

EVOLUTION *owner's*

# newsletter

February 2012

## Information for the Evolution Owner and Builder

Redmond OR; February 4, 2012



## Earning a Certificate of Insurability

As more and more Lancair Evolution aircraft take to the skies, many of our customers are researching their liability and hull insurance options. In an effort to work with the insurers and keep your premiums low, Lancair offers a "Certificate of Insurability". This Certificate confirms to the insurers that your Evolution is in compliance with Lancair quality and design standards, and is in a condition for safe operation. To issue your aircraft a Certificate of Insurability, Lancair performs a 12-month conditional inspection in accordance with your FAA approved Lancair Evolution Inspection Program. As well, we confirm that all mandatory Lancair Service Bulletins and engine/propeller ADs have been complied with. Lancair's inspection occurs before first flight, before upholstery, and immediately follows the DAR airworthiness inspection. Because our inspection follows the DAR inspection, we ensure that all AROW documents are in place.

As of January 1, 2010, new Evolution kits had included in the price an initial Certificate of Insurability inspection.

Sales prior to 2010 did not. The price of a Certificate of Insurability inspection for those aircraft is \$2,300, excluding airworthy discrepancies found during the inspection. Post-inspection discrepancy repairs will need to be quoted by your builder assist facility. A Certificate of Insurability cannot be issued until airworthy discrepancies are corrected and Lancair receives confirmation of repair. In addition, if the inspection is conducted after installation of the upholstery, Lancair must charge an additional eight (8) hours of labor to cover upholstery removal and reinstallation.

Lancair's Certificates of Insurability are highly valued by our customers and insurers. At present, one insurance underwriter requires our certificate be renewed annually to issue liability or hull insurance. The other underwriters do not currently require our certificate, but strongly recommend it. Having issued quite a few certificates since the Evolution began flying; we have learned a number of things that have helped us improve our inspection policy. All of these improvements are being implemented to continuously improve Evolution safety of flight and protect your million dollar investment.

## **Certificate of Insurability** *(continued)*

When Lancair performs a Certificate of Insurability inspection, the following are required before a certificate will be issued:

**Logbook entries** – The owner is responsible for the accuracy and content of all logbook entries. We are finding many builder-assist facilities falling short in making timely, accurate entries. Entries which are consistently left out include engine installation on the aircraft and propeller installation on the engine/aircraft. For these entries the date, Hobbs time and total time must be recorded. Lancair will withhold a Certificate of Insurability until these log entries are made in the log books.

**AD and Service Bulletin (SB) Compliance** – The Lancair Evolution was designed and tested with industry standard engines and propellers in mind. These components are regulated by the FAA and for these items Airworthiness Directives apply. Occasionally, customers choose to procure used equipment, and it is quite common they do not confirm with the supplier that ADs and mandatory SBs have been complied with. Lancair will withhold a Certificate of Insurability until mandatory ADs and/or SBs are in compliance. It is your responsibility to confirm with your supplier they have complied with all mandatory ADs and SBs.

**Run-time and Cycle count** – The FAA requires inspection log entries to contain the date and total time. The only reliable means of capturing and calculating total time on the turbine Evolution is with a Hobbs meter and Lancair provides a Hobbs meter with the basic Evolution kit and it should be mounted in a manner to facilitate easy reading by the pilot or technician. Lancair will withhold a Certificate of Insurability until a Hobbs meter is properly installed and operating. In addition, Pratt & Whitney requires cycle counts as well as operating hours to meet inspection requirements. For this reason it is necessary for the owner/pilot to maintain an accurate engine cycle log. Lancair will withhold a Certificate of Insurability until a cycle log is presented.

**Standby Magnetic Compass and Correction Card** – The FARs require a magnetic directional indicator with correction card. In addition to this requirement, and in the interest of safety of flight, the FAA approved Lancair Evolution Inspection Program calls for a magnetic compass, compass correction card, and performing a compass swing to verify the correction card values. For this reason a back-up mechanical compass is included as part of the basic Lancair Evolution kit. Lancair will withhold a Certificate of Insurability until this standby compass is mounted and the correction card affixed to the compass with valid correction values.

