



www.befa.org

840 West Perimeter Road, Renton WA 98057

November 2014

Office Phone: (425) 271-2332

CONGRATULATIONS!

New Members

| | | |
|-------------------------|-----------|-----|
| Alan Adams | Guest | RNT |
| Carrington Bork | Class I | RNT |
| Kerry Broeckling | Guest | RNT |
| Bryan D'Souza | Guest | RNT |
| J. Jack Heintz | Class I | RNT |
| Mike Matthews | Guest | RNT |
| Harlan Zentner | Class III | RNT |

New Ratings

| | Date | Instructor |
|---------------------------------------|-------|------------|
| Shad Pipkin, Q-400 Type Rating | 10/30 | |

CALENDAR

Monthly

Aircraft Maintenance Team: Meets every Thursday from 4-8 pm at the Renton Office. Contact Walt Cameron for more information.

November 2014

Board of Directors Meeting, 4pm 11/21 at Renton Office

Winter Operations Seminar, 10am 11/22 at BEFA Renton Office. Please email or call the office to register!

From Your President

By Steve Beardslee

October was a very busy month, both for flying (Great!), but also for dealing with issues/opportunities for BEFA. BEFA's current lease of our property on the Renton airport will expire in 2018; it's renewable for an addition ten years. That would take us to 2028, but we should expect that the lease terms will need to be renegotiated

with the city of Renton. We've formed a study team to take a look at our options and present their findings and recommendations to the Board.

- Stay the course and renew it on schedule in 2018. Renton is currently updating the Airport Master Plan. Renton envisions "modernized" airport facilities; our "older office trailers" will need to be upgraded or renewed at some point. We are not currently setting aside funding to do that.

- We have a current offer from Ace Aviation to sublease office, ramp space, and parking space -- meaning BEFA would relocate from our current location to the southeast corner of the Renton Airport -- possibly in 2015. We need to consider this option in more detail.

- The study team will also consider other options, yet to be determined.

As many of you know, the Boeing ONE Team did a fine job of building, integrating and completing the first flight of their Glasair II kit airplane. They (and we) had hoped this aircraft would complete flight testing and perhaps become part of our BEFA fleet. The Boeing Company has concerns regarding risk and their potential for liability; we met with them to discuss and understand their concerns, and we presented BEFA's case for mitigating those concerns. As of this writing, I do not know the final outcome -- but we do appreciate Boeing's willingness to hear us out. We've also had several follow-up discussions, but the final decision rest with Boeing. The watch continues!

In our October Board meeting, Marissa Singleton (our newsletter editor) briefed the Board on how we are doing with social media (not as well as we should). She has recommended some needed actions and will be working with Glenn Dalby to implement them. Thanks Marissa!

Unfortunately 704GC's engine has begun to make metal, meaning it is in need of an engine overhaul. 704GC is also BEFA's highest time airframe (~15,600 hrs) and is showing signs of wear. In view of this and the high cost of engine replacement (~\$25,000, approx what was spent on 704RY's engine) it was decided that selling 4GC was more efficient. In the meantime the board is

searching for a suitable replacement airframe which will lower our maintenance costs and provide our pilots a better airplane.

Reminder: Please turn in your BEFA election ballots by the November 20th deadline!

Fly Safe!

Aircraft Rates

| November-2014 | |
|--------------------------|-------------|
| Aircraft | Hourly Rate |
| PCATD-M | \$ 15.00 |
| PCATD-NM | \$ 20.00 |
| Redbird FMX (member) | \$ 50.00 |
| Redbird FMX (non-member) | \$ 85.00 |
| C150 | \$ 100.41 |
| C172 | \$ 121.98 |
| PA-28-151/161 | \$ 121.98 |
| C172SP | \$ 138.80 |
| Citabria | \$ 139.07 |
| R172K XP Float | \$ 163.46 |
| C182Q | \$ 172.62 |
| SR20 (HOBBS) | \$ 170.00 |
| C182RG (68T) | \$ 183.62 |
| C182RG (65C) | \$ 201.45 |
| CT210 | \$ 251.60 |

("M" and "NM" refer to members and non-members, respectively.)

