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# SAFETYWIRES



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## NTSB: 'Critical Errors' Caused Fatal CL605 Accident in 2021

Investigators cite pilots' 'improper decisions'

(Source: AIN Online; By Gordon Gilbert, August 11th 2023 )



The July 26, 2021 fatal crash of a Bombardier Challenger 605 while attempting a circle-to-land approach in marginal VMC was due to “the first officer’s improper decision to attempt to salvage an unstabilized approach by executing a steep left turn to realign the airplane with the runway centerline, and the captain’s failure to intervene after recognizing the FO’s erroneous action,” according to the NTSB final report published today. The accident near California’s Truckee-Tahoe Airport (KTRK) killed the two pilots and four passengers.

The Safety Board also faulted the flight crew for ignoring stall protection system warnings, which resulted in a left-wing stall and an impact with terrain. Contributing to the accident were the improper deployment of the flight spoilers in an apparent attempt to quickly descend from being too high, but which decreased the airplane’s stall margin; the captain’s improper setting up of the circling approach; the flight crew’s “self-induced pressure to perform;” and “poor crew resource management, which degraded their decision-making.”

During the descent to KTRK, an air traffic controller told the pilots to expect the RNAV approach for Runway 20. After the pilots calculated that Runway 20 was too short, instead of requesting the straight-in approach to Runway 11, the captain told the first officer (FO) they could take the Runway 20 approach and circle to land on Runway 11. They did not brief each other about the new clearance, contrary to the descent checklist.



The remaining minutes of the flight exhibited a breakdown of communications, incorrect performance, rushed actions, and “critical errors,” according to the report. For example, the FO commented that they had too much airspeed at the beginning of the approach and then suggested a 360-degree turn to the captain, but the captain never acknowledged the excessive airspeed and refused the turn.

Then after the FO visually identified the airport, he told the captain to make a 90-degree right turn to put the airplane on an approximate heading of 290 degrees, which was parallel to Runway 11. However, the FO told the captain to roll out of the turn prematurely, and the captain stopped the turn on a heading of about 233 degrees, which placed the airplane at an angle 57 degrees left of the downwind course parallel with Runway 11. “As a result of the early rollout, the flight crew established a course that required an unnecessarily tight turning radius.”

On the base leg to the runway and about 25 seconds before impact with the ground, the more experienced FO started to repeatedly ask for control of the airplane, but neither pilot verbalized positive transfer of control, and the Safety Board could not determine who had control of the airplane following these requests.

As the airplane crossed the runway extended centerline while maneuvering toward the runway, the FO noted that the airplane was too high, and one of the pilots fully deployed the flight spoilers, likely to increase the airplane's sink rate. The airspeed at the time was 135 knots, 17 knots above Vref. About seven seconds later, the left bank became steeper, and the stick shaker and stick pusher engaged.

The captain asked the FO, “What are you doing?” and the FO again asked the captain multiple times to “let [him] have the airplane.” The stick shaker and stick pusher then briefly disengaged before engaging again. The airplane then entered a rapid left roll, consistent with a left-wing stall, and impacted terrain.



## AINsight: FAA Aeromedical Update

Changes mean pilots need to be proactive

(Source: AIN online, By Robert Sancetta, August 11, 2023 )



While most pilots can simply enter the office of their AME and leave with a new medical certificate in hand, as I have discussed before, some pilots have medical conditions which require documentation to be submitted to the FAA. This somewhat complicates those specific FAA medical issuances, but usually, things work out in favor of the pilot.

And, for many such medical conditions, with a small documentation packet—often just a few pages—the AME can issue that pilot’s medical certificate “on the spot” at the time of the FAA examination.

I’ve also discussed formal special issuance protocols previously, and, while those also require documentation submission to the FAA (sometimes voluminous in nature), most special issuance pilots do indeed get their medical certificates renewed on an appropriate schedule.

To facilitate this procedure, to the FAA’s credit, the agency continues to improve protocols and checklists for pilots, their AMEs, and the pilot’s “treating physicians.” The purpose of all the effort being put into these documents is to enable everyone involved to know precisely what the FAA is expecting to be presented in a pilot’s required medical data. This is a valuable improvement to the medical certification process, but it has added some complexity and hardships, too.

For conditions wherein the FAA has developed written protocols and procedures, pilots who receive letters from the FAA asking for follow-up documentation—either to be provided rather timely or simply for their next medical certificate issuance—will have these requirements spelled out. If they are routine and uncomplicated in nature, the requirements may simply be detailed in the verbiage of the FAA letter itself. In more complicated cases, the FAA will provide additional “specifications pages” that might, at first glance, appear lengthy, unwieldy, and overkill.

