Service Information Letter

SIL Number:	**606-00083-012**
To:	**Owners/Operators of Avidyne Release 9-equipped aircraft**
Subject:	**Autopilot Behavior in Approach Procedures Containing Holding Patterns in R9 Systems**
Purpose:	**This Service Information Letter (SIL) advises owners and operators of Avidyne Entegra Release 9-equipped aircraft that the autopilot (55X or DFC100) may fly the final approach course instead of remaining in a holding pattern on some RNAV or GPS approach procedures**
Revision: 00	**Date:** 01/23/2012

Problem Description

This Service Information Letter (SIL) advises owners and operators of Avidyne Entegra Release 9-equipped aircraft that, due to irregularities in how approach procedures are interpreted, on GPS approaches with holding patterns at the Final Approach Fix (FAF), the autopilot (S-TEC 55X or DFC100) will incorrectly fly the final approach segment instead of remaining in the holding pattern as depicted in the FMS and on the moving map. This issue only occurs when the autopilot of flight director is engaged.

This issue affects GPS approaches, RNAV(GPS) approaches, or approaches with GPS overlay ("or GPS" in the title) with a holding pattern course reversal at the FAF.

If the aircraft is aligned with the final approach course (within +/- 15 degrees) and the holding pattern course reversal is the next leg in the flight plan, upon reaching the FAF, the R9 system and autopilot/flight director will continue towards the Missed Approach Point (MAP) and descend, if applicable, instead of entering the holding pattern which is depicted on the map. The FMS active leg will not be automatically sequenced to the final approach leg and will continue to depict the holding pattern as the active leg.

If the aircraft is not aligned with the final approach course, the R9 system and autopilot will correctly enter the holding pattern prior to proceeding inbound on the FAF to MAP leg. Likewise, if the pilot selects "Skip Hold", the holding pattern will be skipped and the aircraft will proceed inbound, descending if applicable, upon reaching the FAF.

Solution

Pilots are encouraged to closely monitor the R9 system and autopilot during all approaches. If the autopilot does not follow the desired path, pilots should immediately disconnect the autopilot or switch to heading mode (HDG) control of the autopilot.

For approaches which contain a holding pattern located at the FAF and the aircraft is arriving at the FAF lined up with the final approach course, pilots should request a straight-in approach with ATC and select "Skip Hold" or delete the holding pattern in the R9 system. If the pilot wishes to fly the holding pattern

instead of flying a straight in approach, the pilot should disconnect the autopilot and hand fly the holding pattern or fly the holding pattern using HDG mode of the autopilot. The autopilot can be coupled using NAV mode once the aircraft has joined the final approach leg and the pilot wishes to proceed inbound past the FAF.

Effectivity

Description	IFD5000
Avidyne Part Number	700-00083-()
Avidyne Software Release	Release 9.0.X, 9.1.X, 9.2.X

All Release 9 software versions to date (9.0.X, 9.1.X, 9.2.X) are affected by this anomaly. The resolution to this issue will be included in the next R9 software release. The schedule of this release has not been determined.

Contact Information:

Any customer who experiences the symptoms described above or has additional questions can contact the Avidyne Entegra Release 9 Hotline.

Avidyne Entegra Release 9 Hotline: 1-877-MyAVIR9 (1-877-692-8479)
 For International Customers: 1-781-402-7592