

PFC NOTAM

The Official Voice of the Pacific Flying Club
 September 2008
 Issue 2008 - 2



Website: www.pacificflyingclub.com
 Blog: pacificflyingclubga.blogspot.com
 E-Mail: pacificflyingclubga@gmail.com

Calendar of Member Events/Activities

Get your calendars out and mark down these member activities.

Sept. 11-15	Group Flyout to National Championship Air Races and Air Show, Reno Nevada
September 17	Airframe and Powerplant Pilot Briefing Session. Sign up with Dispatch.
September 27	IFR Ground School (Sept. 27-28 and Oct 3-5)
October 4	Pilot Briefing Seminar on Night Flying
October 14	Commercial Pilot License Ground school. Sign up with Dispatch.
October (Date TBD)	Seminar by PFC AME's, tour of maintenance, and close up of a Cessna.
November (Date TBD)	Pilot Briefing Seminar on Flying a Citabria
December (Date TBD)	Tour of Area Control Centre (to be confirmed)
December 5, 2008	PFC Christmas Party
January 31, 2009	Ben Hoben Safety Seminar
April 2009 (Date TBD)	Annual General Meeting

Check with the PFC web site, PFC Dispatch, and/or the GA Blog (pacificflyingclubga.blogspot.com) for updates/changes/new announcements.

Aviation Weather Update

There has been a recent change to the METAR reporting format, and an upcoming change to the TAF Format for Vancouver. These are described in the following sections. We've also put in some information on just how reliable TAF's are in real life.

TAF CODE AMENDMENT—EXTENDED PERIOD OF VALIDITY

The following information was extracted from AERONAUTICAL INFORMATION CIRCULAR 25/08 published by Transport Canada. Effective November 5, 2008, the aerodrome forecast (TAF) code will be modified in accordance with Amendment 74 to the International Civil Aviation Organization's (ICAO) Annex 3 to extend the period of validity to a maximum of 30 hours.

To accommodate the extended period of validity, a two-digit date will be added to all times in the TAF period of validity, and to all times in the change groups throughout the body of the TAF. This modification will apply to all TAFs, regardless of their period of validity.

The following illustrates how the TAF format will look, and provides a description of the modifications to the code.

TAF CYYZ 081140Z **0812/0918**⁽¹⁾ 13015KT P6SM BKN030 **TEMPO 0818/0823**⁽²⁾ 17025G40KT 1SM TSRA OVC020CB **BECMG 0823/0901**⁽³⁾ SCT015CB BKN020 **FM091000**⁽⁴⁾ 15015KT P6SM SCT030 **PROB40 0910/0912**⁽⁵⁾ 2SM BR

RMK **NXT FCST BY 081500Z**⁽⁶⁾ =

(1) Period of validity

(2) TEMPO change group

(3) BECMG change group - A gradual change in the weather (to SCT015CB BKN020) is forecast to occur over a 2-hour period, starting at 2300Z on the 8th day and ending at 0100Z on the 9th day.

(4) FM change group - A rapid change in the weather (to 15015KT P6SM SCT030) is forecast to occur at 1000Z on the 9th day.

(5) PROB probability group - There is a 40 percent probability that 2SM BR will occur within a 2-hour period from 1000Z on the 9th day to 1200Z on the 9th day.

(6) The next TAF forecast for this aerodrome will be issued at 1500Z on the 8th day.

Change in METAR Format

Recently NavCanada started reported the METAR's in a slightly different format. They are now reported with the most recent observation first, whereas previously in was the most recent observation last. An example of the new format is shown below.

METAR/TAF

VANCOUVER/VANCOUVER INTL/BC

METAR CYVR 020200Z 14004KT 20SM FEW040 FEW045TCU BKN230 16/10 A3023

RMK SC2TCU1CI0 SLP238=

METAR CYVR 020100Z 16006KT 20SM FEW040 BKN230 17/10 A3023 RMK SC1CI2

SLP238=

METAR CYVR 020000Z 12004KT 20SM FEW040 BKN240 17/10 A3024 RMK SC1CI1

SLP241=

TAF Accuracy

METAR reports typically come from airports or permanent weather observation stations, and is an actual *observation* of the weather at that station. It is thought to be a contraction of the French words MÉTéorologique ("Weather") Aviation Régulière ("Routine"). Reports are typically generated once an hour; if conditions change significantly, however, they can be updated in special reports called SPECI's. Some reports are encoded by automated airport weather stations located at airports, military bases, and other sites.

