

## Service Bulletin Number 1XXX.XX.( )-34-3314

### Installation of SCN 802.7 and 902.7 in the UNS-1E, -1C+, -1Esp, -1Csp+, -1F, -1D+, -1L and -1K+ FMS/MMMS

#### A. Effectivity

This Service Bulletin applies to the following Flight/Multi-Mission Management Systems (FMS/MMMS):

- UNS-1E, P/N 2017-XX-( )
- UNS-1Esp, P/N 2019-XX-( )
- UNS-1F, P/N 2192-X0-( )
- UNS-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

Installation of SCN 802.7/902.7 is optional.

**NOTE:** After installation of software, FMS system must be completely reconfigured. It is recommended that the configuration worksheets in the Configuration Manual Report No. 34-60-26 are used to record configuration prior to software upgrade.

The worksheets originally used to configure the FMS are the best source of this information. If these worksheets are not available, the configuration information can be obtained from the FMS itself before removal from the aircraft. This is accomplished by accessing Maintenance Page 1, selecting CONFIG and manually recording the information displayed on each configuration page. This will greatly facilitate reconfiguration after FMS software upgrade.

**NOTE:** The software described in this Service Bulletin may be installed only by Universal Avionics Systems Corporation (UASC) or a facility specifically authorized by UASC. Software Control Number (SCN) 802.7/902.7 was developed from previously certified SCN 802.6/902.6.

**SERVICE BULLETIN**

**C. Description**

The following features were implemented in SCN 802.7/902.7.

1. Corrected the CDU DATA BUS FAIL problem described in Alert Service Bulletin SB3307 to prevent the output erroneous steering data on the digital and analog busses to the display and FGS systems.
2. Improved the VNAV function to provide VNAV when there is a course reversal hold associated with the FAF.
3. Improved software by changing FMS behavior based on the assumption that airport identifiers are unique related to the insertion of terminal procedures into the flight plan.
4. Improved the software to support cross-filling a GPS required approach to an FMS with a different Navigation database that does not contain the approach.
5. Improved the switching of oceanic RNP when DME is not a configured sensor.
6. Corrected software to ensure RNV (VOR DME) and GPS/RNV (GPS) approach types cannot be armed or activated when they are configured as ADVISORY.
7. Improved the Go-Around function so that the FMS will not sequence a non-Go-Around "NO LINK".
8. Modified software so that when an advisory advanced approach is cross-filled the receiving FMS will not allow it to be armed or activated.
9. Improved the flight plan linking function to ensure the first instance of a waypoint in an approach is selected after a DTO and flight plan relink instead of the last instance.
10. Improved software to skip gap legs to prevent the intermittent loss of TAWS FPL display.
11. Corrected software operation so that Pseudo-Loc output is ramping with correct polarity and that the Pitch command is ramping with Vertical Deviation and Pseudo-Glideslope outputs.
12. Modified the software to improve holding pattern entry when the missed approach holding pattern is located at or in close proximity to the MAP.
13. Modified software to prevent the Honeywell EFIS from timing out and removing the map display.
14. Modified software, increasing the FMS waypoint limits from 32K to 64K.

**SERVICE BULLETIN**

**D. Approval**

Conforms to FAA TSO C115b and TSO C129a.

RTCA/DO-178B S/W Level C.

The initial FAA certification of SCN 802.X/902.X in the UNS-1F Flight Management System was performed by way of Project Number ST10241LA-A as a new STC SA01570LA on a B300 aircraft.

**E. Weight and Balance**

No change

**F. Material - Cost and Availability**

1. Universal Avionics will not be responsible for labor or other costs involved in removal and replacement of the unit. Universal Avionics will pay the cost of return shipping if the unit is still under warranty. Prior to shipping the unit, contact our Product Support Department for pricing, scheduling and shipping details.

2. Available from:                   Universal Avionics Systems Corporation  
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