



**Stan/Eval Newsletter  
CIVIL AIR PATROL  
UNITED STATES AIR FORCE AUXILIARY  
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### **How to Get an IFR Clearance at non-Towered Fields (SM R. Phillips ALWG)**

You have that brand new instrument ticket in your pocket, and you decided to try it out. You planned an instrument flight to a tiny distant field for lunch. Previously you had only flown out of towered airports. During the last 100 miles of your flight, you passed the end of the telegraph lines and over flew a tired-looking Pony Express rider. Now you are so deep in the woods that they must pipe in daylight. How in the world do you get back to your big airport?

First, you can pick up your clearance in the air if you can climb in VMC high enough to communicate with ATC. They prefer you be high enough to be seen on radar, but this is not an absolute requirement. If they can't see you on radar, they may tell you that you are responsible for terrain clearance.

Maybe you are way out in the boonies at Podunk Airport, the ceiling is 400 feet, and you must pick up the clearance on the ground. Find your airport in the Airport/Facility Directory (the A/FD can be found in Foreflight – Airports – info – A/FD), then scroll down to CLEARANCE DELIVERY. Look for preferred communication method (phone or radio or radio/GCO) with ATC to pick up your clearance.

The circled R symbol indicates the radar approach/departure control that controls that airfield. If they do not have approach control for that field, ARTCC (Center) will release approaches into that airfield and will be the organization you contact.

When you contact ATC, you will most likely contact the individual who is handling the radar scope for that field and is as busy as a one-handed paper hangar. So be brief and ready to make your request succinctly. Do your runup and load your FMS, etc. before calling. Be at the end of the runway. Have your notepad and pencil in hand.

*“Birmingham approach, CAP119 would like to pick up my IFR clearance from KANB to KBHM. I am number one for runway 5 at Anniston Airport and am ready to depart runway 5 within 3 minutes of your release. The underlined items are required before she can give a clearance. Don't make her ask for them.*

She will give you the clearance rapid fire because she is busy. However, she may first say “hold one” and put you on hold while she searches her computer messages from Center for your clearance.

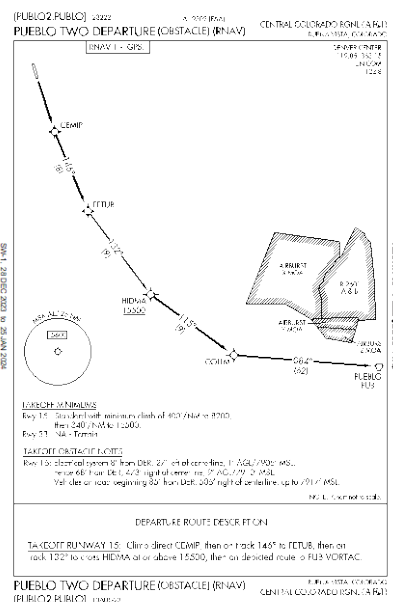
She will give you your clearance in the usual CRAFT format but will add a clearance void time and the correct local time. She will give you a frequency on which to contact ATC after takeoff. Have the frequency listed in the A/FD or approach plate already written down, as this is most likely the frequency she will issue. She may give you a heading to fly on departure and a top altitude to climb to. Otherwise, you may fly the ODP if the airport has one. Tell the controller your proposed route for entering controlled airspace. She may ask you to modify it a bit but usually they bend over backwards to approve your preferred route. If you dally and take off AFTER the clearance void time, you probably will get violated. Clearance void time means just that.

If for some reason you or ATC is not ready, they may tell you to “Hold for Release”. That means you can’t go until they give you a release and void time.

Read your clearance back to her and she will end the conversation, allowing you to change to the CTAF and announce your departure. As you leave the traffic pattern, change to the assigned frequency and be ready to squawk Ident when the controller asks you to do so.

**You are responsible for avoiding all obstacles until ATC identifies you and gives you a heading change (starts vectoring you).** So, review your VFR chart for potential obstacles and any ODPs. If you know your minimum safe altitude within 25 miles and your climb rate at 90 knots ground speed, divide your rate into the MSA. Multiply by your ground speed and you now know just how far you need to look around you for obstacles.