Safety and Operations Briefing

By Wes McKechnie, BEFA Operations Manager

WINTER OPS SEMINAR

The annual Winter Operations seminar will be held on November 22nd, 2014 at 1000 at the RNT BEFA facility. Please, you must register ahead of time with the BEFA main office by email or a phone call if you are attending this.

BEFA CREW VIDEO

Please check out the video of what your BEFA Crew does to keep your flying costs low by changing our oil and filters. They were finishing up the last plane, and most of the others had just left. The video features Ray Pedrizetti, Julia Bitzes, Greg Edwards and Tyler Wilson, wrapping things up on the last plane of the evening, (most of the others had just left). This illustrates the above and beyond dedication these great volunteers

provide for us members. The video should be posted on the front page of BEFA's web site (befa.org) by the time you get this newsletter.

REDBIRD SIMULATOR \$50/hr

The Redbird motion sim is now only \$50/hr to encourage flight proficiency over the winter months! Keep more proficiency when the "clagg" sets in by flying both VFR and IFR profiles in whatever type of weather, wind, airports you choose (every airport in the world is in its database). See your CFI to get checked out for solo ops in it. You do not have to be an "active" BEFA member to fly this, as aircraft insurance does not apply!

TAKING CARE IN COLD WEATHER OPERATIONS

If you read nothing else in this article, please read the next sentence.

!!!FIRST FLIGHTS OF THE DAY SHOULD ARRIVE at least 1 HOUR EARLIER THAN NORMAL FOR COLD WX. (less than 32 deg. F, or frost) PREFLIGHTS!!!

With the return of inclement weather and the (so far more miserable than usual) cycle of our fall/winter wx pattern, please take the time to review standard cold weather operations. Winter flying takes more preflight planning, including weather analysis, but the rewards are uncrowded skies and schedules, crystal clear conditions and cool air affording surprising increases in performance. As always, watch those Class B airspace bases with the improved climb rates. Your climb performance will get you to altitude faster than last summer's hot air did. Also, if we get a large area blanketed by snow, your familiar landmarks for Class B boundaries and the TFR's may not be as obvious as you're used to, and more care is needed.

The following is a reminder of cold wx. operation procedures:

RUNWAY CONDITIONS

The local large airports maintenance crews do a fairly good job of keeping the runways/taxiways clear, especially at Boeing Field, Renton and Paine. Snow can often be spotty, dumping a fair amount of snow at your home or work, but little or none at the airport, and of course vice versa. **We've maintained normal and training ops in the past without much inconvenience, but you must be prepared to spend more time in preflight preparation regarding:**

- **Obtaining weather and runway info**

- **Brushing snow off and/or deicing wings**
- **Engine preheat ops if you're the first pilot of the day**

The briefing you get from FSS/DUATS will include a Runway Condition/Braking action report in the NOTAMS, (if they have been physically provided), or in the event of a heavy snow or ice storm, an airport closure notification until the runway surface has been cleared. If you just use DUATS type briefings, you should call and talk to a live FSS briefer to glean any info or advice they may have that will not be reflected in the "data only" DUATS brief. The ATIS and live controller advisories can contain these reports, but remember, they are just advisories. While generally pretty accurate, just because a controller says it "looks good" such an assessment is not a substitute for good sense. As always, you are the PIC.

The "BRAKING ACTION/RUNWAY REPORTS" are classified as;

- "Good"
- "Fair"
- "Poor", and
- "Nil"

BEFA currently has no specific regulations pertaining to ice/snow operations, but traditionally we will suspend flight operations when runway conditions are reported "nil", or perhaps even "poor". RAMP AND TAXI WAY CONDITIONS MAY CAUSE SUSPENSION OF OPERATIONS TOO, EVEN IF RUNWAY IS OK. Again, classifications do not preclude pilots from using common sense. If the runway surface is obviously a crummy mass of tracked up ice ditches then no matter what they're calling, don't go. If the plow berms are blocking exits, don't go. Occasionally the ramp, taxi and runway will be reasonably clear and quite usable during the day, but they have not changed or perhaps added the "poor-nil" report as a precaution late in the day, this may be for the following reason: anticipation of the water from melting snow/ice refreezing as night falls. It may be fine as long as the sun is shining on the wet pavement, but at sundown or in shadows, look out. Keep this in mind if you're going on a night flight even if NOTAM's or tower warnings are absent. A simple call to the airport or a walk to the end of the ramp usually will clear things up for you. Refer to your AIM, Section 4-3-8 and 4-3-9 for more information.