TAF is a format for reporting weather *forecast* information, particularly as it relates to aviation. It is a report of what the weather forecaster expects to happen in the future. "TAF" is an acronym of Terminal Aerodrome Forecast or, in some countries, Terminal Area Forecast.

Have you ever wondered how accurate (or inaccurate) a TAF is? Well, this information is available from NavCanada for each TAF reporting station in Canada. The Meteorological Service of Canada provides weather services to NavCanada, which includes providing TAF's. They measure the reliability of these forecasts, and keep track of the reliability on a monthly basis. They publish data going back to 1997. One measure of this TAF reliability is the **VFR Reliability Index**.

The VFR Reliability Index is a measure of how reliable the TAF is when the forecaster has predicted VFR conditions. A level of at least 95% reliability during the first 6 hours of the forecast period is the target. That is, if the forecaster predicts VFR condition in the first 6 hours of an issued TAF, then they expect the VFR condition to actually exist over that 6 hour period 95 % of the time and less than 5% of the time the conditions will be below VFR minima. The first 6 hours of validity of all TAFs, including both regular issues and amendments, and their corresponding observations are counted so multiple counting of the same hour is possible. The following table shows the TAF VFR Reliability Index for some familiar reporting stations for April 2008 and July 2008.

Station	VFR Reliability Index April 2008	VFR Reliability Index July 2008
Abbotsford	98%	99%
Calgary Intl	90%	100%
Campbell River	100%	100%
Castlegar	99%	100%
Cranbrook	98%	100%
Fort Nelson	99%	99%
Lethbridge	91%	97%
Masset	91%	82%
Nanaimo	100%	97%
Port Hardy	99%	95%
Terrace	96%	94%
Tofino	99%	84%
Vancouver	98%	100%
Victoria	96%	100%

These are actually pretty good for the most part, but you can see that Masset had a VFR Reliability Index of 82% in July 2008, and Tofino wasn't much better at 84%.

The thing to remember about TAF's is that although they may cover a long period of time, they are only expected to be reliable in predicting VFR conditions more than 95% of the time for the first six hours. That means that there is a one in twenty chance that although a TAF predicts VFR conditions, it will actually be below VFR minima. Something to think about next time you plan that VFR flight to Tofino in July, or Calgary in April.

Safety Moment

Ever wonder what to do on one of the fall/winter days when the ceiling is 500', visibility 50 feet, raining heavily, and you still want to do something related to flying? One good idea is to go out to the club and sit in an aircraft and go through the emergency procedures in the POH. This doesn't cost you a cent, and it makes sure the emergency procedures are fresh in your mind. It sure beats having an actual emergency and thumbing through the POH to find out what to do.

General Aviation Update

The GA Group has been very active since we initiated these activities. We have had a number of Pilot Briefing Sessions which have been very well attended, as well as two group fly outs, and we are planning a group trip to the US National Air Races in Reno, Nevada from Sept 11 to 15. The trip involves one day to Reno, three days at the events, and one day back to CZBB. We have eight people flying down in four aircraft. Check the Blog!

We have many more events planned for the fall and winter, although weather will likely limit the number of long destination flyouts. Check the Calender of events in this issue for details of upcoming events. The Blog also contains announcements of any upcoming events. The blog address is <http://pacificflyingclubga.blogspot.com/>, and it also linked to from the PFC Web Page under the "Pilots Area" tab. You can also sign up for e-mail notification by sending a request to pacificflyingclubga@gmail.com.

