

NOTICE

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION

N 8900.92

National Policy

Effective Date:
09/30/09

Cancellation Date:
09/30/10

SUBJ: Increased Surveillance and Testing of Surface Movement Operations

1. Purpose of This Notice. This notice is issued for immediate safety of flight and instructs Flight Standards District Offices (FSDO), Operations aviation safety inspectors (ASI), and principal operations inspectors (POI) to place increased significance on ground operations performance during all pilot flight checks and certification flights. With respect to ground operations, this includes, but is not limited to knowledge testing on airport signs, lighting, markings, flightcrew coordination, and adherence to taxi clearances. This notice additionally aims to prevent wrong runway takeoffs by identifying known contributing factors and by promoting pertinent operating procedures and training efforts for pilots and flight engineers.

2. Audience. The primary audience for this notice is Flight Standards District Office (FSDO) aviation safety inspectors. The secondary audience includes Flight Standards Service branches and divisions in the regions and in headquarters.

3. Where You Can Find This Notice. You can find this Notice on the MyFAA Web site: https://employees.faa.gov/tools_resources/orders_notices/. Inspectors can access this notice through the Flight Standards Information Management System (FSIMS) at <http://fsims.avs.faa.gov>. Operators may find this information on the Federal Aviation Administrations' (FAA) Web site at <http://fsims.faa.gov>.

3. Background.

a. Human Error. The FAA's goal is to reduce runway incursions by 20 percent. Historical data demonstrate that runway incursions most likely to cause accidents generally occur at complex, high-volume airports. These airports are characterized by parallel, and/or intersecting runways, multiple taxiway/runway intersections, complex taxi patterns, and the need for traffic to cross active runways. Analysis of historical data shows that a disproportionately large number of runway incursions involve general aviation pilots, and incursions often result from misunderstood controller instructions, confusion, disorientation, and/or inattention. Human error causes nearly all runway incursions.

b. Develop Procedures. Following the tragic Comair Flight 5191 accident at Lexington, Kentucky, a panel of analysts from the FAA and subject matter experts from industry studied data on wrong runway takeoffs collected in many databases and spanning 25 years (1981–2006). That study revealed a pattern of contributing factors (refer to Appendix A). InFO 08049

encouraged operators to develop specific operating procedures and training to reduce the risk in their operations. The panel's full report, "Wrong Runway Departures," is located at: http://cast-safety.org/pdf/cast_wrongrunway_0807.pdf

4. Action. ASIs will increase surveillance and testing of applicants for initial pilot or instructor certificates and additional category and ratings to ensure that applicants are thoroughly familiar with safe surface movement operations. ASIs with oversight responsibility for Designated Pilot Examiners (DPE) will ensure that in accordance with the appropriate Practical Test Standards (PTS) DPEs increase surface movement testing during initial pilot certification, additional category and ratings, flight reviews, instrument competency checks, high-altitude checks, tail dragger transitions, type rating rides, etc. ASIs should perform surveillance and testing in accordance with Order 8900.1, FSIMS, applicable PTS tasks, the Aeronautical Information Manual, and the best practices in Appendix B.

a. AFS-800. AFS-800, General Aviation and Commercial Division, will issue a letter containing the runway safety information and best practices recommendations to each person or organization authorized to conduct a flight instructor refresher clinic (FIRC). The letter will instruct FIRCs to include this runway safety information and best practices in a revision to their training course outlines submitted for approval.

b. FSDO. Each FSDO must provide certified flight instructors, DPEs, and flight schools within their jurisdiction with the runway safety information and recommended best practices.

c. ASI. Each ASI who examines or reexamines a designee or pilot applicant must ensure that each person he or she examines will be tested on runway safety in accordance with the requirements outlined in the PTS and knowledge tests.

d. POI. Each POI with oversight responsibilities for DPE and training center evaluators (TCE) must ensure that the DPE or TCE tests all new applicants for a certificate or additional rating on runway safety in accordance with the requirements outlined in the PTS and knowledge tests.

e. ASI Conducting Surveillance. Each ASI conducting surveillance of Title 14 of the Code of Federal Regulations parts 91, 121, 125, 135, and 137 operators and part 141 air agencies should increase his or her surveillance activities to ensure the incorporation of the wrong runway departure information into their training and operations.

