PART 997—PROVISIONS REGULATING THE QUALITY OF DOMESTICALLY PRODUCED PEANUTS HANDLED BY PERSONS NOT SUBJECT TO THE PEANUT MARKETING AGREEMENT

§ 997.100 [Amended]

2. Section 997.100 is amended by removing ''$0.70'' and adding in its place ''$0.83.''

PART 998—MARKETING AGREEMENT REGULATING THE QUALITY OF DOMESTICALLY PRODUCED PEANUTS

§ 998.408 [Amended]

3. In § 998.408, paragraph (c) is amended by removing ''$1.70'' and adding in its place ''$1.83'' and by removing ''$0.70'' and adding in its place ''$0.83.''

Dated: June 7, 1996.

Robert C. Keeney,

Director, Fruit and Vegetable Division.

[FR Doc. 96–14987 Filed 6–12–96; 8:45 am]

BILLING CODE 3410–02–P

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 27

[Docket No. 96–ASW–1; Special Condition No. 27–ASW–3]

Special Condition: Agusta Models A109D and A109E, High Intensity Radiated Fields

AGENCY: Federal Aviation Administration, DOT.

ACTION: Final special condition; request for comments.

SUMMARY: This special condition is issued for the Agusta Model A109D and A109E helicopters. These helicopters will have a novel or unusual design feature associated with electronic systems that perform critical functions. The applicable airworthiness regulations do not contain adequate or appropriate safety standards for the protection of the electronic systems that perform critical functions from the effects of external high intensity radiated fields (HIRF). This special condition contains the additional safety standards that the Administrator considers necessary to establish a level of safety equivalent to that established by the applicable airworthiness standards.

DATES: The effective date of this special condition is June 13, 1996. Comments must be received on or before August 12, 1996.

ADDRESSES: Comments on this proposal may be mailed in duplicate to the Federal Aviation Administration (FAA), Office of the Assistant Chief Counsel, Attn: Rules Docket No. 96–ASW–1, Fort Worth, Texas 76193–0007, or delivered in duplicate to the Office of the Assistant Chief Counsel, 2601 Meacham Blvd., Fort Worth, Texas. Comments must be marked Docket No. 96–ASW–1. Comments may be inspected in the Rules Docket weekdays, except Federal holidays, between 9 a.m. and 3 p.m.

FOR FURTHER INFORMATION CONTACT: Mr. Carroll Wright, FAA, Rotorcraft Directorate, Regulations Group, Fort Worth, Texas 76193–0111; telephone (817) 222–5120.

SUPPLEMENTARY INFORMATION: The FAA has determined that notice and opportunity for prior public comment hereon are impracticable because these procedures would significantly delay issuance of the design approval and thus delay delivery of the affected helicopter. These notice and comment procedures are also considered unnecessary since the public has been previously provided with a substantial number of opportunities to comment on substantially identical special conditions, and their comments have been fully considered. Therefore, good cause exists for making this special condition effective upon issuance.

Comments Invited

Although this final special condition was not subject to notice and opportunity for prior public comment, comments are invited on this final special condition. Interested persons are invited to comment on this final special condition by submitting such written data, views, or arguments as they may desire. Communications should identify the regulatory docket number and be submitted in duplicate to the address specified under the caption **ADDRESSES**. All communications received on or before the closing date for comments will be considered. This special condition may be changed in light of comments received. All comments received will be available in the Rules Docket for examination by interested persons, both before and after the closing date of comments. A report summarizing each substantive public contact with FAA personnel concerning this rulemaking will be filed in the docket. Persons wishing the FAA to acknowledge receipt of their comments submitted in response to this final rule must submit with those comments a self-addressed, stamped postcard on which the following statement is made: ''Comments to Docket No. 96–ASW–3.'' The postcard will be date and time stamped and returned to the commenter.

Background

Agusta S.p.A., Cascina Costa, Italy, applied for an amendment to U.S. Type Certificate H7EU through the Registro Aeronautico Italiano (RAI) September 23, 1992, updated July 26, 1993, to include Model A109D and A109E helicopters based on previously certified A109C and A109K2 helicopters. The A109D and A109E helicopters differ from the previously certificated model helicopters because they contain the following:

a. Allison 250–C22(A109D) or Pratt & Whitney PW206C(A109E) FADEC controlled engines.

b. A main landing gear that is held in position by two crossbeams that are covered by pods and is retractable into the bottom of the helicopter.

c. A new main rotor titanium hub, composite tension links, electomeric bearings, with dampers derived from the Model A129 helicopter.

d. Updated fuselage and fuel systems; and

e. A new cockpit layout with flat panel displays (IDS) for powerplant data monitoring.