So far the GA Program has pretty much been a one man show, and it is now time to involve others to help in organizing some of these events. The time commitment isn't demanding, and you can participate to any degree you wish. The kind of things we need help with;

- organizing and being trip leader on one of our flyouts (you would only do one per year, so we would need several volunteers here)
- moderating the flight sharing web site
- contributing articles to the NOTAM
- contributing articles to the Blog
- helping out at some of our larger events (Christmas Party, AGM, etc.)

If your are interested, drop me an e-mail at pacificflyingclubga@gmail.com and I'll schedule a time when we can all get together to discuss what we can do together.

Flight Sharing Web Site

The flight sharing website was activated in late July of this year, and we have a few people signed up as users. There are still a few teething problems we are encountering, but we'll work these out over time. The intent of the site is to allow members to ask any other members if they are interested in sharing a ride (and airplane costs) for trip somewhere. All communications are done via e-mail, so we have taken humans out of the loop for the most part.

The site also contains documents in PDF format that are useful to pilots. These consist of flight plans forms, US Customs forms, weight and balance sheet, Aircraft Signout Sheet. etc. It also contains user manuals for all of the GPS units in the fleet, some radios, the Garmin Audio panels and transponder.

We'll be working with members over the fall with members to get people more active on this site.

Training

UNDERWATER EGRESS - VALUABLE COURSE FOR ALL PILOTS

By Kevin McQuiggin

I'm a relatively new instructor and have been a member of PFC since 2002. In late November 2005 I had the opportunity to attend a course on "Underwater Egress", offered by Pro Aviation. The course was a full day in

length and was held at a community pool in Langley. With so much of our local flying over water, I am convinced that every pilot should take this course. Notably, most deaths following ditchings or water crashes take place due to drowning - the accident itself is usually survivable. Stats show that most pilots lacked the skills to successfully unbuckle themselves and escape from the sinking or submerged airplane. If the pilots had received this training then it is likely that they would have lived.

The morning of the course was spent reviewing ditching techniques, sea survival, reliable methods of escape from a sinking airplane, and studying a number of previous crashes that had occurred into water. Videos, instructive graphics, and well-designed slides augmented the class discussion.

The morning's theory is put into practise by an afternoon in the pool. Everyone jumps into the pool (wearing their normal flying clothes, including their shoes or boots) and gets experience using TC-approved life jackets while trying to stay afloat. Next is some practical experience deploying, righting, and mounting a typical sea-survival life raft that fits up to fifteen people. With twelve in our class, the raft was packed, and getting three more people in there would have been difficult!

The highlight of the afternoon is a series of about a dozen simulated crashes in a "dunker" unit. Rigged like a typical cockpit, two victims (whoops, I meant "pilots") strap themselves in, and the unit dunks them upside down in the pool, where they put the morning's theory into action to effect their escape. The training sequence starts with a simple inversion, but gets progressively more complex with the addition of simulated blocked exits, blacked-out goggles (to simulate murky water or darkness), assistance of a co-pilot or passenger, and other scenarios.

I found that the experience of going upside down underwater was initially disorienting. It is difficult to tell which way is up, and having to locate and operate exits, undo your seatbelt and harness, and exit the "aircraft" is not as easy as it sounds from the description in your POH or "From the Ground Up"! The morning's training, however, kicks in and after a few runs the procedure is well-ingrained in your brain. I now feel properly prepared for this situation, should it ever happen to me in real life. The instructors (both experienced pilots as well as qualified life guards) are there to assist, so there is no risk of real injury.

The whole course was great, but I found the pool session the most valuable. As student pilots, we all read about water impacts, typical aircraft actions on impact, ditching techniques, aircraft inversion, and methods of escape, but like most things in life, reading about something is quite different from getting actual experience doing it. The pool session gives the student an opportunity to put theory into practise and gain real experience.

Having practised these survival and escape techniques in the pool and the dunker, I now feel that I would be fully capable of dealing with the real situation of underwater egress should it ever arise. If there are several "unknowns" in the typical water accident scenario (water impact, sinking or inversion, aircraft filling with water, getting doors open, releasing seatbelt, determining "up", life jacket usage, escaping to surface), after the training there are really only two aspects of the accident that remain truly untested:

- The dunker cannot simulate the real force of a water impact at 50-80-100 KTS; and
- A swimming pool cannot duplicate the 5 or 10 degree Celsius temperature of the water we would likely find ourselves thrown into, in BC at least.

