

Industry Impacts – The Colgan Air Crash

On February 12, 2009 a Colgan Air DHC-8-400, operating as Continental Connection Flight 3407, crashed while on an instrument approach to Buffalo-Niagara International Airport, Buffalo, New York. All occupants- 2 pilots, 2 flight attendants, and 45 passengers were killed; one person on the ground was killed, and the aircraft was destroyed.

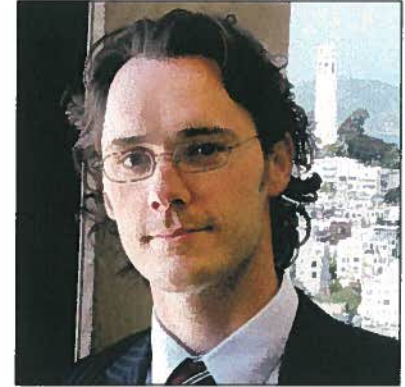
The NTSB's aircraft accident report found that there were no aircraft structural, engine or system failures, no air traffic controller problems, minimal ice accumulation, that the flight crew was properly certificated, the aircraft was properly certified, equipped and maintained in accordance with applicable FAR's.

The probable cause of this accident was found to be the captain's inappropriate response to the activation of the stick shaker (no reason identified why the captain did not recognize the impending onset), which led to an aerodynamic stall from which the aircraft did not recover. The NTSB found that contributing to the accident were (1) the flight crew's failure to monitor airspeed in relation to the rising position of the low-speed cue, (2) the flight crew's failure to adhere to sterile cockpit procedures, (3) the captain's failure to effectively manage the flight, and (4) Colgan Air's inadequate procedures for airspeed selection and management during approaches in icing conditions.

The list of safety recommendations stemming from this report were substantial. The NTSB sug-

gested, among other things, the FAA require:

- operators to review their standard operating procedures for flight crew monitoring techniques;
- installation of low-air-speed alert systems that provide pilots with redundant aural and visual warnings of an impending hazardous low-speed condition;
- require airspeed indicator display systems on aircraft depict a yellow/amber cautionary band above the low-speed cue;
- issuance of an advisory circular with guidance on leadership training for upgrading captains –i.e. effective leadership and professional standards of conduct creating a sterile cockpit;
- operators to address fatigue risks associated with commuting;
- operators to document and retain electronic and/or paper records of pilot training and thereafter provide the training records requested to hiring employers;
- identification of which aircraft are susceptible to tailplane stalls (the NTSB found no evidence indicating that the Q400 was susceptible to a tailplane stall) and then (1) require operators of those aircraft to provide an appropriate aircraft-specific tailplane stall recovery procedure in their training manuals and company procedures and (2) direct operators of those aircraft that are not susceptible to tailplane stalls to ensure that training and company guidance



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for the aircraft explicitly state this lack of susceptibility and contain no references to tailplane stall recovery procedures; and

- most notably, develop more stringent standards for surveillance of Part 121, 135, and 91K operators that are experiencing rapid growth, increased complexity of operations, accidents and/or incidents or other changes that warrant increased oversight.

The NTSB additionally reiterated the following past recommendations to the Federal Aviation Administration:

- Require all Part 121 and 135 air carriers to obtain any notices of disapproval for flight checks for
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- certificates and ratings for all pilot applicants and evaluate this information before making a hiring decision;
- Require Part 121 air carrier operators to establish training programs for flight crewmembers who have demonstrated performance deficiencies or experienced failures in the training environment that would require a review of their whole performance history at the company and administer additional oversight and training to ensure that performance deficiencies are addressed and corrected; and
 - Require that all pilot training programs be modified to contain modules that teach and emphasize monitoring skills and workload management and include opportunities to practice and demonstrate proficiency in these areas.

This accident seemed to be a wake up call for many who believed cost cutting and code sharing is necessary to continue the growth of regional airlines and a deadly reminder that the status quo could not be maintained.

Recent legislation on Capital Hill highlights some changes. On February 11, 2010, the eve of the crash anniversary, Senate Majority Leader Harry Reid, D-Nev., said a week of Senate floor time will be scheduled in March to address aviation safety reforms and the FAA Re-Authorization Bill. On March 22, 2010 the Senate passed a re-authorization bill with a \$34.5 billion dollar budget over three years.

