

Radio Communication and Navigation Equipment

AD/RAD/62

KLN 89B RAIM Warning

9/98

Applicability: All aircraft fitted with Allied Signal KLN 89B GPS RNAV system P/N 066-01148-0101 with software mod level 01/03 or 01/04 and configured for IFR GPS non-precision approaches (NPA) or en-route/terminal area operations.

Requirement: 1. Aircraft installations previously configured and approved for IFR NPA are no longer approved and a placard stating:

“GPS NOT TO BE USED FOR IFR NON-PRECISION APPROACH”

is to be installed adjacent to the GPS receiver, in clear view of and easily readable by the pilot.

2. Aircraft installations previously configured and approved for IFR primary means en-route only operation are no longer approved and a placard stating:

“GPS LIMITED TO VFR OPERATIONS ONLY”

is to be installed adjacent to the GPS receiver, in clear view of, and easily readable by the pilot.

Note: The configuration of the KLN89B can be determined as en-route only if the APT 8 page is not accessible and a page stating “GPS APPROACHES DISABLED” must be acknowledged upon power up.

OR

3. Install software update in accordance with Allied Signal Software Bulletin KLN 89B-SW2 to incorporate software mod level 01/05.

Compliance: Requirement 1 and 2. Prior to next flight after the effective date of this AD.

Requirement 3. Prior to next flight after the effective date of this AD.

This airworthiness directive becomes effective on 13 August 1998.

Background: Two anomalies have been reported by Allied Signal by Alert Installation Bulletin 423. The KLN 89B, configured for non-precision approaches, will not annunciate a Receiver Autonomous Integrity Monitoring (RAIM) position error within the required 10 seconds in terminal and approach modes if the aircraft has been in a turn. The annunciation could take up to 30 seconds after the turn has been completed.

If the KLN 89B is configured for IFR en-route only operation RAIM is not enabled properly and RAIM errors will not be annunciated.