10. Operating Limitations and Information—Powerplant Limitations—Fuel Grade or Designation (Compliance With § 23.1521 Requirements)

All engine parameters that have limits specified by the engine manufacturer for takeoff or continuous operation must be investigated to ensure they remain within those limits throughout the expected flight and ground envelopes (e.g., maximum and minimum fuel temperatures, ambient temperatures, as applicable, etc.). This is in addition to the existing requirements specified by 14 CFR 23.1521(b) and (c). If any of those limits can be exceeded, there must be continuous indication to the flight crew of the status of that parameter with appropriate limitation markings.

Instead of compliance with § 23.1521(d), the applicant must comply with the following:

The minimum fuel designation (for diesel engines) must be established so that it is not less than that required for the operation of the engines within the limitations in paragraphs (b) and (c) of § 23.1521.

11. Markings and Placards—Miscellaneous Markings and Placards—Fuel, Oil, and Coolant Filler Openings (Compliance With § 23.1557(c)(1) Requirements)

Instead of compliance with § 23.1557(c)(1), the applicant must comply with the following:

Fuel filler openings must be marked at or near the filler cover with—

For diesel engine-powered airplanes—

(a) The words ''Jet Fuel''; and

(b) The permissible fuel designations, or references to the Airplane Flight Manual (AFM) for permissible fuel designations.

(c) A warning placard or note that states the following or similar:

''Warning—this airplane equipped with an aircraft diesel engine, service with approved fuels only.''

The colors of this warning placard should be black and white.

12. Powerplant—Fuel System—Fuel-Freezing

If the fuel in the tanks cannot be shown to flow suitably under all possible temperature conditions, then fuel temperature limitations are required. These will be considered as part of the essential operating parameters for the aircraft and must be limitations.

A minimum takeoff temperature limitation will be determined by testing to establish the minimum cold-soaked temperature at which the airplane can operate. The minimum operating temperature will be determined by testing to establish the minimum operating temperature acceptable after takeoff from the minimum takeoff temperature. If low temperature limits are not established by testing, then a minimum takeoff and operating fuel temperature limit of 5 °F above the gelling temperature of Jet A will be imposed along with a display in the cockpit of the fuel temperature. Fuel temperature sensors will be located in the coldest part of the tank if applicable.

13. Powerplant Installation—Vibration Levels

Vibration levels throughout the engine operating range must be evaluated and:

(1) Vibration levels imposed on the airframe must be less than or equivalent to those of the gasoline engine; or

(2) Any vibration level that is higher than that imposed on the airframe by the replaced gasoline engine must be considered in the modification and the effects on the technical areas covered by the following paragraphs must be investigated: 14 CFR 23.251; 23.613; 23.627; 23.629 (or CAR 3.159, as applicable to various models); 23.572; 23.573; 23.574 and 23.901.

Vibration levels imposed on the airframe can be mitigated to an acceptable level by utilization of isolators, dampers, clutches, and similar provisions, so that unacceptable vibration levels are not imposed on the previously certificated structure.

14. Powerplant Installation—One Cylinder Inoperative

It must be shown by test or analysis, or by a combination of methods, that the airframe can withstand the shaking or vibratory forces imposed by the engine if a cylinder becomes inoperative. Diesel engines of conventional design typically have extremely high levels of vibration when a cylinder becomes inoperative.

No unsafe condition will exist in the case of an inoperative cylinder before the engine can be shut down. The resistance of the airframe structure, propeller, and engine mount to shaking moment and vibration damage must be investigated. It must be shown by test or analysis, or by a combination of methods, that shaking and vibration damage from the engine with an inoperative cylinder will not cause a catastrophic airframe, propeller, or engine mount failure.

15. Powerplant Installation—High Energy Engine Fragments

It may be possible for diesel engine cylinders (or portions thereof) to fail and physically separate from the engine at high velocity (due to the high internal pressures). This failure mode will be considered possible in engine designs with removable cylinders or other non-integral block designs. The following is required:

(1) It must be shown by the design of the engine that engine cylinders, other engine components or portions thereof (fragments) cannot be shed or blown off of the engine in the event of a catastrophic engine failure; or

(2) It must be shown that all possible liberated engine parts or components do not have adequate energy to penetrate engine cowlings; or

(3) Assuming infinite fragment energy, and analyzing the trajectory of the probable fragments and components, any hazard due to liberated engine parts or components will be minimized and the possibility of crew injury eliminated. Minimization must be considered during initial design and not presented as an analysis after design completion.