In a real accident, there'd be a bigger "boom" as you hit the water, and the water would be WAY colder than we can likely imagine! I'm shivering just thinking about it!

However, I would rather have extensive experience and total confidence with eighty percent of these "unknowns", gained through taking this training, and only have to face two of them (the force of impact and the cold water), than to have not taken the training, and have to meet the full one-hundred percent of these challenges at once!

I would highly recommend this course for anyone flying regularly. Safety is key to flying, and preparation and training are key to safety. If anyone wants more information, please feel free to E-mail me at mcquiggi@sfu.ca.

Night Rating

On October 4, we plan to hold a Pilot Briefing Session on Night Flying. This is meant to serve as a “rust remover” for those who already are night rated, and as an introduction for people who want to get their Night Endorsement this fall. If you want to get your night rating this fall, this seminar is definitely worthwhile. Flying at night can be really fun, but you do need the training and keep current.

Pacific Flying Club offers a Night Endorsement based on 20 hours of flight time. A Private Pilot Licence is required. Five hours of night dual is required as well as five hours of night solo flight time. Additionally, 10 hours of dual instrument time is required. Any dual instrument time that the pilot has previously logged can be credited towards the 10 hour instrument required. The Night Rating forms part of the requirements of the Commercial Pilot Licence. To be recommended to hold the rating, the student must meet the required standard.

- 5 hours dual instruction
- 5 hours solo instruction
- 10 hours dual instrument instruction

Since this is an Endorsement on your license, there is no flight test. When the instructor feels you are ready, they sign you off. At the end of the seminar, we will arrange for people to find an instructor and start working on their night endorsement, or just go up with an instructor and brush off the rust. You can also go up for one flight and see if you really like it (which you will). The instructor for this seminar is Karen Whitmore.

**Night Flying Pilot Briefing/Seminar
PFC Classroom
Saturday, October 4
9 AM Sharp**

Airframe and Powerplant Pilot Briefing Session

Mike Wolfe, the Chief Maintenance Engineer at PFC, has kindly offered to give an evening pilot briefing session where he will go over a Cessna in much greater detail than you have been exposed to in the past. This is a rare chance to actually get your hands dirty and oily if you wish, see what keeps these machines in the air, what the AME's do to keep them flying, etc. You might even get a chance to help take apart a Cessna!

Mike would like people to provide him with an idea of things they would like to see him cover, or what kind of things they are interested in. Send Mike an E-mail with your suggestions of areas of interest to mwolfe@pacific-flying.com Be sure to register with dispatch early, as we have limited space available.

**Airframe and Powerplant Pilot Briefing Session
PFC Maintenance Hangar
Friday Evening, September 17
6:30 PM Sharp**

PPL/CPL Ground school

CPL ground school will commence October 14, 2008. If you wish to pursue your Commercial License, talk to one of the instructors at the Club to make sure you are aware of all the requirements for this Licence. If you plan to go ahead with it, register for the CPL ground school by contacting dispatch.

IFR Ground School

PFC will be offering a two weekend IFR Ground School, Sept 27-28 and Oct 3-5. This is a joint offering between Aero Course and Pacific Flying Club. The first weekend is held at Pacific Flying Club, and the Second Weekend is taught at the Aero Course facility. This program provides students with more than an IFR overview, it is an in-depth course that develops a full understanding of IFR flight. The 40-hour, two weekend course has been designed to meet the ever-increasing demands of the aviation industry. It was created by professional pilots who are leaders in the industry. Register for this course by giving dispatch a call at (604)946-0011, or contacting Dan Martens at dmartens@pacificflying.com.

CZBB Updates

A reminder to all pilots to please avoid flying over the noise sensitive areas in Tsawwassen and Ocean Park. These areas are becoming increasingly more sensitive, and we want to avoid noise complaints from residents. Another thing to be aware of is the Noise Abatement Procedure for Runway 19 and CYNJ. Review these procedures in the CFS for details.

