FLYERS ASSOCIATION NEWS

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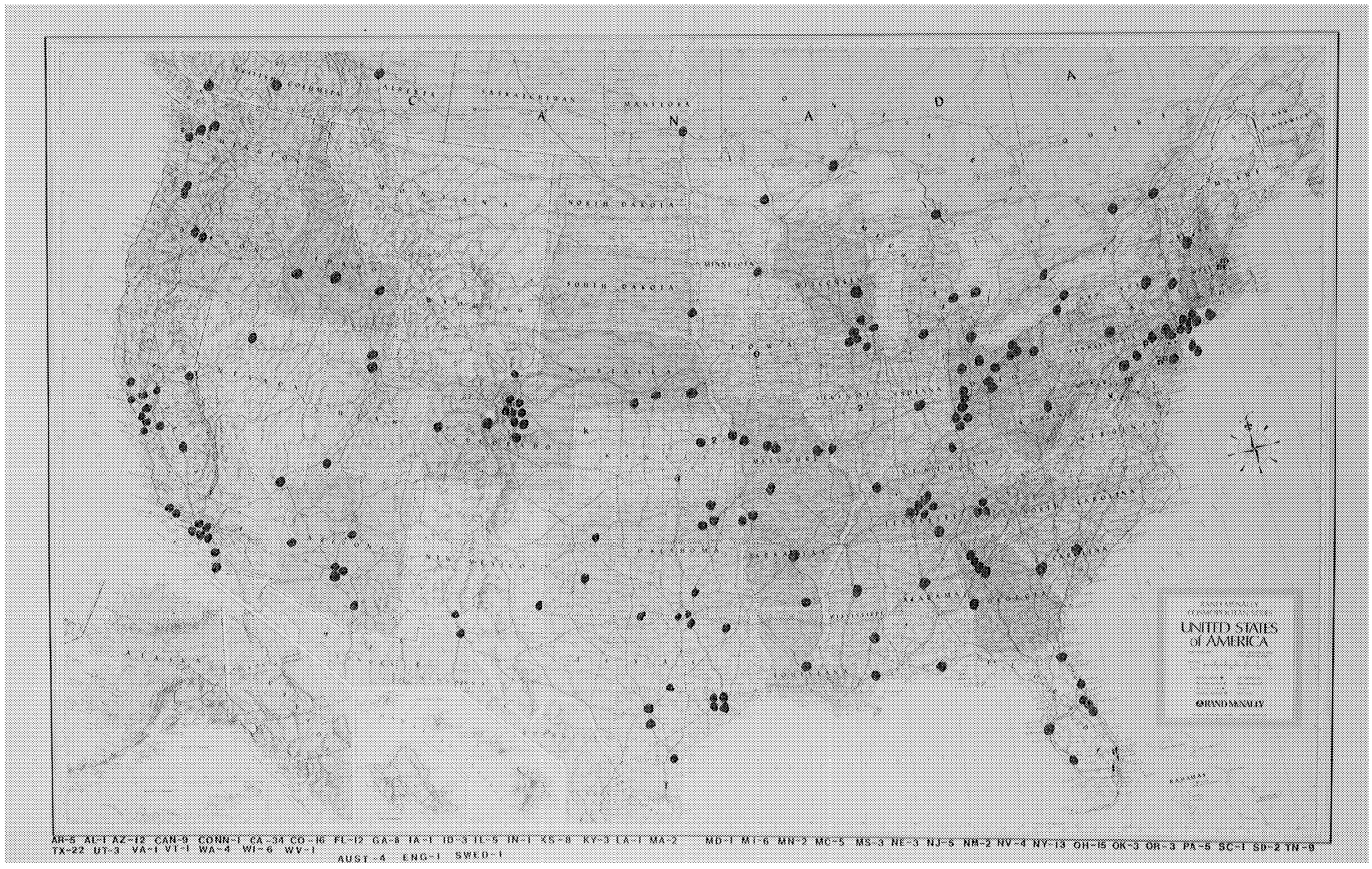

Map of Duke owners presented at St. Louis fly-in October, 1995. Made by John Campbell, P-363, C-FILJ, Kelowna, British Columbia.

Shows all Dukes in North America.

President	Vice President	Secretary-Treasurer
Bill Passey	Ralph Cohen	Marge Gorman
P-594	P-412	P-596

Three original Duke commercials were shown at the St. Louis fly-in October, 1995. Covered were the years from 1960 - 1980. Length 30 minutes. VCR copies were sent to those in attendance. If you would like one they are available for $11.95 post paid in United States or Canada. Some excellent air-to-air and ground-to-air shots. Contact Jim Gorman.

Don't forget our fly-in this year will be held at Centennial Airport, Denver, Colorado on September 19, 20, 21, 1996. This is our second visit to Centennial and expect just as gracious welcome as in 1991. Hotel is right on airport so you can see your airplane from hotel window. Our host will be Ron Knudsen.

With this newsletter is our 1996 membership list. Please check for any mistakes (some people never tell us their address or phone number has changed).

We have now issued over 500 memberships and with a four year payment of $100 our bank balance stands around $20,000, which leads to another subject - emergency parts. Your association has on hand:

1 - Generator
2 - Oil coolers
1 - Starter
1 - Magneto
1 - Step retract cable 152-102
1 - Pilot/Co-Pilot hydraulic seat control
4 - Brake carriers (for early Dukes)
2 - Brake Disc's (for early Dukes)
1 - Exhaust Pipe (Lycoming Part #77429)
1 - 5 x 6.0 Nose wheel tire
1 - 19.5 x 6.75-8 Main gear tire
1 - 19.5 x 6.75-8 Main gear tubes

The arrangement we have with Aircraft Systems, 5187 Falcon Road, Rockford, IL 61109 is they will ship an O/H generator, starter or magneto to you by UPS or Federal Express. You return (same day) your part to them. They will overhaul, charging you for work done, and the item then becomes association emergency part. Phone number 815/399-0225. For oil coolers contact Bill Passey at 602/969-2291 (office). For other items contact Jim Gorman at 419/755-1223 (office).

