



The National Transportation Safety Board Bar Association

www.ntsbbar.org

Spring 2010

Twenty-Fifth Anniversary of the NTSB Bar Association

The NTSB Bar Association is proud to announce its November 2–4, 2010 National Air and Transportation Law Conference in Washington, D.C. including “An Evening Dedicated to National Air Safety”, a Gala Dinner at the National Air and Space Museum.

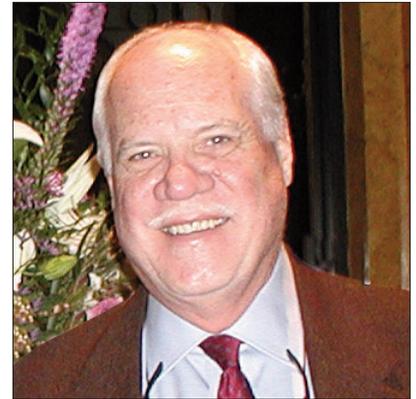
Thank each of you for your participation in the 2010 NTSB Bar Association. This is our twenty-fifth (25th) year of service to our members. This association consists of members from throughout the United States who actively practice in the field of aviation and transportation law related to the activities of the NTSB, the FAA, and the Department of Transportation, and the industries they service. Recently, our first member from Nassau, Bahamas, Marvis Collie, joined us. We welcome Marvis, as well as all of our other new members and our returning members.

I extend a personal thank you for your vote to become your President. I return to this position with humility and with no delusions. This position requires hard work, dedication, and devotion. I will attempt to deliver those services which are really helpful in your practice.

First of all, I wish to thank two of our relatively new young bar members, John Van Geffen and Jeremy Juenger for accepting the appointments as Editor-in-Chief and Technical-Editor, respectively, of the NTSB Association’s Newsletter. Their hard work has been invaluable in putting together this year’s first newsletter. Another newsletter will be published in June 2010.

That June newsletter will report the details of the November 2 – 4, 2010 National Air and Transportation Law Conference, including the Program Agenda of speakers, presentations, tours, and hands-on visits to the laboratories of the NTSB and offices of the FAA. As lagniappe (that’s Cajun for a little extra spice) will be a Gala Dinner to be held at the National Air and Space Museum on Thursday, November 4, 2010 from 7 p.m.

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Tony B. Jobe has engaged in a national practice of aviation and maritime law for 30 years based in the New Orleans area with offices in Madisonville, Louisiana. Juris Doctor, Tulane Law School (1974).

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until 11 p.m. The June newsletter will also provide registration information for the National Air and Transportation Law Conference and the Dinner, which will be black tie optional.

Our Bar Association is proud to announce that our lead sponsor for the Gala Dinner at the Air and Space Museum is the law firm of **Magana, Cathcart, and McCarthy** from Los Angeles. This firm has been a premier aviation law leader on the West Coast for the last fifty (50) years. **Charlie Finkel** championed his firm's interest in this magnificent event, which will be a night dedicated to our national air safety. Thank you Charlie, Dan, Peter, Carter, and your entire firm for your support. We will be celebrating both the twenty-fifth (25th) anniversary of the NTSB Bar Association and paying tribute to all of the employees of the NTSB and their counterparts at the FAA, whose daily job is dedicated to improving transportation safety.

Some of the advance details on the National Air and Transportation Law Conference include two morning sessions of CLE on November 3rd and 4th; the first at the NTSB Auditorium in the basement of L'Enfant Plaza, the second day at the NTSB Academy near Dulles Airport; with afternoon tours planned at each location. On the first day, we will tour the NTSB laboratories like metallurgy, the cockpit voice recorder (CVR), and the flight data recorder (FDR) laboratories.

We are reserving blocks of rooms at the L'Enfant Plaza Hotel at \$199 per night and at the legendary and recently renovated Key Bridge

Marriott at the foot of Georgetown at the very affordable rate of \$159 per night. These deeply discounted rooms will only be available through the end of July. At that time, the block will shift to a higher cost structure, so we encourage each of you to reserve your room at either of the hotel websites or by calling them as soon as those blocks are available. (www.lenfantplaza.com and www.marriott.com).

We will notify you by email as soon as the booking agreements have been signed so that you can book your room. Please don't wait as these rates are over 50% below typical convention rates at these hotels in the Washington, D.C. area. When you book, identify yourself as an NTSB Bar Association member attending the Washington conference November 2 – 4, 2010. For those staying at the Key Bridge Marriott, we are exploring the best bus transportation options to and from the hotel to the NTSB Auditorium and to the Air and Space Museum dinner. We will announce these details in June. Transportation will be provided to all attendees on Thursday, November 4th, for the morning CLE program at the NTSB Academy at Dulles.

Our NTSB Bar Association takes this opportunity to say a special "Thank You" to **NTSB Board Chairman Deborah Hersman** for her initiative in requesting the reservation for our Gala Dinner at the Air and Space Museum. We also recognize the hard work of Gary Halbert, General Counsel for the Board, in coordinating with the Chairman's Office to facilitate the November 4th Dinner. In addition, we recognize **Bill Elder**, of **Hogan**

and Hartson, who has graciously offered to be this year's Program Chairman. Bill is already hard at work to ensure a smooth lift-off.

During the dinner at the Air and Space Museum we will pay tribute to the hard work of the NTSB. We have also invited **FAA Administrator, Captain Randy Babbitt**, to speak at the dinner, along with **NTSB Chairman Deborah Hersman** and/or other members of the NTSB Board to speak during the conference. We are, of course, inviting the Administrative Law Judges to speak at the NTSB Auditorium on November 3, 2010.