Issued in Kansas City, Missouri, on July 11, 2006.

Steve W. Thompson,

Acting Manager, Small Airplane Directorate, Aircraft Certification Service.

[FR Doc. E6–11474 Filed 7–19–06; 8:45 am]

BILLING CODE 4910–13–P

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 23

[Docket No. CE244, Special Condition 23–184A–SC]

Special Condition; Avidyne Corporation, Inc.; Various Airplane Models; Protection of Systems for High Intensity Radiated Fields (HIRF)

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Amended final special conditions; request for comments.

SUMMARY: These amended special conditions are issued to Avidyne Corporation, 55 Old Bedford Road, Lincoln, MA 01773. This is an amendment to special condition 23–184–SC, which was published on May 23, 2006 (71 FR 29574), for installation of an EFIS manufactured by Avidyne on various models. The original issue left off the Cirrus Design Corporation SR22, which was the first model to be certified under the STC.

The airplanes listed under this multi-model approval will have novel and unusual design features when compared

to the state of technology envisaged in the applicable airworthiness standards. These novel and unusual design features include the installation of the Entegra II Avionics System, consisting of: (2) Model 700–0003–( ) Integrated Flight Displays (IFD), (2) Model 700–00011–( ) Magnetometer/OAT sensors, and (1) Model 700–00085–000 Keyboard/Controller. These components are all manufactured by Avidyne Corporation, Inc. The applicable regulations do not contain adequate or appropriate airworthiness standards for the protection of these systems from the effects of high intensity radiated fields (HIRF). These special conditions contain the additional safety standards that the Administrator considers necessary to establish a level of safety equivalent to the airworthiness standards applicable to these airplanes.

DATES: The effective date of these special conditions is May 10, 2006. Comments must be received on or before August 21, 2006.

ADDRESSES: Comments on these special conditions may be mailed in duplicate to: Federal Aviation Administration, Regional Counsel, ACE–7, Attention: Rules Docket Clerk, Docket No. CE244, Room 506, 901 Locust, Kansas City, Missouri 64106. All comments must be marked: Docket No. CE244. Comments may be inspected in the Rules Docket weekdays, except Federal holidays, between 7:30 a.m. and 4 p.m.

FOR FURTHER INFORMATION CONTACT: Wes Ryan, Aerospace Engineer, Standards Office (ACE–110), Small Airplane Directorate, Aircraft Certification Service, Federal Aviation Administration, 901 Locust, Room 301, Kansas City, Missouri 64106; telephone (816) 329–4123.

SUPPLEMENTARY INFORMATION: The FAA has determined that notice and opportunity for prior public comment hereon are impracticable because the substance of these special conditions has been subject to the public comment process in several prior instances with no substantive comments received. The FAA, therefore, finds that good cause exists for making these special conditions effective upon issuance.

Comments Invited

Interested persons are invited to submit such written data, views, or arguments, as they may desire. Communications should identify the regulatory docket or notice number and be submitted in duplicate to the address specified above. All communications received on or before the closing date for comments will be considered by the Administrator. The special conditions may be changed in light of the comments received. All comments received will be available in the Rules Docket for examination by interested persons, both before and after the closing date for comments. A report summarizing each substantive public contact with FAA personnel concerning this rulemaking will be filed in the docket. Commenters wishing the FAA to acknowledge receipt of their comments submitted in response to this notice must include a self-addressed, stamped postcard on which the following statement is made: ''Comments to Docket No. CE244.'' The postcard will be date stamped and returned to the commenter.

Background

In early 2006, the Avidyne Corporation, 55 Old Bedford Road, Lincoln, MA 01773, made an application to the FAA for a new Supplemental Type Certificate for airplane models listed under the type certification basis. The models are currently approved under the type certification basis listed in the paragraph headed ''Type Certification Basis.'' The proposed modification incorporates a novel or unusual design feature, such as a digital avionics system, that may be vulnerable to HIRF external to the airplane.

Type Certification Basis

Under the provisions of 14 CFR part 21, § 21.101, Avidyne Corporation, must show that affected airplane models, as changed, continue to meet the applicable provisions, of the regulations incorporated by reference in Type Certificate Numbers listed below or the applicable regulations in effect on the date of application for the change. The regulations incorporated by reference in the type certificate are commonly referred to as the original ''type certification basis'' and can be found in the Type Certificate Numbers listed below. In addition, the type certification basis of airplane models that embody this modification will include §§ 23.1301, 23.1309, 23.1311, and 23.1321, 23.1322 of Amendment 23–49; exemptions, if any; and the terms of this special condition adopted by this rulemaking action.

