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June 2024 Newsletter

Rates Update

Gas prices are the same at \$6.29 per gallon, no change in hourly.

- 172 \$100
- Archer \$110
- 182 \$171
- Lance \$192

The self-serve pumps are still down. We have good reports that Atlantic has been very responsive getting the fuel truck to the hangar. Many folks just call them after landing while taxiing.



Insurance forms will be out soon

We will be sending out insurance forms in the next few weeks.

Getting these forms back, entered, and off to the insurance company is a good chunk of work. Please help us by being timely with your responses.

Congrats Paul!

Paul achieved his CFII on May 23rd. Juggling work, home, and community involvement is no easy task. Paul did all of that while also pursuing his next certificate! Nice job Paul!



N824F Status



Maxwell did find that the governor had bad bearings that were responsible for the metal shards, so that seems to be the root cause of the issue. The filter did its work and the engine appears fine—great news. We don't yet have timing on repairs/replacement of the governor. For now the airplane remains down, but there is light at the end of the tunnel.

N734RQ JPI / Fuel Flow Sensor

A new fuel flow sensor has been installed in the engine. The engine monitor fuel flow rate might need to be recalibrated. **Please help with a JPI fuel flow calibration** check.

1. Please record the amount of fuel used during your flight



to visually confirm the tanks were full before the flight and reset the engine monitor fuel to a full status when you start the engine.)

2. Note how much gas is put in after your flight during refueling.
3. Please **email Avram or add to the squawk** with actual fuel used and JPI fuel used indication information.
4. DO NOT adjust the K-Factor yourself, only the maintenance officer should do this.



Interior panels for N734RQ

Avram S and Mike B have been showing the 172 some love by replacing a couple of worn out interior panels including a new baggage door panel and ELT cover.



Archer Upgrades

We had an official motion to upgrade N3015D this week.

Mark B moved that Flywell moves forward with the Archer upgrade which includes:

- Garmin Autopilot
- Garmin GTN 650xi
- Garmin GNC215 Nav/comm
- New audio panel
- Updated wiring

We will be talking about the funding on this projects in the next few months, stay tuned.



White Bear Lake High School Aviation Class KANE Field Trip



by JJ P.

A few weeks ago I organized a field trip to KANE for the White Bear Lake High School Aviation class students. We had a great time! One fun fact is that 3 of the 20 students were actively pursuing their PPL. Here is what we did:

- KANE Control Tower
- Malibu Aerospace
- Flywell Flying Club
- Atlantic FBO

If anyone would like to coordinate an event like this in the future let me know and I can get you the contact info for the list above.

N734RQ - Did you know?

by Avram S.

A new SureFly magneto was installed on the left side in 734RQ when the engine was rebuilt about 18 months ago.

What is a SureFly magneto? SureFly is an FAA certified electronic (solid state) magneto replacement. The SureFly Ignition Module (SIM) replaces one magneto - generally the left or impulse-coupled/starting magneto on most aircraft engines. The advantages of an electronic magneto include:

- Reliability – a 500 hr. inspection/rebuild is no longer needed. It has a 2,400 hr. service time.
- Safety – No mechanical moving parts. Only solid-state electronics. Don't know if there is supporting data yet but in theory this should reduce the likelihood of sudden magneto failure.
- Performance - Variable timing advance produces fuel savings.
- Better starts - SureFly controls timing at TDC (Top dead Center) below 400 rpm which combined with longer spark dwell makes starting easier minimizing wear and tear on starters and electrical systems.

There are two important system characteristics that are different from the original two analog magnetos that were originally on the engine that you should be aware of.

than the standard magneto installed on the right side which has a self-contained electrical system. Note: If the battery voltage is dropping, most if not all of the avionics will fail before the magneto. i.e. The avionics need a supply voltage well above 8.5 Volts to operate. So ... be aware of this possible magneto failure mode.

