

AERONAUTICAL INFORMATION CIRCULAR 1/17

GLIDE PATH FLUCTUATIONS CAUSED BY MOVEMENT OF GROUND TRAFFIC

This aeronautical information circular (AIC) will advise operators of the conditions under which glide path signals will be protected, and will detail pilot responsibilities to notify air traffic controllers (ATC) when conducting auto-land or similar approaches.

Background

In recent years, there has been an increase in reports from both pilots and air traffic controllers of instances of glide path fluctuations while an aircraft is navigating on the instrument landing system (ILS). This may occur when aircraft or vehicles are moving through the glide path critical area, causing interference with the signal. In several cases, the aircraft automation/autopilot followed momentary ILS fluctuations, causing the aircraft to pitch and roll.

It has become evident that further clarity is required regarding when ILS signals are protected while an aircraft is established on an ILS approach. ILS signals will only be protected under the conditions described below.

Glide Path Signal Protection Procedures

A controller will protect the glide path signal when:

1. The ceiling is less than 1,000 feet or visibility is less than 3 miles, or both; and
2. The arriving aircraft is inside the final approach fix (FAF) on an ILS approach.

Note: At uncontrolled airports, aircraft maneuvering on the ground may enter ILS critical areas during taxi, takeoff, or landing.

The ILS critical areas are **not** protected when aircraft are outside the FAF. Furthermore, with the exception of CAT II/III operations, localizer signal protection is not applied when a preceding aircraft will pass over or through the critical area while taking off, landing, or executing a missed approach on the same or another runway. Pilots must be aware of the ILS signal interference threats as well as flight display indications and autopilot functionality during manual or fully coupled ILS approaches.

Auto-Land or Practice Low Visibility Approaches

In situations where protection of the ILS signal is not required and pilots wish to conduct auto-land or practice low visibility approach procedures, advise the controller of your intentions early enough so that they can either protect the ILS critical area or advise you that, due to traffic, ILS critical area protection is not possible. If ILS critical area protection is not possible, the controller will use the phrase "ILS CRITICAL AREA NOT PROTECTED." It then becomes the pilot's responsibility to continue or discontinue in the particular approach mode.

Advisory Notice

An ILS performance report is available for all Canadian runways on the NAV CANADA website.

Note: COM Sections 3.12.1 to 3.12.3 of the TC AIM should be reviewed to ensure an understanding of ILS operating characteristics. Appendix A, items 1, 2, and 3 of TP 1490, MANUAL of ALL WEATHER OPERATIONS should also be reviewed for an understanding of ILS CRITICAL SENSITIVE AREAS.

Publication

The *Transport Canada Aeronautical Information Manual* (TC AIM – TP14371E) will be amended in the April 2017 release.

Validity

Effective 5 January 2017. For further information, please contact:

NAV CANADA
77 Metcalfe Street
Ottawa, ON K1P 5L6
Attn: Claude Fortier, Manager
Air Traffic Services, Standards and Procedures

Tel.: 613-563-5738
E-mail: claudio.fortier@navcanada.ca



James Ferrier
Manager, Aeronautical Information Management