DE-ICING OF AIRCRAFT:

Attempted flight with ICE/SNOW/FROST on the plane is TOTALLY UNACCEPTABLE, not to mention

life threatening. While this is stating the obvious, I can recite examples where this statement needed to be screamed! Also - **DO NOT USE ICE SCRAPERS, CREDIT CARDS OR STIFF FLOOR BROOMS TO DEICE. The following descriptions are general guidelines only**, consider using myself, another CFI or a more experienced pilot's help/input if needed to learn prepping for cold wx, ops. The following are descriptions of ice/snow/frost accumulations on the airframe that must be considered prior to continuing a cold wx. preflight:

- Accumulations of ice so thick and/or hard that short of thawing the plane out in the hangar, the flight must be scrubbed. Usually a composite layer of snow that thaws then refreezes, freezing rain, or extra thick layers of frost/ice mix are examples of this. Damage to the wings, paint and airframe could result in trying to remove this with anything other than a temperature thawing process. If the RNT hangar is used for this, please remember to mop up water from the floor. Regal Air at PAE will provide a warm hangar for heavy de-ice ops on a space available only basis, and also has deice fluid application service (usually at the pilot's expense). See me or a CFI familiar with using the RNT hangar for deicing when doing this. **YOU MUST HAVE A HANGAR DOOR OPS CHECKOUT. IF YOU BREAK THE DOOR, YOU MAY PAY FOR IT.**
- Moderate to light accumulations. Possible hangar'ing needed or use the de-ice fluid and be prepared to spend a while. You **must have** a properly trained instructor or seasoned pilot to show you how to apply this fluid if you have not done this before, and use gloves and safety glasses. THE FLUID IS IN GARDEN TYPE PUMP SPRAYERS LOCATED IN THE LOCKER ROOM NEXT TO THE STAIRS, ALONG WITH THE PREHEAT HOSES, DEICE BRUSHES. A 55 gallon drum (a barrel marked "UCAR type 1 AIRCRAFT DEICEING FLUID CONCENTRATE", (*this can change due to suppliers!*)) is in the hangar to replenish the containers. Give the fluid a chance to "work" a little before applying more, and then push off with the soft brushes, not stiff brooms. **DO NOT USE FUEL/DEICE FLUID TO REMOVE ICE FROM WINDOWS!!!** (Look at planes with "milky" Plexiglas to see what an overly aggressive pilots use of av-fuel on an ice-encrusted window did), use only soft cloths/blue towels on windows. Sometimes a **soft** brush or burlap is adequate to remove snow or melting frost/ice from wings, and would be preferable. Try this first, and then use de-ice fluid if not successful. Also, make

sure that you are actually applying de-ice fluid! Bug or weed spray won't work! There was an occurrence several years ago where pilots were saturating a plane with solvent, not de-ice fluid! A complete bath and re-lubing etc...., of the airplane was needed afterwards. Not too good for the windows either. Have to admit that was one clean plane though!

- Light moderate to trace. A squirt of de-ice fluid should do it, or many times simply turn the wings into the sunshine to warm while you go about your normal preflight business, then take a soft brush or cloths to it. If the ambient temperature is adequate (just above freezing), you'd be surprised how soon this can work. If no sun, a good soft brushing or a light coating of deicer followed by a brushing will do the trick.