We will present the second Joseph T. Nall Safety Award on that evening as well. We hope to be able to announce the recipient of this year's safety award in our June 2010 Newsletter.

Since your new national officers began work on March 1, 2010, the Association has gained twenty-one new members, and we are working hard to encourage all of our previous members to renew their membership. The NTSB Bar's Membership Directory will be distributed by mail in July 2010, in both a pocket printed version as well as on CD ROM.

One of my goals as your President is to set up a Young Lawyers Section of our NTSB Bar Association. The goal for that Section is fifty (50) young lawyers and law students that we will ask to outline what they would like to see accomplished through our bar association activities.

With regard to the Bar's finances, it was the recent decision of your national officers to return the day-to-day work of the Bar to each of

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your national officers individually, in order to allow them hands-on control of the daily activities of the Bar assigned to their respective officer positions. We all thank Karen Griggs for her service to the Bar and for her assistance in this time of transition. This change will provide your Bar Association with a substantial savings on operational costs during the next two years. This will mean that all membership application forms and dues will be mailed to our new Treasurer, Charlie Morgenstein, at his office in Boca Raton, Florida. That address is: 8000 North Federal Highway Suite 207, Boca Raton, Florida 33487-1681

John Yodice, our Secretary, will be handling all of our minutes and corporate filings. He has proposed updates and modifications to our By-Laws and Articles of Incorporation in order to improve the day-to-day business of our Bar. Our new Executive Vice-President, Mike Dworkin, has undertaken to work personally with our Regional Vice-Presidents to assist them in developing interesting programs in each of their Regions and geographic area. Elizabeth A. Vasseur-Browne, our new Vice-President from the Central Region, is already planning a luncheon in Kansas City with the FAA and private practitioners in the next few months. We will email everyone all of those details as soon as Elizabeth has finalized them.

The next two years will be a very dynamic time for the NTSB Bar Association. We are glad you are on board and ready for a great flight.

Blue skies are calling us. Hope to see all of you soon. ■

Tony B. Jobe

President, NTSB Bar Association

Dear Fellow NTSB Bar Association Members and Colleagues:

This is a great Bar Association and I am proud to have been a charter member for the past 25 years. I have served many terms as Regional Vice President, one term as President (2000-2002) and now serve as Executive Vice President.

As Executive Vice President, here are my goals:

- Increase membership. We need to reach out to lawyers and aviation professionals who have either not yet joined the Bar Association or who are members but have thus far not taken an active role in it, and particularly younger lawyers and professionals—we not only need members, we need involvement. To this end, I want to encourage each of our Regional Vice Presidents to contact members within their respective region and solicit involvement and participation and to contact attorneys and other aviation professionals who are not members to consider joining;
- Reach out to Government lawyers and aviation professionals to encourage their participation and membership in the Bar Association. Again, I would like to more actively involve our Regional Vice Presidents to set up regional meetings with the Regional Counsels and staffs in their respective regions. Jeff Small did this in Eastern Region for many years, and with great success;
- Revitalize our Select Committee on Aviation Public Policy which published, in SMU's *Journal of*



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Air Law and Commerce, what is still considered to be one of the seminal works on the criminalization of aviation infractions;

- Continue our annual Nall Award and take all necessary steps to ensure that this Award eventually becomes one of the aviation community's most preeminent and coveted awards.

These are not necessarily all-inclusive. I am open to all constructive ideas that our members may wish to offer. If you would like to discuss any of these points in more detail, do not hesitate to give me a call at 415-421-2500 or email me at mdworkin@avialex.com. ■

With best regards,
Michael L. Dworkin
Executive Vice President

NTSB Bar Association Election Results

The NTSB Bar Association is pleased to report the results of the recent officer election for 2010-2011. Taking office on March 1, 2010, please welcome . . .

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We would like to take this moment to thank our outgoing officers for all their hard work. The NTSB Bar Association is the premier legal aviation and transportation Bar which brings together practicing attorneys throughout the country with their counterparts at the FAA, DOT and NTSB. Our Bar promotes open and frank discussions on important aviation safety and transportation issues.

The incoming officers have set hefty goals of increasing and diversifying the Bar's membership, boosting group participation through in-depth forum discussions, more exciting and educational CLE conferences and open courteous discussions among all of its members.

Articles in our NTSB Bar Association Newsletter reflect the views of their authors, and we welcome your comments, reply articles, responses, or disagreements with any of the articles published. If received, we will include them in our next regularly published Newsletter.

This column is intended as an aid to practitioners, including panel attorneys of the AOPA Legal Services Plan, to keep abreast of recent developments in the law and procedures governing FAA enforcement actions. Your comments and suggestions are welcome.

AVIATION SAFETY REPORTING PROGRAM. Respondent Must Establish Both “Inadvertent” And “Not Deliberate.” The Aviation Safety Reporting Program, as spelled out in FAA Advisory Circular 00-46D, provides for a waiver of sanction in an FAA enforcement case so long as certain requirements are met and certain exceptions do not apply. As a reminder to practitioners, the most important requirement is that a written report must be mailed or delivered (including via the Internet) to NASA within 10 days of the incident that led to the enforcement. However, as relevant in the case we are here reporting, the program also provides that a sanction will be waived only if “the violation was inadvertent and not deliberate.” Over the years, the FAA and NTSB have been reasonable in the interpretation of this language. In recent time, they have considerably narrowed the interpretation to the detriment of pilots and others.

