

✈ BEFA Newsletter ✈

BEFA: Phone (425) 237-2332, M/S 94-35

840 West Perimeter Road, Renton, WA 98057

Welcome New Members!

<u>Name</u>	<u>Class</u>	<u>Location</u>
John Ambrose	Guest	RNT
Vicky Ambrose	Guest	RNT
Jon Brown	II	RNT
Ralph Burleson	Guest	RNT
Chris Hayes	I	RNT
Anthony Livic	Guest	RNT
DeJan Markovic	II	RNT
Chad McFadden	I	RNT
Michael Moore	Guest	RNT
Keith Murphy	II	RNT
Kurt Robertson	Associate	RNT
Terrence Thomas	III	RNT
Xiaochun Yang	I	RNT

New Solos!

<u>Name</u>	<u>Date</u>	<u>Instructor</u>
Hideyuki Kamiya	10/04	Hickman
Eric Samson	10/05	Lancaster

Congratulations!

<u>Name</u>	<u>Date</u>	<u>Rating</u>	<u>Instructor</u>
Austin Watson	10/7	Instrument	Kirby
Mike Nieman	10/11	SES	Wolvington
Kevin Sullivan	10/20	SES	Wolvington
Kurt Withnell	10/20	Private	Hickman
Eric Hultman	10/22	Private	Allen
Eric Lund	10/23	CFI	Wolvington

Coming Events

<u>Event</u>	<u>Time</u>	<u>Date</u>	<u>Location</u>
• <u>Aircraft Maintenance Team.</u> (Contact Walt Cameron)	6-9pm	TH	RNT
• <u>Board Meeting</u>	5:00pm	11/17	RNT
• <u>Instrument Rating Ground School</u>	5:15pm	2/6/07	RNT

From Your President

By Frank Marshall

New Simulator Arrives – Those of you walking past the simulator room at Renton recently have probably noticed that the old Frasca simulator has been replaced by a new simulator set-up.

After the lease of the Frasca was terminated at the request of the owners, the Board elected to purchase a new simulator outright. Howard Wolvington accepted the assignment of purchasing the appropriate hardware and software and building up a first-class system. As usual, Howard has done a great job, and we owe him a debt of gratitude for our new system.

It is very versatile, capable of simulating most of the airplanes in our fleet. It is FAA certified as a Personal Computer-Based Aviation Training Device (PCATD), which means training time on it can be logged and applied toward satisfying some of the Private and Instrument rating flight experience requirements. (See Howard's more descriptive article in this newsletter.)

It will also be available for your personal use (without an instructor, and of course without accruing flight hours that can be logged) after you have had a checkout session. This can be handy, for example, for simply practicing your instrument scan, or for trying out an instrument approach to an airport prior to your first trip there. (Every published approach and nav aid in the United States will be available.)

The rate based on Hobbs hours has been set at \$15/hour (about half the old Frasca rate). It will be available to non-members for \$20/hour. There will be no Hobbs charges for CFIs being trained to operate the instructor station.

Fuel Surcharges: Surcharges and rates for November are as follows:

Aircraft	Base Rate	Surcharge	New Rate
BE76	\$159.00	\$17.29	\$176.29
C150	\$52.00	\$5.01	\$57.01
C172	\$68.00	\$7.19	\$75.19
C172SP	\$75.00	\$8.10	\$83.10
C172XP	\$120.00	\$6.92	\$126.92
C182Q	\$100.00	\$11.83	\$111.83
C182RG	\$105.00	\$12.01	\$117.01
Citabria	\$75.00	\$7.19	\$82.19
PA-28-151	\$68.00	\$7.19	\$75.19
PA-28R200	\$89.00	\$8.19	\$97.19
PCATD-M	\$15.00		\$15.00
PCATD-NM	\$20.00		\$20.00
SR20-WD	\$113.00	\$10.92	\$123.92
SR20-WE	\$133.00	\$10.92	\$143.92

(“M” and “NM” refer to members and non-members, respectively, and “WD” and “WE,” to weekdays and weekends and holidays, respectively.)

Safety and Operations Briefing

By Wes McKechnie, BEFA Operations Manager

FAA SAFETY PROGRAM

The FAA Runway Safety Team stopped by a few days ago to discuss some changes that may be going on at Renton Airport in terms of airport operations and improvements. It will be a while, if ever, before any possible changes are made and we will keep you informed of them when they filter through.