ENGINE PRE-HEATING: (Always refer to the aircrafts POH "Cold Weather Operations" for operational review). While most POH's with aircraft powered by Lycoming recommend preheating below 20 degrees F, **we prefer, if able, to pre-heat the engines for first flights below 25 degrees F.** Consider how "cold soaked" the engine may or may not be from the duration and degree of the sub-freezing temps. Pre-heating also aids in easier starts and prolongs engine/starter life and enhances safe flight and reduces the occurrence of "stack fires". If you start an engine without pre-heating it may cause premature wear, which may or may not manifest itself in your subsequent flight, and will shorten the life of the engine. **No more or less than 1000 RPM idles UNTIL TEMP needle starts to move.** Be patient. We may be needing an engine or cylinder(s) or bearings before its planned TBO, or some other pilot (perhaps you or some other poor sod) flying it next summer could have a power plant problem from previous cold wx. "impatient" preflight action, (or inaction). Also, if an engine TBO's say 500 hours early due to improper cold wx. preflight ops, we lose approximately \$4,000 in engine life, not to mention the \$32,500+ in BEFA's gross revenue that was projected on that 500 hours, as well as the reduced availability and subsequent inconvenience to members. This all factors into the annual rate review the Board does for hourly cost of aircraft operations, and throws the budget out of whack. It can come back to haunt us one way or the other. At the least be sure to "pull the prop through" several times to "break loose" or "limber" the oil, thus conserving battery energy. Ensure mags are "off" of course when doing this. With modern multi-viscosity oil, it's not so much "limbering the oil" now days (though it helps), as

getting the internal parts at proper temps and therefore their correct tolerances before engine run.

STARTERS AND COLD STARTS: If an engine does not start easily, it can be frustrating. It is natural to want to just keep grinding away with the starter to start the engine. If this occurs, don't get excited - relax. "Nurse" the starter or it may fail. **The general rule for starters is to operate them for short periods, and then allow them to cool down. If the engine start has not occurred after three, 10-second periods of operation with a pause between each, a five minute cooling off period is required.** Without this time limit for operation and an adequate cooling off period, the starter will overheat and is likely to be damaged or to fail completely.

We have 3 primary methods of pre-heating "cold soaked" engines, if needed:

1). Propane heat carts. The propane heat cart is located in the hangar. If it's not already open, the Staff, Ace or a CFI (particularly a Citabria CFI or pilot) can open the door if it's locked and the Staff is not present. There are two now. One is on a cart, the other on a handtruck. They both work the same. They are fairly easy to use but there are a few things to watch out for, so guidance is required (check-out) from someone familiar with it prior to operation. The directions for the pre-heat cart ops are with the machine. Please leave directions there; they have a habit of disappearing. NOTE: YOU MUST REMAIN IN THE AREA OF THE PREHEAT CART TO MONITOR ALL TIME THAT IT IS IN OPERATION. A CHECK OUT IS REQUIRED PRIOR TO OPERATIONS BY SOMEONE WHO IS FAMILIAR WITH IT. **Call me or your favorite CFI for a checkout on the preheat cart and any other cold wx ops, we'll be happy to help. NO fueling operations while pre-heat cart is in use!**

2). Pre heat hoses that are placed over your car exhaust, then the outflow is directed to the base of the engine and oil sump. This is the only time automobiles are allowed on the ramp. We have gate proximity cards in the office for car access. Drive slowly and try to use a newer model car to avoid excessive pollutants in engine compartment. With the new security measures, see Staff for key to the gate or call me at home. This must be kept locked at all times.

3). Hangar heat, which can take awhile depending on how cold soaked the engine is. If you have an early morning flight, give me a call and we may be able to

arrange storage in the hangar overnight for you, depending on availability. If it's available, we're happy to do so and you'll have a nice warm plane ready.

The appropriate red nose plugs, (generously made by Maynard Winchester and his wife), should be fitted into the two nose holes of the airplane to keep the heat in when using the cart or the hoses from the car. These are located with the hoses and de-ice fluid in the closet next to the stairwell in the pop room, along with the rest of the de-ice equipment. REMOVE BEFORE FLIGHT!!! I'm very disturbed when I find the cord holding the plugs together is broken in two! **At least a minimum of 30 minutes of preheat is required, and longer if it's below 20 degrees or so.** After the preheat is concluded, you want to **REMOVE NOSE PLUGS**, get the preheat equipment stowed and *start engine as soon as you can*. Be very careful not to over prime the engine as it will be warmer than what the cold wx. start ops are meant for, and have a "spotter" standing outside for stack fires, especially on the C-150's. **If you have a stack fire, continue to "crank" the engine (throttle idle, mixture off), to suck the flames down the carburetor until the fire is out.** This is why it's good to have a "spotter" to observe for "stack fires". It should be pretty cold out to use "cold start procedures". I've seen many an over primed/flooded engine, and the subsequent dead battery that results when over cranking a flooded engine, please do your best to avoid it. **Wait 10 – 15 minutes for the fuel to evaporate before trying to crank the engine again if flooded. Keep the Master Switch & lights off as much as possible to avoid battery drain.**

