



## **So It's Time For Your BFR.....** **By Nick Scholtes**

For most of us "fair weather" pilots, every 2 years we need to subject ourselves to a "BFR". It seems that some pilots find the BFR to be a somewhat scary event, and it really shouldn't be. The more you know about it, the less scary it will be, and to that end, this article attempts to help remove some of the "scary" from a BFR.

First, let's hit the topic of what it's called, right out of the gate. Within the last couple of years, the FAA decided that it's no longer called a BFR (Biennial Flight Review; it's a FR (Flight Review). The reason for this is pretty simple; not every pilot needs a FR every 2 years, some may need it every 6 months, some may need it every 12 months, hence their desire to remove the "B" (Biennial) from the term. So, from here on out, it's an FR, not a BFR, OK?

Next, what EXACTLY does the FAA say about the FR? Well, that can all be seen by looking at 14CFR61.56. My advice to all pilots: before calling an instructor to schedule your FR, read 61.56. If there is anything in there that you don't clearly understand, ask the instructor.

Some notable things that 61.56 says:

- In (a), it defines that you need a minimum of 1 hour of flight and 1 hour of ground. That's 2 hours. Minimum.
  - In (a)(2) it says that the FR is at the discretion of the person giving the review. (That's important, I'll get to that below)
  - That's about it! The entire remainder of the reg basically says who needs an FR and when (and based on that you can see why they took the "B" out and made it just an FR)
- So let's talk about the 2 hour minimum part. I can tell you that it doesn't score brownie points with the instructor when a person calls up and says, "Hey, I saw on the schedule that you've got an hour free, so I scheduled the plane in between your other appointments from 10 to 11 to do my FR". For me, the vast majority of the value of a FR is in the ground portion, and hence I put the vast majority of emphasis on the ground portion. Only scheduling a flight portion tells the instructor that you disregard the value of the ground portion. I'd highly suggest scheduling 2 hours for the ground portion (cause you know how we pilots like to get to talking about other stuff....) and 2 hours for the flight portion. Remember, for the flight portion, you need to actually log 1 hour in your logbook. If you consider that it takes a MINIMUM of 20 min to walk to the hangar, get gas, preflight, and get in (and that 20 min is truly minimum, it's usually more like 30) and another 20 min to put the airplane away, sign logbooks, etc., you can see why you need 2 hours of scheduled time to get 1 hour of logged time. Realistically, that "1 hour BFR" is going to take 4 hours of the instructor's time. Minimum.

Another thought. I can't tell you how many times we instructors hear this one: "Hey, my BFR expires tomorrow and I've got a trip that I need to take the next day. Can we get together for an hour to sign my BFR?" In this case, consider the instructor's perspective. First, this pilot already has some clearly set expectations, and the instructor is going to be the "bad guy" by having to "re-set" those expectations. One expectation that is clear is that it's only going to take an hour to do this FR (see above, it's actually a 4 hour endeavor, minimum). The second expectation is that the pilot expects to "pass" the FR the first time, without any need for any touch-up training. What happens if the

instructor doesn't feel that the pilot performed sufficiently (61.56 says that the instructor signs your logbook at his discretion)? The instructor becomes the "bad guy". So, much better to give some leeway in both scheduling and expectations.

Yet another thought. Many pilots, it seems, view the FR as a hurdle to get past. They just want to get it over with. They view it as a "mini checkride". It's not, and it's really quite far from a mini-checkride. Much better to view the FR as a learning opportunity and make it your goal to take away as much learning as possible from the opportunity. Best yet, would be to come in with a list of things that you feel are your biggest piloting weaknesses, and put the list on the table and say, "let's review this list and make me the best pilot I can be". That, truly, is what the FR is all about.

