FLYERS ASSOCIATION NEWS

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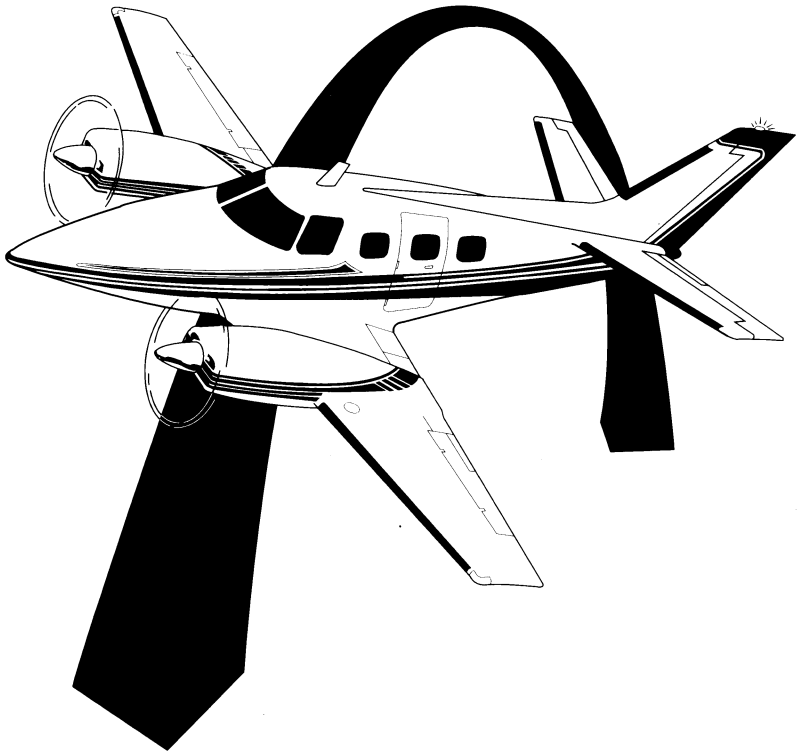

SYMBOL OF DUKE FLYERS 1995 FLY IN AT SPIRIT OF ST. LOUIS AIRPORT OCTOBER 5-6-7 HOSTED BY LARRY MOSKOFF

PRESIDENT	VICE PRESIDENT	SEC-TREAS
BILL PASSEY	MAX COHEN	MARGE GORMAN
P-594	P-412	P-596

The Association has purchased 2 oil coolers for our use. If you need one in a hurry contact Bill Passey at 602/969-2291 during the day.

Remember . . . we also have a generator which is offered on an exchange basis from Aircraft Systems, 5187 Falcon Road, Rockford, IL 61109, 815/399-0225.

This has not been a good start, accident wise, for 1995; all have been weather related. P4 crashed in Cheyenne; P-242 crashed in zero zero conditions in New Mexico; P-561 (the airplane at San Jose with special mufflers) low IFR conditions in Germany. Just received information a Duke went in at Gatlinburg, TN . . took off VFR into IFR weather . . . hit mountain.

Now is the time to review your instrument procedures and take a good BFR from Flight Review Inc., Scottsdale, AZ, the Duke specialists. They will come to your airport for training in your airplane . . 602/483-8644.

We have all probably read the Duke accident which was detailed in several publications. Don Carey of Beech has sent us a small booklet dealing with flight in icing conditions which is included with this newsletter. **NEVER LET YOUR AIRSPEED GET BELOW 140 KTS WHEN ENCOUNTERING ICE.** Here is what Hunter Bennett has to offer on the subject:

"I suppose you have read the article about Duke icing on P. 80 of the January issue of *Business and Commercial Aviation.* A few days before I read the article, I was guilty of letting my airspeed fall below 140 KTS. I was flying over the PA Allegheny ridges to New York at 13,000' into a headwind. I thought this would be high enough to clear the tops of clouds, but they rose up and caught me. I was the only one in the airplane and had all the electrical de-icing equipment on. By the time I had secured clearance, which came promptly, and climbed to get out of the ice at 15,000', my indicated airspeed had fallen from 165 to 120 Knots, despite an increase in power from about 60% to 70%. I expect I picked up 1-1/2" of ice in less than 5 minutes. I activated the boots once in the clouds and again after I was out. Rate of climb at the end was about 400 feet per minute."

Remember . . . our engines are rated at 41" 2900 RPM continuously . . an excellent insurance policy.

Anyone who has owned a Duke for any length of time has discovered, unless overhauled, at 450-550 hours, generators self destruct around 900-1000 hours. At this point you are looking at a $4000-$5000 repair bill or $6000-$7000 for a new one, if you can find it.

We Duke owners are fortunate to have an organization such as Firewall Forward, who took the bull by the horns, engineered and certified an alternator conversion.

During the certification primary importance was the safety and reliability of the electrical power system. This includes everything from the structural design strength of the alternator support system to the integration of solid state control units with circuit protection. The alternators were flight tested to ensure full electrical load capability indefinitely under single alternator operation with the cooling vent fully iced over.

The heart of the system is the alternator manufactured by Electrosystems Inc. Alternator is 130 Amp unit with intermittent overload rating of 145 Amps versus 125 Amp for the generator. Alternator is approved by Lycoming for installation on the latest wide deck 540 engines. Extensive FAA flight testing has proven the alternator to be highly reliable.

Firewall Forward are offering the first 20 conversion kits for an introductory price of $7,100 which includes complete kit. Installation takes about 35 hours at their facility or your FBO.

