

HERB OLIVER, DESIGN ENGINEER, RETIRES



Soloy's principal design engineer for more than 27 years, Herb Oliver, retired in February 2009.

Herb's efforts can be found in almost all of Soloy's conversion programs conducted since he joined the company in 1982.

During that period, Soloy, after completing the turbine conversion of the Hiller UH-12 and Bell 47 helicopters, developed the following products with the help of Herb's enormous aircraft design experience:

- Soloy Turbine Pac development and FAA certification.
- Turbine Pac powered Cessna 185 — non-certified engine development test bed.
- Soloy Turbine Pac powered Cessna 206 development and FAA certification.
- Soloy Turbine Pac powered Cessna 207 development and FAA certification.
- Turbine Pac pusher powered Cessna 337 — non-certified proof-of-concept prototype.
- 250-B17C powered Enaer T35 Aucan — proof-of-concept prototype.
- 250-B17C powered Enaer T35 Aucan — production prototype.
- 250-B17C powered Beechcraft A36 Bonanza development and FAA certification.
- 250-B17C powered Beechcraft T34 owner commissioned one-off.
- 250-C20R powered Bell 206L development and FAA certification
- 250-C20R powered Bell 206B development and FAA certification
- Twin 250-C20R powered Bell 206L1, L3 and L4 development and FAA certification
- Soloy/P&WC PT6 Dual Pac development and FAA certification
- Dual Pac powered DHC3 Otter — non-certified engine development test bed.
- Dual Pac powered Cessna 208 Caravan — proof-of-concept prototype.
- 250-C30M powered AS350D development and FAA certification.
- Honeywell LTS101-700D-2 powered AS350B2 development and FAA certification.

The success of this quite impressive project list owes a great deal to Herb's knowledge and dedication. Probably the most unique contribution has been Herb's ability to assist in all phases of development and certification including structural design, engine installation design, systems design and structural, ground and flight testing.

Herb was born and raised in England during WWII and was bitten by the aviation bug at a young age. He has worked at Folland Aircraft, Sauders Roe Helicopters and De Havilland Aircraft in England. Herb also worked at AVRO Canada and Lockheed Georgia Company and Boeing Commercial Airplane Company in the USA.

Herb, enjoy your retirement!! You will be missed by all but your contributions never forgotten.

Best wishes from all at Soloy.

TRADE SHOWS

ALASKA STATE AVIATION SHOW

Soloy Engineering Manager, Scott Carlson, attended the Alaska State Aviation Show in May in Anchorage where we introduced the Cessna 206 Mark II and Soloy capabilities. This show is well attended by pilots, mechanics and the general public from all over North America. Soloy's presence was with a small 10' x 10' booth and display.



SOFIC (Special Operation Forces Industry Conf.)

Soloy attended the SOFIC symposium in June. This show is for defense related exhibitors with high level symposium courses and speakers.

In addition to all other Soloy products, the Mark II is a well established surveillance command and control platform with law enforcement accessories available such as the Observation Window Mod, Headliner/Shoulder Harness Mod, and Rear Observation Seat Mod.

Soloy found value in our attendance and plans to be an exhibitor in 2010.

Unfortunately, no pictures were allowed, but it proved to be a great exposition.

UPCOMING SHOWS

Look for Soloy at the following upcoming shows:

July 22—25, 2009 ALEA in Savannah, Georgia, Booth #450.

July 27—August 2, 2009 EAA Airventure, Oshkosh, Wisconsin, Booth #173. Soloy will have the Soloy Mark II on display.

Stop by our booth at these shows and discuss the many opportunities/advantages of owning a Soloy.

2nd QUARTER 2009 SD1/SD2 DELIVERIES

Deliveries in the second quarter of 2009 have continued slowly. Sales have been significantly affected by the worldwide economic slow down.

- Eagle Med, Wichita, KS, took delivery of their seventh SD2 conversion kit.
- Angel City Air, Pacoima, CA, took delivery of their first SD1 conversion kit.

OPERATOR PROFILE NO. 2

EagleMed, Wichita, Kansas

Celebrating over 30 years of service, EagleMed is a privately owned and operated critical care transport service that has been in business since the transport of their first patient on September 1, 1981. They offer services to the entire state of Kansas with six Beechcraft King Air fixed wing aircraft and twelve Eurocopter A-Star AS350 rotor wing aircraft. EagleMed has bases in Kansas in Hays, Chanute, Dodge City, Garden City, Goodland, Pittsburg and Wichita; in Oklahoma in Ardmore, Hugo, Guymon, Oklahoma City, Stillwater and Tahlequah; and in Joplin, Missouri.

EagleMed is a division of Ballard Aviation, Inc., both owned and operated by Jimmy E. Ballard. Ballard Aviation has been in business since 1977, flying executive and on demand charter in the Wichita, Kansas area. They are FAA, Part 135 certified with equipment ranging from Twin Engine Beech King Airs, to helicopters.

As Ballard Aviation, Inc. grew larger, more and more requests came in from hospitals and patients for air ambulance transfers. As a result, EagleMed was formed to accommodate this growing need in 1982. A Medical Director was added to insure high medical standards were maintained.