In this case the respondent’s commercial pilot certificate was suspended for 30 days for operating his aircraft from Martin State Airport, a “fringe airport” within the Washington ADIZ, without complying with the operating requirements and procedures specified in the relevant NOTAM. Respondent contended that he was unable to transmit the appropriate

beacon code while in the ADIZ, as required by the NOTAM, because his transponder malfunctioned. The respondent explained that prior to his departure from Martin State he had had the transponder repaired and reinstalled, that while on the ground the numbers on the aircraft’s transponder showed that it was squawking the appropriate code, and that despite his request, the control tower was unable to verify that the appropriate code was being received. After takeoff, air traffic control was receiving the wrong code. According to the respondent, it was only after rebooting, the transponder began transmitting the appropriate code. An NTSB law judge and the full Board on appeal, rejected this defense, affirming the FAA order of suspension.

To the point involved in this write-up of the case, the respondent’s timely filing of a report under the ASRP was denied. The Board held that in order to be entitled to a waiver “a respondent must establish that his conduct was both inadvertent and not deliberate.” The Board found that while respondent’s actions do not appear to have been deliberate, it could not find that his conduct was inadvertent. Quoting from Ferguson v. NTSB and FAA, 678 F.2d 821 (9th Cir. 1982), the Board recited an example distinguishing “inadvertent” from “not deliberate”

“A person who turns suddenly and spills a cup of coffee has acted inadvertently. On the other hand, a person who places a coffee cup precariously on the edge of a table has engaged in purposeful behavior. Even though the person may not



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deliberately intend the coffee to spill, the conduct is not inadvertent because it involves a purposeful choice between two acts—placing the cup on the edge of the table or balancing it so that it will not spill. Likewise, a pilot acts inadvertently when he flies at an incorrect altitude because he misreads his instruments. But his actions are not inadvertent if he engages in the same conduct because he chooses not to consult his instruments to verify his altitude.”

As is readily apparent, this is an infinitely flexible standard with which respondents’ counsel must contend. This new case would seem to allow the FAA much broader discretion when they consider whether to grant ASRP immunity.

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Administrator v. Schwarzman, NTSB Order No. EA-5468 (2009). FAA REQUEST FOR PILOT REEXAMINATION. The FAA Has Significant Discretion In Determining Whether Such A Reexamination Is Warranted. Under 49 USC 44709(a), the FAA has broad power to reexamine a certificated airman's competency or qualifications to hold that certificate. By NTSB precedent, such a request must be "reasonable." However, pilot challenges of unreasonableness have been mostly unsuccessful, as in this case. The FAA had requested the reexamination of an ATP certificated airline pilot on the basis that the pilot had failed two pilot proficiency checks and a pilot line check, all administered by his airline, and one of which was observed by an FAA inspector. The pilot did not submit to a reexamination arguing that the request, based on disputed check rides, was unjustified. As is routine, the FAA then issued an emergency suspension of the pilot's ATP certificate with type ratings in the Boeing 747-400 and BA-3100 aircraft, pending a successful reexamination. The pilot appealed the suspension to the NTSB. He presented as an affirmative defense that the FAA had no reasonable basis to request a reexamination. There was no clear evidence of incompetence. He testified that he had been on medical leave for two years, and when he returned to work, the airline was searching for a reason to fire him. He alleged that the company used a check captain that is known as a person at the airline who sabotages proficiency checks to orchestrate the removal of certain pilots. After a hearing before an

administrative law judge of the NTSB, the judge concluded that based on the evidence presented, the FAA had a reasonable basis for requesting a reexamination. On further appeal to the full Board, the Board emphasized "that the [FAA] Administrator has significant discretion in determining whether such reexaminations are warranted." Citing to Administrator v. Sanchez, NTSB Order No. EA-5326 (2007), "the Board's inquiry into the reasonableness of a reexamination request is a narrow one." This case reinforces for practitioners that it takes a great deal to rule an FAA request "unreasonable."

Administrator v. Bakhit, NTSB Order No. EA-5489 (2009).

SUCCESSFUL REEXAMINATION DOES NOT PRECLUDE CERTIFICATE SUSPENSION. On this same subject of reexamination, a recent NTSB decision reaffirms that successfully completing a reexamination does not stop the FAA from pursuing a certificate suspension arising out of the same incident, though in our experience the FAA does not usually pursue both. Administrator v. Hackshaw, NTSB Order No. EA-5501 (2010).

THE NTSB WILL NOT REVIEW FAA'S INCONSISTENT ENFORCEMENT OF FAA GUIDANCE OR REGULATIONS, OR THE INEFFECTIVE ASSISTANCE OF COUNSEL. In the same Bakhit case, the Board rejected a challenge that the FAA letter requesting reexamination did not fulfill the criteria of the FAA's own guidance, published in FAA Order 2150.3B. The Order is distributed

to FAA inspectors and lawyers providing in great detail how enforcement cases are to be investigated and prosecuted. What should be informative to lawyers defending such cases, is the Board's statement: "We have previously held that inconsistent enforcement of FAA guidance or regulations is not subject to our review." In the same vein, the Board refused to review the pilot's claim that his counsel ineffectively represented him at the hearing. "In general, we have previously declined to consider arguments concerning ineffective assistance of counsel."

NTSB NOT FARING WELL IN FEDERAL COURT.

Notwithstanding the NTSB's consistent record sustaining FAA enforcement actions against pilots, as indicated above and in the many earlier write-ups in this column, the NTSB has recently suffered a string of defeats in the Federal Courts of Appeal, each finding fault with the Board's decisions and remanding for further proceedings. One case came out of the Ninth Circuit; four cases came out of the District of Columbia Circuit.

In the one case out of the Ninth Circuit, the Board decision was vacated and remanded to the NTSB because the Administrative Law Judge, improperly curtailed respondent's cross-examination of FAA's lone witness on the key issue in the case. Under these circumstances, the NTSB was held to have abused its discretion in affirming the judge's order. Ferguson v. FAA, United States Court of Appeals, Ninth Circuit, November 9, 2009.

