

29.4.2008

PL 186, 01531 VANTAA, FINLAND, Tel. +358 (0)9 4250 11, Fax +358 (0)9 4250 2499

www.ilmailuhallinto.fi

Euroopan unionin yhteisen ilmailuviranomaisen EASA:n päätöksen 2/2003 mukaisesti suunnitteluvaltion lentokelpoisuusmääräyksen noudattaminen on ilma-aluksen jatkuvan lentokelpoisuuden edellytyksenä. Määräyksen mukaisen toimenpiteen saa tehdä ja kuitata, jollei Ilmailuhallinto määrää toisin, se jolla ilmailumääräyksen AIR M2-1, AIR M4-1, AIR M5-3, AIR M5-10, AIR M6-1, OPS M2-10, JAR-OPS 1 tai JAR OPS 3 mukaisesti on oikeus tehdä kyseisen ilma-aluksen tai -välineen määräaikaishuoltoja.

Suunnitteluvaltion lentokelpoisuusmääräys (Yhdysvallat) AD 2008-06-28R1

Avidyne Corporation. Ensisijaisen lentotietonäytön tarkastus

Koskee: Avidyne Corporation ensisijainen lentotietonäyttö (Primary Flight Display - PFD), osanumero 700-00006-000, 700-00006-001, 700-00006-002, 700-00006-003 ja 700-00006-100.

Lentokelpoisuusmääräyksen vaatimat toimenpiteet:

Tarkasta ensisijainen lentotietonäyttö viimeistään 25.4.2008 oheisen FAA AD2008-06-28R1 ohjeiden mukaisesti. Asenna tarvittaessa ohjaamoon AD:n mukainen kilpi ja laita lentokäsikirjaan AD:n mukainen liite.

Tehty toimenpide sekä suunnitteluvaltion lentokelpoisuusmääräyksen numero on merkittävä ilma-aluksen teknilliseen päiväkirjaan.

Jos ilma-aluksen omistaja, haltija tai käyttäjä haluaa korvata lentokelpoisuusmääräyksen vaatimat toimenpiteet muilla vastaavan turvallisuustason antavilla toimenpiteillä, voi hän jättää perustellun hakemuksen EASA:lle osoitteessa European Aviation Safety Agency, Postfach 10 12 53, D-50452 KÖLN, Saksa.

Alkuperäinen lentokelpoisuusmääräys on saatavissa osoitteesta:

[www.airweb.faa.gov/Regulatory and Guidance Library/rgWebcomponents.nsf/HomeFrame?OpenFrameSet](http://www.airweb.faa.gov/Regulatory_and_Guidance_Library/rgWebcomponents.nsf/HomeFrame?OpenFrameSet) tai
Federal Aviation Administration, Department of Transport, 800, Independence Avenue, SW, Washington DC, 20591, USA, faksi +14059544104.

2008-06-28 R1

AVIDYNE CORPORATION

Amendment 39-15468

Docket No. FAA-2008-0340; Directorate Identifier 2008-CE-020-AD

PREAMBLE

Effective Date

(a) This AD becomes effective on April 10, 2008 (The effective date of AD 2008-06-28).

Affected ADs

(b) This AD revises AD 2008-06-28; Amendment 39-15440.

Applicability

(b) None.

Applicability

(c) This AD applies to Avidyne Corporation (Avidyne) Primary Flight Displays (PFDs) (Part Numbers (P/Ns) 700-00006-000, 700-00006-001, 700-00006-002, 700-00006-003, and 700-00006-100) that are installed on, but not limited to the following airplanes that are certificated in any category:

(1) Adam Aircraft Model A500;

(2) Cessna Aircraft Company Model 441 (STEC Alliant Supplemental Type Certificate (STC) No. SA09547AC-D incorporated);

(3) Cessna Aircraft Company Models LC42-550FG and LC41-550FG (Columbia Aircraft Manufacturing and The Lancair Company previously held the type certificate for these airplanes);

(4) Cirrus Design Corporation Models SR20 and SR22;

(5) Diamond Aircraft Industries GmbH Model DA 40;

(6) Hawker Beechcraft Corporation Model E90 (STEC Alliant STC No. SA09545AC-D incorporated);

(7) Hawker Beechcraft Corporation Model 200 series (STEC Alliant STC No. SA09543AC-D incorporated); and

(8) Piper Aircraft, Inc. Models PA-28-161, PA-28-181, PA-28R-201, PA-32R-301 (HP), PA-32R-301T, PA-32-301FT, PA-32-301XTC, PA-34-220T, PA-44-180, PA-46-350P, PA-46R-350T, and PA-46-500TP.

