



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

# SAFO

Safety Alert for Operators

SAFO 21004  
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Flight Standards Service  
Washington, DC

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*A SAFO contains important safety information and may include recommended action. Besides the specific action recommended in a SAFO, an alternative action may be as effective in addressing the safety issue named in the SAFO. The contents of this document do not have the force and effect of law and are not meant to bind the public in any way. This document is intended only to provide clarity to the public regarding existing requirements under the law or agency policies.*

**Subject:** Air Traffic Control (ATC) Notification and Pilot Awareness When Conducting an Instrument Landing System (ILS) Autoland Procedure.

**Purpose:** This SAFO alerts operators of the importance of notifying ATC when conducting ILS autoland procedures. It emphasizes the importance of pilot awareness throughout the coupled approach and autoland maneuver.

**Background:** Several incidents have occurred during coupled approaches where localizer signal interference during the most critical phase of landing has caused deviations from the runway centerline and untimely go-arounds. For example, in the summer of 2018, a flightcrew flew a Category III (CAT III) approach/landing (autoland) in non-CAT III weather without informing ATC. Post-incident investigation suggested a departing aircraft interfered with the airport's ILS localizer signal shortly before the CAT III landing. The signal caused the aircraft to deviate to the left of the runway centerline. While the flightcrew realized there was a substantial deviation from centerline at 50-70 feet above the surface, they initiated a go-around and a touchdown in the grass occurred.

**Discussion:** ATC issues control instructions to protect ILS critical areas from vehicle traffic and taxiing aircraft when the reported-weather is a ceiling of less than 800 feet and/or visibility of less than 2 miles. However, this restriction does not include consideration for preceding arriving or departing aircraft. Critical area protection is not required when the official weather observation reports weather conditions at or above 800 feet and/or visibility at or above 2 miles, as described in the Aeronautical Information Manual (AIM), ¶1-1-9(k), "ILS Course Distortion,"<sup>1</sup> p. 1-1-12. Additionally, critical areas are not protected at uncontrolled airports or at airports with an operating control tower when weather or visibility conditions are above those requiring protective measures.

An ILS autoland procedure is commonly utilized even in good weather. Some operators may require autoland in situations where weather conditions are above CAT II/III visibilities (e.g., maintaining pilot proficiency; meeting recency of experience requirements; mitigating crew fatigue; and minimizing

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<sup>1</sup>Title 14 CFR § 139.311(a)(5) requires certificated airports to provide and maintain marking systems for air carrier operations on the airport that consist of, among other things, "Instrument landing system (ILS) critical area markings."

tire/brake wear). However, departing or recently arriving aircraft may cause ILS disturbance regardless of weather conditions and pilots are cautioned that momentary deviations to ILS course/glide slope signals may occur.

**Recommended Action:**

1. Operators are encouraged to incorporate flightcrew operational procedures for the flightcrew to inform ATC of their intent to conduct an autoland approach. The information will enable ATC to issue an advisory if the critical area will not be protected in the event of an autoland approach.
2. Operators are encouraged to ensure adequacy of their flightcrew manuals regarding effective flightcrew briefings, stabilized approaches (including monitoring for any deviation from the intended flight path), and go-around procedures during autoland operations.
3. Flightcrews should use caution during all autoland procedures. Preceding arriving or departing aircraft may cause deviations to the ILS signal; such deviations may be present during CAT I or better weather conditions even when the ILS critical area is protected.

**Contact:** Please direct any questions or comments regarding this SAFO to the Air Transportation Division's Part 121 Air Carrier Operations branch at 202-267-8166.