EagleMed is currently converting their entire fleet of AS350's to Honeywell power. Soloy delivered the first kit in January 2008 and as of today a total of seven kits have been installed.



Mr. & Mrs. Jimmy E. Ballard, owners
of Ballard Aviation / EagleMed

AIRCRAFT FOR SALE

- 1999 Soloy Cessna T206H Mark II, N206TL, S/N 20608174
- 1999 Soloy Cessna T206H Mark II, N7277X, S/N 20608131
- 1982 Soloy Cessna 206G Mark I, Reg. VH-CZR, S/N 20606531

Both Mark II aircraft are ready for delivery and both include new paint.

You may review the aircraft specifications of these superb aircraft at www.soloy.com or by contacting Cris Henry directly for pricing information at 360-754-7000.

FIRST TURBINE PAC POWERED CESSNA 188 AG WAGON FLIES



Cessna T188C
Soloy Turbine Pac
Rolls Royce 250-C20S

Industrial Aviation Services
Salem, Oregon

This story developed over a very long period, so it's worth first discussing events of 30 years ago.

After the successful development and certification of the 250-C20B powered Bell 47 and Hiller UH-12 helicopters, Joe Soloy, Soloy Corporation's founder and driving force, was certain that similar current fixed wing ag planes could acquire similar operational benefits. These thoughts first led to the Soloy Turbine Pac, the conversion of the 250 series turbo-shaft engine into a turbo-prop powerplant.

The same design concept was used to ensure that the turbine engine was encased in a strong protective cage, driving a very simple and robust reduction gearbox which would drive a quiet, large diameter, slow turning, three blade propeller.

As it turned out, the early eighties found the agricultural aviation community going through an upheaval brought about by low crop prices and some restrictive environmental rules. Joe's dream of the ag plane conversion was put on hold and the decision was made to use the Turbine Pac to power the very popular Cessna 206 and 207 utility aircraft. The success of these programs proved the concept that existing fixed wing airframes could in fact benefit greatly with a simple utility turbo-prop engine.

One of the early supporters of the helicopter conversion concept was Jerry Harchenko of Industrial Aviation Services in Oregon. Jerry operated several Soloy Hiller conversions in the late seventies, some of which continue to provide outstanding services today.

Industrial also operated the Cessna 188 and believed that the Turbine Pac would indeed offer similar benefits to the fixed wing operation. Jerry's son, Terry, realizing the enormous effect that avgas fuel prices were having on his business, decided that the time was right to produce a restricted category turbine aircraft using one of the fleet's airframes.

Terry and the team obtained a Turbine Pac with a Rolls-Royce 250-C20S engine and proceeded to design and build the complete installation at their Salem base. Currently the aircraft is being prepared for the Type Inspection Authorization flight tests that will lead to the issuance of a one-time STC. The Cessna will be working in the fields of Oregon this summer.

SOLOY REAR OBSERVATION SEAT DELIVERIES

Since certification in the first quarter of 2009, Soloy has delivered 16 Rear Observation Seat Kits for the Cessna 206H/T206H to the following people:

- 12 each to L-3 Vertex for the U.S. Drug Administration.
- 1 each to Thomas Aircraft for the Royal Canadian Mounted Police.
- 1 each to the Orange County Sheriff Department in Orlando, FL.
- 1 each to Air Orlando for the Palm Beach Sheriff's Office in Florida.
- 1 each installed in Soloy's demonstrator aircraft.

The seat, which is locked in place for takeoff and landing, has the ability to be positioned over a range of 270° allowing comfortable alignment with Soloy's Observation Window.

TURBINE TIPS

The unrestricted free flow of oil is essential for bearing lubrication and internal engine cooling. (In some respects turbine engines are liquid cooled, with the liquid being the engine oil, which transfers the heat from the engine to the atmosphere via the oil coolers.)

Any restrictions in the lines, or galleries will slow down the oil flow, which reduces the oil's ability to transfer heat. This, in time, can lead to excessive bearing wear or failure.

For many years, engine manufacturers have incorporated design changes, which improve the oil system design that reduce these harmful effects. Some require regular flow checks as a method of determining the free flow through the system. Others require an air pressure differential check to accomplish the same. In the case of the LTS101 engines used in Soloy's AS350SD1 and SD2 conversion, Honeywell has recently amended the inspection frequency, which is now explained in Honeywell S.B. LT 101-71-00-0251. Detailed accomplishment instructions are found on pages 9, 10 and 11 of the referenced bulletin.

In all cases, if the limits are exceeded, the engine must be removed and the condition corrected in accordance with the Honeywell Maintenance & Overhaul Manual.



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**ADDRESS CORRECTION
REQUESTED**



Shown above from left to right are Randy Harchenko, Terry Harchenko, Jerry Harchenko, Van Patton, and Terry Reznicek from Industrial Aviation Services who were the key developers of the Soloy Turbine Pac powered Cessna 188 Ag Husky modification. During a recent visit to Industrial, Soloy was able to see first hand the high quality workmanship produced by the Industrial team. Terry based his design on a similar Soloy modification of the Cessna 185 that was produced as an earlier Proof-of-Concept demonstrator. Terry and his team did a great job on the installation CONGRATULATIONS!