Many may have received a letter from Gary G. Warren Associates. They listed the current prices for 'B' model Dukes in good condition with 3000 hrs or less and mid-time engines. In case you missed it -

1978 Collins $215,000	1981 Collins $305,000
1979 Collins $240,000	1981 King $320,000
1980 Collins $255,000	1982 King $340,000
1980 King $270,000	
Add for GPS $5000	Storm Scope $4000
Digital TIT $2400	Color Radar $8000
Fuel Computer $4000	VG's $3800

They stated only nine (9) Dukes remain in US. FAA and our records show 14 of 16 produced still in USA. Two of the 16 have been destroyed. One on ground at Beech Field, P-588 and one in Germany, P-581.

WELCOME NEW MEMBERS:

John Mayes	Bakersfield, CA	N42AA	P-494
Tommy Malm	Jonkoping, Sweden	SE-KKY	P-94
Dewey Nichols	Panama City, FL	N445W	P-245
David Chase	Wayzata, MN	N541HR	P-587
Gerald Fisher	Blue Springs, MO	N176TF	P-310
Robert McConkey	Spokane, WA	N6734F	P-505
Andrew Landdeck	Bentonville, AR	N306QC	P-190
Randall Moeller	St. Joseph, MO		
Gregory Wilde	Hayesville, NC	N75MJ	P-73
Ralph Martin	Rancho Palos Verdes, CA	N1153S	P-161
Maurice Pickard	Coshocton, OH	N1642W	P-198
Richard Ossoff	Atlanta, GA		
Robert Busenburg	Danville, OH	N7288D	P-81

<u>Maintenance Items to Watch</u>

The landing gear failed to extend normally and a "burning" odor was detected. When gear was lowered manually a loud "popping" sound was heard. Inspection revealed the right main gear up lock roller had seized and the roller would not disengage from up lock block. Motor burned out and retraction rod (P/N 60-810057-617) was bent. Lubrication and inspection of up lock roller assembly is part of 100 hr inspection. Time on part 3000 + hours.

Chuck Stevens, P-408, reports right engine was consistently hard to start - mostly under hot circumstances. Various trouble shooting showed wear spark at plug. Removal and inspection of "shower of sparks vibrator" revealed intermittant low voltage. New vibrator solved problem.

David Lilly, P-404, relates his turbo problems:

TOO YOUNG TO SMOKE

I would like to pass on to the membership the experience that I had with rebuilt turbochargers. Recently I had the engines overhauled on my Duke and thought it would be the perfect time to also do the turbos. This turned out to be a bad move. So what's the problem?

Having hung the engines on, we did some power runs to be certain they were developing full manifold pressure and full RPM's. After being satisfied with the full throttle feel, we launched. What a great sensation; strong and smooth those 760 new horsepower. For thirty minutes we circled the field at 75% power. Breaking in all those new parts and being cautious about not straying too far in case of failure.

We land. We *smoke*. More than smoke, we had 2 foot flames flaring out from the left engine at shutdown! O.K., that was spooky, but we decided to run it a few hours to let the rings seat and evaluate after that. Two and a half hours later the smoke was still there. We pulled the turbo, it leaked, so it was replaced. I asked the mechanic what the chances were of the new one doing the same thing. No reply.

After a 35 minute flight to another airport, guess what? Smoke and flames. (Already I'm known as "Torch".) Off went the left as well as the right turbo. They were *both* leaking. At that point we had 35 minutes on the left and 6 hours on the right engine. That makes three turbos on two different engines. The turbos went back for diagnosis and were re-rebuilt. I heard the same ol' story, "nothing is wrong with *our* work".

Meanwhile, I had to further my education, so I called Garrett. After all they are the manufacturers, but in this case not the rebuilder. Garrett said that you need to run the turbos for ten hours before you can start to troubleshoot. "They need time to break in and seal themselves." Now, the seal they are talking about is called a "non-positive" seal. It is meant to keep the exhaust gas out of the turbo but not the oil out of the exhaust. So, with that concept, how could we get a seal? Impossible. And, according to Lycoming, the only thing keeping the oil out of the exhaust is the big drain at the bottom of the turbo bearing and the ability of that drain to allow the oil to run out faster than it comes in.

What was wrong with the three turbos? Only the rebuilder knows for sure. We were told that "...the bearings were scratched, er, ah, maybe scored, you know from contamination. We didn't do anything wrong." Three rebuilt turbos, two overhauled engines, new oil, new filters, new hoses. Where did the contamination come from?

Back came the turbos. Hey, guess what, *no smoke!* What was wrong? The engine rebuilder checked everything and found no blow by, no bad hoses, no pressurized crankcase, etc.. Since the turbo rebuilder refused to return the bearing assemblies to us, the culprit will remain a mystery.

So what was the lesson here?

1. Find out who will stand behind their work and who, along the chain, will be responsible for what in case of a failure.

2. Since no one in the aviation business will point a finger except at you, the owner, make sure to have a hammer ready to smash that finger when it points too hard. That "hammer" is the FAA. Know how to use it. If you feel that you have been wronged, then get out your pen. A written complaint will send shivers down the spine of a licensed repair person.

3. Trust your intuitions and be inquisitive. I knew that it was not right for the oil to leak into the hot section, so I was persistent about resolving the problem.

In this type of situation, be fair, be firm, be persistent and you will prevail.

I'm available at 610/791-7977 if anyone would like further information. David Lilly