



U.S. Department
of Transportation
**Federal Aviation
Administration**

SAFO

Safety Alert For Operators

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Flight Standards Service
Washington, DC

http://www.faa.gov/other_visit/aviation_industry/airline_operators/airline_safety/safo

A SAFO contains important safety information and may include recommended action. SAFO content should be especially valuable to air carriers in meeting their statutory duty to provide service with the highest possible degree of safety in the public interest.

Subject: Safety During Positioning Flights

Purpose: The Turbine Aircraft Operations Subgroup (TAOS), part of the General Aviation Joint Steering Committee, developed this SAFO to increase awareness in the aviation community about the frequency of accidents during positioning flights. This SAFO calls attention to the importance of adherence to established operating procedures and recognition of airplane limitations when conducting positioning flights.

Background: Of all turbine airplane accidents from 1997 through 2005, forty eight accidents – more than one quarter of all turbine airplane accidents in that timeframe – occurred during a flight the National Transportation Safety Board identified as a “positioning” flight in the accident report. The purposes for these positioning flights include but are not limited to, empty leg flights to pick up passengers, ferry flights for maintenance, and “tail-end ferry” flights.

Discussion: The accident reports reviewed cite many causes and factors, but the common thread for many of the repositioning accidents is the crew’s failure to adhere to established procedures or to operate the airplane within its performance limitations. These causes and factors include failure to conduct a stable approach, not maintaining minimum descent altitude/decision height or specified altitude, not electing to go-around, flight into severe weather conditions, operation with known equipment issues, not conducting a pre-flight inspection, and overall non-compliance with regulations and procedures.

The behavior that can lead to these types of accidents has been labeled procedural intentional non-compliance (PINC). PINC is defined as the deliberate failure to follow regulations, standard operating procedures (SOP), and established company policy. There are three elements that must be present for a PINC event to occur. They are:

1. Motivation (Reward)
2. High Probability of Success
3. Absence of Peer Pressure or Reaction

Motivation behaviors include a “can-do” attitude, internal or external pressure from other crewmembers, the company, and the customers. Additionally, the company may provide economic incentives or the crewmember may take the opportunity to experiment freely. A high probability of success is also a necessary element of PINC. A tendency to underestimate the seriousness of an action, overestimate one’s ability, or having previously done the action without

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a negative result allows the crewmember to expect success and simply reinforces the behavior. Finally, a lack of negative peer pressure from other crewmembers or passengers tends to reinforce negative behavior. The removal of any of these three elements will likely prevent the PINC behavior from occurring.

Recommended Action: Certificate holders, flight departments, operators, and crewmembers should be aware of the higher frequency of accidents during positioning flights and the causes and factors often involved in the accidents, including PINC. They should also consider formal training of management personnel and crewmembers on the hazards associated with positioning flights and PINC principles in general. All company management and crewmembers should be aware of PINC and how it can influence decision making.

Companies and individual crewmembers can mitigate the likelihood of PINC. Companies should ensure that their policies do not encourage PINC behavior. For example, a company should be aware of a pilot's crew day and the potential for fatigue and degraded performance. A company should not coerce an individual to fly a trip by providing economic incentives or by threatening the loss of employment if the pilot is too fatigued to fly. A company should be proactive in carrying out its safety responsibilities. In addition, companies should revise their SOPs to clearly establish company policies and procedures to be followed during positioning flights. Pilots can lessen the risk of PINC by demonstrating the self-discipline required of a professional pilot which includes following the regulations and company SOPs and insisting that other crewmembers do the same.

Additional Resources:

- NBAA Safety Committee: Procedural Intentional Non-Compliance:
http://web.nbaa.org/public/cs/forums/20060608/pres/Procedural_Non-ComplianceRB.ppt

- AC 120-71A, Standard Operating Procedures for Flight Deck Crew Members

Questions or comments on this SAFO should be addressed to Peter Neff, AFS-820, (202) 493-5400.