Given that virtually nobody comes to an FR with that list, the actual content of an FR is left to the instructor. So, what does an FR consist of? Well, because the FR is left to the instructor's discretion, it can be anything. And it can (and will) be different for each instructor (and for each pilot). And, in a way, that's kinda' cool (provided you don't choose an instructor that just signs you off, there's simply no added value in the process in that case.) One interesting note about the content and the differences between instructors..... The instructor community is, in many ways, a pretty tight-knit community. Instructors typically share quite a few stories and discussions with each other. Many times an instructor will ask another instructor to fly with one of their students which keeps all the instructors somewhat consistent in what they teach and how they teach it. However, such is not the case with the FR. In very few instances have I heard instructors discussing what they do on their FRs, or what their FR philosophy is, what their FR approach is, what their "pass" criteria is, etc. The instructor community, it seems, does not really talk about the FR very much (at least they don't talk about it with me!) So, each instructor is truly left to his own. Yes, there are guidelines and pocket FR manuals out there, but it's not clear if everybody uses them. I'll provide an overview of my own personal FR philosophy and process. It's pretty simple really, and hopefully it will give you something to think about when approaching your next FR.

First, my FR philosophy, which is pretty simple. We humans tend to remember things that we do often, and we forget things that we haven't done in a while. My approach to a FR is to interview the pilot to see what type of flying she usually does, figure out what things she'll remember because she does them often, figure out what things she doesn't do very often and that she's probably forgotten, and focus on "freshening-up" those skills. It's that simple.

Some examples. One pilot that I know owns a very nice traveling airplane. He uses it exclusively for business trips. His trips, 100% of them, consist of taking off, engaging the autopilot, climbing to altitude, cruising to near the destination, descending and landing. Then flying the opposite course on the way back. He flies into Class D and C airports routinely, and gets flight following every flight. This pilot flies 3 or 4 business trips a month. He is really good, and really fresh, at flying his XC (Cross Country) missions; he knows airspace and how to deal with ATC very well.

But, when do you think was the last time this pilot practiced an engine failure? When was the last time that he stalled his airplane, or flew in slow flight, or practiced a slip, or a no-flap landing, or a one-wheel landing in case a tire blew, or actually practiced manually operating the landing gear in case of a hydraulic failure, etc. etc. etc..... The FR for this pilot will focus on all of the things that he doesn't routinely do, and that he is probably quite rusty on because the last time he did these things was at his last FR.

Another example..... A pilot has had his license now for 4 years. He rents a Skyhawk once a month or so, and flies around sightseeing, or maybe goes to a different airport to get a hamburger or to do touch-and-goes. He was a little scared of stalls and slow flight in his training so he doesn't do those

very often (never, actually), and never flies to an airport with a tower. He vaguely remembers the term "flight following". His radio calls are kinda' rusty too, with lots of "uh's" and "anybody in the pattern please advise" type stuff. The FR for this pilot would be very different, focusing again on the things that this particular pilot is rusty on.

Maybe one of those pilot's FRs logs 1 hour of ground and 1 hour of flight. Maybe the other logs 4 hours of ground and 4 hours of flight. It depends on the pilot and their current level of proficiency.

Next, my general "Outline" for the FR. I tend to use the same general outline or flow for every FR. I ask somewhat open-ended questions and let the pilot talk about things, with the intention being to simply refresh the pilot's memory through repetition (even if "repetition" is only repeating these things every 2 years!)

### **So, what questions do I ask in the ground portion of a FR?**

- How do you know you're legal to fly today?
- How do you know you're safe to fly today?
- How do you know the airplane is legal to fly today?
- How do you typically get a briefing before you fly, and what do you look for?
- How can you be sure that you aren't going to fly into a TFR?
- How do you typically plan your flights?
- What can you tell me about airspace?
- How do you do weight and balance?
- How do you plan fuel needs for your flights?
- How do you find frequencies for various ATC facilities along your route of flight?
- Given the difficulty with getting charts and documents such as A/FD's these days, how do you typically find this information?

This set of questions can easily take an hour to go over, even between an instructor and pilot that are both totally up-to-speed on all the topics. Several of the questions, (i.e. How do you know you're legal to fly today?) allow a refresher on a myriad of topics including FR, medical, documents, currency, etc.

## **Flight Review, Part 2.....**

### **There Are Old Pilots, and There Are Bold Pilots, but There Are No Old, Bold Pilots!**

**By Nick Scholtes**

To continue last month's topic about flight reviews..... Last month, we covered what the regs say about Flight Reviews, how to set expectations on both sides (pilot and instructor) regarding an FR, and one instructor's view of the ground portion of the FR.

