

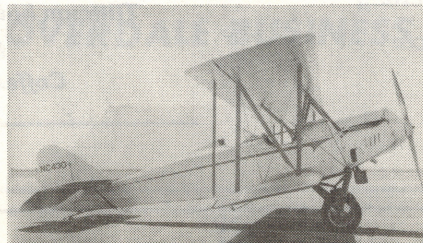
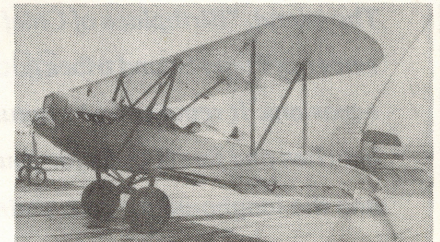
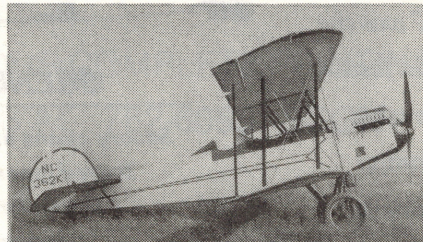
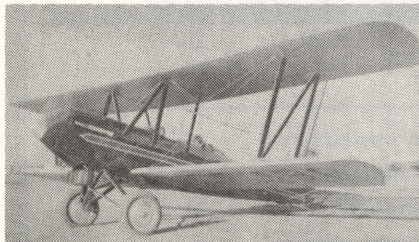
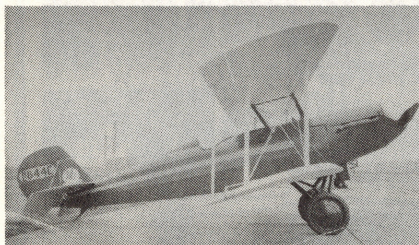
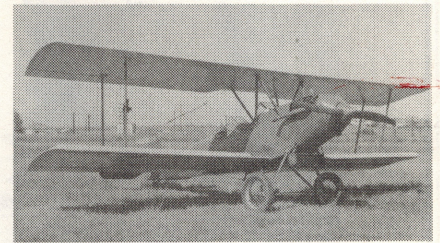
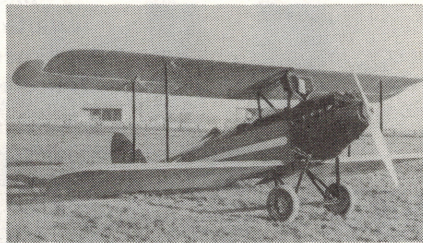
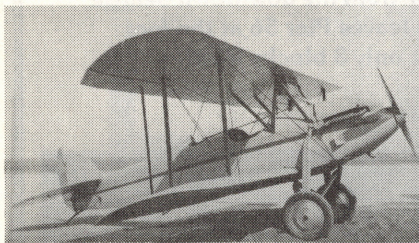
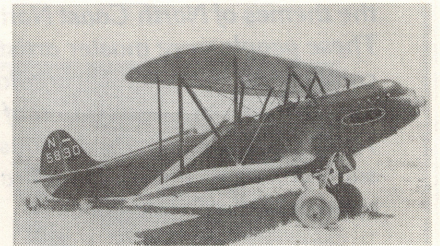
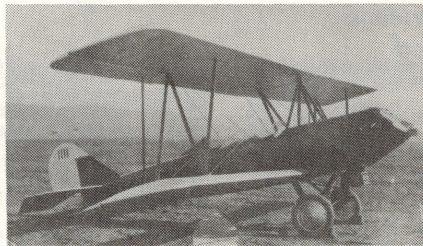
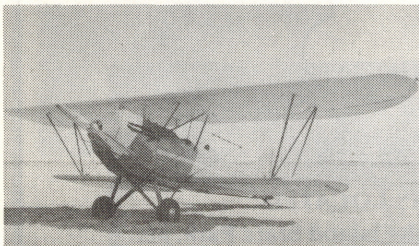
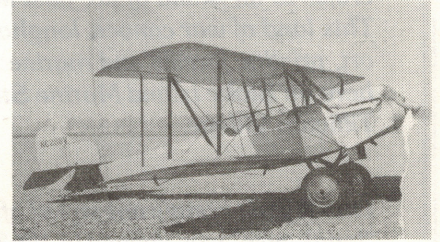
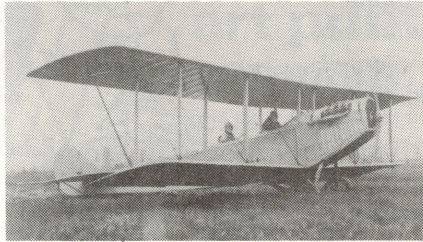
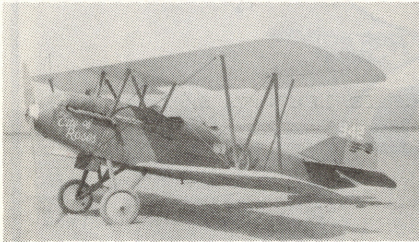
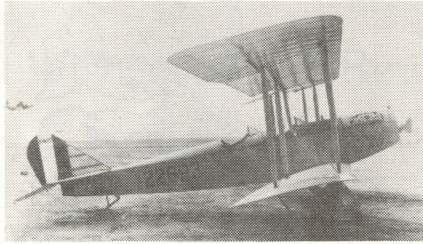
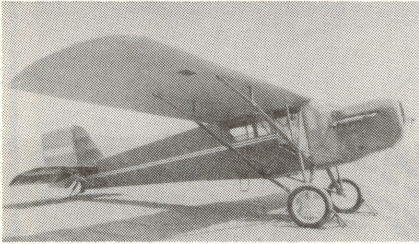
AIRPLANES POWERED WITH 90 HP CURTIS OX-5 ENGINES