Once a plane has been flown, the engine does not need preheat unless there was a fairly long period of very sub freezing temperatures prior to its next flight. As you can see, the first person to fly on such a day needs to get to the airport much earlier than normal, and we all owe a big thanks to the "early birds" prepping the planes. As always, the CFIs and myself are here to help you get safely underway.

You are the OWNER at BEFA. YOU USE THE EQUIPMENT AT YOUR OWN RISK AND ARE RESPONSIBLE FOR ITS USE – PLEASE RETURN THE EQUIPMENT BACK TO ITS PROPER LOCATION FOR THE NEXT MEMBER TO USE. It can be very frustrating to your fellow pilots to search all over for equipment that is not properly returned, or is non functional due to abuse or improper care. Your fellow member/pilots who are "downstream" rely on your care and consideration. We recommend you also bring your rubber gloves and eye protection when deicing airplanes.

BULK DEICE FLUID is located in the hangar, 55 gallon drum near south wall. Use to fill bottles. 50/50 mix will work of water and UCAR. Hot water for the mix helps! Be sure to shake.

CHECK WITH PAE FOR COLD WX. OPS SPECIFIC TO EVERETT.

Warm clothing and survival gear increase in importance in winter flight ops. Pack them. You will be thankful even if you're just stuck at another airport.

Lastly, if you live around either of BEFA's operations, please stop in and check the fleet after or during snow or windstorm to see if help is needed. Snow may need to be removed from the horizontal stabilizer to keep the nose wheel on the ground, and any wind can cause the plane to rock up and down banging the tiedown points and nose wheel until the snow is removed. Please notify me (Operations Manager), or the Operations Officer if you stop by the airport to check on things.

This may at first glance seem like a hassle, but once you're familiar with the routine it's not too hard. The bit of extra time involved for first flights in freezing/snowy conditions is more than made up for in the beauty and performance of a winter flight. It is really spectacular. Some of my fondest flight memories took place on a crisp, uncrowded winter morning, or a clear winter night with the moon reflecting on the snow below. You won't regret it.

Grievances:

- 10/14/14 Redbird sim left with key in on position, master, avionics was left on, mixture left rich after previous flight.
- 10/20/14 4801D doors left unsecured and one was barely latched.
- 10/28/14 97PD Cover left off.

Notes From The Office 'Attaboys For Our Volunteers

Your fellow members continue to pitch in to keep us running smoothly, often saving money in the process. This month we thank:

- Scott Bullene for installing anti-skid step tape on all of BEFA stairs.
- Shad Pipkin for aircraft reposition and Power Point help.
- Debbie Brown for logbook delivery.

- Mark Gaponoff for braving the elements to fix the aircraft tiedown anchors
- Troy Larsen and Kip Davis for ferrying planes

Volunteer Help is STILL Needed

BEFA has a regular need for volunteer help. Unfortunately, Boeing work demands are making it increasingly difficult to provide community service. BEFA has many needs and cannot satisfy them without member help. If you can contribute, please call the office to volunteer. Below is the BEFA updated volunteer project list for your generous consideration:

- Need our new bathroom faucets installed in the sim room, men's room sink.
- A Power Point proficient member to help out when needed.
- Need 4 or 5 person work party to clean the hangar floor. This will not be a "full remove everything from the hangar" job, but just sweeping and then using the new "walk-behind" mobile cleaner to scrub the floor. The planes will be moved out to make it easier.

If you can head up or help on any of the above projects, please let Wes know. Your efforts are greatly appreciated!

What Makes An Airplane Fly?

By Steve Isaacson

Fire up your web browser and google for "jef raskin bernoulli equation," and you'll find a link to a paper that Jef Raskin wrote called, "Model Airplanes, The Bernoulli Equation, and the Coanda Effect." It's interesting reading for pilots.

