

A.T.C. #178
(7-29)
ALLIANCE "ARGO"



Fig. 250. The Alliance "Argo" with a Hess "Warrior" engine; the performance of this ship was exceptional.

The local airfield was all a-buzz and everyone was watching the skies; someone had heard that an "Argo" demonstrator was coming in. Before long, two specks above the far horizon materialized into full-sized airplanes, and we were treated to a demonstration of jubilant flying that was a joy to behold. Flashing across our field, the two gyrated into low-level loops, snap-rolls, and hammerhead-stalls; we were given just about the full treatment, and then they wound up the shebang with several hair-raising "buzz-jobs". To say that everyone was thoroughly impressed with these two airplanes and their devil-may-care display, would be putting it very mildly. One may say that flying such as this borders on the foolhardy, but that's the kind of airplane the "Argo" was; not foolhardy mind you, but spirited, sure-footed, and extremely capable, transmitting this to the pilot which made the average fellow feel extraspecial when flying in one of these delightful craft. A sensitive and eager airplane that was rugged enough to withstand the abuse of the amateur, as well as the high stresses imposed upon it by the veteran pilot who would often vent his exuberance in the form of "stunts".

Pictured here, we can see that the "Argo" was of rather conventional configuration, and

was put together with a nice balance of trim and functional lines. It was a 2 place open cockpit sport-trainer biplane seating two in tandem, and it was powered with the new 7 cylinder Hess "Warrior" engine. The Hess "Warrior" of 115-125 h.p. soon proved itself to be a mighty fine powerplant; a number of manufacturers had slated the "Warrior" for some of their new models, but the entire output, barring a few, was used for Alliance built aircraft. The type certificate number for the Alliance "Argo" was issued in July of 1929 and it was manufactured by the Alliance Aircraft Corp. in Alliance, Ohio. William E. Trump was the president; Aubrey W. Hess was V.P., general manager, and chief of design; Adrian T. Hess (brother) was in charge of production; Gordon T. Waite was chief engineer for aircraft development; John E. Everett was chief engineer for engine development; F. A. Giles and Edward Leedy were test pilots.

Long interested in aviation, the Hess brothers, Aubrey and Adrian, organized the Hess Aircraft Co. in Wyandotte, Michigan during the early part of 1926 to manufacture the Hess "Bluebird"; the good-looking "Bluebird" was a 3 place open cockpit biplane that was offered with the Curtiss OX-5 engine,

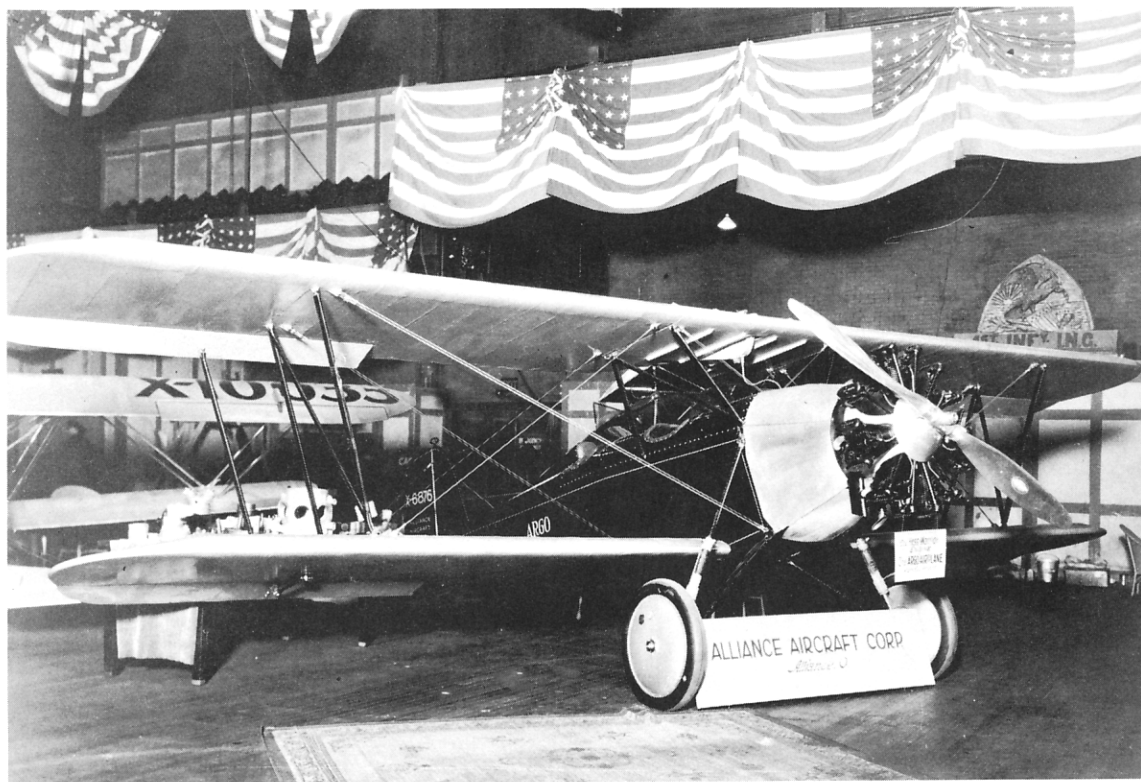


Fig. 251. The Alliance "Argo" prototype at the 1929 Detroit Air Show.

