

Altimeter Check

Most pressure altimeters are subject to mechanical, elastic, temperature, and installation errors. Any scale error may be observed in the following manner

1. Set the current reported altimeter setting on the altimeter setting scale.
2. Altimeter should now read field elevation if you are located on the same reference level used to establish the altimeter setting.
3. Note the variation between the known field elevation and the altimeter indication. If this variation is in the order of plus or minus 75 feet, the accuracy of the altimeter is questionable.

Preflight Check

Pitot Static/Altimeters must be checked every 24 calendar months for IFR flight. No VFR-only check is required.

Safety dictates that the validity of the altimeter should be done using the above procedure before every flight and maintenance advised if the error is greater than 75 feet.



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Useful Information

By: Bob Gawler

The FAA is very clear in stating that being Pilot-in-Command (PIC) of an aircraft – whatever its size – is a big responsibility. In fact, the PIC is “directly responsible for, and is the final authority as to, the operation” of the aircraft (14 CFR 91.3). Being PIC means that the buck stops with you. Nobody else – not your passengers, not ATC, and not anyone else on the ground – is the final authority on operation of the aircraft.

Ignorance is No Excuse

In flying, as on the highway, ignorance of the law is no excuse for making mistakes. In aviation, the rules in 14 CFR 91.193 are very clear about what you should know – everything! If you like acronyms, you might remember that you need a “wealth” of information.

Weather reports and forecasts,
Expected performance of the aircraft given expected conditions,
Alternatives available,
Length of runways to be used,
Traffic delays and terrain avoidance, and
How much fuel is required.

Buckle Up

One of your responsibilities as PIC is to ensure that your passengers are briefed on use of safety belts 14 CFR 91.107. This duty has several parts:

- ✓ Notify each person to fasten safety belts and, if installed, shoulder harnesses.
- ✓ Ensure that each person has the safety belt properly secured any time the aircraft is in motion.

(Con't P.2)

This is YOUR Club

Studies have shown that in a typical social club (like CFC)

- 5% of members show up and run the club;
- 15% of members regularly participate;
- 20% occasionally participate; and
- 60% never do anything!

Being a part of CFC means having access to well-equipped and maintained airplanes using modern scheduling tools. It also means access to friendly, skilled pilots who want to share their experiences and hear of your experiences.

A club thrives on the activity of its membership. CFC is not an airplane rental agency – if all you're after is access to an airplane, perhaps you might consider renting directly from the FBO?

Of course, that's not what CFC wants – we want you, but we want you to active – in meetings, at picnics, and in calls for help with maintenance if you can.

Our airplanes have been showing wear & tear that is indicative of a pilot-attitude of complacency. Active members are hearing from the club leadership every week about the need for care and respect of the airplanes and other members. Have you been attending and hearing the message?

- ✓ Ensure that all flight crewmembers are at their stations.

Flight crew members must have safety belts fastened at all times, and must use shoulder harnesses (if installed) during takeoff and landing unless it would interfere for performance of duties.

It is a good idea to include other items in your preflight briefing to passengers. A good way to remember the topics to cover is to think SAFE.

S – seatbelts, shoulder harnesses, sterile cockpit

A – air vents and environmental controls

F – fire extinguisher location and operation

E – exit and emergency instructions (e.g., how to open doors)

Careful and Wreck-less

One of the broadest rules is 14 CFR 91.13, which says “no person may operate an aircraft in a careless or reckless manner.” The rule applies not only to flight, but also to aircraft operations on the ground. Avoiding careless and reckless operations means complying with all other regulations. Including the following:

- ✓ You have to ensure that the aircraft is airworthy and in a condition for safe flight (14 CFR 91.7).
- ✓ You must take “reasonable precautions” to prevent injury or damage on the ground if you drop

something from an airplane (14 CFR 91.15).

- ✓ You may not act as PIC if you have consumed alcohol within the last 8 hours, if your blood alcohol contents is .04 or higher, or if you are under the influence of any drug that affect your faculties in a manor contrary to safety (14 CFR 91.17).

- ✓ You may not allow anyone under the influence of alcohol or drugs (except a medical patient under proper care) to be carried in your aircraft, except in an emergency (14 CFR 91.17).

Fit to Fly

Flying requires attention and concentration. Many things can affect your fitness to fly, and the familiar IMSAFE checklist is a good way to preflight the pilot. As outlined in AIM 8-11, you need to verify that you are not impaired by **I**llness, **M**edication, **S**tress, **A**lcohol, **F**atigue, or **E**motions.

You should also be aware of how various situations can affect your perception and your judgment. These include:

- ✓ Hypoxia (AIM 8-1-2) and other effects of altitude
- ✓ Carbon Monoxide Poisoning (AIM 8-1-4)
- ✓ Illusions (AIM 8-1-5)
- ✓ Vision (AIM 8-1-6)

SAFE FLYING

Aviation Safety: CRM

ASRS's award winning publication CALLBACK is a monthly safety newsletter, which includes de-identified ASRS report excerpts with supporting commentary in a popular "lessons learned" format. In addition, CALLBACK may contain features on ASRS research studies and related aviation safety information. Editorial use and reproduction of CALLBACK articles is encouraged.

The excerpt in italics to the right is reprinted from Issue 475 of NASA's CALLBACK website

I was conducting a CFI single engine add-on with a local Designated Pilot Examiner (DPE). [The airport] was extremely busy and using Land and Hold Short (LAHSO) rules for Runways XX and XY. We were probably on the ground for...thirty minutes before we were cleared to taxi...and another thirty minutes before we were cleared to takeoff.