In fact, many treating physicians feel that these newer specifications pages are overbearing.

As an example: a pilot who might have been “stable” in their medical condition for many years, whose attending physician has provided numerous detailed periodic “status reports” on this medical condition, and who has been approved and reapproved by the FAA for a considerable period of time. But for the treating physician to now be given a new set of documents basically stating that what they have previously been providing will no longer suffice and possibly entail performing additional testing that the treating physician finds not medically necessary does not lead to much goodwill between the pilot, physician, AME, and the FAA.



While most FAA protocols are reasonable and well explained, for those that now appear to be lengthier, more involved, and indeed at times overkill, I do occasionally receive communications from treating physicians stating that the new requirements are...well, let's just say that their comments are not suitable for this publication.

But you get the idea. I have had the unfortunate experience of having physicians simply refuse to see pilots, as they find the FAA requirements for documentation to be too burdensome to be worth their while.

However, if a pilot is to receive their medical certificate or special issuance renewal, we all must abide by any new and/or revised protocols issued by the FAA. As I have stated in prior blogs, these protocols are not optional. They are the pilot's equivalent of their personal FAA medical "ops specs" and are therefore regulatory in nature.

I am currently in the process of discussing with the FAA why previously acceptable evaluations that have sufficed for certain pilots are no longer good enough. An example I am thinking about is a pilot who has been entirely stable without any recurrence of the medical condition in question for well over 30 years.

This pilot must now obtain a lengthier evaluation and additional testing, even though their treating physician of 30+ years does not find that such testing is medically indicated. The testing can indeed get done, eventually, but it might take months for the pilot to get yet another appointment with the attending physician to order the test, review the results, and write yet a new letter discussing the additional required testing.

If the FAA letter including the specifications pages is received by the pilots well in advance, then it's not too difficult to coordinate any additional testing. However, when medical data, submitted to the FAA nearly a year prior, finally is followed by a new FAA letter requiring additional testing, the FAA letter being received long after the pilot has already seen their treating physician for their next annual evaluation, that becomes frustrating—for all of us.

If we comply, begrudgingly at times, the pilot is likely to continue their flying career. As frustrating and "doom and gloom" as I am making this sound, an important take-home point is that we still get almost every pilot approved—more than 99.9 percent of those who apply.

The FAA does want to approve every pilot it possibly can—I am being quite serious about this—but it is not always an easy or uncomplicated process.

**Note to pilots:** the AME does not always receive a copy of the “enclosed specifications” that are referred to in a pilot’s FAA letter. I remind all pilots to immediately forward a copy of the specifications pages to their treating physician, and to communicate with their AME whether the AME’s copy of the FAA letter did, or did not, include the specifications pages referred to in the body of the letter itself.



## Helpful Hints:

Please provide all pages of any documentation submitted. A pilot might think they are being helpful when, for example, pages six to 10 (of perhaps 20 or more) discuss the medical condition in question. While that sounds reasonable, the FAA won’t buy it, and usually the AME won’t, either. Usually, indeed, the remainder of the documentation consists of boilerplate notes and aftercare instructions to the patient.

There are times, however, when the pilot is actually trying to avoid having the AME and/or the FAA discover that some other medical condition of note is also under consideration. Am I implying that, at times, a pilot might be untruthful to their AME or the FAA? Fortunately, that’s not you.

Kidding aside, include all pages. If there are 21 pages, include all 21. Let the AME and the FAA decide which pages are relevant or not.

It is also not good enough for the treating physician to state something like, “The MRI was normal.” All documentation must include the full report of any testing either required by the FAA letter or—and here’s a catchphrase for you)—“deemed necessary” by the treating physician.

So, if an MRI wasn’t even required but was done at the discretion of the physician, the full report must be included. Or, if the physician decided it was time to do some elective blood testing to be legally faithful to the FAA letter, the results of that testing must also be included.

When a pilot discusses their case with an airline or corporate aviation medical consultant who is not necessarily the pilot’s AME, often the consultant will tell the pilot, perhaps after their review of only a few pages of documentation, “All is fine, just report it at your next FAA examination.” Often a pilot is told that they don’t even need to bring any documentation to the AME. While that is sometimes the case, it doesn’t always work.

It’s the AME’s name, not the aviation medicine consultant’s name, on the bottom of the medical certificate. The AME might say, as discussed above, that the FAA requires them to review all the appropriate data before issuing the medical certificate.