Unsafe Condition

(d) This AD is the result of our learning that there is an incorrect serial number (SN) listed in AD 2008-06-28, which is corrected in this AD. We are issuing this AD to prevent certain conditions from existing when PFDs display incorrect attitude, altitude, and airspeed information. This could result in airspeed/altitude mismanagement or spatial disorientation of the pilot with consequent loss of airplane control, inadequate traffic separation, or controlled flight into terrain.

Compliance

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

Table 1.-Actions, Compliance, and Procedures

Actions	Compliance	Procedures
(1) Do a logbook check of maintenance records to determine if any PFD (P/Ns 700-00006-000, 700-00006-001, 700-00006-002, 700-00006-003, or 700-00006-100) with any affected serial number listed in TABLE 2 -Serial Numbers of Affected PFDs is installed. (i) If, as a result of this check, you find any PFD installed with an affected serial number, do the action required by paragraph (e)(3)(i) or (e)(3)(ii) of this AD. (ii) If, as a result of this check, you cannot positively identify the serial number of the PFD, do the inspection required in paragraph (e)(2) of this AD. (iii) If, as a result of this check, you positively identify that the PFD installed does not have a serial number affected by this AD, then no further action is required.	Within 15 days after April 10, 2008 (the effective date of AD 2008-06-28).	The owner/operator holding at least a private pilot certificate as authorized by <u>section 43.7</u> of the Federal Aviation Regulations (14 CFR 43.7) may do the logbook check. Make an entry into the aircraft logbook showing compliance with this portion of the AD in accordance with <u>section 43.9</u> of the Federal Aviation Regulations (14 CFR 43.9).
(2) If you find, as a result of the check required by paragraph (e)(1) of this AD you cannot positively identify the serial number of the PFD, inspect any PFD (P/Ns 700-00006-000, 700-00006-001, 700-00006-002,	Within 15 days after April 10, 2008 (the effective date of AD 2008-06-28).	Not Applicable.

700-00006-003, or 700-00006-100) for any affected serial number listed in TABLE 2 -Serial Numbers of Affected PFDs. You may do the requirement of paragraph (e)(3) of this AD instead of this inspection.

(3) If you find, as a result of the check required by paragraph (e)(1) of this AD or the inspection required by paragraph (e)(2) of this AD, any PFD installed with an affected serial number, do whichever of the following applies: (i) For airplanes with an airplane flight manual (AFM), pilot's operating handbook (POH), or airplane flight manual supplement (AFMS), incorporate the language in the Appendix of this AD into the Limitations section. (ii) For airplanes without an AFM, POH, or AFMS, do the following: (A) Incorporate the language in the Appendix of this AD into your aircraft records; and (B) Fabricate a placard (using at least 1/8-inch letters) with the following words and install the placard on the instrument panel within the pilot's clear view: "AD 2008-06-28 R1 CONTAINS LIMITATIONS REGARDING AVIDYNE PRIMARY FLIGHT DISPLAYS (PFD) AND REQUIRED INCORPORATION OF THESE LIMITATIONS INTO THE AIRCRAFT RECORDS. YOU MUST FOLLOW THESE LIMITATIONS."	Within 15 days after April 10, 2008 (the effective date of AD 2008-06-28).	The owner/operator holding at least a private pilot certificate as authorized by <u>section 43.7</u> of the Federal Aviation Regulations (14 CFR 43.7) may insert the information into the AFM, POH, AFMS, or maintenance records as required in paragraph (e)(3)(i) or (e)(3)(ii)(A) of this AD and/or fabricate the placard required in paragraph (e)(3)(ii)(B) of this AD. Make an entry into the aircraft records showing compliance with these portions of the AD in accordance with <u>section 43.9</u> of the Federal Aviation Regulations (14 CFR 43.9)
---	---	--

(4) Do not install any PFD (P/Ns 700-00006-000, 700-00006-001, 700-00006-002, 700-00006-003, or 700-00006-100) with any affected serial number listed in TABLE 2—Serial Numbers of Affected PFDs.	As of April 10, 2008 (the effective date of AD 2008-06-28).	Not Applicable.
---	---	-----------------

NOTE 1

If you have an AFM, POH, or AFMS, you may fabricate and install a placard as described in paragraph (e)(3)(ii) of this AD in addition to, but not instead of, the Limitations section requirement of paragraph (e)(3)(i) of this AD.