In addition, one thing that they asked we pass on to you is that very soon all postal mailed FAA safety type announcements, and FAA newsletters and the like will be e-mailed too you. Therefore, you need to sign up for them. Your address will be secure so that you won't get any junk mail. Please contact: FAASafety.gov and register for this important service.

NASA GROUND ICING ONLINE COURSE

The FAA and NASA have produced a course on both in-flight and ground icing. I'd recommend anyone who is planning to fly when we have structural icing on the planes, usually early morning flights with frozen rain/snow, or more typical now in this era of global warming, heavy frost, take this course. This is in addition to our annual "Cold WX Ops" for BEFA article, below for your review. You can access the course at: <http://aircrafticing.grc.nasa.gov/courses.html>.

MISSING PICTURES

The thick laminated pages of the AOPA article that was written on BEFA is missing. It was hanging on the cork board in the main office. Who ever walked off with it, please return it to the office. Thanks

GRIEVANCES/INCIDENTS:

- 10/5/06 733XW: Gust lock left off and door unlocked.
- 10/9/06 736NN: Bow line was run over by float truck and broken.
- 10/4/06 435SP: Apparent hard landing on the nose wheel knocked shimmy dampener out of whack.
- 10/31/06 54088: door unlocked.

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:

- Steve and Susanne Myers, Lis Demco, Norm Craven, Bill Stocker & Bob Guthrie for collating the invoices.
- Mike Sievers for fixing our lights.
- Daryl Hickman for miscellaneous jobs.
- Davy Hoy for fixing tiedowns.
- Mike Neiman for splicing the line on the floatplane.
- Will Allen for getting fuel for the float truck.
- John Dimtroff for delivering starter to PAE for 739BT
- Howard Wolvington for setting up our new PCAD replacement of the Frasca 141.
- Eric Hultman & Will Allan for repositioning airplanes.
- Daryl Hickman for emptying the large green trash can for ramp garbage, and replacing it with a new garbage can.
- Travis Nelson for lots of yard work.
- Norm Craven for repositioning aircraft.
- Daryl Hickman for getting fuel for the float truck
- Doug Jacobs for coordinating the PAE tach times with the RNT office.

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. Some of the things that require volunteers are:

- Members with drywall taping experience needed.

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

From Your Safety Officer

By Bob Guthrie

The fourth and final CFI meeting is scheduled for Monday December 4 at 6:00 pm in the BEFA classroom. Karen Mitchell from Seattle Approach and Tom Torchia from Seattle ARTCC will tell us "what they see, hear, and want us to know." They will then take questions from the group. I have chosen a later start time for the PAE instructors in response to several comments about how hard it is to deal with the traffic. According to my records there are seven who have only attended one meeting this year, and I will send a separate note to you.

Every month I write about a topic that interests me -- they all have to do with safety, practice and currency. So fall is here, and the weather is even less predictable, so how are you going to prepare? If you haven't upgraded to IFR this is an excellent time to do it. Just last month, I flew to Vernon, B.C. in 735LH. The morning briefing went something like this: clear sky and calm wind throughout the day. Ok, let's file VFR. There was a call from another pilot that helped delay my departure, so we took off at 11:00 instead of 10:00. Going GPS direct, the flight is only an hour and a half. But when we got to PAE, actually northeast of the field, the weather was not as forecast and we were faced with the choice of going a long way around or going IFR. The plane was equipped, and I was current, so the choice turned out to be easy. Weather sure changes rapidly in the northwest.

Customs in Canada is easy - they give you a CANPASS number to call and either meet you or sometimes just ask you to call on the ground for your clearance number. Coming back is a little more complicated, so I promised the U.S. agent that I would remind everybody about the "*private aircraft enforcement system arrival report*." The form is in our file cabinet top drawer, close to the back. They would like to have the form faxed to them. I replied that my departure point was a small field that did not have a FAX machine. He suggested that next time I fill out the form and FAX it in before departing the U.S., and then call and update the time just before the return flight. Makes sense to me, so I will. I have to say, the Customs agent was pleasant to deal with and thorough in regards to the forms that he required.