The Senate's bill' new safety measures include: first officers on

commercial passenger flights must have at least 800 hours total time; the FAA must establish new safety standards for flight crew training; an Aviation Safety Whistleblower Investigation Office will be established within the FAA; and pilots are banned from using electronic devices in the cockpit.

Taxes on jet fuel for general aviation would rise from 22 cents per gallon to 36 cents. The bill is far from final, however; it now goes to a conference committee where the House and Senate versions of the legislation will be merged, then both houses will have to vote on the final bill again before it goes to the White House for approval.

The House version of the FAA Re-Authorization bill, HR915, includes a 1,500-hour minimum requirement for "right-seaters" and requires that airlines identify the regional airlines flying their commuter routes.

"We must build on the current pilot certification system and make it even stronger," said Secretary of Transportation, Ray LaHood. "Our nation's airlines should have the best-trained and best-prepared pilots in the cockpit." FAA Administrator Randy Babbitt said he is looking for new ways to measure pilot competence other than merely counting flight hours. "Experience is not measured by flight time alone," said Babbitt. "Pilots need to have quality training and experience appropriate to the mission to be ready to handle any situation they encounter."

What will ultimately be approved by the White House? It remains to be seen; this is a large issue with many different view

points and sides. The following are excerpts from emails between members of the NTSB Bar Association in response to the PBS special "Flying Cheap," which aired on February 9, 2010. In the broadcast, reporter and pilot Miles O'Brien examined the regional carrier culture through interviews with past Colgan pilots. He compares those pilots to the pilots of carriers under whose name regionals like Colgan frequently fly, he writes, regional pilots are "less experienced, the hours are longer, the pay is much less and the training is not as extensive." They are also, in his opinion, "flying the most demanding routes in the airline business – lots of time in the weather, in high traffic areas – and lots of segments."

February 11, 2009 email from Hays Hettinger

If any of you have not seen it already, it is worth your time to listen carefully to the PBS Frontline special "Frontline: Flying Cheap" that ran Tuesday, February 9, 2009 on the Colgan Air aftermath. I was with the US for 33+ years and this is a credible indictment of the Feds and the regional air carrier industry. It is sad that profit seems to be priority number one when it should be safety. What is more important, safety or encouraging air transportation? This is ValuJet all over again!

February 11, 2009 email from Tony Jobe

I watched "Frontline: Flying Cheap" on TV with horror the other night, having actually been the CEO of a Continental Express

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Views from the Bar...

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carrier for 8 yrs. We had 120 flights a day and safety was our top priority, particularly in training.

This Colgan crash was a systematic failure of both the Government and Private Sectors.. The sad news is, the NTSB's recommendations on the Colgan crash may not be put into place by FAA for years.

February 11, 2009 email from Charles Morgenstein

I watched "Frontline: Flying Cheap" and thought it was very well done. One note though, the ValueJet crash did not appear to have any relationship to the training issues or maintenance issues. Rather, Sabre Tech mislabeled, whether intentionally or not, oxygen generators that were full. The pilots did everything that they could have, or should have, done. The Colgan Air crash, however, appears to have been due directly to poor training and experience levels of the crewmembers, complicated by crew fatigue.

February 11, 2009 email from Hays Hettinger

Charles is correct from a direct accident flight standpoint. Except there is a parallel, we had a "wake up call" on ValuJet before the accident from the Atlanta certificate holding office and nothing was done.

There are, sadly, parallels that "we", the aviation industry, should not miss again.

February 11, 2009 email from Chris Poreda, FAA Regional Counsel, New England Region

(DISCLAIMER: The following is the personal view of Chris Poreda, individually, and does not necessarily represent the views or opinions of the FAA and the Regional Counsel's Office.)

Here is another perspective on the matter:

The public has an unrealistic expectation of the FAA's role with regard to the aviation industry. The FAA, as with all other regulatory oversight agencies, sets policy for the industry and expects that the industry will voluntarily comply with those policies. The industry has a voice in setting those policies through their comments to Notices to Proposed Rulemaking, and, more recently, through active participation in Aviation Rulemaking Committees that recommend policy changes to the agency.

