

Unwelcome Trend

The NTSB wants aviators and controllers to elevate the professionalism they bring to their work.

REGULAR READERS OF THIS COLUMN MAY HAVE NOTICED AN increase in accidents that seem to reflect a decline in professionalism in the cockpit and behind the radar screen. Certainly this situation involves only a small minority of pilots and controllers; nevertheless, it may be part of a larger, troubling trend.

The NTSB is concerned enough to put "professionalism" on the top of its wish list for the aviation community. According to the Safety Board:

Although the vast majority of pilots and air traffic controllers responsible for millions of flights each year routinely perform as qualified and competent professionals under a variety of demanding circumstances, there have been a disturbing number of individual incidents of noncompliant behavior, intentional misconduct or lack of commitment to essential tasks. These occurrences demonstrate an erosion of pilot and air traffic controller professionalism.

Recent accidents and incidents have highlighted the hazards to aviation safety associated with departures by pilots and air traffic controllers from standard operating procedures and established best practices. NTSB aviation accident reports describe the errors and catastrophic outcomes that can result from such lapses, and — though the NTSB has issued recommendations to reduce and mitigate such human failures — accidents and incidents continue. The costs of these events extend beyond fatalities, injuries and economic losses: They erode the public trust. As a result, these events and the NTSB investigations continue to garner significant congressional, media and public interest in the professionalism of pilots and air traffic controllers.

The Safety Board points to several accidents to make its point. Most of these have been reviewed in depth here in Cause & Circumstance but it's worth taking a look at a synopsis of each to fully understand what has the Board worried.

Air Sunshine

On July 13, 2003, at 1530 EDT, Air Sunshine's Tropical Aviation Services Flight 527, a Cessna 402C, was ditched in the Atlantic Ocean about 7 mi. west-northwest of Treasure Cay Airport, Great Abaco Island, Bahamas, following the inflight failure of the right engine.

The airplane was being operated under the provisions of FAR Part 135 as a scheduled international passenger commuter flight from Fort Lauderdale/Hollywood International Airport to Treasure Cay. VMC prevailed for the flight, which operated on a VFR plan.

Four of the nine passengers were uninjured, but three passengers and the pilot sustained minor injuries, and one adult and one child passenger died after they evacuated the airplane. The airplane sustained substantial damage.

The Safety Board determined the probable cause was the inflight failure of the right engine and the pilot's failure to adequately manage the airplane's performance after that event. The engine failure resulted from inadequate maintenance performed by Air Sunshine's maintenance personnel during undocumented

maintenance. Contributing to the passenger fatalities was the pilot's failure to provide an emergency briefing after the engine failed.

The safety issues discussed in this report include maintenance record keeping and practices, pilot proficiency, FAA oversight and emergency briefings.



By Richard N. Aarons
Safety Editor
bcasafety@yahoo.com

Fed Ex Hard Landing

On Dec. 18, 2003, at 1226 CST, Federal Express Flight 647, a Boeing MD-10-10F, crashed while landing at Memphis International Airport (MEM). The right main landing gear collapsed after touchdown on Runway 36R, and the airplane veered off the right side of the runway. After the gear collapsed, a fire developed on the right side of the airplane. Of the two flight crewmembers and five nonrevenue FedEx pilots on board the airplane, the first officer and one nonrevenue pilot suffered minor injuries during the evacuation.

The post-crash fire destroyed the airplane's right wing and portions of the right side of the fuselage. Flight 647 had departed from Metropolitan Oakland International Airport (OAK) at about 0832 and was operating under Part 121 on an IFR flight plan.

The Safety Board determined that the probable causes of the accident were (1) the first officer's failure to properly apply crosswind landing techniques to align the airplane with the runway centerline and to properly arrest the airplane's descent rate (flare) before the airplane touched down; and (2) the captain's failure to adequately monitor the first officer's performance and command or initiate corrective action during the final approach and landing.

The safety issues in this report focus on flight crew performance, emergency evacuations, MEM air traffic control and aircraft rescue and firefighting issues, and flight data recorder reliability.

Pinnacle Airlines Flight 3701

On Oct. 14, 2004, at 2215:06 CDT, Pinnacle Airlines Flight 3701 (doing business as Northwest Airlink), a Bombardier CL-600-2B19, crashed into a residential area about 2.5 mi. south of Jefferson City Memorial Airport, Jefferson City, Mo.

The airplane was on a repositioning flight from Little Rock National Airport to Minneapolis-St. Paul International Airport. During the flight, both engines flamed out after a pilot-induced aerodynamic stall and the crew was unable to restart them. The captain and the first officer were killed, and the airplane was destroyed. No one on the ground was injured. The flight was operating under Part 91 on an IFR flight plan. VMC prevailed at the time of the accident.

