



# Service Information Letter

<b>SIL Number:</b>	<b>606-00004-002</b>		
<b>To:</b>	<b>Owners, Operators, and Installers of Avidyne EX500/600/5000 MFDs installed with GNS-430 and WX500 Units</b>		
<b>Subject:</b>	<b>“Stormscope Heading Has Failed” messages</b>		
<b>Purpose:</b>	<b>This Service Information Letter (SIL) advises owners, operators, and installers of Avidyne EX500/600/5000 MFDs installed with GNS-430 and WX500 of certain issues related to “Stormscope Heading Has Failed” messages.</b>		
<b>Revision:</b>	00	<b>Date:</b>	09/10/10

## Problem Description

Avidyne has recently identified an issue related to “Stormscope Heading Has Failed” messages intermittently appearing on the Garmin GNS-430 units when the installed Avidyne EX500/600/5000 MFD and the WX500 Stormscope are configured such that the MFD is the supplier of heading to the Stormscope.

This issue only occurs in EX5000 MFDs loaded with Release 8.0 or 8.1 (or EX500 and EX600 MFDs loaded with Release 4.0 or 4.1) and when connected to a WX500 Stormscope that is configured to receive heading from the 4.X/8.X MFD and the aircraft is equipped with a XM/Baron or Sirius/WSI weather datalink system; it does not if the EX5000 is not supplying heading to the Stormscope nor if the aircraft is not equipped with a XM/Baron or Sirius/WSI weather datalink. The issue also does not occur with aircraft equipped with the MLX Iridium weather datalink system or Orbcomm Narrowcast system as the only on-board weather datalink system.

The issue presents itself as a message on the GNS-430 unit and an associated yellow “MSG” annunciation on the EXP5000 PFD. The messages are transient in nature and may appear every few minutes to every 15-30 minutes. They are generated when the WX500 Stormscope flags its heading as invalid. The invalid heading condition will typically last 2-3 seconds before returning to normal and this is enough to create the observed “Stormscope Heading Has Failed” message on the GNS-430.

The GNS-430 will not discard lightning strikes when the WX500 flags its heading as invalid but any strikes received while the heading is flagged invalid may be lost or misplaced on the display.

Investigation of this behavior has determined that the METAR station list was increased nearly 3-fold with the support of global METARS in Release 4.0/8.0 and later software. This increased METAR station list produced an accompanying increase in processing time required by the MFD to parse that additional data. It is this increased MFD processing time that can in-turn periodically result in a delay of heading data from the MFD to the WX500 in the manner described above. As soon as the METAR data processing is completed, heading data is supplied to the WX500 at the “normal” rate and the transient condition is eliminated.



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Due to the nature of the data streams transmitted, XM/Baron equipped aircraft are more susceptible to this condition than Sirius/WSI systems but it can occur in both.

It should also be noted that when the EX500/600/5000 MFD processing time is affected such that the "Stormscope Heading Has Failed" message is presented on the GNS-430, EX500/600/5000 map update speed, UTC time display, and response to MFD button presses or knob clicks may be impaired for the same duration.

### Solution

No software update is available at this time. Avidyne intends to address this issue in the next software release for the EX500/600/5000 but no timetable for that exists at this time.

In the meantime, if a "Stormscope Heading Has Failed" message is observed, Avidyne recommends avoiding any map range changes or button/knob commands for the duration of the message, as those interactions may result in delayed system response.

An alternative solution involves reconfiguring, and potentially rewiring, the avionics such that some other device than the Avidyne MFD supplies heading to the WX500. Contact your Avidyne installer if you wish to consider this possibility.

### Effectivity

Avidyne EX5000 P/N 700-00004-()  
Avidyne EX5000 P/N 700-00030-()  
Avidyne EX500 P/N 700-00007-()  
Avidyne EX600 P/N 700-00167-()

### Accomplishment Instructions:

No changes necessary at this time.

### Warranty Information:

Not Applicable.

### Contact Information:

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