Places to Fly

The General Aviation (GA) Group had its second fly-out on the weekend of July 12/13. There were nine participants taking two aircraft on each day for the trip to **McMinnville, Oregon** and the Evergreen Aviation Museum where we were seeking out the famous Howard Hughes Spruce Goose. We had spectacular weather both days, and a lot of fun flying.

The museum is within walking distance of McMinnville Airport, although a shuttle will pick you up at the FBO. It is comprised of three facilities. There is the Air & Space Museum, the Spruce Goose Museum, and the iMax Theatre. The entire complex is known officially as the "Evergreen Aviation & Space Museum".

The Spruce Goose Museum is the "Holy Grail" of the trip. Once you walk in the door you are met by the sight of the most amazingly big wooden flying boat you could ever imagine. It fills the whole museum! The Spruce Goose itself is something to behold. You can't really believe the size of the thing until you stand next to it. The control surfaces are absolutely massive. The wingspan is 320 feet, the height is 80 feet, and the length is 218 feet. To put it in perspective, its wingspan is greater than a Boeing 747 or an Airbus 380 (and its made of plywood for the most part with fabric on the rudder and elevators) and you could park 10 of the PFC Cessna's across the wing. Surrounding the Spruce Goose is a static display of many vintage and not so vintage aircraft (Bleiot replica, Curtiss Jenny, P-51D, Spitfire, Bf-109, B-17, B-24, B-25, B-26, Ford Tri-Motor, etc).

The Air & Space Museum covers the history of space flight from the Robert Goddard days until the present day. They have great collection of Rockets, rocket engines, space capsules, the Moon Rover, and the SR-71 as well as its companion D-21 Drone, and a Titan II ICBM. This museum is the only one in the world that has on display the Electronic Counter Measures Pods for the SR-71. Included in this museum display are some pieces from the Russian space program as well. It is very well organized and well worth a visit alone.

The trip from CZBB to Bellingham (KBLI) to clear US Customs the from Bellingham to McMinnville (KMMV) takes about 3.5 hours flight time and about 4 hours elapsed time. If you depart CZBB at 8:30 AM, you should be there at around 12:15 to 12:30 PM. You can get a very reasonable lunch at the museum (in the Air & Space Museum), then tour either one or both of the museums. The museum closes at 5 PM, so you can plan on departing KMMV around 6 PM. The return trip should take around 2.5 hours, and you will clear Canadian Customs at CZBB.

If you plan to go to McMinnville, give Cirrus Aviation a call a day ahead of time so they can plan for your arrival. They have 100LL and Jet-A, and the staff are extremely friendly and helpful. The phone number is (503)472-0558. The two museums are well worth the trip, and you'll have a lot of fun flying there!

PFC Fleet News

C-GTAE, The new Diesel

PFC recently acquired a new Cessna 172P with the Thielert Diesel engine (C-GTAE). This is a Diesel Engine Conversion to a standard 172P, with new avionics and considerable refurbishment of the aircraft. Thielert Aircraft Engines GmbH took a Mercedes Diesel Engine and did "substantial" modification to it and put in a variety of aircraft. Thielert obtained an FAA STC for a Cessna 172P (amongst others) with this engine conversion. It has a 4-cylinder DOHC direct Diesel injection engine and turbo-charging. The engine develops 130 Horsepower to drive a 3-blade MT Composite Propeller via a gear reduction assembly. It is a water cooled engine, unlike the air cooled engines in the rest of the fleet.

Instead of the normal engine controls in the regular 172P, this has a Full Authority Digital Engine Control (FADEC) which does everything through one lever. For safety, there are two FADEC channels (A and B). With the FADEC comes a fully electronic Engine Display system, consisting of two bar graph LED displays (the Compact Engine Display or CED and the Auxiliary Engine Display or AED). One very important difference from the rest of the club fleet is the fact that the engine requires Jet A/Jet A-1 fuel. This requires you to ensure that the fueller puts the correct fuel in the aircraft. Also, C-GTAE takes a special Diesel engine oil and not the oil you put in the rest of the aircraft. Some of the speeds are a little different than the standard 172P, but not by much. The engine consumes fuel at a much lower rate than the standard 172 engines. At 65% power, the fuel consumption rate is about 4.6 gallons an hour. This gives the plane a range of over 7 hours with full tanks. Check the POH for details.