The Safety Board determined that the probable causes of this accident were (1) the pilots' unprofessional behavior, deviation from standard operating procedures and poor airmanship, which

resulted in an inflight emergency from which they were unable to recover, in part because of the pilots' inadequate training; (2) the pilots' failure to prepare for an emergency landing in a timely manner, including communicating with air traffic controllers immediately after the emergency about the loss of both engines and the availability of landing sites; and (3) the pilots' improper management of the double engine failure checklist, which allowed the engine cores to stop rotating and resulted in the core lock engine condition.

Contributing to this accident were (1) the core lock engine condition, which prevented at least one engine from being restarted; and (2) the airplane flight manuals that did not communicate to the pilots the importance of maintaining a minimum airspeed to keep the engine cores rotating.

The safety issues discussed in this report focus on flight crew training in the areas of high-altitude climbs, stall recognition and recovery, and double engine failures; flight crew professionalism; and the quality of some parameters recorded by flight data recorders on regional jet airplanes.

East Coast Jets Flight 81

On July 31, 2008, at 0945 CDT, East Coast Jets Flight 81, a Hawker 125-800A jet, crashed while attempting to go around after landing on

Runway 30 at Owatonna Degner Regional Airport, Owatonna, Minn.

The two pilots and six passengers were killed, and the airplane was destroyed by impact forces. The nonscheduled, domestic passenger flight was operating under the provisions of Part 135. An IFR flight plan had been filed and activated; however, it was canceled before the landing. VMC prevailed at the time of the accident.

The Safety Board determined that the probable cause of this accident was the captain's decision to attempt a go-around late in the landing roll with insufficient runway remaining. Contributing to the accident were (1) the pilots' poor crew coordination and lack of cockpit discipline; (2) fatigue, which likely impaired both pilots' performance; and (3) the failure of the FAA to require crew resource management training and standard operating procedures for Part 135 operators.

Comair Flight 5191

On Aug. 27, 2006, at 0606 EDT, Comair Flight 5191, a Bombardier CL-600-2B19, crashed during takeoff from Blue Grass Airport, Lexington, Ken. The flight crew was instructed to take off from Runway 22 but instead lined up the airplane on Runway 26 and began the takeoff roll. The regional jet ran off the end of the runway and impacted the airport perimeter fence,

Accidents in Brief Compiled by Jessica A. Salerno

Selected Accidents and Incidents in September and August 2011

The following NTSB information is preliminary.

► **Sept. 2** — At about 1335 Alaska Daylight Time, a **Cessna 208B Caravan** (N207DR) and a **Cessna 207** (N73789) collided in midair, approximately 9 mi. north of Nightmute, Alaska. Both airplanes were operating VFR when the accident occurred. The Cessna 208B was operated by Grant Aviation Inc., Anchorage, Alaska, and the Cessna 207 was operated by Ryan Air, Anchorage, Alaska. The sole occupant of the Cessna 208B, an airline transport pilot, sustained fatal injuries. The sole occupant of the Cessna 207, a commercial pilot, was uninjured. Both airplanes sustained substantial damage during the midair collision. After the collision, the Cessna 208B descended, uncontrolled, and impacted tundra-covered terrain. A postcrash fire consumed most of the wreckage. The Cessna 207 was further damaged during a forced landing on tundra-covered terrain. Both airplanes were based at the Bethel Airport, Bethel, Alaska. The Cessna 208B departed from the Toksook Bay Airport about 1325, and VFR company flight following procedures were in effect for the flight to Bethel. The Cessna 207 departed from the Tununak Airport, Tununak, Alaska, about 1315, and VFR company flight following procedures were in effect for the return flight to Bethel.

During an initial interview with the NTSB on Sept. 3, in Bethel, the pilot of the Cessna 207 reported that both airplanes departed from the neighboring Alaskan villages about the same time, and both airplanes were en route to Bethel along similar flight routes. She said that just after takeoff from Tununak, she talked with the pilot of the Cessna 208B on a prearranged,

discreet radio frequency, and the two agreed to rendezvous for the flight back to Bethel. She said that while in cruise level flight at 1,200 ft. MSL, en route to Bethel, the pilot of the Cessna 208B flew his airplane along the left side of her airplane, and they continued to talk via radio. She said that the pilot of the 208B then unexpectedly and unannounced climbed his airplane above, and over the top of her airplane. She immediately told the pilot of the 208B that she could not see him, and she was concerned about where he was. She said the 208B pilot then said, in part: "Whatever you do, don't pull up." Moments later, the next thing she recalls was the 208B's impact with her airplane's right wing.