Review your Takeoff Minimums, Obstacle Departure Procedures, and diverse vector area (Radar Vectors) page found under Foreflight -Airport page - Procedures -Departure – Takeoff Minimums tab. Don’t scud run. Even though you will be given an initial heading to enter controlled airspace, know where the local towers and mountains reside. Have in mind a safe departure lane. Double check the assigned heading for safety until you’re above the MSA within 25 miles of your airport. Your approach plate can be quite helpful for this. The approach plate will show a missed approach route. If you use this route to climb out, remember it is predicated on you starting the missed at the missed approach point and altitude. You might have to circle up over the airport first before starting along the missed approach route.



You can also fly back out up the approach. Look at the descent angle on the approach and use that and the Rate of Descent Table in the Terminal Procedures Supplement (Foreflight – Documents – FAA- Digital Terminal Procedures Supplement).

Generally, at 90 knots and no wind, a climb of 500 FPM will keep you safe as you climb back up a 3-degree approach angle. Calculate before you try it. Your mileage may vary. Climb at the best rate or even the best angle if you are nervous. If this is in mountainous terrain, you may need a more aggressive climb on a specific heading.

Even when the clearance says cleared on course after takeoff, ATC is expecting you to remain clear of all obstacles on your own until at a safe altitude. Being cleared on course does not relieve you of flying the ODP. After your initial contact with ATC, they may say “turn to such and such heading or cleared on course WHEN ABLE”. *When able*, keep the responsibility for obstacle clearance on you until you have safely cleared all obstacles such as towers and mountains. Only then will ATC be responsible for obstacle clearance.

This process is only dangerous if you don’t know what is expected of you. Did I mention you are responsible for obstacle clearance until at a safe altitude and begin getting vectors?

### **The Best Flight I Never Flew (LtCol B. Herkert MOWG)**

As a professional pilot for the federal government, I was involved with the development and refinement of the flight risk assessment tool (FRAT) for my agency. Pilots considered it, in part, a shield they could use to prevent being directed to fly missions they weren't comfortable with. It was created as part of our development of safety management systems (SMS) when our agency was seeking IS-BAO (International Standard for Business Aircraft Operations) certification.

Prior to the launch of any operational flight, I would prepare a FRAT score by considering Self, Aircraft, Mission, and Environment (SAME). If the FRAT score was too high for me to authorize the flight, I would either find ways to mitigate the concerning factors or, in some limited circumstances, seek higher management authorization to fly. Mitigation might involve increasing the crew rest period, waiting for management to fix an item instead of deferring it, shortening the mission, or waiting for better weather to prevail.

The best flight I never flew was one many years earlier where I grounded myself. I was living in Aberdeen, Scotland and flying at the Deeside Gliding Club in Aboyne. When I woke up, the soaring conditions were fantastic. For reasons I've long forgotten, I was pretty upset with my then girlfriend. I was mad enough that I kept thinking about the matter and couldn't focus on the soaring flights that were about to occur.



It was clear to me that I wasn't safe to fly, but my 25-year-old self-thought I might be able to push through and focus on soaring once I was up. I reasoned the best way to forget about her for the moment was to think about something else (soaring). The wiser part of me (the one my 47-year-old self still struggles to find sometimes) said the best thing to do was not fly. Unfortunately, I did not have I'M SAFE, FRAT, SAME, SMS or other formal decision-making tools to lean on. The personal decision I made to ground myself until things got better was something I look back on with pride.

In the years that followed, I had the opportunity to earn an Aviation Safety and Security Management Certificate through the University of Southern California Aviation Safety & Security Program. Case studies abound throughout the various courses: Human factors, threat and error management, aviation safety management systems, SMS for managers, etc. Pilot error/human factors were present in almost every accident studied. It was easy to look back with 20/20 hindsight at the decisions made by a pilot that resulted in an accident and question how the pilot could have made such errors. It was more difficult to look at myself in the mirror and realize it could have been me in those situations. Would I have fared any better?