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In one of the cases in the DC Circuit, the Court agreed with a petitioner who accused the NTSB of “hypocrisy – saying one thing while doing another.” The NTSB affirmed an FAA emergency order revoking a private pilot’s license and medical certificate for falsifying medical applications that asked for, among many other items, non-traffic convictions. At a hearing before an NTSB law judge, the pilot explained that he did not disclose his bribery conviction because the FAA Aviation Medical Examiner administering the exams had informed him that the question was only concerned with drug- or alcohol-related offenses. The law judge found the pilot to be a forthright and credible witness with no intention to falsify the application, overturning the revocation. The FAA appealed the judge’s reversal of its order to the full NTSB. The full Board, in turn, reversed the judge, sustaining the FAA revocations. The Court of Appeals, in its turn, reversed the full Board and remanded the case back to NTSB. It did so on the ground that the Board departed, without reasoned explanation, from its precedents. The Board may not, without reasoned explanation, depart from its precedent that an airman’s subjective understanding of the questions in the medical application is relevant to the offense of intentional falsification. Dillmon v. NTSB, the United States Court of Appeals for the District of Columbia Circuit, December 8, 2009. A second case in the DC Circuit was decided against the Board on the same grounds. Singleton v. FAA, the United States Court of Appeals for

the District of Columbia Circuit, December 8, 2009. A few months earlier, the DC Circuit reversed the Board and remanded a case where the Board refused, on jurisdictional grounds, to allow a pilot’s defense that he complied with an FAA voluntary disclosure program. Moshea v. NTSB, the United States Court of Appeals for the District of Columbia Circuit, June 30, 2009.

And most recently, February 26, 2010, in Pasternack v. NTSB, the DC Circuit reversed the Board and remanded a pilot revocation case because the Board relied on a finding of fact that was not supported by substantial evidence. These recent cases in the Federal Courts of Appeal are an encouraging change to the long string of victories the FAA enjoys before the NTSB. ■

NTSB Case Statistics for 2009

Presented by Pamela O. McKenzie
Manager, ALJ Operations • Case Manager
National Transportation Safety Board

October 1, 2008 – September 30, 2009

- From October 1, 2008 – September 30, 2009, there were 425 aviation certificate appeals filed with Board’s Office of Administrative Law Judges; 195 of these cases were from emergency orders. The Board’s judges held 92 hearings and closed 416 cases. Of the cases that went to hearing, the judge affirmed the FAA order 47 times, modified the FAA order 20 times, and reversed the FAA order 10 times (the remaining cases were settled on the record).
- Also, during this time period there were 60 petitions seeking review of FAA emergency determinations. Of these, 17 were procedurally defective, and were dismissed on that basis and five being voluntarily withdrawn. The remaining 38 petitions were considered on their merits, with 3 being granted and 35 denied.
- Sixty-six of the judges’ decisions were appealed to the full five-member Safety Board for review. The Board decided 58 appeals, affirming the judge’s decision in 32 cases; modifying the judge’s decision in 2 cases; reversing the judge’s decision in 5 cases and remanding 1 case for further proceedings. Eighteen of the Board’s decisions were appealed to the U.S. Courts of Appeals, which rendered 12 decisions, affirming the Board in 7 cases, remanding 2 cases for further proceedings and dismissing 2 petitions for procedural deficiency. The remaining petition was voluntary withdrawn.
- There were 12 EAJA applications filed with the Board’s administrative law judges who granted 2 EAJA cases and denied 10 petitions. Seven of the judges’ EAJA decisions were appealed to the full Board, which issued rulings in 7 EAJA cases, denying all petitions.
- During FY 2009, the Board received no marine appeals and issued one ruling on marine decisions.

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 loss 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 Councils 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. ■

Degradation of Piloting Skills

The following is the personal view of Michael W. Gillen, individually, and does not necessarily represent the views or opinions of any airline with which he is associated.

Abstract

With the advent of advanced, highly automated cockpits in modern transport category jet aircraft, most of the tedious work of flying the aircraft solely by reference to raw data information from the airplane's instruments is becoming a thing of the past. As a result, basic instrument flying skills have diminished over time due to lack of use.

This study used airline pilots flying five basic instrument maneuvers, without the use of any automation, to assess instrument skills. In addition to the quantitative portion of the study, the pilots were surveyed to gauge individual perceptions of their instrument skill level. When analyzed, using a t-test, all of the maneuvers showed a significant degradation below what is required for Airline Transport Pilot (ATP) certification.

The survey portion of the study revealed that most professional pilots agree that their basic instrument skills have declined over time. However the pilots in the study also believed that they could still fly the airplane by reference to raw data with a high degree of skill. Maneuver grades and survey responses indicate that the pilots overestimated their basic instrument skills. By increasing a pilot's basic instrument skills, overall flying skills can be enhanced as well as

the ability to cope with instrumentation failures that degrade the fidelity of the modern glass aircraft. The problem of decreased instrument skills will continue into the future as an increased number of older-generation aircraft are retired.

Introduction

In years past, with older style aircraft, commercial pilots were required to do a majority of instrument flying by reference to raw data instrumentation. The net result of this type of flying produced highly competent instrument pilots. With the introduction of the B767 in the early 1980s, cockpit design began a radical transformation from round dial analog instruments to highly automated flight deck instrumentation systems that are installed modern aircraft such as the B777 and A380. As a result a majority of flying today is done with the automation turned on. With the increased use of automation, basic instrument skills are declining due to their lack of use. Preliminary investigative evidence suggests that lack of flying skills was a key component in the recent Turkish Air and Colgan accidents. The purpose of this study to determine if and how much the average jet transport pilot's basic instrument flying skills have diminished as a function of the time spent flying technologically advanced aircraft.