The 207 pilot reported that after the impact, she saw the 208B pass underneath her airplane, and it began a gradual descent, which steepened as the airplane continued to the left and away from her airplane. She said that she told the pilot of the 208B that she thought she was going to crash. The pilot of the 208B stated that he also thought he was going to crash. She said that she watched as the 208B continued to descend, then it entered a steep, vertical, nose-down descent, before it collided with the ground. She said a postcrash fire started immediately upon impact.

The 207 pilot said that while struggling to maintain control of her airplane, she was unable to maintain altitude, and she selected an area of rolling, tundra-covered terrain as a forced landing site. She said that during the emergency descent, she had limited roll control, and the airplane's stall horn was on

trees and terrain. The captain, flight attendant and 47 passengers were killed, and the first officer suffered serious injuries. Impact forces and post-crash fire destroyed the airplane.

The flight was operating under Part 121 and was en route to Hartsfield-Jackson Atlanta International Airport. Night VMC prevailed at the time.

The Safety Board determined that the probable cause of this accident was the flight crewmembers' failure to use available cues and aids to identify the airplane's location on the airport surface during taxi and their failure to cross-check and verify that the airplane was on the correct runway before takeoff. Contributing to the accident were the flight crew's nonpertinent conversation during taxi, which resulted in a loss of positional awareness, and the FAA's failure to require that all runway crossings be authorized only by specific ATC clearances.

The safety issues discussed in this report focus on the need for (1) improved flight deck procedures; (2) the implementation of cockpit moving map displays or cockpit runway alerting systems; (3) improved airport surface marking standards; and (4) ATC policy changes in the areas of taxi and takeoff clearances and task prioritization. Safety recommendations concerning these issues are addressed to the FAA.

during the entire emergency approach. The airplane touched down on the soft terrain, and the nose landing gear collapsed.

► **Aug. 31** — Around 2235 EDT, a **Piper PA-28-181** (N6249C) was heavily damaged when it hit trees and terrain shortly after departure from Provincetown Municipal Airport (PVC), Provincetown, Mass. The private pilot was fatally injured and the passenger was seriously injured. Dark night VMC prevailed. No flight plan was filed for the flight.

Several flight crewmembers of a U.S. Coast Guard helicopter witnessed the accident and recounted a similar series of events during separate telephone interviews. According to the flight crew, they were returning from a mission when, while passing PVC, they heard a faint radio transmission from an aircraft "departing to the west." Even though the radio was tuned to the common traffic advisory frequency at PVC, they were uncertain if the transmission originated from PVC as another nearby airport utilized the same radio frequency. The crew subsequently announced that they were about 3 mi. northwest of the airport and shortly thereafter observed an alert on the TCAS. The TCAS target's altitude was not reported, but shortly thereafter one pilot of the crew observed the accident airplane on Runway 25 at PVC.

The other pilot then visually acquired the accident airplane as it was taking off from Runway 25. He initially saw the airplane at the midpoint of the runway, and noted that the airplane's strobe lights were operating. He looked inside the helicopter, and next saw the accident airplane after it had entered a left turn prior to reaching the departure end of the runway. As the airplane was flying over trees located on the south side of the runway, he could not distinguish its altitude as it flew over the trees due to his night vision goggles. He further recalled that one moment he could see the airplane, and then it was gone. He next saw smoke and flames through his night vision goggles and then realized that the airplane had crashed. The flight

What Now?

So, what's to be done? The NTSB insists labor, management, industry, associations and government each has a role to play in fostering professionalism. The Board believes an "open and ongoing dialogue among these parties will raise awareness of the importance of reinforcing professionalism."

The NTSB said it initiated such a dialogue during its three-day forum, *Professionalism in Aviation: Ensuring Excellence in Pilot and Air Traffic Controller Performance*, held at its Washington headquarters in 2010, but it seems the problem continues.

The Safety Board maintains that the aviation industry as a whole can provide better guidance on expected standards of performance and professional behavior. "Pilots, controllers and managers can reinforce these standards through their day-to-day actions on the job. And, though there is no way to guarantee that every pilot and controller will make the right choice in every situation," it said, "monitoring performance and holding them accountable will reinforce the absolute importance of maintaining the highest level of professionalism."

We agree. Be careful out there . . . and be professional. A professional mindset alone can be a great asset when the situation gets tough. **BCA**

crew subsequently contacted local first responders through their Coast Guard operations base, assisted them in locating the accident site, and assisted in extricating the passenger from the scene. The weather conditions reported at PVC about the time of the accident included clear skies and calm winds. Moonrise occurred at 0913 and moonset occurred at 2021.

