From SPORTPLANE To WARBIRD

THE COMPLETE HISTORY OF THE RYAN S-T AND PT-22 SERIES OF PRIMARY TRAINING AIRCRAFT

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In the past, many surplus US military aircraft became privately-owned sportplanes. In one unique case, the opposite was true — a well-established sportplane became a military production model.

This was the Ryan S-T, the letters standing for Sport Trainer. It was a true sports car of the air — a hot rod that looked fast when tied down yet was docile enough to serve as a primary trainer. The aircraft was in a class by itself in the pre-war flying school and private flying scene, a design that stood alone between the older open-cockpit biplane trainers, in the 90- to 125-hp range, and the new generation of post-1931 light monoplanes in the 40- to 60-hp range. There was no design directly comparable to the 90- to 125-hp Ryan in its pre-war production period of 1934-1941.

The S-T was an interesting mixture of very old and very new design features — wire-bracing of the wing going back to before World War I, with the variation of a low monoplane wing braced from the landing gear and the top of the fuselage in the style of the 1931/1932 Gee Bee racers and the 1932 Boeing P-26 fighter. The fuselage was fashioned in new, monocoque sheet aluminum structure and the use of an inverted Menasco four-cylinder air-cooled engine resulted in one of the most aesthetically pleasing and aerodynamically effective jobs of engine and airframe integration.

Popular as it was in the civil market, production of the S-T was terminated in favor of nearly identical military trainer variants for US Army Air Corps flying schools, as well as armed trainers and light attack planes for export.

BACKGROUND

The S-T was the brainchild of T. (for Tubal) Claude Ryan, who learned to fly in the US Army after WWI. After a tour of duty, he opened a fixed-base flying school and charter flight operation in San Diego, California. His struggles at that location in those aeronautically depressed times would fill a book. Sufficient here to say that he bought and completely rebuilt six war-surplus Standard J-1 trainers. As four-passenger airplanes they operated on the newly-formed Ryan Airlines between Los Angeles and San Diego starting in March 1925.

Although profits were marginal, Ryan expanded the line's capacity by rebuilding the one-only Douglas Cloudster into a ten-passenger transport.

Two lovely shots on San Diego Bay of the first prototype Ryan ST-3KR (NX18925) fitted with EDO floats to test for the 25 ST-3S seaplanes ordered by the Dutch.