A pilot should discuss with their AME, as soon as possible after the medical event or routine follow-up, what is going on so that the AME is not blindsided at the time of the next FAA examination. A bit of a heads-up in advance will give the AME time to coordinate with the pilot precisely what, if any, documentation will be needed.

Right now I have a few pilots grounded for medical conditions that, had they given me a heads-up several months before their FAA examination, I could have had everything “tucked in” to the FAA’s satisfaction by the time of their scheduled examinations with me. Finding out about potential aeromedical concerning conditions only when they arrived for their examinations did nothing but preclude these pilots from flying until I can get all the needed documentation and sort things out.

I lost the luxury of time by not knowing about these medical situations in advance. Importantly, when I know in advance that a more detailed review or discussion with the pilot will be necessary, my office can schedule the appropriate additional time to do so.



No different than the captain of the airplane, the AME is captain of the FAA medical aspects of that pilot’s medical renewal and must be familiar with all required components. The AME’s signing of the medical certificate places similar responsibility as the captain of the airplane signing the dispatch release. It’s the captain’s authority now, and no captain wants to be at the end of a long table with an adversarial set of FAA and legal eyes looking at them, knowing that they did not comply with all rules and protocols.

No different than when flying, make sure to have all of your ducks in the proverbial row as expeditiously as possible regarding your medical status. AMEs are in the same boat and are held by the FAA to similar standards. Please get your AME “into the loop” as soon as possible when any new medical conditions have arisen.



# SAFETY MANAGER'S CORNER

## SMS Training Course

Twice a year, PRISM offers a 3-day SMS Course at a location near its home offices in Denver, Colorado. The next course is scheduled for this month, September 26-28, 2023. PRISM subscribers receive a discounted price. You can sign up directly on this link: <https://www.argus.aero/product/sms-course-september-26-28-2023>

### Who Should Attend?

This training course is targeted for personnel at all levels involved in the day to day development, implementation, execution, management, oversight and evaluation of a Safety Management System operation.

### Course Objectives

- ⇒ Describe the 4 Components and the 12 Elements of the ICAO SMS Framework
- ⇒ Become familiar with characteristics of an effective and “just” safety culture and learn techniques for how to evaluate your organization’s safety culture
- ⇒ Use and apply the Safety Risk Management process
- ⇒ Describe what Change Management is concerned with according to SMS
- ⇒ Become familiar with Safety Performance Indicators (SPI) and how they relate to the three strategies of SMS
- ⇒ Describe how to implement an Internal Auditing Program (IAP) in your organization and where to find appropriate checklists.
- ⇒ Become familiar with a phased approach to SMS implementation
- ⇒ Use and apply several Root Cause Analysis Techniques in safety investigations

The PRISM, online SMS tool will be used as a case study for the application of Safety Management System best practices during the course.

Take advantage of this opportunity to meet with our PRISM experts face-to-face, and learn everything you need to know for Safety Management System (SMS) success.

Alternatively, we can bring an SMS Course to you—onsite at your location for up to 20 people. For details and pricing, please contact us at 303-222-4268 or email: [susan.cadwallader@prism.aero](mailto:susan.cadwallader@prism.aero)



## Quote of the Month

The most difficult thing is the decision to act, the rest is merely tenacity. The fears are paper tigers. You can do anything you decide to do. You can act to change and control your life; and the procedure, the process is its own reward.

-Amelia Earhart



Self-improvement results in positive impact in so many different ways. Although the individual is the immediate beneficiary, a trickle effect creates indirect improvement in surrounding interactions. We have all heard impact stories: "Someone paid for my coffee at the drive through and It made my day!" If something as small as a coffee can have that level of impact, just imagine the power of positive meaningful actions in a work environment. It all starts with self. Go after your own rewards and those around you will share the benefits.

## On Short Final...



**It's a hybrid.**

## Susan Cadwallader

susan.cadwallader@prism.aero

VP, SMS Services

## Jenna Albrecht

Jenna.albrecht@prism.aero

Program Manager, SMS Services

## Wayne Ehlke

Wayne.Ehlke@prism.aero

Safety Analyst, SMS Services

## Rhodri Norton-Quick

Rhodri.Norton-Quick@prism.aero

Safety Analyst, SMS Services



6021 S. Syracuse Way, Ste 302

Greenwood Village, CO 80111

www.argus.aero

## UPCOMING COURSES

Sept 26 to Sept 28, 2023—PRISM Course  
**Safety Management System (SMS)**  
Denver, CO

Oct 30 to Nov 3, 2023—PROS Course  
**Aviation Lead Auditor Training (ALAT)**  
Denver, CO

Go to [Upcoming Training Classes](#) to register.

