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[Notices]  
[Page 66522-66524]  
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DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

Aviation Rulemaking Advisory Committee; Transport Airplane and  
Engine Issues--New and Revised Tasks

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

ACTION: Notice of new and revised task assignments for the Aviation  
Rulemaking Advisory Committee (ARAC).

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SUMMARY: Notice is given of new tasks assigned to and accepted by the  
Aviation Rulemaking Advisory Committee (ARAC) and of revisions to a  
number of existing tasks. This notice informs the public of the  
activities of ARAC.

FOR FURTHER INFORMATION CONTACT: Dorenda Baker, Transport Airplane  
Directorate, Aircraft Certification Service (ANM-110), 1601 Lind  
Avenue, SW., Renton, WA 98055; phone (425) 227-2109; fax (425) 227-  
1320.

SUPPLEMENTARY INFORMATION:

Background

The **FAA** has established an Aviation Rulemaking Advisory Committee  
to provide advice and recommendations to the **FAA** Administrator, through  
the Associate Administrator for Regulation and Certification, on the  
full range of the **FAA's** rulemaking activities with respect to aviation-  
related issues. This includes obtaining advice and recommendations on  
the **FAA's** commitment to harmonize its Federal Aviation Regulations  
(FAR) and practices with its trading partners in Europe and Canada.

One area ARAC deals with is transport airplane and engine issues.  
These issues involve the airworthiness standards for transport category

[[Page 66523]]

airplanes and engines in 14 CFR parts 25, 33, and 35 and parallel  
provisions in 14 CFR parts 121 and 135. The corresponding Canadian  
standards are contained in Parts V, VI, and VII of the Canadian  
Aviation Regulations. The corresponding European standards are  
contained in Joint Aviation Requirements (JAR) 25, JAR-E, JAR-P, JAR-  
OPS-Part 1, and JAR-26.

As proposed by the U.S. and European aviation industry, and as

agreed between the Federal Aviation Administration (**FAA**) and the European Joint Aviation Authorities (JAA), an accelerated process to reach harmonization has been adopted. This process is based on two procedures:

(1) Accepting the more stringent of the regulations in Title 14 of the Code of Federal Regulations (FAR), Part 25, and the Joint Airworthiness Requirements (JAR); and

(2) Assigning approximately 41 already-tasked significant regulatory differences (SRD), and certain additional part 25 regulatory differences, to one of three categories:

<bullet> Category 1--Envelope

<bullet> Category 2--Completed or near complete

<bullet> Category 3--Harmonize

#### The Revised Tasks

ARAC will review the rules identified in the ``FAR/JAR 25 Differences List,' ' dated June 30, 1999, and identify changes to the regulations necessary to harmonize part 25 and JAR 25. ARAC will submit a technical report on each rule. Each report will include the cost information that has been requested by the **FAA**. The tasks currently underway in ARAC to harmonize the listed rules are superseded by this tasking.

#### New Tasks

The **FAA** has submitted a number of new tasks for the Aviation Rulemaking Advisory Committee (ARAC), Transport Airplane and Engine Issues. As agreed by ARAC, these tasks will be accomplished by existing harmonization working groups. The tasks are regulatory differences identified in the above-referenced differences list as Rule type = P-SRD.

#### New Working Group

In addition to the above new tasks, a newly established Cabin Safety Harmonization Working Group will review several FAR/JAR paragraphs as follows:

ARAC will review the following rules and identify changes to the regulations necessary to harmonize part 25 and JAR:

- (1) Section 25.787;
- (2) Section 25.791(a) to (d);
- (3) Section 25.810;
- (4) Section 25.811;
- (5) Section 25.819; and
- (6) Section 25.813(c).

ARAC will submit a technical report on each rule. Each report will include the cost information that has been requested by the **FAA**.

The Cabin Safety Harmonization Working Group would be expected to complete its work for the first five items (identified as Category 1 or 2) before completing item 6 (identified as Category 3).

#### Schedule

Within 120 days of tasking/retasking:

<bullet> For Category 1 tasks, ARAC submits the Working Groups' technical reports to the **FAA** to initiate drafting of proposed rulemaking documents.

<bullet> For Category 2 tasks, ARAC submits technical reports, including already developed draft rules and/or advisory materials, to the **FAA** to complete legal review, economic analysis, coordination, and issuance.

June 2000: For Category 3 tasks, ARAC submits technical reports including draft rules and/or advisory materials to the **FAA** to complete legal review, economic analysis, coordination, and issuance.

#### ARAC Acceptance of Tasks

ARAC has accepted the new tasks and has chosen to assign all but one of them to existing harmonization working groups. A new Cabin Safety Harmonization Working Group will be formed to complete the remaining tasks. The working groups serve as staff to ARAC to assist ARAC in the analysis of the assigned tasks. Working group recommendations must be reviewed and approved by ARAC. If ARAC accepts a working group's recommendations, it forwards them to the **FAA** and ARAC recommendations.