This month, I'd like to cover the flight portion, and tell a little story about the concept of "being current". I'll start with the "being current" topic. Just this past week, I had an opportunity to talk with a Private pilot who had not been FR-current since 2008. He wanted to get his FR done, and of course, asked if I had an hour on Saturday to do it. I asked him what he wanted to cover, what things he was "least current" on, and how long he thought it would take. His response: "I don't know, you're the instructor, you tell me." Hmmmm..... That prompted the following interchange, which I think might be of value to write, so here it is:

"Well, what things do you feel least-current on?"

"I don't know. I feel current on everything. I'm fine. Just sign my FR and I'll go fly." (Now keep in mind that this pilot hasn't flown since 2008. He's definitely a bold pilot!) "So, you don't have any feelings of lack-of-currency?"

"No, I don't really know what that would feel like....."

"Wow. Ok. Well, I can tell you what it feels like. And in my opinion, as a pilot, you should know the feeling. Every pilot should know the feeling. First of all, it's important to realize that everybody gets un-current. Take me for example. In the spring when I get in the Pitts for the first time in 4 or 5 months, I'm not Pitts-current, and I know it. I know it because I can't remember the exact sequence of buckling the belts (for those who haven't been in the Pitts, the belts are actually kinda' complicated). I look at the panel and don't instinctively know where everything is, and what it's telling me. I have sweaty palms when I taxi out. All those signs mean I'm not current. And I know it. All pilots know it. And it's a judgment call whether it's a minor issue that'll be over as soon as you hit the gas, or a major issue where you need to park it. If you can't tell when you're current and when you're not, we've got a bigger problem than just completing an FR..... "

The moral of that story: It's the responsibility of all of us, as pilots, to be able to self-assess accurately and honestly, and be able to know when we're rusty on a particular topic or skill, and to bring THAT to the FR instructor and work with the instructor to knock the rust off. THAT, in a nutshell, is what an FR is all about and what its purpose is. And the important point is that YOU the PILOT need to know when/where your rust is. That is not a piece of knowledge and insight you want to delegate off to an instructor. At least not if you want to become an old pilot.....

Ok, so now you know, and have honestly admitted to yourself, where you are rusty. Tell that to the FR instructor. Then go fly. And work on those things until the rust goes away.

Will every pilot bring this info to his FR? Unfortunately, no, very few will. For those that don't, what will the flight portion of the FR consist of? Well, again I can't speak for other instructors, but for me it consists of trying to find the rust that the pilot won't admit to and trying to polish that rust off. In that way it's kind of a rust search-and-destroy mission! So, we'll work on things that most pilots don't work on very much, things that are the most likely to be rusty skills. Some of those things include, but aren't limited to:

**Emergency procedures, stalls, no-flap landings, x-wind takeoffs and landings, slips, and others.** Let's look in more detail at just this list.

Emergency procedures -- The main emergency procedure I like to focus on is the engine failure. The way I like to look at an engine failure is that it's not an emergency at all! It's just a chance to practice toward your glider rating! The biggest challenge, and the area where I've seen the most failure is in the scenario where a pilot is in cruise flight up fairly high, like let's say 6000' or above, and an engine failure happens with an airport directly below. In a HUGE percentage of cases, the pilot misses the airport, even though it was easily within gliding distance. Why is this? Simple, it's because the pilot has no fool-proof procedure to hit the airport below.

Instead he just relies on pure judgment of his glideslope, which at long distances is very imprecise. The pilot has to burn off 5000' of altitude and doesn't really know how to do it, so he gets so far away from the airport that he now can't make the runway. The exact procedure to learn, practice, and use is well-known by glider pilots, and can be found at a variety of websites. Details are beyond the scope of this article but could make for a future article. The bottom line is, practice engine failures on the FR, and don't just do one and "get close" and call it a day. Develop and ingrain a fool-proof procedure that lets you hit the field every time.