NOTE 2

Avidyne Service Alert No. SA-08-001, dated February 12, 2008, pertains to the subject matter of this AD. The service information cautions that all pilots should be vigilant in conducting proper preflight and in-flight checks of instrument accuracy.

Table 2.-Serial Numbers of Affected PFDs AD 2008-06-28 R1

D1023, D1031, D1037, D1069, D1075, D1080, D1084, D1090, D1101, D1102, D1106, D1112, D1115, D1136, D1138, D1141, D1144, D1158, D1170, D1172, D1174, D1178, D1188, D1197, D1199, D1212, D1234, D1240, D1249, D1253, D1254, D1256, D1259, D1260, D1262, D1270, D1272, D1277, D1283, D1288, D1313, D1319, D1327, D1351, D1364, D1380, D1387, D1391, D1396, D1405, D1412, D1428, D1433, D1434, D1435, F0006, F0011, F0021, F0030, F0031, F0032, F0035, 20002067, 20003147, 20003296, 20003316, 20004297, 20005316, 20005487, 20008167, 20008227, 20008255, 20009297, 20009476, 20010177, 20010255, 20011396, 20011456, 20012337, 20012506, 20013406, 20014027, 20014227, 20015357, 20017286, 20018317, 20018425, 20018486, 20019067, 20019297, 20020297, 20021067, 20021197, 20022177, 20022207, 20022217, 20022286, 20022287, 20022296, 20023197, 20023377, 20024196, 20024217, 20024297, 20024397, 20024407, 20024425, 20025067, 20025177, 20025217, 20025317, 20026067, 20026197, 20026207, 20026265, 20026377, 20026407, 20026506, 20027177, 20027226, 20027317, 20027377, 20028177, 20028337, 20029177, 20029197, 20029246, 20029265, 20029506, 20030197, 20030237, 20031207, 20031217, 20031406, 20031407, 20031516, 20032067, 20032265, 20032337, 20032516, 20033337, 20034207, 20034327, 20035177, 20036197, 20036237, 20036397, 20037265, 20037285, 20038127, 20038197, 20038337, 20039177, 20040127, 20040177, 20040197, 20040265, 20040317, 20041177, 20042197, 20042265, 20042317, 20042337, 20043197, 20043215, 20043237, 20043247, 20044226, 20044237, 20044285, 20045215, 20045265, 20045437, 20046215, 20047127, 20047147, 20047197, 20048197, 20048215, 20048247, 20049147, 20049357, 20050147, 20050287, 20050346, 20050434, 20051215, 20052215, 20053247, 20053257, 20053357, 20054247, 20054257, 20054357, 20055087, 20056247, 20056257, 20057237, 20057346, 20058346, 20061087, 20061247, 20062087, 20062247, 20063087, 20064087, 20064147, 20064226, 20064337, 20066147, 20067087, 20068147, 20068337, 20069087, 20071237, 20072087, 20073087, 20073346, 20073506, 20074207, 20075087, 20075147, 20075207, 20076217, 20076257, 20077087, 20077506, 20078087, 20078217, 20078257, 20078346, 20078496, 20084257, 20085396, 20087257, 20089257, 20089346, 20090346, 20092297, 20093247, 20094107, 20094416, 20097137, 20098037, 20099107, 20099346, 20099416, 20101416, 20102417, 20103396, 20104246, 20106224, 20111224, 20112224, 20114416, 20115346, 20116346, 20118416, 20123416, 20124456, 20126416, 20129346, 20135337, 20139336, 20140336, 20142037, 20142296, 20146037, 20147336, 20153037, 20158097, 20161097, 20164097, 20165097, 20166097, 20170097, 20170175, 20172175, 20177175, 20202257, 20204175, 20209246, 20214175, 20216265, 20217175, 20224175, 20224265, 20229265, 20232175, 20233175, 20236175, 20236265, 20241175, 20243265, 20265355, 20272355, 20273355, 20278355,