FINAL SPECIAL CONDITIONS

[Approved model list—Part 23 Class I & II (AC 23.1309–1C]

Aircraft make	Aircraft model(s)	Type certificate No.	Certification basis (see note 1)
Aerostar Aircraft Corporation	PA–60–600 (Aerostar 600), PA–60–601 (Aerostar 601), PA–60–601P (Aerostar 601P), PA–60–602P (Aerostar 602P).	A17WE	14 CFR Part 23.
Cessna Aircraft Company	172R, 172S	3A12	
	182S, 182T, T182T	3A1314 CFR Part 23.	14 CFR Part 23.
	206H, T206H	A4CE	14 CFR Part 23.
	T303	A34CE	14 CFR Part 23.
	310, 310A (USAF U–3A), 310B, 310C, 310D, 310E (USAF U–3B), 310F, 310G, 310H, 310I, 310J, 310J–1, 310K, 310L, 310N, 310P, E310H, E310J, T310P, 310Q, T310Q, 310R, T310R.	3A10	CAR 3.
	320, 320–1, 320A, 320B, 320C, 320D, 320E, 320F 340, 340A, 335, 340, 340A.	3A25	CAR 3.
	336	A2CE	CAR 3.
	337, 337A (USAF O2B), 337B, 337C, 337D, 337E, 337F, 337G, 337H, M337B (USAF O2A), P337H, T337B, T337C, T337D, T337E, T337F, T337G, T337H, T337H–SP.	A6CE	CAR 3, 14 CFR Part 23.
Cirrus Design Corporation	SR20, SR22	A00009CH	14 CFR Part 23.
Columbia Aircraft Manufacturing.	LC40–550FG, LC42–550FG	A00003SE	14 CFR Part 23.

FINAL SPECIAL CONDITIONS—Continued

[Approved model list—Part 23 Class I & II (AC 23.1309–1C]

Aircraft make	Aircraft model(s)	Type certificate No.	Certification basis (see note 1)
Commander Aircraft	112, 114, 112TC, 112B, 112TCA, 114A, 114B, 114TC	A12SO	CAR 3.
de Havilland Inc	DHC–2 Mk. I, DHC–2 Mk. II, DHC–2 Mk. III	A–806	CAR 3.
Diamond Aircraft Industries	DA 20–A1, DA20–C1	TA4CH	14 CFR Part 23.
	A40	A47CE	14 CFR Part 21, 14 CFR Part 23.
	A42	A57CE	14 CFR Part 21, 14 CFR Part 23.
Maule Aerospace Technology, Inc.	Bee Dee M–4, M–5–180C, MXT–7–160, M–4, M–5–200, MX–7–180A, M–4C, M–5–210C, MXT–7–180, M–4S, M–5–210TC, MX–7–180B, M–4T, M–5–220C, MXT–7–420, M–4–180C, M–5–235C, M–7–235B, M–4–180S, M–6–180, M–7–235A, M–4–180T, M–6–235, M–7–235C M–4–210 M–7–235 MX–7–180C, M–4–210C, MX–7–235, M–7–260, M–4–210S MX–7–180 MT–7–260, M–4–210T, MX–7–420, M–7–260C,M–4–220, MXT–7–180, M–7–420AC, M–4–220C, MT–7–235, MX–7–160C, M–4–220S, M–8–235, MX–7–180AC, M–4–220T, MX–7–160.	3A23	CAR 3.
Mooney Aircraft Corp	M20, M20A, M20B, M20C, M20D, M20E, M20F, M20G, M20J, M20K, M20L, M20M, M20R, M20S.	2A3	CAR 3.
	M22	A6SW	CAR 3.
Partenavia Costruzioni Aeronauticas S.p.A.	P 68, P 68B, P 68C, P 68C–TC, P 68 "OBSERVER", AP68 TP series 300, P68TC "OBSERVER", AP68TP 600, P68 "OBSERVER 2".	A31EU	14 CFR Part 23.
The New Piper Aircraft, Inc	PA–28–160, PA–28–150, PA–28–180, PA–28S–160, PA–28S–180, PA–28–235, PA–28–140 2 PCLM, PA–28–140 4 PCLM, PA–28R–180, PA–28R–200, PA–28R–200, PA–28–180, PA–28–235, PA–28–151, PA–28–181, PA–28–181, PA–28–161, PA–28–161, PA–28–161, PA–28R–201, PA–28R–201T, PA–28–236, PA–28RT–201, PA–28RT–201, PA–28RT–201T, PA–28–201T.		
	A–32–260, PA–32–300, PA–32S–300, PA–32R–300, PA–32RT–300, PA–32RT–300T, PA–32R–301, PA–32R–301, PA–32R–301T, PA–32–301, PA–32–301T, PA–32R–301T.	A3SO	CAR 3.
	PA–30, PA–39, PA–40	A1EA	CAR 3.
	PA–34–200, PA–34–200T, PA–34–220T, PA–34–220T, PA–34–220T.	A7SO	CAR 3.
	PA–44–180, PA–44–180, PA–44–180T	A19SO	14 CFR Part 23.
	PA–46–310P, PA–46–350P, PA–46–500TP	A25SO	14 CFR Part 23.
Raytheon Aircraft Company	A36, B36TC, G36	3A15	CAR 3.
	58 and 58A	3A16	CAR 3.
	58P and 58PA, 58TC and 58TCA	A23CE	14 CFR Part 23.
REVO, Incorporated	Lake LA–4, LA–4A, LA–4P, Lake LA–4–200, Lake 250	1A13	CAR 3, 14 CFR Part 23.
SOCATA—Groupe AEROSPATIALE.	TB 20, TB 10, TB 21, TB9, TB 200	A51EU	14 CFR Part 23.
Twin Commander	500, 520, 560, 560–A	6A1	CAR 3.