**Stalls** -- It's amazing how many pilots are incredibly bothered by the prospect of executing a stall. While the FAA emphasizes stall recovery during pilot training, at the FR I like to emphasize developing a "feel" for a stall and how to "fly it". I like to see a pilot take the plane right to the stall, and "feel" the airflow separate from the wing. It's easy to tell when that happens. It's also incredibly easy to re-attach the airflow and fly right out of the stall. Go up high, set the power to idle, pull back on the yoke, feel the airflow separate. Reduce backpressure an almost imperceptible amount and re-attach the airflow. Do that over and over. You'll lose an amazingly small amount of altitude each time, and my experience has been that this exercise gives the pilot a much better feel for what a stall is, when it happens, how to deal with it, than does ramming the power to full at the first indication of a stall.

A stall is not an inherently bad thing to be avoided at all costs. A good 3-point landing in a tailwheel airplane is a well-executed stall. If it weren't for stalls and how to fly them, much of the aerobatics we enjoy today wouldn't exist. Stalls are just another part of flying an airplane and practicing them helps overall airplane handling skills.

**No-Flap landings** -- No-flap landings can be considered as an emergency maneuver, but really, they just give the pilot a different perspective on how to fly the pattern. One indication, at least to me, of a pilot's overall currency and proficiency, is how big of a pattern he flies. As a general observation, pilots that aren't very current tend to fly a ginormous pattern, often requiring substantial power and possibly even a climb on the 2-mile final leg. By flying a pattern with varying degrees of flaps, from full to none, the pilot increases his judgment as to when to reduce power, how high to be, etc. Without this variation, the same pattern and procedure is flown over and over and over, and the judgment part of the pattern gets rusty in a hurry. Practicing varying pattern sizes and flap settings helps when judgment of strong winds, engine failures, or other unexpected variables show up. It also requires the use of other tools such as slips, which I'll cover below.

**X-wind takeoffs and landings** -- The skills and procedures required to properly and safely land in a strong crosswind are some of the first that get rusty. Not knowing which rudder to push, difficulty with maintaining the centerline, a fear of taking off or landing on one wheel (which is required to be able to really do a x-wind TO or LND well), relaxing the x-wind control inputs after touchdown, are all things that seem to creep into pilots after a period of time. A FR gives us the opportunity to refresh these skills with the safety of someone in the right seat to "bail us out" if things go wrong. To me, heavy emphasis on x-wind practice is a very important part of a thorough FR.

**Slips** -- Slips can be difficult and scary for a large number of pilots. From figuring out which foot to push forward, to the proper relative speeds of

rudder and aileron inputs required to maintain course, to not really understanding why a slip is used..... all of these things are generally not practiced from one FR to the next. And these things should be practiced, for a variety of reasons. One reason is slips, like stalls and other maneuvers, if performed correctly simply display an overall mastery of the aircraft. Another reason is that in the event of a no-flap landing or an engine failure, a slip is a useful tool to put the airplane where you want it. Yet another is that every x-wind takeoff and landing, if done correctly, is a slip! Slips are fun and can tell an instructor a whole bunch about a pilot's aircraft mastery (or lack thereof!) So what things do I look for regarding slips? I look for a pilot to know when a slip is called for, how to cleanly and crisply execute a slip, how to maintain or adjust course during a slip, and, maybe most importantly, what the purpose of the slip is in the first place. This is such an important point to me, and it is so universally misunderstood, that I'll emphasize it here. The purpose of a slip (at least one executed because we are too high/long and we want to get down) is to allow the pilot to PUSH FORWARD on the yoke and to dramatically increase his descent rate, without dramatically increasing his airspeed. Clearly the pilot could push the yoke forward without executing a slip and we would come down. But, we'd have way too much airspeed when we got down. The slip lets us push without building up airspeed. The problem is that a VERY small fraction of pilots actually push when they slip! The vast majority are able to get the airplane uncoordinated, and drag goes up, and airspeed goes down, and they look over at me with a sheepish look, as if to say, "See, I slipped it! And we didn't die! Can we stop now?" But they missed the point, they didn't push!!!! So, remember the purpose of the slip..... The purpose is to let you push. Without the push, why bother with the slip?

That's about it! That's my version of a FR. Let's all become old pilots, and leave being a bold pilot to someone else!

Nick

*This excellent article is a reprint first published in the December 2012 and January 2013 issues of the Blue Sky Aero Newsletter.*