20281355, 20302384, 20308384, 20314384, 20317384, 20320305, 20321376, 20330376, 20330384, 20343384, 20347305, 20348305, 20350305, 20356305, 20359305, 20378475, 20380225, 20381225, 20382475, 20388225, 20402174, 20403174, 20438345, 20440345, 20447425, 20452315, 20458315, 20462315, 20467315, 20540094, 20550094, 20576445, 20580445, 20581445, 20582525, 20584525, 20591525, 20595065, 20599065, 20605065, 20615116, 20618065, 20638116, 20656284, 20732074, 20735176, 20739176, 20755493, 20814015, 20815015, 20974365, 20978365, 20978434, 20986365, 20990434, 20998365, 21002365, 21056395, 21060395, 21063184, 21063395, 21067184, 21070184, 21075395, 21191045, 21200045, 21219045, 21294414, 21311414, 21315414, 21324414, 21325414, 21330414, 21334414, 21340414, 21491056, 21493056, 21596354, 21603435, 21604435, 21606435, 21608435, 21610435, 21614435, 21646086, 21668086, 21812514, 21823514, 21826514, 21836304, 21839304, 21852304, 22310186, 22378026, 22380026, 22398294, 22401294, 22405085, 22412385, 22418026, 22418385, 22419026, 22470524, 22471524, 22472524, 22479524, 22483524, 22486524, 22523204, 22525264, 22531204, 22559135, 22568135, 22572135, 22578135, 22579135, 22586135, 22602135, 22603135, 22608135, 22642493, 22647493, 22682076, 22908334, 22921334, 22961354, 23166495, 23169495, 23173495, 23175495, 23182495, 23371455, 23378455, 23443264, 23445264, 23448264, 23581244, 23602244, 23737136, 23738136, 24021335, 24029335, 24231144, 24238144, 24248144, 24381324, 24478515, 24735144, 24746144, 24750144, 24772085, 24773085, 24865155, 24867155, 24870155, 24990084, 24991084, 24993084, 24996084, 25023034, 25027034, 25522465, 25525465, 25530465, 25532465, 25538465, 25600465, 25618106, 26287114, 26528095, 26547095, 26553095, 26569464, 26571095, 26572095, 26584095, 26588464, 26592464, 27865034, 28478495, 28519495, 29019044, 29023044, 29029044, 29031044, 29032044, 29512216, 29514216, and 29522216

Alternative Methods of Compliance (AMOCs)

(f) The Manager, Boston Aircraft Certification Office (ACO), FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR **39.19**. Send information to ATTN: Solomon Hecht, Aerospace Engineer, Boston ACO, 12 New England Executive Park, Burlington, MA 01803; telephone: (781) 238-7159; fax: (781) 238-7170. 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.

Additional Information

(g) For the service alert referenced in this AD, contact Avidyne Corporation, 55 Old Bedford Road, Lincoln, MA 01773; telephone: (781) 402-7400; fax: (781) 402-7599.

Appendix to AD 2008-06-28 R1 Limitations Regarding Avidyne Primary Flight Displays (PFDs)

Before conducting flight operations, pilots must review and be familiar with the Crosscheck Monitor section of the Avidyne Primary Flight Display Pilot's Guide and all limitations contained in the airplane flight manual, pilot's operating handbook, or aircraft operating handbook.

As a normal practice, all pilots should be vigilant in conducting proper preflight and in-flight checks of instrument accuracy, including:

- Preflight check of the accuracy of both the primary and backup altimeter against known airfield elevation and against each other.
- Verification of airspeed indications consistent with prevailing conditions at startup, during taxi, and prior to takeoff.

- "Airspeed alive" check and reasonable indications during takeoff roll.
- Maintenance of current altimeter setting in both primary and backup altimeters.
- Cross-check of primary and backup altimeters at each change of altimeter setting and prior to entering instrument meteorological conditions (IMC).
- Cross-check of primary and backup altimeters and validation against other available data, such as glideslope intercept altitude, prior to conducting any instrument approach.
- Periodic cross-checks of primary and backup airspeed indicators, preferably in combination with altimeter cross-checks.

For flight operations under instrument flight rules (IFR) or in conditions in which visual reference to the horizon cannot be reliably maintained (that is IMC, night operations, flight operations over water, in haze or smoke) and the pilot has reasons to suspect that any source (PFD or back-up instruments) of attitude, airspeed, or altitude is not functioning properly, flight under IFR or in these conditions must not be initiated (when condition is determined on the ground) and further flight under IFR or in these conditions is prohibited until equipment is serviced and functioning properly.

Operation of aircraft not equipped with operating backup (or standby) attitude, altimeter, and airspeed indicators that are located where they are readily visible to the pilot is prohibited.

Pilots must frequently scan and cross-check flight instruments to make sure the information depicted on the PFD correlates and agrees with the information depicted on the backup instruments.

FOR FURTHER INFORMATION CONTACT: Solomon Hecht, Aerospace Engineer, Boston Aircraft Certification Office, 12 New England Executive Park, Burlington, MA 01803; telephone: (781) 238-7159; fax: (781) 238-7170.

Issued in Kansas City, Missouri, on April 4, 2008.

David R. Showers, *Acting Manager, Small Airplane Directorate, Aircraft Certification Service.*