2. **Different engine response during magneto checks before flight.**

During run-up the engine RPM is set to 1700 and the key is turned to “Left” (left only mag) and to “Right” (right only mag) to detect any anomalies in the system. According to the POH – RPM drop should not exceed 125 RPM in either single magneto operation or a 50 RPM differential between magnetos. Those criteria for normal engine operation are no longer correct. A typical RPM drop could be 60 rpm on left only and 150 rpm drop on right only. This is normal operation. The reason for the larger difference in RPM drop is the way the timing is set for each magneto. The analog magneto has a fixed timing which is tuned for optimum performance at higher cruise or takeoff RPM. The Surefly magneto has variable timing which advances the timing at lower RPM settings. Advancing the Surefly timing at lower RPM causes the Surefly magneto to fire well before the analog magneto, which causes a large proportion of the fuel to be burned before the analog magneto fires. The final result is that at lower RPM the analog magneto does not contribute as much to the burning of the fuel and production of power. When the analog magneto is turned off during the mag check the Surefly has a relatively small RPM drop because it is already providing a larger portion of the power. When the SureFly magneto is turned off during mag check there is a larger drop because the timing of analog mag is less efficient at that RPM than the Surefly.

Make sense? Note: I could not find a good description for this phenomenon anywhere. This is my interpretation of why the system is acting the way it is. My explanation of the mechanism of action could be wrong. If anyone has any

What has not changed - During magneto check the engine should still run smoothly on either individual magneto. Also, with both magnetos, at full power on takeoff the engine should develop the same RPM as specified in the POH.

More information about the SureFly magneto system can be found on the following website: <https://www.surefly.net/tech>

Medical & BFR Recording



We be using our booking software, AircraftClubs, to record medical and BFR information. This will allow us to generate the proper reports for insurance much easier than the current manual process. Here's what you have to do:

1. Log into aircraftclubs.com
2. In the upper right Click on your name
3. Click "Edit Profile"
4. Select "Pilot Profile" from the left navigation
5. Add/Update your **Certificate Number** and date
6. Add/Update your **Medical and BFR Expiration** dates
7. Add your AOPA Number (we get an insurance discount if members are part of AOPA)
8. Click the "Save Pilot Profile" button

Certificates and Memberships

Certificate Number:

4295059

AOPA Number:

11874451

[Join](#) [Donate](#)

Certificate Date:

06/03/2021

Member Number:

e.g. 15110714

Expiration Dates

Medical Certificate:

07/31/2025

Reminder:

4 Weeks

BFR:

06/30/2025

Reminder:

4 Weeks

Club Review:

mm/dd/yyyy

Reminder:

None

We will be **enforcing compliance at the end of the month** by turning on a feature in Aircraft Clubs which won't allow you to schedule if you are out of currency.

FATHERS DAY FLY IN & BREAKFAST



**Past Aircraft
Bi-Plane**

**Minnesota
State Trooper
Helicopter**



Special Event
Fuel Price
\$4.45 / Gallon



Warbirds

JUNE 16 - 8AM TO 1PM

CAMBRIDGE AIRPORT (KCBG)

3129 Airport Parkway NE, Cambridge, MN 55008

- Lions Pancake Breakfast
 - Free Will Offering
- Giant Scale RC Aircraft
- Kids Pedal Planes and Cars
- COME JOIN IN THE FUN!!



Plane Wash



Thanks to everyone who came out and helped wash planes this week!

- Marc T
- Kurt O
- Paul W
- Mark H
- Fred A
- Avram S
- Mark C
- Jeff J
- Joe G
- JJ P
- Eric B
- Jay G

Hangar Ace

Our hangar ace this month is:

Brian White



*Thank you to all our volunteers for helping control our costs
and making Flywell an amazing club!*

Board

- JJ Parker, President
- Mark Bakko, Treasurer
- Avram Schnider,
Secretary
- Kurt Olson, Director
- Marc Tellevik, Director

Maintenance Officers

- 172 - Avram Scheiner
- Archer - Tim Hawkes
- 182 - Ben Richter
- Lance - Paul Wikstrom
- Hangar - Fred Ames
- Supplies - Mark Hapka

Club CFI's

- Paul Wikstrom
- Kurt Olson
- Jim Schultze
- Norm Lindsey

Maintenance Reports

C172

Aircraft is flying well

- Fuel flow sensor replaced!

Archer

Aircraft is flying well

- Right side brake are a little soft,
new brake kit ordered
- Parking brake is in-op

- Inconsistencies with RPMs

C182

Still Grounded

Lance

Flying well

Hangar

- Clean after Hangar Cleanup day!

Upcoming Events

- **Plane Wash & Board Meeting**
Wednesday, **July 10th**, 5pm

Note: this is 1 week later that usual



Happy flying,

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