FINAL SPECIAL CONDITIONS

[Approved model list—Part 23 class III]

Aircraft make	Aircraft model(s)	Type certificate No.	Certification basis (see note 1)
Aerostar Aircraft Corporation	PA–60–700P (Aerostar 700P)	A17WE	14 CFR Part 23.
Cessna Aircraft Company	208, 208A, 208B	A37CE	14 CFR Part 23.
	401, 401A, 401B, 402, 402A, 402B, 402C, 411, 411A, 414, 414A, 421, 421A, 421B, 421C, 425.	A7CE	CAR 3.
	404, 406	A25CE	14 CFR Part 23.
	441	A28CE	14 CFR Part 23.
de Havilland Inc	(Twin Otter) DHC–6–1, DHC–6–100, DHC–6–200, DHC–6–300.	A9EA	CAR 3.
Fairchild	SA26–T, SA26–AT, SA226–T, SA226–AT, SA226–T(B), SA227–AT, SA227–TT.	A5SW	CAR 3.
Mitsubishi Heavy Industries, Ltd.	MU–2B, MU–2B–10, MU–2B–20, MU–2B–15, MU–2B–30, MU–2B–35, MU–2B–25, MU–2B–36, MU–2B–26.	A2PC	CAR 3.

FINAL SPECIAL CONDITIONS—Continued

[Approved model list—Part 23 class III]

Aircraft make	Aircraft model(s)	Type certificate No.	Certification basis (see note 1)
	MU–2B–25, MU–2B–35, MU–2B–26, MU–2B–36, MU–2B–26A, MU–2B–36A, MU–2B–40, MU–2B–60.	A10SW	CAR 3.
Partenavia Costruzioni Aeronauticas S.p.A.	"SPARTACUS", AP68TP 600 "VIATOR", VA300	A31EU	14 CFR Part 23.
Piaggio Aero Industries S.p.A	P–180	A59EU	14 CFR Part 23.
Pilatus Aircraft Limited	PC–12, PC–12/45	A78EU	14 CFR Part 23.
	PC–6, PC–6–H1, PC–6–H2, PC–6/350, PC–6/350–H1, PC–6/350–H2, PC–6/A, PC–6/A–H1, PC–6/A–H2, PC–6/B–H2, PC–6/B1–H2, PC–6/B2–H2, PC–6/B2–H4, PC–6/C–H2, PC–6/C1–H2.	7A15	CAR 3.
The New Piper Aircraft, Inc	PA–31, PA–31–300, PA–31–325, PA–31–350	A20SO	CAR 3.
	PA–31P, PA–31T, PA–31T1, PA–31T2, PA–31T3, PA–31P–350.	A8EA	CAR 3.
	PA–42, PA–42–720, PA–42–720R, PA–42–1000	A23SO	14 CFR Part 23.
Raytheon Aircraft Company	A100 (U–21F), A100A, A100C, B100	A14CE	14 CFR Part 23.
	F90	A31CE	14 CFR Part 23.
	E50 (L–23D, RL–23D), C50, F50, D50 (L–23E), G50, D50A H50, D50B, J50, D50C, D50E, D50E–5990.	5A4	CAR 3.
	60, A60, B60	A12CE	14 CFR Part 23.
	65, 65–A90–1, A65, 65–A90–2, A65–8200, 65–A90–3, 65–80, 65–A90–4, 65–A80, 65–A80–8800, 65–B80, 65–88, 65–90, 65–A90, 70, B90, C90, C90A, E90, H90.	3A20	CAR3, 14 CFR Part 23.
SOCATA—Groupe AEROSPATIALE.	TBM 700	A60EU	14 CFR Part 23.
Twin Commander	560–F, 681, 680, 690, 680E, 685, 680F, 690A, 720, 690B, 680FL, 690C, 680FL(P), 690D, 680T, 695, 680V, 695A, 680W, 695B.	2A4	CAR 3.
	500–A, 500–B, 500–U, 560–E, 500–S	6A1	CAR 3.
	700	A12SW	14 CFR Part 23.

