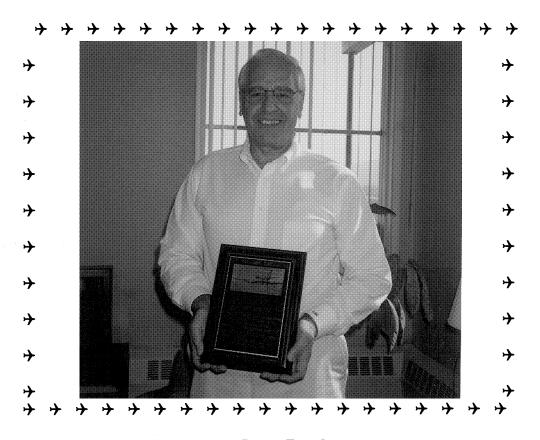


FLYERS ASSOCIATION NEWS

Number 01-3 December 2001



Larry Roush

With heartfelt thanks for many years of service to Duke owners in operation of the 541 engine.

Larry will retire from Lycoming at the end of December. We had planned to present plaque at San Diego.

Needless to say our fly-in did not occur. Shaker Razook had a great program in store for us - See Page 3.

President Mike Greenblatt P-590 Vice President Ralph Cohen P-412 Secretary-Treasurer Marge Gorman P-596

Spare parts on hand for your Duke

- 1 Generator
- 1 Starter
- 1 Pilot Hydraulic Seat Control
- 1 5 x 6.0 Nose Wheel Tire
- 4 Prop Brush 3E1206-2
- 6 T10541 Cylinder Assemblies
- 1 Gear Motor
- 4 Voltage Regulators (see below*)

- 2 Oil Coolers
- 1 Magneto
- 1 Lycoming Exhaust Pipe Part No. 77429
- 1 19 x 6.75-8 Main Gear Tire
- 1 19 x 6.75-8 Main Gear Tube
- 1 Flap Motor

Recognition Light Bulbs, DN25-3

The arrangement we have with Aircraft Systems, 5187 Falcon Road, Rockford, IL 61109, is they will ship an O/H generator, starter, magneto, or motor to you by UPS or Federal Express. You return to them (same day) your part. They will overhaul, charging for work done and the item becomes Association emergency part. Phone number 815/399-0225.

For oil cooler contact Bill Passey, 602/969-2291 (office).

For other items contact Jim Gorman 419/755-1223 (office).

Remember: Overhaul of generator at 900 hours will cost you three times more than O/H at 500 hours.

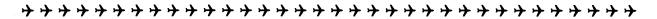


Two of the voltage regulators donated by Firewall Forward are left (Bendix). No Charge - except for \$25.00 handling fee. Contact Jim Gorman

Aircraft Systems bills the Association, which we pay and in return invoice the member. We have had incidents where it took six months for us to be reimbursed. It is not fair to other members who pay promptly. We expect payment within 30 days.

Member Ken Bowdish is removing his inter-coolers and is very willing to make a good deal to anyone needing American inter-cooler parts.

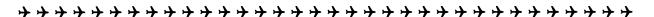
Shaker had made great plans for us last September - not the least was the San Diego Aerospace Museum. It was to be closed to the public for us to enjoy touring and hold our Saturday night banquet. Friday night was to be a fun evening of cocktails, dinner and friendship at High Performance Aircraft. Of course, our Saturday morning meeting and panel discussions are always a highlight. Bob Stan arrived early and reports the hotel was outstanding. Thanks again, Shaker, for all your efforts.



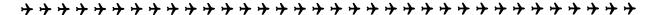
Staggerwing Museum in Tullahoma, TN invited any Dukes who could make it to join them in October during "Beech Party 2001". Five of us did.

Dean Roberts	N4308D	P-430
Bob Thomas	N6338X	P-592
Gordy Germany	N8121S	P-293
Stan McNabb	N1SM	P-595
Gorman's	N410G	P-596

We joined 31 Staggerwings and 29 Twin Beeches



Mark Seader, Firewall Forward, called to relay good news. They are celebrating their 25th Anniversary with a substantial investment by a British individual. They are proceeding with construction of a factory in England to serve the European market. Mark is free to admit it was touch and go in the past financially. Now this is in the past.



During Oshkosh fly-in I had a chance to sit down with President of Lycoming, Mike Wolf; Director of Service, Pete Bates and our good friend, Larry Roush. They assured me metal analysis of failed camshafts returned to Lycoming showed no change since introduction of 541 engine.

Then why the failures?

I believe the answer is a number of factors. One of which is shown in our 2000 Duke survey. Average flight time per year is 136 hours. They means engines are not operating <u>8600</u> hours per year. This allows a lot of oil to drain off engine parts including lifters and camshaft. Add use of synthetic oil, no preoiling, high RPM at start (i.e., 1000-1500 RPM) and you are asking for trouble.