Type Certification Basis

The certification basis established for the Agusta Model A109D and A109E helicopters includes: 14 Code of Federal Regulations (CFR) § 21.29 and 14 CFR part 27 effective February 1, 1965, including Amendments 27–1 through 27–8, except as more specifically required by the following paragraph amendment levels:

Paragraph	Amendment
27.2	28
27.21	21
27.45	21
27.71	21
27.79	21
27.141	21
27.143	21
27.175	21
27.177	21
27.401	27
27.610	21
27.901	23
27.903	23
27.927	23
27.954	23
27.1091	23
27.1093(b)	23
27.1189	23
27.1305	23
27.1309	21
27.1321	13

Paragraph	Amendment
27.1322	11
27.1323	13
27.1325	13
27.1401	10
27.1505	21
27.1519	21
27.1521	23
27.1527	14
27.1529	18
27.1549	23
27.1555	21
27.1557	11
27.1581	14
27.1583	16
27.1585	21
27.1587	21

Section 29.903(b), effective February 1, 1965, for category ''A'' engine isolation, elected by the applicant; Special Conditions No. 27–54–EU–17 for Agusta Model A109 helicopter, issued on June 26, 1973; equivalent safety in lieu of compliance shown for:

- Section 27.1189, regarding shut-off means, and
- Section 27.1305(d), regarding the fuel quantity indicator.

If the Administrator finds that the applicable airworthiness regulations do not contain adequate or appropriate safety standards for these helicopters because of a novel or unusual design feature, special conditions are prescribed under the provisions of § 21.16 to establish a level of safety equivalent to that established in the regulations.

Special conditions, as appropriate, are issued in accordance with § 11.49 after public notice, as required by §§ 11.28 and 11.29(b), and become part of the type certification basis in accordance with § 21.101(b)(2).

Special conditions are initially applicable to the model for which they are issued. Should the type certificate for that model be amended later to include any other model that incorporates the same novel or unusual design feature, or should any other model already included on the same type certificate be modified to incorporate the same novel or unusual design feature, the special conditions would also apply to the other model under the provisions of § 21.101(a)(1).

Discussion

The Agusta Model A109D and A109E helicopters, at the time of the application for amendment to U.S. Type Certificate H7EU, were identified as incorporating one and possibly more electrical, electronic, or combination of electrical and electronic (electrical/electronic) systems that will perform functions critical to the continued safe flight and landing of the helicopters. A FADEC is an electronic device that performs the critical functions of engine control. The control of the engines is critical to the continued safe flight and landing of the helicopter during visual flight rules (VFR) and instrument flight rules (IFR) operations.

If it is determined that this helicopter currently or at a future date incorporates other electrical/electronic systems performing critical functions, those systems also will be required to comply with the requirements of this special condition.

Recent advances in technology have prompted the design of aircraft that include advanced electrical and electronic systems that perform functions required for continued safe flight and landing. However, these advanced systems respond to the transient effects of induced electrical current and voltage caused by the HIRF incident on the external surface of the helicopters. These induced transient currents and voltages can degrade the performance of the electrical/electronic systems by damaging the components or by upsetting the systems' functions.

Furthermore, the electromagnetic environment has undergone a transformation not envisioned by the current application of § 29.1309(a). Higher energy levels radiate from operational transmitters currently used for radar, radio, and television; the number of transmitters has increased significantly.

Existing aircraft certification requirements are inappropriate in view of these technological advances. In addition, the FAA has received reports of some significant safety incidents and accidents involving military aircraft equipped with advanced electrical/electronic systems when they were exposed to electromagnetic radiation.

The combined effects of technological advances in helicopter design and the changing environment have resulted in an increased level of vulnerability of the electrical and electronic systems required for the continued safe flight and landing of the helicopters. Effective measures to protect these helicopters against the adverse effects of exposure to HIRF will be provided by the design and installation of these systems. The following primary factors contributed to the current conditions: (1) increased use of sensitive electronics that perform critical functions, (2) reduced electromagnetic shielding afforded helicopter systems by advanced technology airframe materials, (3) adverse service experience of military aircraft using these technologies, and (4) an increase in the number and power of radio frequency emitters and the expected increase in the future.