#### Working Group Activity

All working groups are expected to comply with the procedures adopted by ARAC. As part of the procedures, the working groups are expected to accomplish the following:

1. Document their decisions and discuss areas of disagreement, including options, in a report. A report can be used both for the enveloping and for the harmonization processes.
2. If requested by the **FAA**, provide support for disposition of the comments received in response to the NPRM or review the **FAA**'s prepared disposition of comments. If support is requested, the Working Group will review comments/disposition and prepare a report documenting their recommendations, agreement, or disagreement. This report will be submitted by ARAC back to the **FAA**.
3. Provide a status report at each meeting of ARAC held to consider Transport Airplane and Engine Issues.

#### Participation in the Working Groups

Membership on existing working groups will remain the same, with the formation of subtask groups, if appropriate. The Cabin Safety Harmonization Working Group will be composed of technical experts having an interest in the assigned task. A working group member need not be a representative of a member of the full committee.

An individual who has expertise in the subject matter and wishes to become a member of the Cabin Safety Harmonization Working Group should write to the person listed under the caption FOR FURTHER INFORMATION CONTACT expressing that desire, describing his or her interest in the tasks, and stating the expertise he or she would bring to the working group. All requests to participate must be received no later than December 30, 1999. The requests will be reviewed by the assistant chair, the assistant executive director, and the working group chair, and the individuals will be advised whether or not the request can be accommodated.

Individuals chosen for membership on the Cabin Safety Harmonization Working Group will be expected to represent their aviation community segment and participate actively in the working group (e.g., attend all meetings, provide written comments when requested to do so, etc.). They also will be expected to devote the resources necessary to ensure the ability of the working group to meet any assigned deadline(s). Members are expected to keep their management chain advised of working group activities and decisions to ensure that the agreed technical solutions do not conflict with their sponsoring organization's position when the subject being negotiated is presented to ARAC for a vote.

Once the working group has begun deliberations, members will not be added or substituted without the approval of the assistant chair, the assistant executive director, and the working group chair.

The Secretary of Transportation has determined that the formation and use of ARAC are necessary and in the public interest in connection with the performance of duties imposed on the **FAA** by law.

[[Page 66524]]

Meetings of ARAC will be open to the public. Meetings of the working groups will not be open to the public, except to the extent that individuals with an interest and expertise are selected to participate. No public announcement of working group meetings will be made.

Issued in Washington, DC, on November 19, 1999.  
Anthony F. Fazio,  
Executive Director, Aviation Rulemaking Advisory Committee.  
[FR Doc. 99-30774 Filed 11-24-99; 8:45 am]  
BILLING CODE 4910-13-M

Action: ARM

400 Main Street  
East Hartford, Connecticut 06108



**Pratt & Whitney**  
A United Technologies Company

August 15, 2000

Federal Aviation Administration  
800 Independence Avenue, SW  
Washington, DC 20591

Attention: Mr. Thomas McSweeny, Associate Administrator for Regulation and Certification

Subject: Submittal of ARAC Recommendations

Reference: FAA Tasking to TAEIG, dated November 19, 1999.

Dear Tom,

In accordance with the reference tasking, the ARAC Transport Airplane and Issues Group is pleased to forward the attached "Fast Track" report for 25.1328 to the FAA as an ARAC recommendation. This report has been prepared by the Avionics Harmonization Working Group of TAEIG.

Sincerely yours,

*C. R. Bolt*

C. R. Bolt  
Assistant Chair, TAEIG

copies: \*Clark Badie - Honeywell  
Kristin Carpenter - FAA  
\*Effie Upshaw - FAA

\*letter only

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17UM-00-092-A

OCT 26 2000

Mr. Craig Bolt  
Assistant Chair, Transport Airplane  
and Engine Issues  
400 Main Street  
East Hartford, CT 06108

Dear Mr. Bolt:

This letter acknowledges receipt of your August 15 letter transmitting a fast track report addressing regulatory requirements for magnetic direction indicators (§ 25.1328). The report will be forwarded to the Transport Airplane Directorate for review, and all progress will be reported at the Transport Airplane and Engine Issues (TAE) meetings.

I would like to thank the Aviation Rulemaking Advisory Committee, particularly those members associated with TAE and the Avionics Harmonization Working Group for their cooperation in using the fast track process and completing the working group reports in a timely manner.