► **Aug. 28** — At 1606 UTC, a **Cessna U206E**, Swedish registration SE-FMU, was substantially damaged when the airplane lost engine power during parachute jump operations and impacted terrain during a forced landing in a field near Kumla, Sweden. The pilot was not injured in the accident. The five passengers that were on board the airplane at the time the engine failed, four who were skydivers and the fifth, a tandem passenger, jumped from the airplane prior to the pilot performing the forced landing. None of the five passengers were injured. It was VFR at the time of the accident. The Swedish Accident Investigation Board requested assistance from Continental Motors with the post-accident examination of the airplane's IO-550-F20B engine. This investigation is under the jurisdiction and control of the Swedish government.

► **Aug. 26** — At 1841 CDT (all times CDT), a **Eurocopter AS-350-B2** (N352LN) sustained substantial damage when it hit terrain during an autorotation following a loss of power near the Midwest National Air Center (KGPH), Mosby, Mo. The pilot, flight nurse, flight paramedic and patient on board received fatal injuries. The EMS-equipped helicopter was registered to Key Equipment Finance Inc. and operated by Air Methods Corp., doing business as LifeNet in the Heartland. The medical flight departed from the Harrison County Community Hospital, Bethany, Mo., about 1811, and was en route to KGPH to refuel. After refueling, the flight intended to depart and land at Liberty Hospital in Liberty, Mo., which was located about 7 nm from KGPH on a 235-deg. heading. It was VFR at the time of the accident, and a company VFR flight plan was filed.

The purpose of the air medical inter-facility transport flight was to transport a patient from the Harrison County Community Hospital to Liberty Hospital. The request was received by the company's communication center at 1719 and the pilot was notified at 1720. At 1730, the pilot reported to the communication center that he departed from the helicopter's base at Rosecrans Memorial Airport (KSTJ), in St. Joseph, Mo. He reported that he lifted off with 2 hr. of fuel and three persons onboard and was en route to Bethany. Approximately 28 min. later, at 1758, the helicopter landed at the Harrison County Community Hospital helipad to pick up the patient.

While the helicopter was shut down on the helipad, the pilot contacted the company's communication center by telephone and notified them that about half way through the flight from KSTJ, he realized that he did not have as much fuel onboard as he originally thought. After a discussion about possible fueling and re-routing options, the pilot elected to stop en route at KGPH for fuel, and then proceed to the Liberty Hospital helipad to drop off the patient.

About 1811, the flight departed from the Harrison County Community Hospital helipad. About a minute later, the pilot contacted the company's communication center and reported that he had 45 min. of fuel and four persons onboard and was en route to KGPH. He asked the flight follower at the company's communication center to contact the FBO at KGPH to let them know that the helicopter was inbound for fuel. At 1841, the helicopter impacted a farm field about 1.7 nm north-northeast of KGPH. There was no post-impact fire.

► **Aug. 21** — At 1335 EDT, an attempted aerial transfer of an individual (wing walker) from a **Boeing A75N1 Stearman**

airplane (N49739) to a **Hughes 269C** helicopter (N7505B) resulted in a fatal injury to the wing walker during an air show performance at Selfridge Air National Guard Base (MTC), Mount Clemens, Mich. Neither aircraft were damaged during the accident; nor was either of the pilots injured. Both aircraft landed normally after the accident. The flight was being conducted under FAR Part 91 and a Certificate of Waiver issued for the air show. VFR prevailed for the flight. The local flight originated from Brooks Field Airport (RMY) in Marshall, Mich., about 1315.

The airplane pilot stated that the wing walker fell during their third pass. He reported that the wing walker was to wait for a cue from the helicopter pilot when both aircraft were in position for the transfer. He stated that the wing walker jumped to reach the skid on the helicopter before it was in position, letting go of the handle on the airplane. The wing walker was unable to regain a hold of the handle on the airplane and fell.

The helicopter pilot reported that the aerial transfer was planned to occur on the third pass. The initial passes went according to their plan. However, on the third pass, the wing walker attempted to grab the helicopter skid prior to the briefed transfer point.

The helicopter pilot stated that the wing walker released his hold on the airplane handle, and lunged with both hands for the helicopter skid before the aircraft were in position. He reported that the wing walker attempted to go back to the airplane, but was unable to grab on to anything. The wing walker subsequently fell approximately 150 ft. to the ground. The wing walker was transported from the scene in critical condition, and subsequently died at a local hospital. **BCA**