The FAA recognizes the need for aircraft certification standards to keep pace with technological developments and a changing environment and, in 1986, initiated a high priority program to (1) determine and define electromagnetic energy levels; (2) develop guidance material for design, test, and analysis; and (3) prescribe and promulgate regulatory standards. The FAA participated with industry and airworthiness authorities of other countries to develop internationally recognized standards for certification.

The FAA and airworthiness authorities of other countries have identified a level of HIRF environment that a helicopter could be exposed to during IFR operations. While the HIRF requirements are being finalized, the FAA is adopting a special condition for the certification of aircraft that employ electrical/electronic systems that perform critical functions. The accepted maximum energy levels that civilian helicopter system installations must withstand for safe operation are based on surveys and analysis of existing radio frequency emitters. This special condition will require the helicopters' electrical/electronic systems and associated wiring be protected from these energy levels. These external threat levels are believed to represent the worst-case exposure for a helicopter operating under IFR.

The HIRF environment specified in this special condition is based on many critical assumptions. With the exception of takeoff and landing at an airport, one of these assumptions is the aircraft would be not less than 500 feet above ground level (AGL). Helicopters operating under visual flight rules (VFR) routinely operate at less than 500 feet AGL and perform takeoffs and landings at locations other than controlled airports. Therefore, it would be expected that the HIRF environment experienced by a helicopter operating VFR may exceed the defined environment by 100 percent or more.

This special condition will require the systems that perform critical functions, as installed in the aircraft, to meet certain standards based on either a defined HIRF environment or a fixed value using laboratory tests.

The applicant may demonstrate that the operation and operational capability of the installed electrical/electronic systems that perform critical functions are not adversely affected when the aircraft is exposed to the defined HIRF environment. The FAA has determined that the environment defined in Table 1 is acceptable for critical functions in

helicopters operating at or above 500 feet AGL. For critical functions of helicopters operating at less than 500 feet AGL, additional factors must be considered.

The applicant may also demonstrate by a laboratory test that the electrical/electronic systems that perform critical functions can withstand a peak electromagnetic field strength in a frequency range of 10 KHz to 18 GHz. If a laboratory test is used to show compliance with the defined HIRF environment, no credit will be given for signal attenuation due to installation. A level of 100 v/m and other considerations, such as an alternate technology backup that is immune to HIRF, are appropriate for critical functions during IFR operations. A level of 200 v/m and further considerations, such as an alternate technology backup that is immune to HIRF, are more appropriate for critical functions during VFR operations.

Applicants must perform a preliminary hazard analysis to identify electrical/electronic systems that perform critical functions. The term ''critical'' means those functions whose failure would contribute to or cause a failure condition that would prevent the continued safe flight and landing of the helicopters. The systems identified by the hazard analysis as performing critical functions are required to have HIRF protection.

A system may perform both critical and noncritical functions. Primary electronic flight display systems and their associated components perform critical functions such as attitude, altitude, and airspeed indications. HIRF requirements would apply only to the systems that perform critical functions.

Compliance with HIRF requirements will be demonstrated by tests, analysis, models, similarity with existing systems, or a combination of these methods. The two basic options of either testing the rotorcraft to the defined environment or laboratory testing may not be combined. The laboratory test allows some frequency areas to be under tested and requires other areas to have some safety margin when compared to the defined environment. The areas required to have some safety margin are those that have been, by past testing, shown to exhibit greater susceptibility to adverse effects from HIRF; and laboratory tests, in general, do not accurately represent the aircraft installation. Service experience alone will not be acceptable since such experience in normal flight operations may not include an exposure to HIRF. Reliance on a system with similar design features for redundancy, as a means of protection against the effects of external HIRF, is generally insufficient because all elements of a redundant system are likely to be concurrently exposed to the radiated fields.

The modulation that represents the signal most likely to disrupt the operation of the system under test, based on its design characteristics, should be selected. For example, flight control system may be susceptible to 3 Hz square wave modulation while the video signals for electronic display systems may be susceptible to 400 Hz sinusoidal modulation. If the worst-case modulation is unknown or cannot be determined, default modulations may be used. Suggested default values are a 1 KHz sine wave with 80 percent depth of modulation in the frequency range from 10 KHz to 400 MHz and 1 KHz square wave with greater than 90 percent depth of modulation from 400 MHz to 18 GHz. For frequencies where the unmodulated signal would cause deviations from normal operation, several different modulating signals with various waveforms and frequencies should be applied.