So, the FAA has a reasonable expectation that the entire industry will comply. The FAA does not have the resources to "police" those policies at the level we expect from our law enforcement organizations when they police society's policies with regard to violent crime or illegal drugs, etc. FAA inspectors do not, for example, carry weapons, make "arrests", or even have the ability to order an air carrier to cease operations on the spot. And, I suggest that we do not want FAA inspectors to have that authority.

All the FAA can do when we find non-compliance with a policy (regulation) is to engage an administrative process to address that particular individual certificate holder or company into order to try to bring that person back into compliance. That we cannot do that 100% of the time before an accident creates the impression that we have not done enough when there is loss of life. But it does not represent an indictment of the system or of the policies. Rather, it reflects our society's desire to not want that

kind of government oversight for our businesses. Can you imagine a regime where an FAA Inspector could walk into a regional carrier and order the immediate grounding of all the carrier's aircraft because of an alleged violation? Particularly a violation that is the result of one employee. We would probably save some lives, but at what cost? Would anyone want to run an air carrier if that were the atmosphere in which you have to try to run your business? Look at other countries that are trying to criminalize aviation accidents (Brazil and France come to mind right away) and ask whether you would prefer to operate an aviation business there or here.

I don't want to sound like Pollyanna-ish, but I caution against throwing away the entire system because we suffered the lose of life. It is of little consolation to the grieving families that statistically your chances of flying every week of your working adult life without stepping on an aircraft that does not get you safely to your intended destination are better than winning the MegaMillions lottery. They have to bear the misfortune of having a loved one get on one of those few aircraft that do not make it. But the answer is not mandatory implementation of NTSB "recommendations", or more FAA Inspectors, or more aggressive FAA legal enforcement, or even criminal actions against company owners. On the whole the system works.

February 12, 2010 email from Charles Morgenstein

Thank you Chris, it is interesting to hear the other side, since we in

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the enforcement defense portion of the Bar tend to talk more with each other than with the FAA attorneys on these points.

However, I can't help but feel that the FAA should be allocating its resources differently. Many of the enforcement cases that I am seeing are brought under emergency authority when there is no indication that there is any kind of imminent threat to the health safety or welfare of the flying public. Also, many actions are brought against private pilots and small operators who, to the extent that they might pose a risk at all, pose a risk only to a very small number of people at any one time.

It seems, however, that, where the prospect of fifty or more innocent passengers, and other innocents on the ground, being killed exists, as the result of a known deficiency that exists in the industry for a decade or more, is involved, the FAA is often very slow to allocate meaningful resources to attempt to mitigate the problem. Rather, it appears to many of us that the Regional Counsels are interested in supplying the number of cases opened and closed within a period to satisfy administrative "success-reporting" mandates, instead of looking at the quality of the case being brought and its potential affect on public safety. To paraphrase the airlines' arguments for user fees: a case is a case. I don't think so.

I would like to see the FAA focus its limited resources on enforcing potential violations and practices that pose a "clear and present danger" to the greatest number of innocent passengers and bystanders.

You may disagree with me, but I think it is very hard to make the argument that this is being done by the FAA at present.

I recognize that the FAA works within the confines of its legislative mandate, but I haven't seen the FAA requesting legislative authority to try to require Part 121 carriers who "code share" with regional carriers to hold their regional carriers to a high standard of training for the aircraft they operate and for the operations that they conduct in the name of the major carrier. Nor have I seen anything that indicates that the major carriers have been pushed to take responsibility for the actions of their code-share regional airlines.

I know that there has recently been a NPRM concerning the requirements for a commercial rating, but that hardly addresses the problem that is faced here.

I am hopeful that Administrator Babbitt and General Counsel Grizzle will find a way to allocate the enforcement resources in a way that has a greater affect on aviation safety, public safety and public perception of aviation safety than exists currently.

***February 12, 2010 email from
Chris Poreda, FAA Regional
Counsel, New England Region***

(DISCLAIMER: The following is the personal view of Chris Poreda, individually, and does not necessarily represent the views or opinions of the FAA and the Regional Counsel's Office.)

Thanks for the feedback. A couple of thoughts. Yes, I agree with you that the recent creation of the "business plan" ("flight plan for the FAA") to chart the future direction of an organization has caused too

great an emphasis on "measurable" statistics in order to judge whether an organization is accomplishing its goals. For us that translates in to processing cases and we fall into the trap of viewing cases as fungible.