Note: All airplane PTS have been revised to include special emphasis on runway incurrence awareness and prevention.

5. Program Tracking and Reporting Subsystem (PTRS) Entry. Upon completion of each of the required actions identified in paragraph 5b, c, d, or e, the ASI will make the appropriate PTRS entry and enter *N8900.92* in the *National Use* field. The ASI should note in the comments section which paragraph is addressed by that PTRS entry (e.g., 5b, 5c, 5d, or 5e).

6. Disposition. The contents of this notice will be incorporated into FSIMS and Order 8900.2, General Aviation Airman Designee Handbook. Direct questions regarding this notice to AFS-810 at (202) 267-8212.

ORIGINAL SIGNED by
Phyllis A. Duncan for

John M. Allen
Director, Flight Standards Service

Appendix A. Factors Contributing to Wrong Runway Takeoffs

- 1. Short Distance Between the Airport Terminal and the Runway.** A short distance between the terminal and the runway requires flightcrews to complete the same number of checklist items in a shorter timeframe and requires more heads-down time during taxi. Many of the event reports mentioned that the flightcrew members were rushing to complete their checklists or to expedite their departures.
- 2. Complex Airport Design.** A complex airport design can cause confusion among the flightcrew. The complexity of the airport layout includes factors such as high traffic volume, requiring the airplane to cross multiple runways to reach the departure runway, and complicated taxi instructions that involve the use of several taxiways.
- 3. One Taxiway Leading to Multiple Runway Thresholds.** These areas present an opportunity for flightcrews to taxi the airplane onto the wrong runway. This is especially true when the airplane has to cross one or more runways on the same taxiway.
- 4. Close Proximity of Multiple Runway Thresholds.** Many wrong runway events took place in areas with multiple runway thresholds in close proximity. In some cases, multiple runway ends are in the same location.
- 5. More Than Two Taxiways Intersecting in One Area.** These areas often confuse pilots and present the opportunity to turn in an incorrect direction.
- 6. Short Runway (Less Than 5,000 feet).** Wrong runway departures typically result in the airplane taking off without conflict because there is sufficient runway available. Title 14 of the Code of Federal Regulations part 139 Class I airports with runways less than 5,000 feet located in close proximity to longer runways were identified to point out potential situations where the runway is too short for a large air carrier jet to safely takeoff.
- 7. The Use of a Runway as a Taxiway.** In operations that required flightcrew members to use a runway to taxi to the assigned departure runway, pilots had a tendency to depart on the runway they were taxiing on instead of turning onto the correct runway when a takeoff clearance was issued.
- 8. A Single Runway That Uses Intersection Departures.** Airports with a single runway layout were not immune to airplanes taking off on the wrong runway, especially when intersection departures were made. In these events, the flightcrew taxied onto the runway and turned in the wrong direction, taking off 180 degrees from the intended direction.

Appendix B. Runway Incursion Prevention: Best Practices

- 1.** Read back all runway crossing and/or hold-short instructions.
- 2.** Review airport layouts as part of preflight planning and before descending to land, and while taxiing, as needed.
- 3.** Know airport signage.
- 4.** Review Notices to Airmen for information on runway/taxiway closures and construction areas.
- 5.** Do not hesitate to request progressive taxi instructions from air traffic control (ATC) when unsure of the taxi route. A pilot may call upon ATC (ground control) for help in confirming position at any time during taxi, or when holding short of a runway. Help from ATC is particularly valuable in conditions of reduced visibility.
- 6.** Check for traffic before crossing any runway or entering a taxiway.
- 7.** Turn on aircraft lights and rotating beacon or strobe lights while taxiing.
- 8.** When landing, clear the active runway as quickly as possible then wait for taxi instructions before further movement.
- 9.** Study and use proper radio phraseology as described in the Aeronautical Information Manual in order to respond to and understand ground control instructions.
- 10.** Write down complex taxi instructions at unfamiliar airports.
- 11.** When holding short and when in takeoff position, select the most expanded scale available on the horizontal situation indicator of the electronic flight information system, or the multifunction display map view, on appropriately equipped cockpits to confirm the airplane is where it is intended to be and that it is oriented as expected.
- 12.** When in takeoff position one pilot should verbally announce that the correct runway and departure procedure are selected in the flight management system when so equipped, and that the airplane's heading agrees with the assigned runway for takeoff.