Note 1: The Certification Basis listing refers to the Certification Basis listed on the Type Certificate Data Sheet for each model. The modified aircraft will be compliant with the latest amendment of the regulations applicable to the modification. In particular, the revised Certification Basis will incorporate §§ 23.1301, 23.1309, 23.1311, 23.1321, 23.1322, 23.1353 at amendment 49, and the terms of this Special Condition. Also, each model will be added to the Approved Model List (AML) using a prototyping approach, where the model is only added to the Supplemental Type Certificate as installations are accomplished and evaluated on each model. This combined special condition is being issued simply to avoid having to re-issue a repeated Special Condition document for each model listed on this multi-model approval.

Discussion

If the Administrator finds that the applicable airworthiness standards do not contain adequate or appropriate safety standards because of novel or unusual design features of an airplane, special conditions are prescribed under the provisions of § 21.16.

Special conditions, as appropriate, as defined in § 11.19, are issued in accordance with § 11.38 after public notice and become part of the type certification basis in accordance with § 21.101 (b)(2) of Amendment 21–69.

Special conditions are initially applicable to the model for which they are issued. Should the applicant apply for a supplemental type certificate to modify any other model already included on the same type certificate to incorporate the same novel or unusual design feature, the special conditions would also apply to the other model under the provisions of Sec. 21.101.

Novel or Unusual Design Features

Avidyne Corporation plans to incorporate certain novel and unusual design features into an airplane for which the airworthiness standards do not contain adequate or appropriate safety standards for protection from the effects of HIRF. These features include Electronic Flight Instrument Systems (EFIS), which are susceptible to the HIRF environment, that were not envisaged by the existing regulations for this type of airplane.

Protection of Systems from High Intensity Radiated Fields (HIRF)

Recent advances in technology have given rise to the application in aircraft designs of advanced electrical and electronic systems that perform functions required for continued safe flight and landing. Due to the use of sensitive solid-state advanced components in analog and digital electronics circuits, these advanced systems are readily responsive to the transient effects of induced electrical current and voltage caused by the HIRF. The HIRF can degrade electronic systems performance by damaging components or upsetting system functions.

Furthermore, the HIRF environment has undergone a transformation that was not foreseen when the current requirements were developed. Higher energy levels are radiated from transmitters that are used for radar, radio, and television. Also, the number of transmitters has increased significantly. There is also uncertainty concerning the effectiveness of airframe shielding for HIRF. Furthermore, coupling to cockpit-installed equipment through the cockpit window apertures is undefined.

The combined effect of the technological advances in airplane design and the changing environment has resulted in an increased level of vulnerability of electrical and electronic systems required for the continued safe flight and landing of the airplane. Effective measures against the effects of exposure to HIRF must be provided by the design and installation of these systems. The accepted maximum energy

levels in which civilian airplane system installations must be capable of operating safely are based on surveys and analysis of existing radio frequency emitters. These special conditions require that the airplane be evaluated under these energy levels for the protection of the electronic system and its associated wiring harness. These external threat levels, which are lower than previous required values, are believed to represent the worst case to which an airplane would be exposed in the operating environment.