Instrument Rating Ground School

By Frank Marshall

Have you completed work on your Private Pilot's license, or are you getting close? It's not too early to start thinking about the next step: going after your instrument rating next spring. This rating will vastly improve your odds of actually being able to use your license to take a trip at the time of your choosing (not to mention that you will likely find it makes you

a better, safer pilot, and gives you a deep, well-deserved sense of accomplishment).

A good way to start is with the BEFA sponsored Instrument Rating Ground School. This course prepares you to take the FAA Instrument Rating Knowledge Test, and will help with your flight training as well.

The 10-week course will be offered on Monday and Wednesday evenings in the Renton classroom, and is scheduled to begin next February 6. The cost, which includes an excellent 850-page Jeppesen Guided Flight Discovery textbook (it will likely remain a valuable reference long after you've completed the course), the complete FAA Knowledge Test question bank, and the latest FAR/AIM, is \$300 (\$330 for non-members).

You may sign up now at the Renton office (or by telephone) to reserve your spot in the classroom. Payment is required by December 31, so that the cost of ordering supplies is covered in advance. (You may opt to have it billed to your account as of December 31 by indicating that preference on the sign-up sheet.)

If you have any questions, please contact Frank Marshall at 253-838-1661.

BEFA PCATD, N7PC

By Howard Wolvington



Effective November 15, 2006, the BEFA Personal Computer-Based Aviation Training Device (PCATD) is being put into service as a replacement for the previous FRASCA 121 simulator. The new device is located in the former BEFA simulator room at the Renton office, and offers instrument training for Instrument and Private Pilots. The device is certified by the FAA and can be used to log up to 10 hours towards the minimum of 40 required for the instrument rating, and up to 2.5 hours toward the 3 hours of instrument training required for the Private Pilot certificate. It can also be used to practice the instrument scan and to maintain instrument proficiency.

The system consists of a Dell PC, two 19" monitors, an HP

color printer, an avionics control stack, a Precision Flight Controls (PFC) Flight Console, PFC rudder pedals, and the On-Top simulation software from ASA. The PFD Flight Console has interchangeable single-engine and multi-engine throttle quadrants.

One of the 19" monitors is placed on the Flight Console and displays the instrument panel to the pilot. The other is the instructor station. The avionics control allows the pilot to adjust NAV/COM frequencies of a typical King stack as well as some other aircraft controls (OBS, Heading Bug, DG, etc.). The instructor station can be used by the CFI to control the configuration of the aircraft, its location, weather, turbulence, and the status of engine, systems, and avionics.

The software supports simulation of a Cessna 172, Cessna 182, Cessna 182RG, Piper Warrior, Piper Arrow, Columbia 300, Beech Bonanza, Beech Baron, and Beech 1900 turboprop. Unlike our previous Frasca, the PCATD can display the current and previous track and altitude for the aircraft during a simulator session, as well as airspeed and VSI values. Flight path can be compared against published approach paths. The instructor can "replay" a portion of the flight for the student to review. The horizontal and vertical profiles of the flight can be printed on a color printer. The software includes navigation facilities and airports for the entire US.

The BEFA Board has established a Hobbs rate of \$15 per hour for members and \$20 per hour for non-members. Aside from the relative low cost, there are many things that can be done more effectively with the PCATD than with an actual aircraft. For reference, see the AOPA Air Safety Foundation safety advisor at: <http://www.aopa.org/asf/publications/sa10.pdf>

As this newsletter is being distributed, other BEFA CFIs are being trained to use the PCATD. I have given it the tail number of N7PC – PC for personal computer and 7 for good luck. Contact your favorite CFI and try out the new system! It will be scheduled via Schedule Master just like any other aircraft.

For the Web Heads

SCHEDULE MASTER: <http://www.schedulemaster.com> or 1-800-414-6114 using your user ID, password and phone menu

BEFA homepage: <http://www.befa.org>

Webmaster: John Scearce john.p.scearce@boeing.com

Classified Ads

Free to good home: Lowrance AirMap GPS (ten years old, includes car power adapter, yoke mount, manual, hard case). I'm cleaning the garage! Call Marissa: 425-235-0330.