Literature Review

A literature review was conducted of pertinent articles related to this study. The review encompassed a

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broad overview of learning theory especially related to skill acquisition, retention, and decline. In addition to reviewing automation related issues, complex skill retention in the other fields was reviewed.

Skill Retention

Argote (1990) examined the persistence and transfer of learning using production rates and transfer of knowledge of producing Liberty War ships (during World War II). During a review of the most prevalent research, the study found little evidence about the extent to which learning persists (Argote, 1990). The study found that the "conventional measure of learning, cumulative output, significantly overstates the persistence of learning" (Argote, 1990 page 145). Results from the study indicated a rapid rate of learning depreciation, in some cases as much as 97% over a one year period.

The opportunity for pilots to practice and maintain their skills has decreased significantly over time (Advanced Aircraft Technology

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Safety Survey Report, 1998). Airline polices, advanced automation, and increased long haul flying has all added to this decreased opportunity to manually fly the airplane.

“Forty-three per cent of pilots considered that their manual flying skills had declined since they started flying advanced technology aircraft.” (Advanced Aircraft Technology Safety Survey Report, 1998, page 29). Most pilots hand-fly their aircraft at some stages of each flight to maintain an acceptable skill level. Anecdotal evidence indicates that the main reasons for this are a pilot’s natural satisfaction in performing manual flying tasks, the requirement to perform manual flying exercises during simulator sessions (including recurrent training and license renewal) and the need to be able to manually fly the aircraft should the automated systems fail to function as expected. It would appear that the attempts of both the pilots and their airlines have not succeeded in maintaining a perceived level of manual skills. Of concern are pilots who continue to manually control an aircraft with a diminishing level of skill. This has been recognized by some airlines who have implemented supplementary simulator programs to compensate for a perceived loss of manual flying skills (Advanced Aircraft Technology Safety Survey Report, 1998).

Stefanidis (2006) examined the proficiency of highly complex skills over a period of time if those skills are not used. Specifically, the study found that laparoscopic surgery skills declined by 40% in residents after 15 months of non-use. The study developed a hypothesis that a

complex laparoscopic skill (suturing) acquired by novices using a proficiency-based curriculum would be better maintained with ongoing training compared with a control group. The study’s specific aims were also to measure long term retention and to identify the time interval at which skill deterioration initially becomes detectable, so that maintenance training can be appropriately timed during future training (Stefanidis, 2006). The study found that the ongoing training group retained a greater portion of their skill. Finally, the study found that despite excellent initial training, in the absence of routine clinical use, complex skills diminish.

Automation Training

The Flight Safety Foundation published an article focusing on pilots transitioning to glass airplanes. In the article, the author (Wiener, 1999) made many recommendations on how to successfully train pilots on the operation of advanced aircraft. He recommended that flight management should formulate a policy on maintaining manual flying (hand flying) skills and convey this to the pilots (Wiener, 1999). He also suggested that companies allow for the practice of non-automation-based problem solving skills. A similar study commissioned by the FAA reported similar findings.

As a result of a crash of an Airbus A300 in Nagoya Japan, the FAA chartered a human factors (HF) team to address automation related issues. They were concerned that incidents and accidents such as what happened in Nagoya appeared to highlight difficulties in flight

crews interacting with increasing flight deck automation. The HF team determined from its findings that vulnerabilities in flight crew management of automation and situation awareness exist. Among their findings were the pilots’ understanding of the automations’ capabilities, limitations, modes, and operating principles and techniques (Abbott, 1992)

Automation Bias

A study titled Automation Bias: Decision Making and Performance in High-Tech Cockpits sought to quantify the effects of automation over-reliance in modern cockpits. This study pointed out the need for pilots to be able to fly the airplane when the automation does not function correctly. Automation is assuming increasing control of cognitive flights tasks, such as calculating fuel-efficient routes, navigating, or detecting and diagnosing system malfunctions and abnormalities (Mosier, 1998). Highly automated cockpits tend to change the way pilots perform tasks and make decisions. Researchers have documented problems in the use of advanced automated systems, including mode misunderstanding, failures to understand automated behavior, confusion or lack of awareness concerning what automated systems are doing and why, and difficulty tracing the functioning or reasoning process of automated agent (Billings, 1996; Sarter and Woods, 1993).

When automated aids are introduced, the pattern of cue utilization is disrupted. Automated aids present powerful and usually highly

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accurate cues. In fact, computational system diagnostic capabilities are advertised as being more accurate than pilots. This leads to the overall attitude that the automated cues are not just another cue, but the most powerful and important cue. These automated decision aids feeds into the general human tendency to travel the road of least cognitive effort. Typically people try to engage in the least amount of cognitive work they can get away with (Fiske and Taylor, 1994).

Automation Over Reliance

The final portion of this literature review compares an anecdotal study of GPS usage vs. traditional navigation. A study in 2005 by Casner demonstrated that pilots who navigate solely with a GPS and moving map displays have significantly less situational awareness than those pilots flying with a traditional map. It was hypothesized that this drop in navigational awareness was due to the passive role assumed by pilots when using equipment that automates the navigational task.

This literature review sought to give a broad overview of the related issues involving professional pilot instrument skill degradation. The review touched on learning and retention theory as well as automation related issues. It also discussed similar issues in related fields.

