



-ALERT-

Service Bulletin Number 2XXX.X.X-34-3307

**ERRONEOUS FMS OPERATION DURING A
HOLDING PATTERN COURSE REVERSAL
APPROACH TRANSITION**

A. Effectivity/Compatibility

This Service Bulletin applies to the following Universal Avionics FMS installations operating with SCN 802.0/902.0, 802.1/902.1, 802.2/902.2, 802.3/902.3, and 802.4/902.4.

- UNS-1E, P/N 2017-XX-()
- UNS-1Esp, P/N 2019-XX-()
- UNS-1F, P/N 2192-X0-()
- UNE-1L, P/N 2116-XX-()
- UNS-1C+, P/N 10172-XX-()
- UNS-1Csp+, P/N 10192-XX-()
- UNS-1D+, P/N 11922-X0-()
- UNS-1K+, P/N 11162-XX-()

B. Compliance

The Flight Crew Procedures called out in section D. “*Action*” of this Alert Service Bulletin must be complied with immediately.

The attached Acknowledgment and Survey Form must be returned immediately via fax, email, or Universal Avionics website (www.uasc.com/customer/sb_3307a.asp). The website reply is preferred.

Upgrade the FMS to currently available software SCN 802.5/902.5 or later FAA approved software versions.

C. Description

A problem has been discovered that results in misleading guidance and loss of FMS function. This may occur at automatic approach activation when an approach transition includes a holding pattern course reversal at the FAF, with a *NO LINK* or *GAP* in the flight plan prior to the FAF.

The FMS will output valid but erroneous data on the digital and analog busses to the display and FGS systems. The FMS CDU will clearly annunciate the failed condition with “CDU DATA BUS FAIL” message in red letters, but data on the primary flight displays will depict misleading information.

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Recognition of the failure can be determined by:

- On the FMS CDU, the message CDU DATA BUS FAIL will be display in red.
- On the flight instruments:
 - The distance to the next waypoint (FAF) will stop counting down.
 - The lateral deviation display will be active but erroneous.
 - The vertical deviation will be invalid and stowed.

There are over 1000 of these transitions in the SCN 802/902 series world wide navigation database. A list of known affected locations and approaches may be accessed at <http://www.uasc.com/customer/3307transitions.htm>

D. Action

Maintenance

- Verify applicability of this Service Bulletin by comparing Effectivity/Compatibility with installed unit(s).
- Ensure that the Flight Crew has been notified of this Service Bulletin.
- Upgrade the FMS to currently available software SCN 802.5/902.5 or later FAA approved software versions.
- Complete the attached survey and compliance forms.

Flight Crew Procedures

- Ensure that the Operator's Manual (2423sv802/902) contains the applicable temporary change released concurrently with this Service Bulletin.
- Ensure the underlying NAVAID is tuned and displayed for VOR/NDB/LOC/BC overlay approaches.
- Procedural mitigations (addressed in the Operator's Manual temporary change) are as follows:
 - DO NOT enter this type of transition in the flight plan, or
 - The flight crew should ensure that all *NO LINK* or *GAP* entries before the FAF have been removed from the flight plan, or
 - Manually activate the approach more than 2 nm prior to the FAF.

E. Material, Cost, and Availability

Contact our Product Support Department for pricing, scheduling, and shipping details.

Universal Avionics Systems Corporation
3260 E. Universal Way
Tucson, AZ 85756
Ph: (520) 573-7627 or (800) 595-5906
Fax: (520) 295-2384
email: customersupport@uasc.com

SERVICE BULLETIN

Acknowledgement and Survey Form

for

Alert Service Bulletin 2XXX.X.X-34-3307

All information must be completed. Universal Avionics requires this information to determine awareness of Alert Service Bulletin 2XXX.X.X-34-3307. This form is also available on Universal Avionics' website (www.uasc.com/customer/sb_3307a.asp). Website reply is preferred.

- **Is your current FMS installation SCN 802.0/902.0 through 802.4/902.4?**
(if NO, proceed to Aircraft and Customer section) YES NO
- **Do you use the FMS for non-precision approaches?** YES NO
- **Have you flown approach transitions with hold pattern course reversal?**
YES NO
- **If yes, have you experienced a CDU DATA BUS FAIL during an approach?**
YES NO

Additional comments: _____

Aircraft and Customer Information:

Date _____ Aircraft Type _____

Aircraft Registration No. _____

Aircraft Serial No. _____

FMS P/N: _____ FMS S/N: _____ FMS SCN: _____

Company Name _____

Contact Name (print) _____

Title _____

Signature _____

Address _____

Telephone (include country code, area code and applicable city code)

E-mail _____

Fax this form to (520) 295-2384

Universal Avionics Product Support

email to: customersupport@uasc.com

(800) 595-5906
(520) 573-7627

SERVICE BULLETIN

Software Upgrade Compliance Form

for

Alert Service Bulletin 2XXX.X.X-34-3307

All information must be completed. Universal Avionics requires this information to determine compliance with Alert Service Bulletin 3XXX.X.X-34-3307. This form is also available on Universal Avionics' website (www.uasc.com/customer/sb_3307c.asp). Website reply is preferred.

- **What was the compliance date relative to this installation?** _____
- **What software version was installed?** _____

Aircraft and Customer Information:

Date _____ Aircraft Type _____

Aircraft Registration No. _____

Aircraft Serial No. _____

FMS Part Number: _____

FMS Serial Number: _____

Company Name _____

Contact Name (print) _____

Title _____

Signature _____

Address _____

Telephone (include country code, area code and applicable city code)

E-mail _____

Fax this form to (520) 295-2384
email to: customersupport@uasc.com

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