Officers and Staff

President	<u>Frank Marshall</u> 94-35 franklinmarshall@comcast.net	Hm: 253-838-1661 Cell: 206-498-1164 Fax: 425-234-3651
Vice-President	<u>Joe Kranak</u> 7M-HC joe.kranak@boeing.com	Hm: 425-391-6071 Wk: 206-662-4400 Cell: 206-856-7948
Treasurer	<u>Bob Bumpous</u> 9U-RK robert.h.bumpous@boeing.com	Pager: 206-416-5401 Wk: 425-234-3237 Fax: 425-234-9048
Ops Officer	<u>Walt Cameron</u> 94-35 wmcameron@msn.com or walter.cameron@faa.gov	Hm: 425-643-0947 Wk: 425-917-6460 Fax: 425-234-3651
Safety Officer	<u>Bob Guthrie</u> 94-35 robertguthrie@earthlink.net	Hm: 206-524-2171 Cell: 206-372-6052 Fax: 425-234-3651
Secretary	<u>Darrel Spitze</u> 0Y-AF Darrel_BEFA@comcast.net	Home: 425-467-0201 Wk: 425-266-3801 Fax: 425-717-3861
Office Staff		
Ops Manager	<u>Wes McKechnie</u> 94-35 befa_ops@mindspring.com	Hm 206-932-2935 Wk: 425-237-2332 Pager 206-540-7720
	<u>Mike Lunning, Diana Cassity</u> befa_office@mindspring.com	Wk 425-237-2332 Fax: 425-234-3651
	<u>Darlene Jaymen</u> befa_account@mindspring.com	Wk: 425-237-2332 Fax: 425-234-3651
Maintenance	<u>ACE Aviation</u>	Contact, in order:
	1) Ops Manager: Leave voicemail (425) 237-2332 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 Doug Jacobs or Oscar Naimi (phone numbers below).	
Maintenance Focal:	<u>Brian Behrend</u>	Wk: 425-266-8155 Cell: 425-280-1215
Facilities:	Oscar Naimi	Wk 425-315-0566
Safety Mgr:	Mike Dubbery	Cell 425-239-3630
Membership/Communication:	Doug Jacobs	Cell 206-853-3164
E-mail DL:	Moliere Francois moliere.francois@boeing.com	Wk 425-342-6784
Newsletter Editor	Marissa Singleton M/S 8R-79 marissa.k.singleton@boeing.com	Wk 253-657-3276

COLD WEATHER OPS CHECKLIST – FOR YOUR FLIGHT BAG

It's almost that time of year again for cold weather operations. With the warmer winters it's usually not as prevalent as in years past, but for those days at or below freezing, special fleet care is not only a serious safety consideration, but wear and tear on the engines and associated components affects us financially. If you are new to BEFA, please see a CFI for more specific training in this area. One thing we would like to stress is the need to get to the airport much earlier than normal if you are flying a plane that has not been prepped and warmed up by a previous flight in below freezing temps. Below are the annual "Cold Weather Operations" reminders which can also be found on our web site: befa.org.

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 previous night) PREFLIGHTS!!!

With the return of inclement weather 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 a little more care is needed.

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

RUNWAY CONDITIONS

Despite the relative lack of snow we receive near the Puget Sound basin with our now warmer winters, the local large airports' maintenance crews do a fairly good job of keeping the runway/taxiway 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, or in the event of a heavy snow or ice storm, an airport closure

notification until the runway surface has been cleared. If you 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 advisories. While generally pretty accurate, just because a controller says it "looks good" is not a substitute for good common sense. As always, you are the PIC and are responsible for good & bad decisions.

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 suspend flight operations when runway conditions are reported "nil", or perhaps even "poor". 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. Occasionally the taxi and runway will be reasonably clear/wet 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, perhaps for the following reason: they did not anticipate 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 – it's slick! 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 evidently needed to be screamed! Also - **DO NOT USE ICE SCRAPERS, CREDIT CARDS OR STIFF FLOOR BROOMS TO DEICE** aircraft. **The following descriptions are general guidelines only** – please consider using myself, another CFI, or our more experienced pilots' help/input if needed to learn prepping procedures 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.* 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 gradual heating/thawing process. Fortunately, this is not very common in the Seattle area, but it does happen. 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, (usually at pilot's expense). Our PAE hangar generally is too cold for thawing, but could be tried. Please see Staff/Board Members or CFI's approved for hangar ops for use of the RNT hangar for thawing. Ace Aviation is also a possibility if they have room.