but variants of this model were offered with the "Hisso" A and E (Hispano-Suiza) engines and also with the Wright "Whirlwind". Only a small number of the "Bluebird" type were built, and the company ceased manufacture sometime in 1927. Reorganizing later as the Alliance Aircraft Corp. of Alliance, O., a factory building was under construction during April of 1928. Their first airplane (X-6876, serial # A-1) was introduced about mid-1928 and was first called the "Bluebird Sport"; shortly after, it was designated officially as the "Argo". The prototype "Argo" was shown at the Detroit Air Show for 1929, and soon after, additional aircraft were coming off the production line. The "Argo" made a big hit and was well received in flying-circles all over the country, but the oncoming "depression" and the shaky period afterwards, was hard-felt at Alliance Aircraft; in all, some 20 of the "Argo" sport-trainer were built and of this number possibly 2 or 3 are still in existence. It is a down-right pity that fate and the circumstances didn't allow this fine airplane to make a better showing in the scheme of things; a showing of which it was surely capable. Some years later, the "Alliance" plant was revived again for aircraft manufacture; it was put to use by the honor-

able C. G. Taylor for building the little "Taylorcraft" monoplane.

Listed below are specifications and performance data for the Alliance "Argo" as powered with the Hess "Warrior" engine; length overall 20'4"; hite overall 7'9"; span upper 28'8"; span lower 26'; chord both 48"; wing area upper 110.5 sq.-ft.; wing area lower 92.5 sq.-ft.; total wing area 203 sq.-ft.; airfoil "Clark Y"; wt. empty 1085; useful load 586; payload 221; gross wt. 1671 lbs.; (these wts. for serial # 102 and up, with 8 gal. reserve fuel tank); max. speed 120; cruising speed 102; landing speed 44; climb 1050 ft. first min. at sea level; service ceiling 16,000 ft.; gas cap. 26 gal.; oil cap. 4 gal.; cruising range 350 miles; price at the factory was \$4500. The fuselage framework was built up of welded chrome-moly steel tubing, faired to shape with fairing strips and fabric covered. The wing framework was built up of solid spruce spars that were routed to an "I beam" section, and spruce and plywood built-up ribs; completed framework was fabric covered. There were four narrow-chord ailerons that were connected in pairs by a push-pull strut; the fuel supply was carried in the center-section panel of the upper wing. The landing gear on the prototype was of the split-axle type using two long oleo-

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Fig. 252. The "Bluebird" was a Hess design of 1926-27; it was a 3-place craft with the OX-5 or Hisso engine.

spring legs, but this was modified and subsequent aircraft had the normal tripod gear with 2 spools of shock-cord to absorb the bumps; tread was 72" and wheels were 28x4. The fabric covered tail-group was also built up of welded chrome-moly steel tubing; the fin was ground adjustable and the horizontal stabilizer was adjustable in flight. Wheel brakes, metal propeller, and engine starter were available as optional equipment. The Hess "Warrior" was also designed, developed, and manufactured by the Alliance Aircraft Corp., it was a 7 cylinder radial air-cooled engine of many advanced features. Weight was 295 lbs. without prop hub or starter, and it developed a maximum of 125 h.p. at 1850 r.p.m.; price at the factory was \$2250.

Listed below are "Argo" entries that were gleaned from the Aeronautical Chamber of Commerce aircraft register; this list is not complete but does show the bulk of the "Argo" that were built.

X-6876; Argo (# A-1) "Warrior", prototype a/c.

NC-3601; Argo (# 101) "Warrior".

NC-594K; Argo (# 102) "Warrior".

NC-9399; Argo (# 103) "Warrior".

NC-595K; Argo (# 104) "Warrior", also as NC-595.

NC-596K; Argo (# 106) "Warrior", no listing on # 105.

NC-1M; Argo (# 107) "Warrior".

NC-2M; Argo (# 108) "Warrior", no listing on # 109.

NC-5M; Argo (# 110) "Warrior", no listing on # 111.

NC-6M; Argo (# 112) "Warrior".

NC-7M; Argo (# 113) "Warrior".

NC-8M; Argo (# 114) "Warrior", no listing on # 115.

NC-79N; Argo (# 116) "Warrior".

NC-80N; Argo (# 117) "Warrior".

NC-81N; Argo (# 118) "Warrior".

NC-82N; Argo (# 119) "Warrior".

NC-83N; Argo (# 120) "Warrior".



Fig. 253. The Alliance "Argo" was one of the few airplanes that could withstand abnormal stresses of the outside loop; the craft shown here performed two in a row.