Methods

Sample

The study used data from airline pilots employed by US carriers during their recurrent training cycle. Each subject flew all five of the basic maneuvers. Thirty pilots par-

ticipated in the study. The average experience level was 7.1 years (in both aircraft and seat) with a range from 2-16 years. There were 17 Captains and 13 First Officers, comprising 18 narrow-body and 12 wide-body pilots. The pilots were separated in order to determine if there were any statistical differences between these groups.

Study Design

This study utilized a mixed methodology focusing on two aspects of basic instrument flying. First a qualitative survey was given to pilots to gauge their perception of their own instrument skills. The second part of the study required the use of first look data (data gained from pilot flying a maneuver without any warning or pre-briefing) from participating airlines and was quantitative in nature. The quantitative portion of the study was a quasi-experimental design with no formal control group. The first look data was obtained from a maneuver set comprised of: a takeoff, ILS approach, holding, missed approach, and an engine failure at V1. These maneuvers were flown without the use of auto-throttles, a flight director, or the FMC/map. They were flown solely by reference to raw data (heading, airspeed, attitude, and vertical speed instruments only). For the maneuvers, the study used the airline's check pilots who certify maneuvers for the FAA during recurrent training. The check pilots (check airmen) rated each maneuver based upon the observed performance of the pilot. The data was completely de-identified and the maneuvers were non-jeopardy to the flight crew.

Results

The quantitative analysis of the study involved observing pilots flying five basic instrument maneuvers in an FAA certified level D simulator. The maneuvers were rated by an FAA certified check airman and were graded 1-5 based on both a major airline's and FAA standards. See rating scale, Table 1, shown on page 15.

The type of aircraft the pilots flew was used in comparing both survey responses and maneuver performance. The pilots were divided into two categories based on the aircraft that they were currently flying; wide-body (A430, B747, B767) and narrow-body (A320, B737, B717). This comparison was done due to the fact that these two pilot groups fly similar hours per month, but have vastly different frequencies (number of takeoffs and landings). During a typical 20 hour trip a narrow body pilot may have as many as 12-15 takeoffs and landings, whereas a wide-body pilot would typically have only two. Due to the higher frequency of cycles, narrow-body pilots should perform better on the maneuvers than the wide-body pilots. The certification standard for all airline pilots is defined by the FAA in "ATP Practical Test Standards".

Experience

The first survey tests that were performed were a series of independent samples t-tests that compared self-reported experience with glass and non-glass aircraft along with the time since flying a non-glass aircraft as a function of type of aircraft flown.

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Table 1.

Five Point Grade Scale

- 5** The pilot remained well within airline standards and performance was exemplary.

- 4** The pilot remained within airline standards. Pilot flew to ATP instrument standards.

- 3** The pilot committed minor deviations from airline standards that were promptly corrected. Basic instrument level.

- 2** Major deviations (full scale deflection) for greater than 10 seconds.

- 1** The pilot committed major deviations from airline standards that were not promptly corrected and/or were unsafe; or was unable to perform the maneuver/task without assistance. Crash or loss of aircraft control.

These results were further analyzed by the specific survey responses relating to pilot experience.

The first experience survey question asked the pilot how long it had been since they had flown a non-glass aircraft. A majority of these types of aircraft are being retired, and as a result, the survey indicated that over 56% of the pilots had either never flown a non-glass aircraft or it had been greater than 10 years since they had done so.

The next survey question sought to quantify how much experience pilots had flying non-glass aircraft in airline operations. The highest percentage of pilots (46%) indicated that they had two years or less flying non-glass aircraft with only 20% having more than 10 years.

Pilots were then asked how many years they have been flying glass (new generation) aircraft. In this question, 73% of the pilots

indicated that have 10 or more years flying these type of aircraft. There were no pilots in the survey that indicated that they had two years or less flying glass aircraft.

Self Assessment

The next section of the survey asked the pilots to assess their basic instrument skills. Self assessment of flying skills as a function of aircraft type flown was also analyzed using a series independent samples t-tests. Survey questions were presented in the form of a statement to which the pilot responded in terms of; strongly agree, somewhat agree, somewhat disagree, and strongly disagree.

The first statement was “I usually hand fly the aircraft below 10,000 feet.” This statement was used in order to gain a perspective of how many pilots were actively flying the aircraft. A great majority of aircraft

maneuvering for both takeoff and landing occur below 10,000 feet. As such, a pilot will retain a maximum amount of skill by routinely hand flying below this altitude. The survey responses indicated that 80% of the pilots strongly agreed that they usually hand flew the airplane below 10,000 feet. This indicates that a majority of pilots are hand flying the airplane in the maneuver intensive phases of flight. It does not however indicate if they are using all of the aircraft’s advanced capabilities or flying by “raw data”.

In response to the statement “I could fly a takeoff, V1 cut, ILS, and a missed approach using only raw data,” 53% of pilots strongly agreed and 47% somewhat agreed. This indicates that the pilots believed that they could fly these maneuvers although not perfectly as indicated by the somewhat agree response. There were no pilots who disagreed with the statement.

Pilots were asked if they believe that their basic instrument skills have declined over time. Pilots agreed with this statement 26% of the time and somewhat agreed 53% of the time. Only one pilot strongly disagreed with the statement, however 16% of the pilots somewhat disagreed with the statement. This indicates that a majority of the pilots feel that their skills have somewhat diminished over time.

Pilots were asked if they often practice their basic instrument skills. Of the pilots surveyed 33% strongly agreed and 46% somewhat agreed. Pilots somewhat disagreed with the statement 20% of the time. This statement indicates that

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a majority of pilots are doing at least some basic instrument flying.