Acceptable system performance would be attained by demonstrating that the critical function components of the system under consideration continue to perform their intended function during and after exposure to required electromagnetic fields. Deviations from system specifications may be acceptable but must be independently assessed by the FAA on a case-by-case basis.

TABLE 1.—FIELD STRENGTH VOLTS/METER

Frequency	Peak	Average
10–100 KHz	50	50
100–500	60	60
500–2000	70	70
2–30 MHz	200	200
30–100	30	30
100–200	150	33
200–400	70	70
400–700	4020	935
700–1000	1700	170
1–2 GHz	5000	990
2–4	6680	840
4–6	6850	310
6–8	3600	670
8–12	3500	1270
12–18	3500	360
18–40	2100	750

As discussed above, these special conditions are applicable initially to the Model A109D and A109E helicopters. Should Agusta apply at a later date for a change to the type certificate to include another model incorporating the same novel or unusual design feature, the special conditions would apply to that model as well, under the provisions of § 21.101(a)(1).

Conclusion

This action affects only certain unusual or novel design features on two models of helicopter. 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 affected helicopter.

The substance of this special condition for similar installations in a variety of helicopters has been subjected to the notice and comment procedure and has been finalized without substantive change. 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 the helicopter, which is imminent, the FAA has determined that prior public notice and comment are unnecessary and impractical, and good cause exists for adopting this special condition immediately. Therefore, this special condition is being made effective upon issuance. The FAA is requesting comments to allow interested persons to submit views that may not have been submitted in response to prior opportunities for comment.

List of Subjects in 14 CFR Parts 21 and 29

Aircraft, Air transportation, Aviation safety, Rotorcraft, Safety.

The authority citation for this special condition is as follows:

Authority: 42 U.S.C. 7572; 49 U.S.C. 106(g), 40105, 40113, 44701, 44702, 44704, 44709, 44711, 44713, 44715, 45303.

The Special Condition

Accordingly, pursuant to the authority delegated to me by the Administrator, the Federal Aviation Administration (FAA) issues the following special condition as a part of the type certification basis for the Agusta Model A109D and A109E helicopters.

Protection for Electrical and Electronic Systems From High Intensity Radiated Fields

Each system that performs critical functions must be designed and installed to ensure that the operation and operational capabilities of these critical functions are not adversely affected when the helicopters are exposed to high intensity radiated fields external to the helicopters.

Issued in Fort Worth, Texas, on May 31, 1996.

Daniel P. Salvano,

Manager, Rotorcraft Directorate, Aircraft Certification Service.

[FR Doc. 96–14761 Filed 6–12–96; 8:45 am]

BILLING CODE 4910–13–M

14 CFR Parts 27 and 29

[Docket No. 28008; Amendment No. 27–33, 29–40]

RIN 2120–AF65

Rotorcraft Regulatory Changes Based on European Joint Aviation Requirements

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final rule; correction.

SUMMARY: This document contains a correction to the final rule published in the Federal Register on May 10, 1996; (61 FR 21904). The final rule amended the airworthiness standards for normal and transport category rotorcraft.

EFFECTIVE DATE: August 8, 1996.

FOR FURTHER INFORMATION CONTACT: Carroll Wright, (817) 225–5120.

Correction of Publication

In rule document 96–11493, on page 21904, in the issue of Friday, May 10, 1996, make the following correction:

On page 21904, in the first column, in the heading, Amendment ''No. 29–39]'', should read ''No. 29–40]''.

Issued in Washington, DC on June 7, 1996.

Joseph A. Conte,

Acting Assistant Chief Counsel.

[FR Doc. 96–15067 Filed 6–12–96; 8:45 am]

BILLING CODE 4910–13–M

14 CFR Part 29

[Docket No. 24802; Amendment No. 29–39]

RIN 2120–AB36

Airworthiness Standards; Transport Category Rotorcraft Performance

AGENCY: Federal Aviation Administration, (FAA), DOT.

ACTION: Final rule; correction.

SUMMARY: This document contains a correction to the final rule published in the Federal Register on May 10, 1996 (61 FR 21894). The final rule adopted new and revised airworthiness standards for the performance of transport category rotorcraft.

EFFECTIVE DATE: June 10, 1996.

