

U.S. DEPARTMENT OF TRANSPORTATION FEDERAL AVIATION ADMINISTRATION

N 8900.84

National Policy

Effective Date: 7/9/09

Cancellation Date: 7/9/10

SUBJ: Eclipse EA-500 Avionics Installation or Alteration Evaluation Requirements

- **1. Purpose of This Notice.** This notice provides guidance to aviation safety inspectors (ASI) on actions dealing with installation and/or modifications of Eclipse EA500 airplane avionics system/components not included as part of the original type design of the airplane.
- **2. Audience.** The primary audience for this notice is Flight Standards District Office (FSDO) ASIs with oversight responsibilities for maintenance and alteration of EA500 airplanes. The secondary audience includes Flight Standards branches and divisions in the regions and in headquarters.
- **3.** Where You Can Find This Notice. Inspectors can access this notice through the Flight Standards Information Management System (FSIMS) at http://fsims.avs.faa.gov. Operators may find this information on the Federal Aviation Administration's (FAA) Web site at: http://fsims.faa.gov/.
- **4. Background.** Eclipse Aviation Corporation holds type certificate (TC) No. A00002AC that prescribes conditions and limitations under which the Eclipse model EA-500 airplane meets the airworthiness requirements of Title 14 of the Code of Federal Regulations (14 CFR). The FAA Aircraft Certification Service (AIR) recently published Special Airworthiness Information Bulletin (SAIB) CE-09-14 noting the Chapter 11 bankruptcy filing of Eclipse Aviation on November 25, 2008 and the subsequent closure of all Eclipse operations including certification, production, service centers, training centers and dealerships.
- a. Type Certificate Data Sheet (TCDS) A00002AC. TCDS A00002AC, revision 3, contains notes concerning changes or modifications to the EA500 integrated avionics systems or cockpit configuration. Note 5 states, "The Eclipse EA500 incorporates integrated avionics systems using software-based line replaceable units (LRU's) which share a digital signal transmission bus. The avionics configuration of the Eclipse EA500 as delivered from production is critical to the proper operation of the cockpit instrumentation system. Modification to the LRU software supplied with the Eclipse EA500, replacement of an LRU with a different LRU, addition of new LRU, or alteration of an LRU interface could adversely affect the airworthiness of the certified product. Accordingly, no changes to the integrated avionics system may be made without coordination with the Certificate Management Aircraft Certification Office." Note 7 states, "Any modification or changes in cockpit configuration which may affect aircrew

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7/9/09 N 8900.84

workload, cockpit noise level or day/night operational capabilities must be evaluated by an FAA Aircraft Certification Flight Test Pilot."

Note: Within the context of this notice, replacement of an LRU with another LRU identified by the same part number and software level is not considered replacement with a different LRU.

- **b.** Alteration Requests. The FAA is aware of a growing number of requests to the FSDOs to approve installations and data associated with alteration or modification of the EA500 avionics and cockpit configuration. Additionally there are a small number of EA500 airplanes that had alterations performed without the recommended Aircraft Certification Office (ACO) involvement.
- **5. Action.** To avoid a potential unsafe condition, ASIs who observe an alteration or modification which involves the EA500 airplane avionics, must contact the ACO in Fort Worth TX, for assistance in determining appropriate compliance requirements and approval methodology. This guidance supersedes the field approval guidance in Order 8900.1 for the Eclipse EA500 until further notice. ASIs may not issue field approvals based on existing field approvals, Supplemental Type Certificates (STC), or Parts Manufacturer Approvals (PMA) without the required coordination and concurrence from the Southwest Region Aircraft Certification Service, Rotocraft Directorate –Airplane Certification Office, ASW-150. Direct inquires to Alma Ramirez, Program Manager, ASW-150; at (817) 222-5147, or e-mail: alma.l.ramirez@faa.gov.
- **6. Disposition.** This is a special emphasis activity. We will incorporate the information in this notice into FSIMS before this notice expires. Direct questions concerning this notice to the Aircraft Maintenance Division, Avionics Branch (AFS-360) at (202) 385-6412.

ORIGINAL SIGNED BY Michael Zenkovich for

John M. Allen Director, Flight Standards Service