Jef Raskin is best known for starting the Macintosh project at Apple computers in the 1970s, but he was also, apparently, an inquisitive kid. He tells the story of his 6th grade science teacher who could not take the time to really think about how wings fly.

There's the Bernoulli effect, of course, which correlates the increased speed with which air moves over a surface and the lowered air pressure measured at the surface. That tends to "lift up" the wing. But there must be more to the story than that, because acrobatic planes can fly upside down!

What else is there? The Coanda effect: the tendency of a fluid jet to be attracted to a nearby surface. The principle was named after a Romanian aerodynamics pioneer who recognized its practical application in the design of aircraft.

If you're a baseball or soccer fan, Raskin also talks about throwing and kicking curve balls. The amount the ball curves depends on the speed of the spin.

"jef raskin bernoulli equation." Interesting reading.

Expanding BEFA Social Media Outreach

By Marissa Singleton

Over the next few months, BEFA will be taking some small, deliberate steps to slowly increase its presence in the world of social media platforms. Social media (such as Facebook) is viewed by the Board of Directors as a *supplement* to existing methods of communication, not a replacement for existing methods. There will still be a monthly newsletter and the BEFA email distribution lists will still be used when specific needs exist.

If you were not aware, BEFA also has had a Facebook page for some time now. There has been a hyperlink to this page from within the newsletter, but unless you clicked on the link, it may not have been obvious it was there.

BEFA will be increasing the use of this Facebook page in conjunction with posted flyers and existing Boeing events to spread news and information on upcoming events, including ground schools. If you have never been to the BEFA Facebook page, here is a link to it. Please check it out!

<https://www.facebook.com/pages/Boeing-Employees-Flying-Association/208892645798282>

If you achieve a solo or rating and would like BEFA to post a congratulations message on our Facebook page, please send an email (with/without a photo) to me at: mksingleton@hotmail.com. This Facebook posting is strictly optional and you are under no obligation to participate. BEFA will also continue its past practice of recognizing new solos, ratings and new members by name in the monthly newsletter.

If you are interested in volunteering to support BEFA's expanding presence in the area of social media, please

let the BEFA vice president, Glenn Dalby and myself know.

Classified Ads

DIRTY CARPETS OR UPHOLSTERY?

BEFA Members get a 15% Discount

ABC Jet Steam Clean

Carpet Cleaning, Upholstery Cleaning

425.221.2244 or 425.289.6527

abcjetsteam.com

Kel & Deb Brown (BEFA members)

1968 Cherokee Six PA32-300

1/4 Share for Sale \$20,000

New engine: 50hrs SMOH

3 blade prop 2006

Rebuilt tip tanks 2009: Total Fuel capacity 84 gallons;

Typical Fuel burn 12gal/hr

Full fuel payload capacity approx 975 pounds

New Garmin SL40 radios 2011

Contact Bob Carter for further information

425-466-9917

bandscarter@comcast.net

See three photos below



N4082R | Copyright by Philippe Beus | 2010-08-24 | KRNT | Airport-Data.com

CONTACT INFORMATION**BEFA Homepage:** <http://www.befa.org>**JEPPESEN EMPLOYEES FLYING ASSOCIATION:**<http://www.flyjefa.org>**BEFA has a Facebook Page**<https://www.facebook.com/pages/Boeing-Employees-Flying-Association/208892645798282>**OFFICERS AND STAFF****President**

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Contact, in order:

- 1) Ops Manager: Leave voicemail (425) 271-2332 or Pager 206-540-7720
- 2) Ops Officer, or
- 3) Any Board Member

Everett

Office: No phones at this time in Everett. Please call RNT Office in an emergency, otherwise call the focals below.

PAE Coordinator: Steve Kirsch (CFII/MEI)

(206) 851-6663

Maintenance: Anish Taylor

(425) 501-7031

Facilities & Support: Oliver Meier

Wk: (425) 717-2229 or Cell: (510) 541-2142

Safety Manager:**Steve Kirsch (CFII/MEI)** (206) 851-6663**Membership and Communications:****Steve Baier** (425) 785-9219**Newsletter Editor**

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