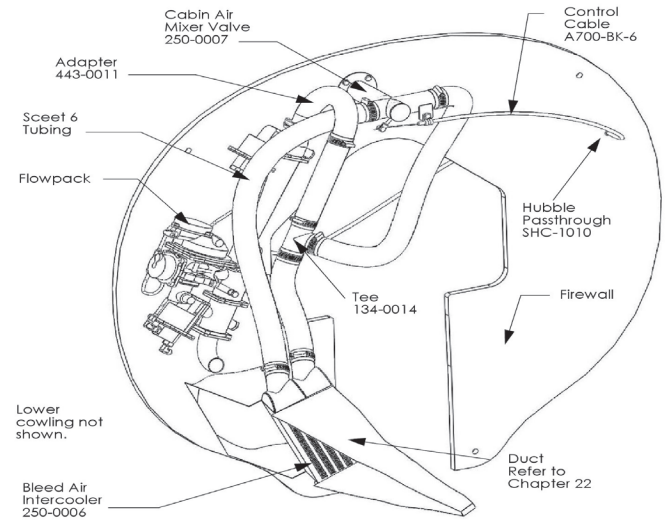
You have just invested a million dollars in a state-of-the-art aircraft. Our Certificate of Insurability program has been designed to protect your investment, and more importantly, to protect you and your passengers.

To schedule your Certificate of Insurability inspection, contact Steve Berube, Lancair Customer Inspection Program Manager. Steve can be reached at 541-923-2244, or [steveb@lancair.com](mailto:steveb@lancair.com)



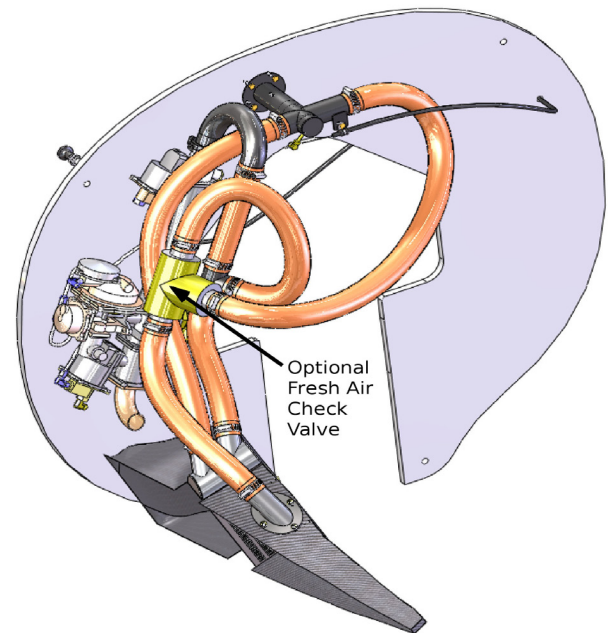
## Bleed Air Intercooler Kit

The final version of the bleed air intercooler system is now being incorporated into 2012 Firewall Forward kits. The development of this kit now provides a standard installation that works well in all temperature extremes and has negligible impact performance. The kit provides for effectively cooling the bleed air to enhance air conditioning performance and also provides supplemental heat for extreme cold. There is also an optional sub-kit that provides for allowing fresh air into the cabin when not pressurized. The cooler mounts to the inside lower right cowling, incorporates a NACA duct inlet and a trailing outlet duct. For very cold environments there is a manual mixing valve which allows the pilot to direct more engine bleed air from the flow-pack into the cabin at the firewall. The cabin temp is regulated 90% of the time by the setting on the touch screen which cycles the air conditioner on or off to cool the intercooled bleed air. But, in the event the cabin becomes too cold for comfort when getting only the intercooled bleed air (such as might happen at high altitude at night), the manual selector is used to bring more hot engine bleed air into the cabin to provide additional heat. The fresh air kit allows the pilot to introduce fresh air into the cabin when needed. With this kit, when the supplemental heat is off, the flow pack is selected off, and the cabin dump is selected to dump, a check valve allows outside air from the intercooler NACA duct to enter the unpressurized cabin at ram pressure. The accompanying illustration depicts the entire system including the optional fresh air inlet. All Firewall Forward kits ordered after 1/1/12 will contain this added value. For previously purchased Evolution kits, this entire kit or individual parts may be purchased for retrofit at a very low cost. Call Kim Lorentzen for pricing details.