These special conditions require qualification of systems that perform critical functions, as installed in aircraft, to the defined HIRF environment in paragraph 1 or, as an option to a fixed value using laboratory tests, in paragraph 2, as follows:

(1) The applicant may demonstrate that the operation and operational capability of the installed electrical and electronic systems that perform critical functions are not adversely affected when the aircraft is exposed to the HIRF environment defined below:

Frequency	Field strength (volts per meter)	
	Peak	Average
10 kHz–100 kHz	50	50
100 kHz–500 kHz	50	50
500 kHz–2 MHz	50	50
2 MHz–30 MHz	100	100
30 MHz–70 MHz	50	50
70 MHz–100 MHz	50	50
100 MHz–200 MHz ...	100	100
200 MHz–400 MHz ...	100	100
400 MHz–700 MHz ...	700	50
700 MHz–1 GHz	700	100
1 GHz–2 GHz	2000	200
2 GHz–4 GHz	3000	200
4 GHz–6 GHz	3000	200
6 GHz–8 GHz	1000	200
8 GHz–12 GHz	3000	300
12 GHz–18 GHz	2000	200
18 GHz–40 GHz	600	200

The field strengths are expressed in terms of peak root-mean-square (rms) values.

or,

(2) The applicant may demonstrate by a system test and analysis that the electrical and electronic systems that perform critical functions can withstand a minimum threat of 100 volts per meter, electrical field strength, from 10 kHz to 18 GHz. When using this test to show compliance with the HIRF requirements, no credit is given for signal attenuation due to installation.

A preliminary hazard analysis must be performed by the applicant, for approval by the FAA, to identify either electrical or electronic systems that perform critical functions. The term ''critical'' refers to functions, whose failure would contribute to, or cause, a failure condition that would prevent the continued safe flight and landing of the airplane. The systems identified by the hazard analysis that perform critical functions are candidates for the application of HIRF requirements. A system may perform both critical and non-critical functions. Primary electronic flight display systems, and their associated components, perform critical functions such as attitude, altitude, and airspeed indication. The HIRF requirements apply only to critical functions.

Compliance with HIRF requirements may be demonstrated by tests, analysis, models, similarity with existing systems, or any combination of these. Service experience alone is not acceptable since normal flight operations may not include an exposure to the HIRF environment. Reliance on a system with similar design features for redundancy as a means of protection against the effects of external HIRF is generally insufficient since all elements of a redundant system are likely to be exposed to the fields concurrently.

Applicability

As discussed above, these special conditions are applicable to one modification to the airplane models listed under the heading ''Type Certification Basis.'' Should Avidyne Corporation, apply to extend this modification to include additional airplane models, the special conditions would extend to these models as well under the provisions of § 21.101.

Conclusion

This action affects only certain novel or unusual design features of one modification to several models of airplanes. It is not a rule of general applicability and affects only the applicant who applied to the FAA for approval of these features on the airplane.

The substance of these special conditions has been subjected to the notice and comment period in several prior instances and has been derived without substantive change from those previously issued. It is unlikely that prior public comment would result in a significant change from the substance contained herein. For this reason, and because a delay would significantly affect the certification of some airplane models, the FAA has determined that prior public notice and comment are unnecessary and impracticable, and good cause exists for adopting these special conditions upon issuance. The FAA is requesting comments to allow interested persons to submit views that may not have been submitted in response to the prior opportunities for comment described above.

List of Subjects in 14 CFR Part 23

Aircraft, Aviation safety, Signs and symbols.

Citation

■ The authority citation for these special conditions is as follows:

Authority: 49 U.S.C. 106(g), 40113 and 44701; 14 CFR 21.16 and 21.101; and 14 CFR 11.38 and 11.19.

The Special Conditions

■ Accordingly, pursuant to the authority delegated to me by the Administrator, the following special conditions are issued as part of the type certification basis for airplane models listed under the ''Type Certification Basis'' heading modified by Avidyne Corporation, to add an EFIS.

1. Protection of Electrical and Electronic Systems from High Intensity Radiated Fields (HIRF). Each system that performs critical functions must be designed and installed to ensure that the operations, and operational capabilities of these systems to perform critical functions, are not adversely affected when the airplane is exposed to high intensity radiated electromagnetic fields external to the airplane.

2. For the purpose of these special conditions, the following definition applies: *Critical Functions:* Functions whose failure would contribute to, or cause, a failure condition that would prevent the continued safe flight and landing of the airplane.

Issued in Kansas City, Missouri on July 14, 2006.

Patrick R. Mullen,

Acting Manager, Small Airplane Directorate, Aircraft Certification Service.

[FR Doc. E6–11562 Filed 7–19–06; 8:45 am]

BILLING CODE 4910–13–P