April 6, 1995

I am the new owner of a Duke P444 87RQ previously 89RG owned by Mike Rindler. When I purchased 87RQ from United Beech of Rockford, IL both engines were removed and sent to Victor Aviation for rebuilding. The idea was that I would start with fresh engines and no problems. The engines were re-installed in late December and flight test began the second week in January.

After several hours of training I found the right engine blowing about a quart of oil every hour out the breather tube. United Beech and Victor started checking cylinder head pressures, looking for leaks, isolating gang drains and anything else anybody could think of. After about 25 hours of operation Victor wanted all six cylinders back in California, they were removed and sent by United Beech.

After the cylinders were returned to United Beech we did our first flight test and still had oil all over the bottom of the plane and even working its way up on the top trailing edge of the flaps. By this time the mechanics at United Beech are scratching their heads for new ideas. I then remembered a conversation with Ralph Cohen of the Duke Flyers Association fame. Ralph had suggested we check the prop shaft seal to be sure air was not entering the case around the seal and pressurizing the case and blowing oil out the breather tube (Ralph said it would only be a remote possibility but easy to check). Nobody had a better idea so the prop was removed and not only did we find a leak but in checking the part number the seal was for a TS10 540 and not the 541. United Beech ordered a new seal and the oil problem went away.

After a recent trip to Florida I began to notice more oil than normal on the under side of the left engine, the other engine. When I returned to Traverse City I had my local FBO pull the left prop and check that prop shaft seal and sure enough it was again the wrong seal. So a new and proper seal was installed. This time a malfunction defect report has been filed with FSDO office so that an inspection at Victor Aviations facilities in Palo Alto, CA will be made to insure that proper procedures are being followed when rebuilding our engines. To say the least, I am very disappointed with Victors quality and attitude in attending to these problems.

Thank you, Ralph. Associations like the Duke Flyers Association are great for problems like the one I had. I bought the plane from United Beech in Rockford and they were great to work with. I had a problem but they made it their problem and took care of everything. They worked with Victor until the problem was solved. I have good feelings in working with a company that really works hard to satisfy their customers. I am new to the Duke Flyers Association but a long time A.B.S. member and appreciate the value of this type of association.

Now that everything is running right I am enjoying my new Duke very much. I look forward to meeting many of you in St. Louis this October.

Robert Goff
Traverse City, MI

Shelly Holson has suggested we compile a list of interesting places to fly; such as, golf, fishing or for lunch or dinner. Drop Shelly a note at Weather Bell Drive, Norwalk, CT 06851 with your ideas.

Also, it's time to update our list of good maintenance and radio shops for the next newsletter. Advise Jim Gorman, P.O. Box 2599, Mansfield, OH 44906.

Interested in checking out in a Staggerwing, Aerobatic Bonanza or a Stearman while at our fall fly-in at St. Louis? Call Bud Fuchs at Staggerwing Productions, 314/434-2861, located on Spirit of St. Louis Airport.

Ron Knudsen and Bob Shank of Willowbrook Air hosted a fly-in for Rocky Mountain owners last April.

Tom Clements of Flight Review gave his presentation on Duke systems and IFR procedures.

Bob Desroche (Boundry Layer) had to cancel due to wife, Monika's premature labor but called to say winglets are selling.

American Aviation (Intercoolers) presentation was made by Bob Shank. There was a discussion on the controversy that exists on intercooling.

Mark Seader of Firewall Forward introduced the new alternator STC which is discussed in this newsletter.

Carol Germanotta (Aviation Sales Centennial) introduced the benefits of spoilers.

George McCrillis of Oilamatic discussed his preoiler. 70% of engine wear can be attributed to starting after an extended idle period.

Ron closed the meeting by discussing resale values of good condition, no damage Dukes. Prices of 1980 and newer are around $300,000.

For more information on the above presentations, see newletter 94-2.

Some comments from Greg Jellinek:

Last fall in Tom Clements' ground school, he spent quite a bit of time talking about the manifold pressure/engine speed relationship in the Duke and caution not to overboost the engines by running them outside of the envelope found in the performance section of the P.O.M. Good point! Then I happened to read an article that discussed the relative quiet in the newer King Airs as the props only turned at 1900 rpm in cruise. Our normal powerplant configuration in the Duke in cruise has always been 30 inches of manifold pressure and 2500 rpm. If you look at the envelope as drawn in our operating manual, you can see that it is OK to run the engines at 32/2400.

I gave it a try, 32 inches and 2400 rpm, and I found that the noise level in the cockpit dropped dramatically. The fuel flow nudged up by about three or four pounds per hour, but most interestingly the indicated airspeed increased. We have now used the 32 inch/2400 rpm cruise setting for almost six months and we have noted anwhere between a four (4) and seven (7) knot increase in indicated airspeed varying with altitude with anywhere from an equal to a four pound increase fuel flows as compared to what we had at 30/2500.

I checked with Corporate Air Technology and they can see nothing adverse with this power setting, in fact we are saving 6000 engine revolutions per hour if you want to look at it in that way. Art and I spent last weekend in Scottsdale with Flight Review, getting "wrung out" by Tom Clements and he too could not think of any reason why not to fly the engines in this configuration.

A four percent increase in speed isn't all that great, but the decreased vibration and cabin decibel reduction would make it worthwhile even if the speed was a "break even".

WELCOME NEW MEMBERS

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