

EMERGENCY AIRWORTHINESS DIRECTIVE



Aircraft Certification Service
Washington, DC

U.S. Department
of Transportation
**Federal Aviation
Administration**

www.faa.gov/aircraft/safety/alerts/

DATE: June 12, 2008

AD #: 2008-13-51

Discussion

Following a windshear encounter on final approach, the pilot applied full throttle using enough force against the forward stops to exceed the design throttle position signal maximum range. The associated fault mode held the engine thrust settings at the last known throttle position, which was maximum.

Following the balked landing, the pilot elected to shutdown one engine. Upon shutdown of one engine, the opposite engine thrust reduced to idle and was unresponsive to subsequent throttle lever movement. The pilot was able to land the aircraft with no injury or substantial damage, although both main tires were blown during the event.

Exceeding the throttle position signal maximum range could cause loss of left and right engine control, which could result in the inability to maintain desired airspeed and/or altitude with consequent loss of control.

FAA's Determination

After careful review of all available information related to the subject presented above, we have identified an unsafe condition that is likely to exist or develop on other products of this same type design. For this reason, the FAA has determined that AD action should be taken to reduce the likelihood of the throttle position signal exceeding its maximum range, which could cause loss of left and right engine control. The FAA has also determined that AD action should be taken to provide an airplane flight manual (AFM) procedure for responding to dual engine control failures. This condition could result in the inability to maintain desired airspeed and/or altitude with consequent loss of control.

AD Requirements

This AD requires the following:

- Insertion into the emergency and normal procedures sections of the AFM temporary revisions No. 005 and 006 to AFM part number (P/N) 06-122204, temporary revisions No. 007 and 008 to AFM P/N 06-121654, and temporary revisions No. 013 and 014 to AFM P/N 06-100106, as applicable; and
- Pilot evaluation of the throttles with repair or replacement as necessary.

This is considered interim action. The FAA may take future rulemaking action.

Presentation of the Actual AD

This rule is issued under 49 U.S.C. Section 44701 (formerly section 601 of the Federal Aviation Act of 1958), pursuant to the authority delegated to me by the Administrator, and is effective immediately upon receipt of this action.

2008-13-51 Eclipse Aviation Corporation: Directorate Identifier 2008-CE-043-AD.

Effective Date

- (a) This emergency AD becomes effective upon receipt.

Affected ADs

- (b) None.

Applicability

- (c) This AD affects Model EA500 airplanes, all serial numbers, that are certificated in any category.

Unsafe Condition

- (d) This AD is the result of the throttle position exceeding its maximum range. We are issuing this AD to reduce the likelihood of the throttle position signal exceeding its maximum range, which could cause loss of left and right engine control. We are also issuing this AD to provide an airplane flight manual procedure for responding to dual engine control failures. This condition could result in the inability to maintain desired airspeed and/or altitude with consequent loss of control.

Compliance

- (e) To address this problem, you must do the following, unless already done:

Actions	Compliance	Procedures
(1) Insert into the emergency and normal procedures sections of the airplane flight manual (AFM) temporary revisions No. 005 and 006, dated June 12, 2008, to AFM part number (P/N) 06-122204; temporary revisions No. 007 and 008, dated June 12, 2008, to AFM P/N 06-121654; and temporary revisions No. 013 and 014, dated June 12, 2008, to AFM P/N 06-100106; as applicable.	Before further flight.	A person holding at least a private pilot certificate as authorized by section 43.7 of the Federal Aviation Regulations (14 CFR 43.7) may insert the AFM temporary revisions. Make an entry into the aircraft logbook showing compliance with this portion of the AD in accordance with section 43.9 of the Federal Aviation Regulations (14 CFR 43.9).

(2) Do a one-time pilot evaluation of the throttles.	Before further flight.	Follow the procedures in the Appendix to this AD. A person holding at least a private pilot certificate as authorized by section 43.7 of the Federal Aviation Regulations (14 CFR 43.7) may do the pilot evaluation. Make an entry into the aircraft logbook showing compliance with this portion of the AD in accordance with section 43.9 of the Federal Aviation Regulations (14 CFR 43.9).
<p>(3) If any throttle anomalies or Engine Control crew alerting system messages occur during the evaluation required in paragraph (e)(2) of this AD, do the following actions:</p> <p>(i) replace the throttle quadrant assembly and repeat the evaluation in paragraph (e)(2) of this AD. If any anomalies or Engine Control crew alerting system messages occur during the evaluation, contact the FAA; or</p> <p>(ii) contact the FAA for an approved procedure and follow that procedure.</p>	Before further flight after the evaluation where the throttle anomalies or Engine Control messages occurred.	If applicable, contact the FAA using the information found in paragraph (f) of this AD.
(4) Report the evaluation results to the FAA. For the reporting requirement in this AD, under the provisions of the Paperwork Reduction Act, the Office of Management and Budget (OMB) has approved the information collection requirements and has assigned OMB Control Number 2120-0056.	Within the next 10 days after completing the evaluation required in paragraph (e)(2) of this AD.	<p>Send your report to Mitchell Soth, FAA, 2601 Meacham Blvd, Fort Worth, Texas 76137; telephone: (817) 222-5104; fax: (817) 222-5960. Include in your report the following information:</p> <p>(i) aircraft model and serial number;</p> <p>(ii) aircraft hours time-in-service; and</p> <p>(iii) condition found.</p>

Alternative Methods of Compliance

(f) The Manager, Fort Worth Airplane Certification Office, FAA, ATTN: Mitchell Soth, FAA, 2601 Meacham Blvd, Fort Worth, Texas 76137; telephone: (817) 222-5104; fax: (817) 222-5960, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. Before using any approved AMOC on any airplane to which the AMOC applies, notify your appropriate principal inspector (PI) in the FAA Flight Standards District Office (FSDO), or lacking a PI, your local FSDO.

Related Information

(g) To get copies of the documents referenced in this AD, contact:

(1) Eclipse Aviation Corporation, 2503 Clark Carr Loop, SE, Albuquerque, New Mexico 87106.

(2) Mitchell Soth, FAA, 2601 Meacham Blvd, Fort Worth, Texas 76137; telephone: (817) 222-5104; fax: (817) 222-5960.

APPENDIX TO AD 2008-13-51

Pilot Evaluation Instructions—Eclipse Aviation Corporation EA500 Throttles

1. Turn on aircraft electrical power in the following configuration.
 - a. Ground Power Unit Connected (if available)
 - b. BUS TIE Switch – AUTO
 - c. SYSTEM BATT Switch – ON
 - d. START BATT switch – ON
2. Wait for two minutes to ensure complete system power-up and data storage unit recording.
3. Move both throttle levers slowly from idle to maximum position.
4. Look for the following throttle anomalies:
 - a. Restricted, erratic or binding movement.
 - b. Unusual noises, such as grinding or scraping.
5. Return the throttles to idle.
6. Note if any of the following crew alerting system messages are displayed at any time during this evaluation:
 - a. L or R ENG CONTROL (white)
 - b. L or R ENG CONTROL FAIL (amber)
7. Turn off aircraft electrical power.

Issued in Kansas City, Missouri, on June 12, 2008.

Kim Smith,
Manager, Small Airplane Directorate,
Aircraft Certification Service.