



Schweizer RG-8, RU-38A Condor

Manufacturer: Schweizer Aircraft Corporation

Designation: RG-8 (single-engine); RU-38A (twin-engine)

Other Designation: SA-2 37B, Condor (RG-8); Twin Condor (RU-38)

Aircraft Type: Motor glider conversion, coastal surveillance aircraft

Cost:

Height:

Length:

Wing Span: 56.5 ft. (RG-8) 84.13 ft. (RU-38B)

Wing Area: 334.2 sq. ft. (RU-38B)

Top Speed:

Cruising Speed: 100 knots

Sea Level Climb:

Fuel Capacity: 400 lbs. (RG-8)

Range: 500 miles (RG-8)

Empty Weight:

Gross Weight: 4,100 lbs. (RG-8)

Empty Weight:

Service Ceiling:

Powerplant:

RG-8: Single Lycoming IO-540-W3A5D; single 3-bladed constant-speed propeller

RU-38A: Two Teledyne Continental G10-550; 2 propellers

Horsepower (Takeoff): 235 hp (RG-8)

Pilot & Crew: 2 (RG-8); 3 (RU-38)

Historical Information:

The Coast Guard evaluated two Schweizer RG-8As beginning in 1988 to support of the service's growing counter-narcotics activities. The RG-8 was based on Schweizer's 2-37A motor glider. It was planned for use as a cover surveillance aircraft primarily due to its stealthy characteristics but its slow speed, single-engine design and lack of radar were serious limitations. Nevertheless the RG-8 was the "first truly covert aircraft in our inventory." They were transferred from the Air Force which developed the RG-8 after the Army, which originated the project, decided not to continue the aircraft's development. The Coast Guard first took notice of the aircraft during a counter-narcotics program sponsored by the Air Force and entitled "Big Safari."

The Air Force handled all contracting for modification of these aircraft for Coast Guard service. The aircraft began flying from Air Station Miami and operated for a planned 2,500 funded flight hours per year with a staff of four officers and eight enlisted personnel. The aircraft employed several unique technologies that rendered it "virtually undetectable in the night sky." Those technologies included radar absorbing non-reflective paint, muffled engine exhaust directed over the wings, and an oversize propeller that permitted the engine to run at low revolutions per minute. They had a flight endurance of around eight hours with a 500 mile range.

During its trial operation the RG-8 was the Coast Guard's lowest cost aviation asset and proved capable in a wide variety of missions beyond its initial use in counter-narcotics flights. By 1992 the two aircraft were credited with saving 10 lives, the seizure of 3900 kilos of cocaine, 19,000 pounds of marijuana, 21 vessels, the conviction of 33 drug smugglers, the detection and prosecution of nine fisheries violations, and seven illegal oil-hazmat discharges.

The aircraft, however, was restricted in its abilities as a surveillance aircraft due to the fact that it was a single-engine aircraft and was limited in the amount and type of sensor equipment it could safely carry. Concerns about the lack of anti-icing capability and weather radar, the aircraft's limited ditching characteristics in the event of an emergency, inability to launch in high winds, lack of engine-out capability, small cockpit, and pilot fatigue, led the service to explore a modification of the RG-8 to a twin-engine design, which carried the designation RU-38A. Several engine failures (the aircraft landed safely in each case) also led the service to explore other options. A memo on the RG-8 program noted that despite the RG-8's limitations, however, it was a capable platform for a variety of Coast Guard missions as long as its current limitations were addressed. The memo noted in part: "Although obtained to support our drug law enforcement effort, the quiet, stealth-like RG-8 is equally well suited to other Coast Guard law enforcement missions. RG-8 flights in support of fisheries and marine environmental pollution in the Eighth District and in the New York AOR have been extremely productive."

Congress set aside \$450,000 to begin the conversion program with the plan being to rebuild the Coast Guard's two RG-8s into the new twin-engine version one at a time with the remaining aircraft staying in service while the conversion on the first was carried out. The plan included building a third RU-38 from available spare parts. The withdrawal of Air Force support for the program though caused the Coast Guard to limit the plan to converting its two RG-8s. On 24 January 1994 the Coast Guard sent CG-8101 to Schweizer in Elmira, New York, for conversion while the remaining aircraft continued operating out of Air Station Miami. That aircraft was lost off Puerto Rico on 11 December 1995 after it caught fire although the two crew aboard were rescued uninjured.

Schweizer continued the conversion of CG-8101 and completed a second RU-38A from available spare parts and completed the project in 1997. At least one aircraft was flight tested for the Coast Guard by the Air Force at Edwards Air Force Base and by September 1999 both aircraft were operating from Air Station Miami. The "new" aircraft were capable of longer flights, an additional crewmember, and carried FLIR sensors, a television/video camera and APN-215 weather radar.

The project was terminated in 2000 when the aircraft were deemed to be unsuccessful in meeting their required missions.

Tail Numbers/Air Station Assignments:

CG-8101 (RG-8): Air Station Miami

CG-8102 (RU-38): Air Station Miami; aircraft lost on 11 December 1995 off Puerto Rico

Images:



Sources:

Aircraft History File, U.S. Coast Guard Historian's Office.

Gordon Swanborough & Peter M. Bowers. *United States Navy Aircraft Since 1911*. (Annapolis: Naval Institute Press, 1990-third edition), pp. 164-165.

Arthur Percy, *U.S. Coast Guard Aircraft Since 1916* (Annapolis: Naval Institute Press, 1991), pp. 158-159.