IDENTIFICATION OF OX-5 POWERED AIRPLANES

Here are photos* of 20 well-known airplanes of the 1920-30 period that were powered with the famous World War I sur-

plus engine (see engine exhibit). Test your knowledge of old airplanes by trying to identify all 20. There are no rare or odd models; all are standard models, some of which were photographed in the Seattle area. The best-known OX-5 powered airplane of all, the Curtiss JN-4D or "Jenny", is NOT among these 20. Answers will be found on the following page.

*All photos from collection of Peter M. Bowers, Seattle.



IDENTIFICATION OF OX-5 POWERED AIRPLANES

1. Curtiss Robin, 1928. Designed to use up Curtiss stock of OX-5's, the Robin was soon fitted with more powerful air-cooled radial engines from 165 to 185 horsepower.

2. Travel Air B, later Model 2000. Designed to use the OX-5 in 1925, this biplane was rugged enough to take engines up to 300 HP with very little modification. Many are still flying today as dusters.

3. Brunner-Winkle Bird Model A. Designed for the OX-5 in 1928, it was soon converted to other engines, most notably the Kinner.

4. Waco 10. Designed in 1927, the Waco 10 could be fitted with a variety of engines. Under a revised designating system, the OX-5 powered Waco 10 became the 90 and finally the GXE.

5. American Eagle A, designed in 1926 for the OX-5 and later fitted with a considerable variety of engines according to the pilot's performance requirements and his pocketbook. The engine controlled the cost of the plane in those days, and the OX-5 models were the cheapest.

6. Alexander Eaglerock A-2, a 1927 development of the original 1925 model. Another well-known design that could be fitted with engines from 90 to 220 HP.

7. International F-17, a 1926 design. The outstanding feature of this design was the plywood fuselage construction, which was hexagonal in cross section.

8. Standard J-1, a WW-I surplus trainer fitted with the dependable OX-5 after the war and widely used by private owners and barnstormers until grounded by the increasing regulations of the late 1920's.

9. Canuk, the Canadian-built JN-4 of 1916-1918. Designed for the OX-5 and widely used along with Jennies and the Standards in the postwar years. This one owned by Herb Munter of Kent, Washington. William E. Boeing in the rear cockpit. Photo approximately 1923.

10. Alexander Eaglerock Combination Wing. This was an intermediate model between the "Long Wing" Eaglerock of 1927 and the "A" series of 1927 and on that had a center section and the longest wing on top (See Photo No. 6). The original "Long Wing", like the "Combination Wing", had the longest wing on the bottom.

11. Waco 9 of 1926. Immediate predecessor of the Waco 10 and later F-biplane series.

12. Fairchild KR-31, formerly Kreider-Reisner "Challenger". Except for the radiator installation, this looks like a combination of the Waco 9 and 10, not surprising considering that the designers left Waco to design this plane.

13. Parks P-1, another dead ringer for the Waco 10 and the KR-31. This was built at Parks Air College in St. Louis. Earlier, it had been built as the Ryan Speedster when Ryan was a part of Detroit Aircraft Corporation.

14. Lincoln-Page LP-3 of 1928, which is pretty hard to distinguish from the slightly earlier Swallow 90. Built in Lincoln, Nebraska. Typical of the OX-5 powered biplanes of the period, with two passengers side-by-side in the front cockpit and the pilot in a single cockpit behind them.

15. Swallow 90 introduced in 1926 and built in Wichita, Kansas. This design went on to use more powerful engines in the continual quest for higher performance.

16. Thunderbird, another 1926 design built originally for the OX-5. The higher-powered versions used the water-cooled Wright-Hispano, or "Hisso", instead of adopting the more expensive air-cooled radial engines.

17. American Eagle B, a little-known variant of the "A" (Photo No. 5) that was fitted with a regular center section for the upper wing instead of having the wing panels butt together at cabin struts.

18. Swallow TP of 1928 was an attempt by Swallow to produce a bare minimum airplane at low cost to be used exclusively as a trainer. Later versions abandoned the OX-5 for the Kinner radial.

19. Command-Aire 3C-3 of 1928, another well-known trainer that started out with the OX-5. Like most others, it took advantage of newer engines as they became available.

20. Pitcairn PA-4 was like the Swallow TP (Photo No. 18) in being an extra low cost airplane intended primarily for student work. Pitcairn is best remembered today as the manufacturer that introduced the autogyro to America.