Basic Bleed Air Intercooler kit

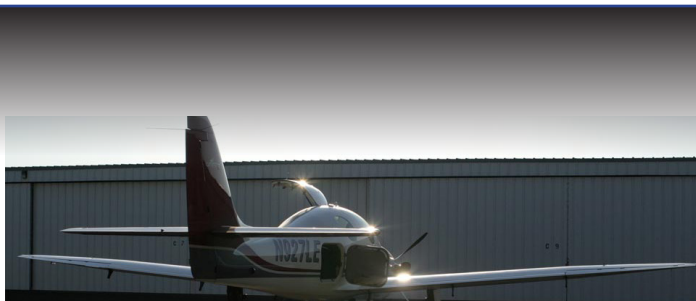
## Bleed Air Intercooler kit with optional fresh air inlet



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## **Bleed Air Intercooler Kit** (continued)



Internal view of intercooler installation



External view of intercooler installation

## **The Flying Fleet Grows.....**

**W**ith the recent addition of the aircraft of Joe Anderson, Austin Meyers, Mark McGuire, Jeff Johnson, Frank Blair and Wendell Solesbee to the fleet of flying Evolutions, the number now flying is 20. Most are in regular use by their owners, one has flown to Moscow, Russia and this week, Bob Wolstenholme's N689W is heading for Brazil to introduce the airplane to potential customers in South America. Those of you not yet flying should be proud of your brethren and inspired by their creativity and the continuing success of these great airplanes. You are in for a real treat when you join their ranks!



Wendell Solesbee's Evolution

## Center Console Kit update

The un-assembled center console kits are now available. The fiberglass components are a lower breaker box, a swinging center glove box with a keypad mount area, "pencil box" insert and rear hinged lid. All hinge hardware, latch hardware, gas strut, two 12V, rear facing power plug points, and mount hardware is also included. The Garmin Keypad and keypad mount is a separate option. These photos show a finished, upholstered console with keypad mount in place.

All your airplanes are prewired for the keypad and this function is a "plug and play".

The Console kit is available for \$800, the Garmin Keypad is \$7400. GFC7x Autopilot controls are not contained on the keypad, these functions are on the PFD and MFD bezels only.



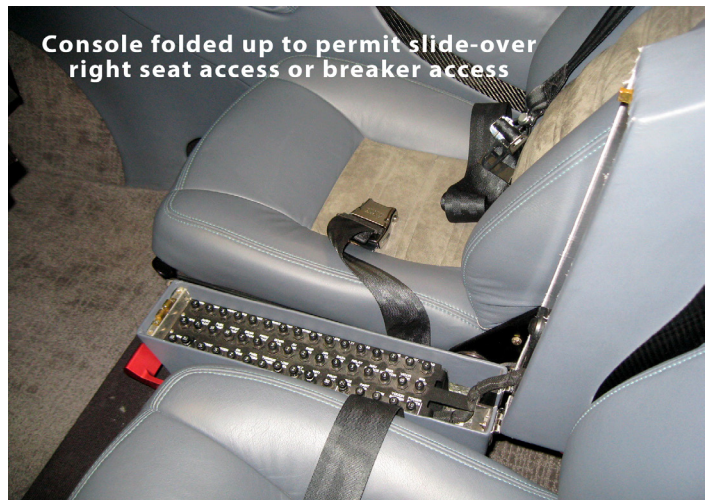
Finished upholstered console with keypad mount



Hinges, gas strut.  
12V power plugs may be installed in this area



"Pencil" box



Console folded up to permit slide-over  
right seat access or breaker access

## Service on used PT6 Engines

**T**here will a more complete discussion of this topic in an upcoming Newsletter, but we would like to remind those owners that have chosen to source their own engines that there are only two PT6A engine sources that Lancair directly supports; new & overhauled from Pratt & Whitney, and overhauled to Lancair Specifications from ATS, our official used turbine engine supplier. Lancair is not responsible in any way for service, reliability, or setup of engines purchased from anyone other than Lancair.

## PT6A New Engine Warranty

**W**e've been getting some questions regarding the Pratt & Whitney warranty on new engines. Warranty terms vary with engine type, but all PT6-135A engines carry a basic coverage of 2500 hours and Five years. This is transferable with written notification to P&W. By agreement with us, your warranty starts at the date of the issuance of your Certificate of Airworthiness. For a copy of this document (revised 2010) contact P&W Warranty Administration 1-450-647-8180

## Those Pesky Data Update Cards

**I**t's the end of the month. Do you know where your data update card is? It's surprising how often we hear that you don't. Did you know that your Garmin Synthetic Vision Data card costs \$10,000 to replace? And your chart update card costs \$2700? Well, they do, and you should always know where they are. They should be in your aircraft, either in a sealed plastic sleeve in the POH or in with your AROW documents. Too often you are away from home when your charts expire, or possibly your aircraft is somewhere for service and the avionics shop may need to reinstall data. Speaking of loading data, in the rare instance where you have had to have a Garmin service center load a new software version into your G-900's for any reason, you will find that all your pilot profile data and stored flight plans will need to be reloaded. Re-set or be ready for that confusing "North Up" MFD when you next start up.

The SD card, By weight,  
the most expensive part  
in your plane!