- Moderate to light accumulations.* Use the de-ice fluid. You need a properly trained instructor or seasoned pilot to show you how to apply this if you have not done this before, and use gloves and safety glasses. THE FLUID IS IN GARDEN TYPE PUMP SPRAYERS LOCATED BEHIND THE DOOR NEXT TO THE STAIRS IN THE POP MACHINE ROOM, ALONG WITH THE PREHEAT HOSES, DEICE BRUSHES AND AIRCRAFT "NOSE PLUGS". A 55 gallon drum (a green barrel marked "UCAR AIRCRAFT DEICING FLUID CONCENTRATE") 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 or DEICE FLUID TO REMOVE ICE FROM WINDOWS!!! (Look at 704GC's "milky" Plexiglas to see what an overly aggressive pilot's use of av-fuel on an ice-encrusted window did, use only soft cloths on windows). Sometimes a soft brush/towel is adequate to remove snow or melting 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! There was an occurrence several years ago where well intentioned pilots were saturating a plane with solvent, not de-ice fluid! A complete bath and relubing 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.* Simply turn the wings into the sunshine while you go about your normal preflight business, then take a soft brush or cloth 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 brushing, or a light coating of deicer followed by a brushing will do the trick.

ENGINE PRE-HEATING (Always refer to the POH "Cold Weather Operations" for review)

While most POH's recommend preheating below 20 degrees F, we prefer, if able, to pre-heat the engines for first flights at and below 30 degrees F (-1.1 degree C). Consider how "cold soaked" the engine may (or may not) be from the duration and degree of the freezing temps. Pre-heating also

aids in easier starts and prolongs engine life and enhances safe flight. If you start an engine without pre-heating in below freezing weather, it may cause premature wear, which may or may not manifest itself in your subsequent flight, and will shorten the life of the engine. We may be needing an engine or cylinder(s) 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 club 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 all of 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.

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

1). Propane heat cart. The propane heat cart is located in the hangar. Unfortunately we only have one. If the hangar is not already open, the Staff or a CFI (particularly a Citabria CFI or pilot) can open the door if it's locked and the Staff is not present. It's 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 THE 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 card 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 and how warm the hangar is. If you have an early morning flight, give us 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 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. They are clearly marked for either C-150's or C-172's. 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 15 to 20 minutes of preheat is required, and longer if it's below 20 to 25 degrees F (-6.6 C to -3.8 C) or so.** Extreme cold soaked engines may require a fairly long preheat time. After the preheat is concluded, you want to REMOVE NOSE PLUGS, get the preheat equipment stowed and **start engine as soon as you can.** Remember to "pull the prop through" prior to start (**mags off**). Referring to the manufacturer's cold wx. start procedures may be necessary, but be very careful not to over prime the engine, as it may be warmer than what the cold wx. start ops are meant for. Also, have a "spotter" standing outside for stack fires. **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.** 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 5 to 6 minutes for the fuel to evaporate before trying to crank the engine again. Keep the Master Switch 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 sub freezing temperatures prior to its next flight. As you can see, the first person to fly on a sub-freezing day needs to get to the airport earlier than normal, and we all owe a big thanks to the "early birds" prepping the planes. As always, the CFI's and myself are here to help you get safely underway, and don't hesitate to ask us for assistance.

AT RNT, COLD WX. EQUIPMENT IS LOCATED IN THE CLOSET IN THE POP MACHINE ROOM. BEFA IS PRIMARILY A SELF-DISPATCHING OPERATION. YOU ARE THE OWNER. 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.

BULK DEICE FLUID is in the hangar, in a 55 gallon blue drum marked "Deice Fluid", Proplene Glycol. CAUTION: We have oil in blue drums too, make sure it's the right one. Use gloves and eyewear, note oil is in blue drums. Use the

drum to fill spray bottles only.

CHECK WITH PAE FOR COLD WX OPS SPECIFIC TO EVERETT OPERATIONS. PROCEDURES WILL ALSO BE POSTED IN THE HANGAR.

Warm clothing and survival gear increase in importance in winter flight ops. 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 windstorms to see if help is needed. Both the Ops Officer and I live a fair ways away and accessibility to the airport may be a problem. 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 bit of a hassle, but once you're familiar with the routine, you'll see it's not that bad. 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.

Wes McKechnie