



NTSB 2015 MOST WANTED TRANSPORTATION SAFETY IMPROVEMENTS

STRENGTHEN PROCEDURAL COMPLIANCE

What is the issue?

Good people have bad days. But if you're a pilot, that bad day can become the worst – and potentially the last – of your life.

Picture the things that you should have done but didn't do at work on your worst day. Now picture a "day at the office" for a pilot. Pilots should not have non-critical conversations during critical phases of a flight – but what's the harm of a joke or two between colleagues? Pilots should run checklists and monitor instruments at specific times in the flight. But if you've made similar flights many times, it can be tempting to think of a requirement as a formality – perhaps not every time, but this time. Pilots should make callouts so that a captain and a first officer understand each other's actions and the status of the flight, and first officers should question captains' actions where they might compromise safety. But perhaps one of them misses a callout, or the first officer is tired or distracted and never asks the question.

When a pilot has a "bad day at the office," if everything else is fine, the lapse may be inconsequential. But any lapse can be the lapse that matters.

The issue is finding ways to strengthen procedural compliance, from rooting out inadequate company procedures, to ensuring comprehensive training, to reemphasizing and reinforcing crew compliance.

Recent accidents underscore the importance of procedural compliance. In 2013 there were two major controlled flight into terrain (CFIT) accidents in which crews did not follow company procedures - one in San Francisco, California, and one in Birmingham, Alabama. Continuing investigations into two other airline runway excursion accidents and two wrong airport landing incidents are examining how procedural compliance may have played a role. Over the last 10 years, the NTSB has investigated more than a dozen airline or commercial charter accidents involving procedural, training or compliance issues.

Such accidents can be prevented through collaborative efforts by crews, operators, and the regulator. Working together, they can develop effective procedures and training, and ensure that crews do what they are trained to do.

Sometimes crews do not comply with air carriers' standard operating procedures, such as flying stabilized approaches, making required callouts, maintaining quiet (or sterile) cockpits, and monitoring critical flight parameters like airspeed.

But other times, the procedures themselves aren't good enough. For example, an airline that did not require crews to calculate landing distance on arrival at the airport had an airplane run off the end of the runway. This is only one of many such cases. In other cases, training does not adequately prepare crews.

Both air carrier management and professional pilots must put safety first. Collective and collaborative leadership of company officers, pilots, and especially captains is needed to promote and reinforce a culture of compliance – a culture essential to safety.



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What can be done?

The NTSB has made recommendations that would strengthen compliance by ensuring that air carrier procedures are adequate, that air carriers adequately train pilots on those procedures, and that crews follow the procedures. The Federal Aviation Administration (FAA) and industry still have work to do.

Good procedures ensure standard pilot actions, enhancing safety. The NTSB has recommended procedural improvements, including:

- requiring pilots to conduct landing distance assessments,
- revising the procedures for handling thrust reverser lockout after landing, and
- in non-precision approaches, discontinuing so-called dive-and-drive approaches in favor of continuous descent final approaches.

Appropriate training ensures that commercial aviation professionals understand the procedures, how to implement them, and how they contribute to safe operations. Improved stall training, dual engine loss training and gusty crosswind training are some examples.

The FAA also should require pilot training programs that emphasize monitoring skills and workload management, and establish best practices for conducting single and multiple emergency and abnormal situations training.

Air carriers should also strengthen assertiveness training for first officers and initial operating experience training for Part 135 pilots.

Every fatal accident is a tragedy. Pilots complying with good procedures for which they were trained, every flight, every day, makes such a tragedy preventable. Aviation demands high professional standards, day-in and day-out. Better procedures, training, and compliance can help ensure a culture of safety.

Critical changes
needed to reduce
transportation
accidents
and save lives



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The NTSB's Most Wanted List highlights safety issues identified from the NTSB's accident investigations to increase awareness about the issues and recommended safety solutions.

The National Transportation Safety Board is an independent Federal agency charged by Congress with investigating every civil aviation accident in the United States and significant accidents in other modes of transportation - railroad, highway, marine and pipeline. The NTSB determines the probable cause of the accidents and issues safety recommendations aimed at preventing future accidents. In addition, the NTSB carries out special studies concerning transportation safety and coordinates the resources of the Federal Government and other organizations to provide assistance to victims and their family members impacted by major transportation disasters.

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