Why are we having cam, lifter problems now and not back in the 70's. Answer is simple. When the Duke was purchased new from Beech, most went to business firms who flew them on a regular basis, 300 - 400 hours per year. AMP Corporation in PA at one time operated 8 Dukes. Their chief pilot told me they never had an engine failure and used full power (41-2900) to cruising altitude, but they flew 500 hours per year. Oil did not have a chance to drain off lifters and camshaft.

Remember the article regarding oil in Issue 01-1 of Duke Newsletter? Statement by well known oil company was any start <u>under 60° F is a cold start</u>. Imagine what happens to your engine when it has been idle for two weeks and temperature in your hangar is 25° F.

It has been stated 70% of engine wear takes place during starting. If oil has drained out of lifters during period of inactivity, you have a slamming condition between cam and lifters until oil pressure builds up. This will also raise the possibility of lifter body distortion. With preoilers at 50 lbs. you fill the lifters and splash oil on camshaft eliminating one major problem.

I guess I am telling you how to operate your airplane which I have no right to do but will do it anyway.

- 1) Install preoilers and use before first flight of day.
- 2) Switch to Shell 100 or Phillips X-C.
- 3) Use Lycoming additive LW-16701.
- 4) Lycoming recommends not over 650 RPM at start and then 800 RPM until engine warms up.

Might wish to review Bill Unternaehrer comments in 01-2.

Jim Gorman

Make you plans now for 2002 Fly-in.

Our host will be member, Ron Comeault. The place - Sault Ste Marie, Ontario, Canada - September 16 thru September 28. Just across the river from Upper Peninsula of Michiga. At the peak of the color season and USA members can enjoy a \$1.50 dollar for all their needs.

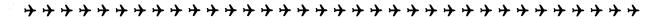


WELCOME NEW MEMBERS

Dale Jocobs Lakeland, FL	P-338	Bob Thomas Indianapolis, IN	P-592
William Shortt South Lyon, MI		James Spowart Huntington Beach, Ca	P-236 A
Gordy Germany Atlanta, GA	P-293	Thomas Seaman Canton, OH	P-185
Jeff Vanderwolk Gulfstream, FL		David Darby Alvin, IL	P-144

Erich Schaefer P-213 Gunther Rincon San Luis Obispo, CA Boca Raton, FL

N410G - On flights of 1:30 or more, we record a lot of information looking primarily for engine trends. Enclosed are two sheets we use. First one is history of the flight, which we transfer to a tabulation sheet. Notice CHT on left engine started a downward trend and is now running 25° below right engine. Probably not a problem. Most likely a loose connection or corrosion, but worth checking at next inspection. All figures are 65% power, 2500 RPM non-intercooled.



Item of interest - on flight climbing at 20,000' - first hour - fuel burn 58 gallons - each hour thereafter 42 GPH.

Jim Gorman

We had some registration problems with the website recently, but we are up and running now.

Website: www.dukeflyers.org

Message Board: User Name: Duke

Password: plane

*(The D in Duke must be upper case)

Duke Flight Record (N410G)

DATE	ALT (29.92)	OAT	IAS	TAS	SD	MP	扭	IIT	СНТ	OIL	OIL PRES
Feb	20,000	- 18	152	210	190	31.5	921	849	194	02/09	80
વચ ા	20° 000	- 16	153	210	561	31.म	21 721	748 748	195	1808	180
24) Feb	30,000	- 12	150	502	192	31,4	921	848	202	80 8	08
3 mar	23,000	- 16	144	212	233	31.6	121	843	202	58 05	96
14 MAR	20,000	- 20	151	205	۲۲2	31,5	921/21	841	561	75 75	818
28 MAB	18,000	81-	151	207	187	36.4	921	848 348	175/	75 79	8182
28 MAR	19,000	22 -	156	802	812	31,0	121	448 444	175	70 73	81.85
) O A PR	23,000	91-	14)	207	215	31,5	121	948 248	002	08 05	98 80
14 APK	18,000	-10	152	206	183	31,7	121	648	081	28 68	08
20 JUN	090'71	0	154	201	210	31.4	120	844	175	18 96	25
300	17,000	1-	- 53	203	504	31,5	921/21	842	175	1806	72 J

DUKE DAILY FLIGHT RECORD

	REMARKS				REMARKS				MAINTENANCE ITEMS	
	- PASSENGERS				WEATHER -				MAINTEN,	
	USER				OIL PRES.					
	INT				OIL TEMP					
	NITE				CHT				OIL USED	
	DAY				E				ō	
	CO PILOT				FF FF	*				
	PILOT				MP					
	METER METER DURAT. START STOP OF FLT				gs					
	METER STOP				TAS					
	METER START				IAS				FUEL USED	
	2			TOTAL	OAT				FUE	
DATE:	FROM			2	ALT (29.92)					