Simulator Performance

An independent t-test was performed on the maneuver rating as a function of aircraft type flown. This was done to determine if any significant differences were noted between the two different pilot groups. The analysis of the data revealed no significant differences between wide-body and narrow body pilots in their performance on the individual maneuvers or on a composite measure.

A separate set of analyses were also computed to test whether the maneuver ratings (ignoring aircraft type) were significantly different from the FAA standard of 4. The results are presented on the right in Table 2.

The t-test revealed that the pilots in the study flew the five basic instrument maneuvers well below the FAA standards. Significant t scores were noted for all maneuvers. The t-test results are on the right in Table 3.

The results indicate that the study pilots flew the maneuvers closer to a basic instrument level instead of the FAA standard for Airline Transport Pilots (ATP). The holding maneuver received the lowest grade 2.4 and the takeoff had the highest at 3.2. Takeoffs are largely performed by reference to raw data instrumentation whereas holding is rarely if ever performed in such a manner.

Table 2.

Maneuver Means

	N	Mean	Standard Deviation
Takeoff Maneuver	30	3.2000	.92476
V1 Cut Maneuver	30	3.0333	.71840
Holding Maneuver	30	2.3667	.85029
ILS Maneuver	30	2.9667	.80872
Missed Approach	30	3.0667	.58329

Table 3.

One-Sample Test

Test Value = 4 (FAA Standard)

	t	df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference Lower
Takeoff Maneuver	-4.738	29	.000	-8.0000	-1.1453
V1 Cut Maneuver	-7.370	29	.000	-.96667	-1.2349
Holding Maneuver	-10.521	29	.000	-1.63333	-1.9508
ILS Maneuver	-6.998	29	.000	-1.03333	-1.3353
Missed Approach	-8.764	29	.000	-.93333	-1.1511

Discussion

Findings

The study found that professional pilots have a significant decline in their basic instrument skills. The mean for each maneuver was compared to the FAA certification standards for both the Airline Transport Pilot (ATP) certificate. All of the maneuvers were graded below the FAA certification standard for an ATP certificate (4) and in fact a majority of the maneuvers were rated at or below what is required for basic instrument certification (3).

The survey found that 80% of the pilots agreed that their basic instrument skills have declined over time. However, when asked if they could fly the basic instrument maneuvers with reference to raw data 100% of the pilots surveyed stated that they could. In addition, 60% of the pilots agreed with the statement that they feel comfortable flying by reference to raw data only. Pilots (80%) also indicated that they often practice their raw data skills.

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Significance

The data clearly indicates that professional pilots have seen their basic instrument skills decline over time.

Technical failures in advanced glass aircraft can significantly degrade cockpit instrumentation. In addition lack of basic instrument flying skills make these failures more difficult to detect due to the fact that cross-checking raw data from the basic instruments is the key factor in determining failures. These failures have occurred at the major airline that participated in this study. Again speculation on the Air France accident focuses on erroneous cockpit instrumentation as a primary cause of the accident. When these failures occur, pilots are required to use their basic instrument skills to safely fly the airplane.

Pilots who are competent in basic instrument flying enhance their overall flying skills. They can devote less attention and cognitive function to physically flying the airplane and more time managing their environment.

Although most pilots in the study agreed that their instrument skills have declined over time, their survey responses indicated that they felt they could still fly the basic instrument maneuvers. The survey responses related to skills do not correlate with the actual maneuver grades. This leads to the conclusion that pilots in the study believed that

they could fly the maneuvers better than they actually could, leading to a false sense of confidence.

The maneuver grades generally fit with what the literature review revealed in other related studies. Earlier studies indicated that skills, when not used, decline over time. This was observed throughout the study in the mean maneuver grades. The suggestion by earlier studies that once a skill set was learned and practiced over a long period of time it would be retained longer than if the skills were practiced over a shorter period of time. This was not seen in the wide-body / narrow-body within groups comparison. Pilots of the wide-body aircraft had more experience flying older-generation aircraft than the narrow-body pilots, but had very similar maneuver grades. In fact there was no statistical difference between maneuver grades for these two groups. This is most likely due to the fact that although narrow-body pilots fly similar monthly hours, they fly far more cycles than wide-body pilots. This leads in a significant increase in maneuvering the aircraft and thus increased flying skills.

Future

There is little doubt that based on the results of the maneuvers, professional pilot's basic instrument skills have declined over time. This is linked to non-use of these skills

in routine line flying. In addition, newer-generation aircraft generally do not lend themselves to basic instrument flying, nor do most companies train or promote this type of flying. Although it is rare, some failures in advanced glass aircraft can degrade the aircraft instrumentation to a state that would require a pilot to fly the aircraft based on raw data alone. During the past 10 years, two such failures have occurred at the airline that participated in the study. In both cases the pilots landed safely.

The key to retaining these skills is practice. Each professional pilot was highly competent in these skills at one time during their career. A follow on study to determine how much practice is needed to retain these skills would be required. In addition each airline would have to not only train and practice these skills, but encourage their use while line flying.

Airline safety can be improved by having pilots that are competent not only in flying the airplane with all of the advanced instrumentation working, but with degraded systems as well. Pilots possessed these basic instrument skills at one time. These skills can be increased through both training and practice thus making the pilot better to handle problems that degrade aircraft instrumentation. ■

Notice to Members and Directors of the NTSB Bar Association

This is to notify all that in the transition to new leadership it became necessary to take certain corporate actions on an expedited basis that didn't allow the required bylaw time to notify and hold a Board of Directors meeting. The Bar Association has 13 Board members geographically dispersed around the Country. One of the most pressing matters was the immediate arrangements for the November Washington DC meeting. Those interim actions were taken by unanimous email consent, and have now been completed. For one, the Directors unanimously authorized the transfer of the Bar Association bank account to a bank in Florida convenient to the new Treasurer Charlie Morgenstein. In addition, the Directors unanimously approved amendments to the bylaws to allow the Board of Directors to meet by teleconference, to allow corporate notices to be given by email, to allow any unanimous consent action by the Board to be accomplished by email, and to allow the executive committee to act between Board meetings when the President determines that it is not practical to call a special meeting of the Board.