FOR FURTHER INFORMATION CONTACT: T.E. Archer, (817) 222–5126.

Correction of Publication

In rule document 96–11494, on page 21894, in the issue of Friday, May 10, 1996, make the following correction:

On page 21894, in the first column, in the heading, Amendment ''No. 20–40]'' should read ''No. 29–39]''.

Issued in Washington, DC on June 7, 1996.

Joseph A. Conte,

Acting Assistant Chief Counsel.

[FR Doc. 96–15066 Filed 6–12–96; 8:45 am]

BILLING CODE 4910–13–M

14 CFR Part 39

[Docket No. 94–ANE–53; Amendment 39–9648; AD 96–12–06]

RIN 2120–AA64

Airworthiness Directives; Teledyne Continental Motors and Rolls-Royce, plc O–200 Series Reciprocating Engines

AGENCY: Federal Aviation Administration, DOT.

ACTION: Final rule.

SUMMARY: This amendment supersedes two existing airworthiness directives (AD's), applicable to Teledyne Continental Motors and Rolls-Royce, plc O–200 series reciprocating engines, that currently require resetting engine timing to 24° Before Top Center (BTC). This amendment returns to the 28° BTC engine timing for those engines equipped with improved cylinders that have strengthened heads. In addition, this amendment drops the TCM O–200C model which never went into production. This amendment is prompted by the availability of improved cylinders. The actions specified by this AD are intended to prevent possible cylinder cracking with subsequent loss of engine power.

DATES: Effective July 18, 1996.

The incorporation by reference of certain publications listed in the regulations is approved by the Director of the Federal Register as of July 18, 1996.

ADDRESSES: The service information referenced in this AD may be obtained from Teledyne Continental Motors, P.O. Box 90, Mobile, AL 36601; telephone (334) 438–3411. This information may be examined at the Federal Aviation Administration (FAA), New England Region, Office of the Assistant Chief Counsel, 12 New England Executive Park, Burlington, MA 01803–5299; or at the Office of the Federal Register, 800 North Capitol Street, NW., suite 700, Washington, DC.

FOR FURTHER INFORMATION CONTACT: Jerry Robinette, Aerospace Engineer, Atlanta Aircraft Certification Office, FAA, Small Airplane Directorate, Campus Building, 1701 Columbia Ave., Suite 2–160, College Park, GA 30337–2748; telephone (404) 305–7371, fax (404) 305–7348.

SUPPLEMENTARY INFORMATION: A proposal to amend part 39 of the Federal Aviation Regulations (14 CFR part 39) by superseding airworthiness directive (AD) 77–13–03, Amendment 39–2925 (42 FR 31770, June 23, 1977), which is applicable to Teledyne Continental Motors (TCM) O–200A, O–200B, was published in the Federal Register on June 15, 1995 (60 FR 31421). That action proposed to retain the 24° before top center (BTC) engine timing for engines with cylinders that have part number (P/N) lower than 641917; allow the return to 28° BTC engine timing for those engines with cylinder P/N 641917 and subsequent (higher) part numbers, restamp the engine data plate to indicate engine timing of 28° BTC; and drop the TCM O–200C series engines from the AD's applicability. The actions must be accomplished in accordance with TCM Service Bulletin (SB) No. SB94–8, dated September 14, 1994.

This AD also supersedes AD 78–19–02, Amendment 39–3301 (43 FR 41374, September 18, 1978), applicable to Rolls-Royce, plc (R–R) O–200A, O–200B, and O–200C series engines, which also requires resetting the engine timing to 24°. This AD combines the TCM applicability of AD 77–13–03 with the R–R applicability of AD 78–19–02 into one, superseding AD.

Interested persons have been afforded an opportunity to participate in the making of this amendment.

One commenter (the manufacturer) states that the timing adjustment may be set to the limits of (+1°, −1°). The NPRM incorrectly limited the timing adjustment to (+1°, −0°). The FAA concurs and has revised this final rule accordingly.

After careful review of the available data, including the comments noted above, the FAA has determined that air safety and the public interest require the adoption of the rule with the changes described previously. The FAA has determined that these changes will neither increase the economic burden on any operator nor increase the scope of the AD.

The FAA estimates that 23,500 engines installed on aircraft of U.S. registry will be affected by this AD, that it will take approximately 2 work hours per engine to accomplish the required actions, and that the average labor rate