Biography of GEORGE TOWNSON

Transcribed & Edited by SS (7/03)

Career:

- First soloed in a full-sized Aeronca C-3 in 1932 at age 17 then received a mechanic's license
- From 1936 to 1942 test flew an aircraft that could transition from a fixed-wing bi-plane to a rotating upper wing gyroplane
- Worked various aviation related jobs, including in positions at Beoing Vertol and the Franklin Institute
- Wrote numerous articles and a book

The following information on George Townson comes from a book called International Model Builders and Their Models compiled by Bill Hannan and published in 2002. A copy of the book is available in the Lee Renaud Memorial Library, part of the National Model Aviation Museum. For more information on Bill Hannan, see his biography in the AMA History Program as well as his file in the National Model Aviation Museum Archives. Contact the AMA librarian for assistance.

George Townson and the Herrick Vertaplane

Like so many aviators, George Townson began as a model builder. He well remembers a pair of three-foot span JN-4 Jenny models "that didn't fly very well" and a series of 1/8-inch to the foot scale carved wood solid models made for pilots who gave him flying lessons.

In 1932, at age 17, George soloed an Aeronca C-3 and next gained a mechanic's license in preparation for an exciting career. By 1936 he had flown 20 different aircraft types and accumulated 450 flight hours, when he was invited to test a radically new design.

Gerard P. Herrick and Ralph McClaren had conceived an aircraft that could transition from a fixed-wing bi-plane to a rotating upper wing gyroplane. Although their first prototype had crashed, much was expected of the revised version, and George was hired to prove it! The wing/rotor had been a challenge to design, since it had to be reasonably efficient in a fixed position as well as being capable of autorotation.

Initial testing was performed in Mother Nature's wind tunnel with the rotor mounted on a mast in a truck. The unusual airfoil is shown in one of our illustrations [*see the book International Model Builders and Their Models by Bill Hannan in the Lee Renaud Memorial Library*], along with the arrangement that permitted the rotor to be kick-started via internal stretched bungee cords. (A rubber-powered rotor!) An electric motor was provided as a backup in case of bungee cord failure.

For conversion, the rotor needed to be prepared before flight, with the aid of two volunteers, each with a rope slipped over the rotor tip by winding it backward two full turns. The rotor was then locked in the bi-plane position. When released, it would spin up to 60 rpm and a free-wheeling arrangement would allow it to gain speed via autorotation to about 250 rpm. It was also possible to get the rotor up to speed by taxiing it around the airport's perimeter.

After considerable taxi-testing, the HV-2A was flown as a bi-plane on October 31, 1936, and the first conversion was performed on July 28, 1937. George recalls a slight pitch-up, yaw to the right and roll to the left, which was easily controlled. A public and media conversion demonstration was successfully performed on July 30, 1937.

When the study program ended in 1942, Townson had made more than 100 conversions without any damage to the aircraft. However, like the Autogiro, the concept was declared obsolete by officialdom in favor of the steadily evolving helicopter. Like Juan de la Cierva, Herrick was reluctant to become involved in the complications of powered rotors. Thus the HV-2A was stored until the 1950s when more tests were made before it was sent to the National Air and Space Museum's Paul E. Garber facility, where it remains in un-restored condition.

As for George Townson, his career has been truly varied and remarkable, encompassing banner-towing, charter-flying, instructing, crop-dusting (with an Autogiro!), Civil Air Patrol anti-submarine duty, Army Air Corps instructing, engineering, helicopter flight-testing (Piasecki, Javanovitch, McCullough and Kellett), rotorkite tesing for the Air Force, tow-testing helicopters in autorotation, employment with Boeing Vertol and the Franklin Institute. Also, restoring the Miss Champion Autogiro with Steve Pitcairn, son of the original manufacture, and authoring numerous articles and a book!

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