



The Seat Cushion

Saving your tail and preventing injury since aviation's inception!

Procedural Non-Compliance

By Brent Crow

On May 31st, 2014, a Gulfstream G-IV, N121JM, crashed after a rejected takeoff and runway excursion in Bedford, Massachusetts. Two pilots, a flight attendant, and four passengers were fatally injured. The Pilot in Command (PIC) and Second in Command (SIC), were both ATP certificated, and each had logged over 1,400 hours in the G-IV, with over 11,000 hours total time and 8.5 years of flying the G-IV. What do you think could have caused this experienced crew to crash following a rejected takeoff?

The answer is not what you would expect from a seasoned flight crew. NTSB reports indicate the control lock was engaged rendering the crew unable to add more than 6 percent throttle or manipulate the flight controls. This would have been caught by the flight crew had they actually completed a checklist properly. Further, the crew attempted to deal with the issue (once they recognized it)

during the takeoff roll instead of aborting the takeoff. 14.1 seconds after first stating "lock is on" the crew ultimately attempted to abort the takeoff. Unfortunately, the aircraft was only 1,000' from the end of the runway, travelling at 162 knots. By that time, the accident was unavoidable.

The National Business Aviation Association (NBAA) has published a list of procedural non-compliance markers:

- Permission to deviate – When a senior crewmember decides to cut a corner or practice selective non-compliance, especially in front of other, less experienced crewmembers.
- Flight without passengers – A flight crew may adopt a complacent attitude of "anything goes" or believe that since it's not a 'standard' flight, the 'standard' operating procedures do not apply. Though we don't fly passengers at CAE OAA, we sometimes conduct test flights, or ferry flights which provides such an environment.

- Environmental or Dispatch "pop-ups" – When weather, mechanical issues, or dispatch causes a flight to become rushed, crews tend to cut corners in order to still make duty times and other company/FAA policies which become strained by the new event.
- Crew Physiology and Fatigue – When fatigued or stressed, crews can find themselves getting lost in checklists, develop poor communication which allow for procedural non-compliance errors.

To combat procedural non-compliance:

- The organization must have a commitment to support, develop, maintain and review stand-

ard operating procedures. Our management team at CAE OAA is committed to this!

- Learn to recognize the markers, and take action when they present themselves. Slow down, make your concerns known and review the situation in question. Work together to develop an action plan and be sure to submit a safety report if you find that a procedure or policy doesn't work.

Let's not let this lack of professionalism threaten our safety – it's up to all of us to lead by example! →



Dates to remember:

- Preflight Challenge!
Feb 23rd (Archer)
Feb 24th (DA40)
How well do you preflight?
Come find out! (location TBA)
- Runway Closure at KFFZ beginning Feb 8th! Check FIF's in ETA and your NOTAMS
- Town Hall Feb 12th 11:00 local in Student lounge

Stabilized Approaches for Dummies

By Seppe Ramaekers

Being an Air Crash Investigation enthusiast, I love figuring out what caused a certain event to happen. One report that interested me was an NTSB report concerning UPS flight 1354 that crashed on Aug 14th, 2013. It talks about the

events that led to a crash of a highly sophisticated Airbus A300-600. The Airbus was heading for an airfield in Alabama and heard in the air the ILS system was not available, forcing the crew to use the localizer non-precision ap-

proach on a shorter runway. They would lose their anticipated vertical guidance and used the Flight Management Computer (FMC) instead. The only thing was, they failed to setup it up properly, causing the Vertical Deviation Indicator (DVI) to showing them well above glide, while they were only 200ft. above their

Care and Keeping of You

By Theresa Farley



IMSAFE, every pilot knows this acronym; Illness, Medication, Stress, Alcohol, Fatigue, and Emotion. We know we should not fly when we are feeling unwell or if we have taken medication because we are not feeling well. Stress, what is happening

at home can be carried into the cockpit. Alcohol, '8 hours bottle to throttle' is a familiar phrase or more properly FAR 91.17. What about fatigue, are you under so much stress that you are not sleeping, which can lead to emotions that spill over?

Yes we know IMSAFE. We do our quick self-evaluations, or do we? Here at CAE we have our FRAT form. We fill in the boxes and tally the numbers and if we are in the green we GO! But can we be in the green and go, and still be unsafe?

What are we doing the checking, ticking of boxes, and tallying for? To stay SAFE! We need to

keep this in mind that these are not just items to check off a checklist. We are doing this for a very important reason and it all starts before we ever get to the IMSAFE checklist and FRAT form.

Academic papers have been written on this subject but I would like to highlight a few factors that have an influence on practically the entire IMSAFE checklist, nutrition. Our bodies are an intricate system. Like an airplane engine, if we put the wrong grade fuel in the tank, the engine will either run rough or will not run at all.

There are many 'diets' out there, lots of fads, and get healthy quick schemes. Nutrition is not a one size fits all nor an overnight fix. However

there are some basic tenants that hold true for most people and given time will improve your wellbeing.

Eating multiple times a day is better than eating once a day. When you eat only one time per day, you stress your bodily systems. This stress leads to weight gain and other undesirable side-effects that vary with each individual.

Eat more lean protein and veggies. If you snack make it a combination of protein and a complex carbohydrate. Stay away from simple carbs and sugars.

When in doubt consult a health care professional. →



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intended glide. Due to this, the captain decided to start a manual descent at 1500ft. per minute and close to the ground, it appear this descend rate was too large for the airplane. The crew failed to make a proper stable callout and landed short of the runway.

We are all human beings and we all make errors, but the intention is to always reduce the likelihood of an error occurring, especially in the world of aviation. We are constantly looking for tools to help improve safety. We have some great procedures available, like the 300ft stable call. This will help a crew deciding if they con-



tinue the approach or go-around. At this point we look at many factors, including airplane setup, glide, centerline control, and speed of the airplane etc. Whenever all those factors are within limits, we consider the airplane safe to continue the approach

down to the minimums and eventually to the runway. As we learn from past events, people were able to make aviation a lot safer than it used to be. One of the only threats remaining though is the human being. Will we comply with the safety recommendations? Will we judge differently in flight and adapt procedures to our needs? By reading many NTSB reports and looking to footage of incidents and accidents it is very clear human error is often a part of why things happen. To overcome this we need to have a clear mind and try to

eliminate hazards. Qualified persons come up with these procedures and it is important we follow those suggestions, ideas and procedures. Coming back to the 300ft stable call; I think it is a great procedure to help us make a decision. I am very strict on this myself as I want to keep the airplane and my students safe. I am a strong believer that anyone not adhering to this call must revise his/her own personal flying limits. If ever I have surgery, I expect the surgeon to be well qualified and if possible I would take the best that's out there. Why? Because he/she might save my life. Keeping this in mind, would you feel comfortable as a passenger in an airliner with a pilot up front who neglects this call and are not 100% concerned with your safety? I think next time, I'll choose another airline! →

CHICKEN WINGS

