



# SPECIAL AIRWORTHINESS INFORMATION BULLETIN

Aircraft Certification Service  
Washington, DC

U.S. Department  
of Transportation

**Federal Aviation  
Administration**

CE-07-02  
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<http://www.faa.gov/aircraft/safety/alerts/SAIB>

*This is information only. Recommendations aren't mandatory.*

## Introduction

This Special Airworthiness Information Bulletin advises you of an airworthiness concern for the following **Garmin WAAS receiver equipment**:

**GNS 480 Navigation System  
CNX80 Navigation System**

## Background

Recent Garmin testing of Satellite Initial Acquisition and Satellite Reacquisition under high noise and minimum signal conditions has shown these products may not fully meet TSO-C146a requirements under these specific conditions. This could result in the possible loss of satellite acquisition if these specific conditions were encountered. Although we are not aware of a service history problem by operators, this equipment does not comply with U.S. 14 CFR part 91, SFAR 97 requirements for TSO-C146a equipment under minimum signal and maximum interference conditions. Deviations have been granted to allow continued use of these systems while Garmin brings them into complete TSO compliance.

## Recommendation

Due to the equipment's TSO qualified performance in tracking low-elevation-angle satellites and until complete compliance is demonstrated and approved by the FAA, we recommend the following operational limitations for any Global Positioning System (GPS) or wide Area Augmentation System

(WAAS) operation under Instrument Flight Rules (IFR):

- 1) Aircraft using the GPS or WAAS capability of the listed navigation equipment under IFR should be equipped with an approved and operational alternate means of navigation appropriate to the flight, with the exception of oceanic and remote operations.
- 2) For flight planning purposes, if an alternate airport is required, it should have an approved instrument approach procedure other than GPS or RNAV that is anticipated to be operational and available at the estimated time of arrival. All equipment required for this procedure should be installed and operational.
- 3) For flight planning purposes, Garmin Prediction Program, part number 006-A0154-02, should be used to confirm the availability of Receiver Autonomous Integrity Monitoring (RAIM) for the intended flight in accordance with the local aviation authority guidelines for TSO-C129a equipment. WAAS NOTAMs (or their absence) and generic prediction tools do not provide an acceptable indication of the availability for the equipment.
- 4) When flight planning an LNAV/VNAV or LPV approach, operators should use the Garmin Prediction Program, part number 006-A0154-02, in addition to any NOTAMs issued for the approach.

See Garmin Service Bulletin number 0621 for specific instructions regarding the addition of recommended operational limitations.

The Garmin Prediction Program part number 006-A0154-02 and associated files may be obtained after November 1, 2006 at the following Garmin internet site:  
<http://www.garmin.com/products/gns480>

**For Further Information Contact**

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