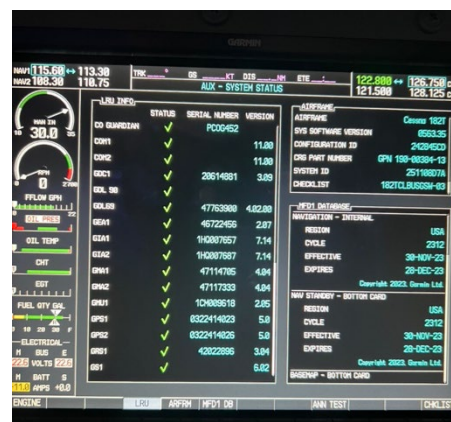
We often focus on the flights we've taken because they provide great memories. Perhaps it would be even better to look back on the flights we shouldn't have taken and commit ourselves going forward not to repeat those mistakes. i.e., Your dog just died... take a break from flying. You just got fired from a job... take a break from flying. The planes avionics are not working properly...

take a break from flying. You're having problems with a significant other...you guessed it...take a break from flying. While flying is often something to do as a distraction from life's challenges, sometimes life's challenges warrant waiting to fly on another day. Safe soaring my friends.

### G1000 and CO Detectors

As previously reported in the Stan/Eval Newsletter, every CAP airplane is required to have a CO detector. CAPR 130-2 paragraph 14.4 requires a disposable CO detector provided by CAP/LGM to be installed in every CAP a/c and replaced annually. Many have observed that these disposable detectors can be ineffective although they are better than nothing. Many pilots carry a handheld digital CO detector as a supplement. That's a really good idea. But our CAP G1000 aircraft often have a very effective built in digital CO detector depending on the specific G1000.

To determine if your G1000 equipped aircraft has a built-in CO detector is easy. Just go to the "AUX/System" page and you should see it listed as one of the LRU's. If it's working, it will have a green check mark. If not, it will be marked with a red X. With the CO detector working, it will alert you if the CO level exceeds acceptable tolerances. Another hint that you may have a digital CO detector with your G1000 is on startup. When you energize the master but not the avionics, you will see an error message stating the CO detector has failed. This will go away as soon as the avionics are brought online.



### Doors opening in-Flight.

With the recent loss of a "plug" door on a B737 MAX 9, there has been some discussion of what to do in our piston airplanes if a door opens in flight, or worse still, detaches from the aircraft. The January 2024 issue of "Flying Lessons" provides this advice:

"Most experts teach flying a normal pattern when a door opens after the airplane is airborne, then landing and securing the door. In most low-wing airplanes—Bonanzas among them—suction over the wing pulls the door outward while the slipstream pushes it inward, resulting in the door riding slightly open at equilibrium between the forces acting on it. In some airplane types—Bonanzas not among them—it works to open a pilot-side vent window, put the airplane into a steep slip and then secure the door. Or at least some Pilot's Operating Handbooks (POHs) suggest this is possible, I've never tried."



The important point is to fly the airplane first. A door opening in flight may cause a startle effect, but the airplane is still flyable. There have been totally avoidable accidents following a door opening because the pilot chose to try and close the door instead of flying the airplane. If you do want to close the door in flight, fly the airplane and get stabilized first. If your POH has a procedure for closing an open door, follow it, or just land and take care of it.

The C182 NAV III has this procedure for an open door:

“Accidental opening of a cabin door in flight due to improper closing does not constitute a need to land the airplane. The best procedure is to set up the airplane in a trimmed condition at approximately 80 KIAS, momentarily shove the door outward slightly, and forcefully close and lock the door.”

The POH doesn't have a procedure for an open baggage door but probably landing is the best option. Exiting the airplane in flight to close the baggage door is not recommended.

### **The Dark Side of Visual Approaches (AINsight)**

We all believe a visual approach is much simpler and easier than an instrument approach. But maybe not. Interesting article from our friends at AIN [here](#).

### **Articles for the National Stan Eval Newsletter**

These articles have been written to present ideas, techniques, and concepts of interest to CAP aircrews rather than provide any direction. The articles in this newsletter should in no way be considered CAP policy. We are always looking for brief articles of interest to CAP aircrews to include in this newsletter. CAP has many very experienced pilots and aircrew who have useful techniques, experiences, and tips to share. Please send your contribution to [stephen.hertz@vawg.cap.gov](mailto:stephen.hertz@vawg.cap.gov). You can view past issues [here](#).