The bylaw amendments are interim. President Tony Jobe will be appointing a bylaw committee to do a wholesale revision and update of the bylaws. Volunteers are sought for consideration for appointment to the committee.

John Yodice, Secretary

FAA: Pilots allowed to take antidepressants

It has been reported that some pilots who have been prescribed anti-depression medication will soon be able to fly as part of an initiative by the FAA to get full disclosure regarding Pilot treatment.

Reversing the standing ban on depression medications such as Prozac, Zoloft, Celexa or Lexapro or their generic equivalents, the FAA is acknowledging these medications no longer pose a risk due to drowsiness or other side effects causing cockpit safety issues.

“Our concern is that they haven't necessarily been candid . . . We need to change the culture and remove the stigma associated with depression . . . Pilots should be able to get the medical treatment they need so they can safely perform their duties”, FAA Administrator Randy Babbitt stated Friday, March 26, 2010.

The new policy will allow pilots to fly provided that they have been undergoing treatment for over a year without safety-related side effects. While the exact language of the amnesty is not yet known, pilots will have six months to disclose depression diagnoses and resulting treatment.

Southwest Upgrades, Required Navigation Performance

On April 6, Southwest Airlines Co. will be updating two-thirds of its fleet with new instruments and upgraded displays to support Required Navigational Performance (RNP) routes.

RNP brings with it better fuel efficiency (gliding versus phased descents), less noise (again gliding), and shorter routes as the more precise flights remove overlap in congested flight paths.

While currently few airports utilize RNP procedures and the FAA has yet to design all the RNP routes and procedures, Southwest believes it will recoup the cost of training and installation if only one minute is shaved off all its flights.

“We've left the drawing board. Now we're in implementation,” said FAA's Administrator Randolph Babbitt. The FAA is acting quickly to design RNP procedures and train air-traffic controllers in mixing RNP traffic with old-style procedures.

Today, it's first-come, first-serve, tomorrow it will be priority from air-traffic controllers for RNP aircraft. The threat of being delayed behind better-equipped jets will serve as an incentive for airlines to quickly upgrade, the FAA says.

The NTSBBA will be attending this summer's American Aviation Litigation Conference in Boston, Massachusetts. If you are able to attend, please take a moment to say hello to NTSBBA President, Tony Jobe who will be reporting on the event in our next newsletter.

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The NTSB Bar Association Welcomes 19 New Members...

Jared Allen

Student

1426 Valley View Circle
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Email: jmallen@asu.edu

Mr. Allen joins the NTSB Bar as a Student member. He is currently attending Sandra Day O'Connor College of Law at Arizona State University.

Aaron Arpi

Student

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Mr. Arpi joins the NTSB Bar as a Student member and is currently Georgetown Law School.

Stacey L. Bechdolt

Regular/Full

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Ms. Bechdolt joins NTSB Bar as a Regular member. She is an aviation attorney in Ft. Lauderdale, Florida.

Ted Boswell

Regular/Full

The Boswell Law Firm
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Mr. Boswell has been named the "Outstanding Lawyer" Arkansas Bar Association and Arkansas Bar Foundation, 1994. Named the Outstanding Trial Lawyer by the Arkansas Trial Lawyers Association, 1998-1999. His practice areas include wrongful death and personal injury litigation.

John T. Crawford, Jr.

Regular/Full

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Mr. Crawford specializes in construction litigation and aviation law.

William Duskas

Regular/Full

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Mr. Duskas is an associate attorney at Zator Law Offices in Allentown, PA. He is a former USAF C-5 and NY Air National Guard C-5 pilot.

John Dunbar

Regular/Full

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AV Peer Review Rated by Martindale Hubbell, Mr. Dunbar has been included in "The Best Lawyers in America" for the area of personal injury since 2007 and has served as an Instructor in Federal Trial Practice at the University of Mississippi School of Law, and authored "The Status of Liability of Multiple Tort Feasors Under §85-5-7".

Kevin Edler

Student

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Mr. Edler joins LPBA as a student member. He is currently attending Tulane University School of Law.

Michael Fagras

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Mr. Fagras specializes in civil litigation.

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The NTSB Bar Association Welcomes New Members...

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Charles Finkel

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Mr. Floyd specializes in aircraft litigation and commercial corporate litigation.

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Mr. Fogleman earned a B.S. in Aviation from Henderson State University and graduated from the University of Arkansas at Little Rock, William H. Bowen School of Law, in 2009.

Julian Hayes

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Mr. Hayes graduated from University of Denver College of Law.

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Mr. Patterson practices defense litigation, transportation litigation, construction defect litigation, and products liability litigation.

Matthew Robinson

Regular/Full

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Mr. Robinson is an investigator and expert witness at Robson Forensic. He is a Crew Resource Management Instructor, and is FAA Commercial, CFII, Single Engine Land and Rotorcraft Helicopter rated.

Steven Sanford

Student

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Mr. Sanford joins the NSTB Bar as a student member.

Marc Warren

Government

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Mr. Warren serves as the Deputy Chief Counsel for Operations in the FAA's Office of the Chief Counsel.

Membership Application Form

Name: _____

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Address: _____

City _____ State _____ Zip _____

Work Phone: _____ Fax: _____

Email: _____ Website: _____

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