For the final maneuver of the check ride, the examiner asked for a power-off 180 landing to Runway XX. He was directing me throughout the entire maneuver (when to turn base, what airspeed to hold, how much bank to use, when to deploy flaps, etc.). His instruction led me to a very high final approach altitude. I stated, "We need to go around. We are too high." I was scared we would break the hold short lines for Runway XY. He replied, "We are not going around. I don't want to get stuck up here for another hour."

As I thought, we landed very far down the runway...but stopped completely before Runway XY. Once in contact with Ground, they issued me a phone number for a possible pilot deviation.

I have read about accidents where the junior member of a professional flight crew sees a situation they recognize as dangerous, but the senior crewman does not. Young pilots doubt themselves, and the early NTSB accident database is full of examples of the "cowboy" captain not taking any input from the rest of the crew.

In the mid-1970's (or so) the FAA began stressing the need for the entire crew to be active in operating the aircraft as safely as possible. Called Crew Resource Management, it was so successful that many hospitals instituted Crew Resource Management in their Operating Rooms to ensure junior surgeons can have a say in how a medical procedure is going.

Simplistically, CRM is a philosophy that maintains the senior/junior relationship (there is always a single captain on the flight) but calls for the engagement of all crewman to voice concerns or opinions without fear of retribution.

The Asiana flight that landed short into the seawall at San Francisco Airport in 2015 is a late example of a crew's failure to properly use CRM. The NTSB found the crew mismanagement of the autopilot and failure to properly monitor and coordinate as 2 of several causes of the accident.

When you head to GAI for a flight in our airplanes, how often do you think of CRM?

If you are flying with another member of the club (including an instructor), do you pre-coordinate who is in charge in the event of an emergency? Do you brief your intentions ("after rotation, I'll fly runway heading until 1,300, left 45-degree pattern exit, while I climb to 2,500 make last call and contact Potomac"), or do you simply trust to fate?

Flying with another pilot introduces ambiguity to the cockpit: Who has more experience? Who is older? Who has been with the club longer? It's best to dispel those ambiguities early and say up-front, "in an emergency, I remain PIC. Feel free to assist", or "In an emergency, I think you should take the controls. I'll assist".

When flying with an instructor on a non-training flight, don't assume the CFI is automatically taking charge. Even when instructing, there may be circumstances where the "student" remains PIC. Did you know an instructor can give instruction to a pilot and NOT have a medical? That means the pilot receiving instruction must be at least a private pilot and will be PIC. (*Our instructors have valid medicals, BTW*)

(con't CRM P.4)



AOA Warning

The FAA has issued a general warning citing “non-specific airworthiness activity” and reminding owners and operators that Angle of Attack sensors can be easily damaged during “normal operations”.

The FAA issued an information for operators” bulletin that states, “Based on continued airworthiness activity on multiple foreign and domestic products, including large transport aircraft and small general aviation aircraft, FAA has determined it is necessary to advise operators of the importance of performing proper operations and maintenance on AOA sensors”.

It is thought by many that AOA sensor failures are implicated in the two ongoing investigations of the B737 MAX accidents, but the agency has said that this reminder is not coming from those investigations.

How did CRM begin?

Crew Resource management grew out of the 1977 Tenerife airport disaster where two Boeing 747 aircraft collided on the runway killing 577 people. A few weeks later, NASA held a workshop on the topic, endorsing this innovative training.

United Airlines was the first airline to provide CRM training for its cockpit crews in 1981.

The term CRM was coined in 1979 by NASA psychologist John Lauber who had studied communication processes in cockpits for several years.

While retaining a command hierarchy, the concept was intended to foster a less authoritarian cockpit culture, where co-pilots were encouraged to question captains if they observed them making mistakes.

CRM *(con't from P.3)*

And then, there is the flight exam. When you fly with an examiner, whether or not they are a Designated Pilot Examiner or an actual FAA employee, do you enter into the flight assuming you are the junior pilot and must defer to the examiner?

It's a natural feeling to want to do well on the exam and do what is asked of you, but if what is asked becomes dangerous, what then? Examiners are human and make mistakes too. The pilot in this month's ASRS story was in that situation.

I wonder if, in retrospect, the subject pilot considered what would have happened if he acted on his gut feeling to go around, and not the DPE's “make it work” dictate? Maybe he would have failed the flight exam; but is passing the exam and having a possible pilot deviation on your record a better outcome?

The next time you fly with another pilot, or instructor, or an examiner, have a discussion before the flight on the roles of each of you during the flight. State clearly who is going to be the PIC (the “captain”) and who is to support and say why.

CRM is not just a concept for large aircraft and professional crews. It's a team dynamic that draws the best from all members of the team to reach the best outcome in a situation. Isn't that what we all want in our flights?



Congressional Flying Club Crew Chiefs

Make sure you contact our crew chiefs with any issues or concerns with the airplanes.

N739BA	Kendrick Moore
N23GV	Phil Wilk
N20300	Vacant
N5244N	Eldar Aharonovich

Editor's Note

If there are activities you would like to have added to the Upcoming Events Page, please let Al Secen know before the 25th of the month (publication date of the newsletter).

Upcoming Events

- **2019 Cleveland National Air Show**

Aug 31, 2019 12:00 AM - Sep 2, 2019 11:59 PM
1501 North Marginal Road, Cleveland, OH, 44114

- **9th Annual Fly-In Breakfast**

Sep 15, 2019 8:00 AM - 12:00 PM
2727 Martin Road, Seneca Falls, NY, 13148

- **Rusty Pilots at College Park Airport**

Sep 28, 2019 9:00 AM - 12:00 PM
1909 Corporal Frank Scott Drive, Operations Building, College Park, MD, 20740

- **Wings, Wheels, and Pancakes**

Sep 28, 2019 8:00 AM - Sep 29, 2019 12:00 PA
1130 Chambersburg Road, Gettysburg, PA, 17325

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Congressional Flying Club

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