We try to avoid that as much as possible because we agree that we should devote our limited resources to cases that will mean the most to the users of the national airspace system (and I include in that phrase passengers as well as pilots). When we try to argue that we need more resources (read attorneys), however, we too often face the response that we need "to do more with less." Given the present budget forecasts I don't see that changing.

I find it curious, though, that the Bar complains that we bring too many emergency actions but then complains that we don't allocate enough resources to important cases. Emergency cases are those in which we find the greatest danger to users of the airspace. We try to avoid concentrating on only individuals, though, and have taken recent actions against carriers both large and small. But if you believe otherwise then we have some work to do. As David Grizzle likes to point out, perception is reality in our business. We bring the cases that are presented to us, so the root cause of that perception may be in the work that the Flight Standards Inspectors are doing. I believe that Congress is addressing that, so we will have to see if the culture changes.

There remain a lot of Flight Standards managers that either still believe that the agency's executive management will not support them

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if they take action against an air carrier, or who will try to “work with” a carrier far too long before concluding that enforcement is necessary to achieve compliance. But remember, there are not enough Inspectors to “police” the industry only enough to “oversee” the industry, and we should reasonably expect that the entire industry will comply with all our rules.

As for major carriers taking a larger role in the oversight of code sharing regionals, I find it sad that major carriers should have to be forced by legislation or regulation to take that step. They could do that now and doing so would not, in my view, constitute the major change in doing business that the major carriers claim. Right now, for example, the insurance industry holds aircraft owners to a higher safety standard than the FAA rules, and what charter operator is not more concerned about maintaining its ARGUS Platinum rating than it is about an FAA audit. So, if the industry wants to do that, it can right now and does not need to wait for the FAA to require it. In fact, the traveling public could force the major carriers’ hand by refusing to fly on code shares that are not directly overseen by a major. I know it would mean some inconvenience for travelers, but if its important enough ... Right now, though, for the FAA to require that would take a rule change even if Congress mandated it.

February 12, 2010 email from Jeremy E. Juenger

Personally, as a former regional captain and first officer prior to law school, I was always secure with the level of training that I received and felt that the line experience gained (approximately 800 hours per year of flight time) was a factor that balanced out a regional pilot’s aeronautical proficiency against a 747 F/O or Captain who may have to go back to the simulator just to keep his or her landings current.

Across any industry, organizations and individuals commitment to safety will vary. Regional airlines, Part 135 operators, and individual pilots are no different. Many are technically proficient and put safety at the forefront of their activities, while a handful are not as professional.

The debate I keep having is if additional regulation and/or enforcement will be beneficial. Here’s a few of my conclusions:

- When dealing with individual pilots and their experience, or an organization’s culture of safety (or lack thereof), I am more inclined to view it as primarily a human factors issue where oversight is a second line of defense against the causal chain.
- An improper attitude toward safety coupled with deliberate disregard of safety makes enforcement appropriate.
- When dealing with systemic factors (pilot fatigue as an example, which has been on the NTSB’s Most Wanted List since it’s inception), I am more inclined to think an NPRM leading to

revised regulations may be an acceptable answer.

February 17, 2010 email from Paul A. Lange

The only further point that I think should be addressed is the fact that FAA managers (even those at the highest levels) have often expressed that they need to be extremely careful of angering their employees. The fear is that those same employees will file an IG complaint and/or whistleblower claim against them if they disapprove of the manager’s actions. Just as there’s no place in the system for a FSDO manager who is improperly influenced by a certificate holder, it’s also improper and ineffective to promote a system that precludes a manager from making the many tough, discretionary decisions that need to be made – simply because that manager is subject to reprisal from employees for actually doing his or her job. Certainly a difficult balancing act, but perhaps this is a point to add to the list of issues going to FAA HQ brass when they weigh in.

It is easy to see from the discussions above the importance to safety of the final legislation that goes to President Obama for signing. The NTSB Bar Association intends to print portions of the final bill once it passes and is signed, and we encourage you, our readers, to write us your thoughts and opinions for a follow-up article in our next issue.

Please write to john@avialex.com for more information. ■