At the date of writing this post, the empty weight of the aircraft is about 1650 pounds, so your useful load is reduced by about 150 pounds from a standard 172P model. The upholstery in the aircraft is new, and it has that "new car" smell inside. It has a new paint job, and wheel fairings on all three wheels.

The aircraft comes with a great Garmin avionics package, which consists of the following;

- GMA340 Audio Panel
- GNS430 GPS/Comm/Nav.
- SL30 Comm/Nav.
- GTX327 Transponder

Starting the engine is pretty simple, basically setting a few switches on and then pressing the Starter Button. Engine start is almost instantaneous when you do this. The run-up is quite different than the standard 172, mostly done under the control of the FADEC. The most noticeable thing is how quiet and smooth the engine is when its running.

To fly this aircraft, you need a separate Engine Familiarization with an instructor, and you need to write an Engine Familiarization Exam. I would suggest that you go to the club a day or two ahead of time and review the POH before hand (they have spare copies at the club for this purpose). You can also get the Engine Familiarization Exam ahead of time and complete it while your are familiarizing yourself with the POH. The POH was translated from German to English, and in some places you have to read it carefully to understand what they are saying. The review process will take a few hours. You need a one-hour booking with an instructor for the Engine Familiarization itself where your exam will be reviewed and then you do walk around, start the engine, and shut it down.

In addition to familiarizing yourself with the new engine and associated systems, you should familiarize yourself with the Garmin avionics before hand as well. The avionics are great, but there are some features you will need to use which aren't immediately apparent to those unfamiliar with it. Also, it doesn't cost you to read the manuals before hand whereas trying to figure it out while the engine is running can be darned expensive.

Citabria

Well, the rumours are now official. PFC will be acquiring a Citabria!. Sometime in the late September/early October machine.time frame, the Club will acquire a Citabria.This is a brand spanking new high wing tail dragger, Red and Grey Exterior with Grey interior, and up to date avionics. This aircraft is not an aerobatic machine.

This aircraft will require a more thorough checkout than any other aircraft in the fleet (probably 5 hours), but its worth it! Watch for more details on the Blog!

New Radios

The club recently purchased 6 new radios to replace some of the RT-385 radio's in the fleet. These are brand new Michel MX-385 radios, designed to be electrically and mechanically interchangeable with the RT 385 and RT 485. The have 760 Channel COM, 200 Channel NAV, and a Digital display with active/standby frequency with "Flip-Flop". They operate pretty much the same as the older radios they will replace, but there are a few differences. Make sure you familiarize yourselves with them before you start the aircraft, you will save yourself some time and money trying to figure them out with the engine running.

Daily Minimums Reduced

The Club has reduced the minimum Flight Time per day for the Fall and Winter to 4 hours per day from 5 hours per day effective immediately.

We are Looking for Your Input

Feel like contributing an article to the newsletter? Maybe you have a good suggestion for something we should include. Whatever input or comments you have you have, send us an e-mail with your input (it's more than welcome). Drop us a e-mail at pacificflyingclubga@gmail.com.

Electronic Delivery of the NOTAM

As usual, current and past versions of the NOTAM will be available on the PFC Website for all to download in PDF format.

Many of you have indicated that you would like to received the NOTAM Newsletter by e-mail. This will save the club a considerable amount of money in postage and will save a great deal of paper. You can have NOTAM delivery by e-mail only, in addition to normal delivery by surface mail, or continue to get it by surface mail only. Do your part to reduce your Carbon footprint.

Send the following information be e-mail to **pacificflyingclubga@gmail.com**.

NOTAM (tick all that apply)

E-Mail _____
Surface Mail _____

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I would like to be notified of upcoming PFC Events Yes _____ No

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Cheers

Pete