effectively in several types of beacons, and were especially useful under conditions of poor visibility.

The sectional steel hangar was generally in use during the year while the demand for small individual hangars increased with the number of private owners. Several manufacturers produced such hangars in the form of a T-shape unit just large enough to accommodate one plane.

The radio beacon was more highly developed, and it proved practicable in several spectacular cases. Commercial and military organizations equipped airplanes as flying radio laboratories. Intensive experiments on interplane communication were under way at the experiments on interplane communication were under way at the end of the year. Much had been learned about shielding the electric system of an airplane

continued inside

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COMPANY STARS

Tyler Green, Aircraft Mechanic

Tyler has been with Mid-Continent since November, 2012.

He lives in Deering MO.

He loves to ride motorcycles, hunt, and attend church.



to eliminate interference with its radio equipment. With that important problem solved, rapid developments in airplane radio communication were promised for the near future.

Development of deep-sea airdromes, landing platforms for airplanes, based on the designs of Edward R. Armstrong, received further impetus late in the year when plans were made for constructing an experimental Armstrong seadrome between New York and Bermuda.

The project contemplated a steel

platform 1,200 feet long, 400 feet wide and riding normally about 100 feet above the surface of the water, with a machine shop, hotel and restaurant, and a radio beacon, besides other airdrome facilities. Chains more than 21,000 feet long and attached to a special anchoring device invented by Mr. Armstrong, were to hold the "floating island" in place.

Work on the model seadrome was to be started during the summer 1929. If it proved successful, others were to be built at intervals across the Atlantic.

Contest Winners

In February we attended the Nebraska - NATA, Tri-State Aerial Applicators - Sioux Falls, South Dakota, and Canadian Aerial Applicators Assoc. - CAAA) conventions. Winners of the Thrush model we gave away were:

1. Nebraska - NATA : Steve Rice dba North Star Aviation, Ulysses, KS.
2. Tri-State Aerial Applicators - Sioux Falls, South Dakota: Terry Hamilton dba Midwest Ag Air, Adams, MN.
3. Canadian Aerial Applicators Assoc. - CAAA: Dean Edwards from Airdrie Alberta Canada, Dean is a pilot for Royco Air Service.

Also presented at the Canadian Convention was Mid-Continent's WINGS OF AGRICULTURE AWARD. The winner was Paul Zimmer.

Congratulations to all.



Steve Rice (L) and Danny Helms, Mid-Continent Aircraft Sales Representative.



Lan Yaholnitsky (L) Representing Mid-Continent and a part of our team MICCAR Aerial, Dean Edwards, pilot for Royco Air Service, and Dean's wife Melissa.

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