



# MISDIRECTED Training

We got a letter this month (see p. 8) pointing out an error in our story on the February 2009 Colgan Air Bombardier Q400 accident near Buffalo, New York, U.S. (*ASW*, 3/10, p. 20). While we are not happy to have made an error, we are gratified that people read our stories so closely and take the time to provide feedback to correct the record.

But the writer went on to talk about an information video produced by the U.S. National Aeronautics and Space Administration (NASA) on tailplane icing, how it happens, how to recognize it and how to respond if it does cause a tailplane stall. He said that the Colgan pilots' actions perhaps were not just plain wrong, but were a result of having seen the video and selecting the wrong procedures.

I found the video on YouTube and watched a very well-produced educational piece of nearly 30 minutes that goes into great detail on how tailplane icing can develop, and how lowering flaps can alter the airflow around the iced tailplane and cause the controls to buffet and the tailplane to stall, pitching the nose down with force.

The recommended response to a tailplane stall is, the video said, pulling back strongly on the yoke, reducing flaps and

adding no additional power. The Colgan captain did add some power, but he and the first officer did the other two steps perfectly. We all now know that was perfectly wrong, since the control buffet was actually a stick shaker and the nose-down force was a stick pusher and the event they failed to deal with correctly was not tailplane icing but a low airspeed warning.

It is believed that both pilots watched this video multiple times while with Colgan. They watched NASA test pilots flying a deHavilland DHC-6 with simulated ice shapes on the tailplane as the DHC-6 suffered a tailplane stall and recovered. Since they were flying an aircraft from that same lineage, there might have been a strong tendency to believe this video applied to the Bombardier (de Havilland DHC-8) Q400. And then they saw ice building up and talked about the ice, more than they had seen in a long time — unfamiliar territory — identifying icing as a potential threat. Whatever the mindset, when the low-speed warnings began, both pilots did exactly the opposite of what we are all taught over and over from the beginning of learning how to fly.

However, maybe they did not know that the Q400 is not subject to tailplane icing, one of the things the U.S. National Transportation Safety Board

knew as it cited, among the several factors contributing to the crash, the pilots' failure to correctly monitor aircraft performance.

But returning to the video, how many airplanes in the United States or the world commercial fleet are subject to tailplane stalls? I can't say for sure, but my suspicion is that there are very few in airline service. Smaller aircraft, especially those with unpowered controls, run the risk of tailplane stalls, but this was not given sufficient attention in the NASA video, and I think that is a problem.

The video is not bad information, but it fails to clearly identify the context within which the information it presents should be viewed. It presents the information in a forceful "do this" manner without a discussion of other considerations.

I think this discussion should be added. Further, what purpose is served showing the video to pilots flying aircraft that cannot fall victim to tailplane stalls?

A handwritten signature in black ink that reads "J.A. Donoghue".

*J.A. Donoghue*  
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