Sincerely,

ORIGINAL SIGNED BY  
ANTHONY F. FAZIO

Tony F. Fazio  
Director, Office of Rulemaking

ARM-209:EUpshaw:fs:10/04/00:PCDOCS #13515v1  
cc: ARM-1/20/200/209; APO-300/320, ANM-114 (K. Carpenter)  
File #ANM-00-092-A (Magnetic direction indicator)

CONTROL NO. 2003139-0

CONCURRENCES
ROUTING SYMBOL ARM-209
INITIALS/SIGNATURE eu
DATE 10/4/00
ROUTING SYMBOL APO-320
INITIALS/SIGNATURE See Attached Grid
DATE 10/6/00
ROUTING SYMBOL ANM-114
INITIALS/SIGNATURE See Attached Grid
DATE 10/6/00
ROUTING SYMBOL ARM-20
INITIALS/SIGNATURE fh
DATE 10/6
ROUTING SYMBOL ARM-200
INITIALS/SIGNATURE Courtney
DATE 10/12/00
ROUTING SYMBOL
INITIALS/SIGNATURE
DATE
ROUTING SYMBOL
INITIALS/SIGNATURE
DATE
ROUTING SYMBOL ARM-1
INITIALS/SIGNATURE T.F.
DATE 10/26/00

↓ TAE TRANSMITTED  
TO FAZIO + TAE AWG  
#8 ANM-00-092-A

## FAR/JAR 25.1328 DIRECTION INDICATOR

(Final Report)

(as agreed in AVHWG meeting#5 in Phoenix on 18 May 2000)

(rev b in meeting #6 in Montreal – 28 June 2000)

**1. What is the underlying safety issue addressed by FAR/JAR?**

Assures that instruments that display direction information have an accuracy adequate for safe operation of the airplane, considering that the related equipment will have some errors due to conventional installation characteristics or the performance of the equipment itself.

**2. What are current FAR and JAR standards?**

There is no current FAR paragraph 25.1328. However, FAR paragraph 25.1327 addresses the accuracy requirements for a magnetic direction indicator. However, the type of direction indicator addressed in FAR 25.1327 is not explicitly defined. There is a JAR 25.1327 but it is directed towards the non-stabilized magnetic direction indicator required by JAR 25.1303 (a) (3)

Current FAR 25.1327 Magnetic Direction Indicator:

(a) Each magnetic direction indicator must be installed so that its accuracy is not excessively affected by the airplane's vibration or magnetic fields.

(b) The compensated installation may not have a deviation, in level flight, greater than 10 degrees on any heading.

Current JAR 25.1327 Magnetic Direction Indicator:

(a) Each magnetic direction indicator must be installed so that its accuracy is not excessively affected by the aeroplane's vibration or magnetic fields.

(b) The magnetic direction indicator required by JAR 25.1303 (a) (3) may not have a deviation, after compensation, in normal level flight, greater than 10 degrees on any heading.

Current JAR 25X1328 Direction Indicator:

Direction indicators required by JAR 25.1303(b)(6) must have an accuracy adequate for the safe operation of the aeroplane. (See ACJ 25X1328)

Current ACJ 25X1328

1. After correction the deviation on any heading should not exceed 1°, except that –
  - a. On aeroplanes with a short cruising range, the above limit may be extended after consultation with the National Authority.

## AVHWG SRD Harmonization

- b. A change in deviation due to the current flow in any item of electrical equipment and its associated wiring is permissible, but should not exceed 1°. The combined change for all such equipment, with all combinations of electrical load, should not exceed 2°.
  - c. A change in deviation due to the movement of any component, (e.g. controls or undercarriage) in normal flight is permissible, but should not exceed 1°.
2. The change in deviation due to the proximity of any item of equipment containing magnetic material should not exceed 1° and the combined change for all such equipment should not exceed 2°.

### 3. **What are the differences in the standards?**

FAR 25.1327 does not specify the type of magnetic direction indicators.

JAR 25.1327 specifically addresses non-stabilized magnetic direction indicators, while

JAR 25X1328 addresses stabilized magnetic and non-magnetic direction indicators. The accuracy requirements differ as follows:

FAR 25.1327 has a 10 degree accuracy requirement for each magnetic indicator, not specific to type, while JAR 25.1327 specifies a 10 degree accuracy requirement for only the non-stabilized magnetic indicator required by JAR 25.1303 (a) 3.

JAR 25X1328 addresses the accuracy requirements for the stabilized magnetic or non-magnetic indicator required by JAR 25.1303 (b) 6.

### 4. **What, if any, are the differences in required means of compliance?**

ACJ 25X1328 provides interpretation only for a stabilized magnetic indicator, with a suggested accuracy dependent on magnetic effects.

Compliance with the FAR 25.1327, JAR 25.1327, and JAR 25X1328 becomes confusing because of the differences identified in paragraph 3 of this report.



**What is the proposed action?**

Consolidate the differences into one harmonized standard FAR/JAR 25.1327.

Incorporate the material from JAR 25X1328 into the harmonized FAR/JAR 25.1327, and provide a new AC with additional wording based on the current ACJ25X1328.

Delete the existing JAR 25X1328 and ACJ25X1328, because they will be enveloped into 25.1327.

Also consider the current TSOs for direction instruments so that the new harmonized installation standard does not conflict with the minimum operational performance standards (MOPS).

**5. What should the harmonized standard be?**

FAR/JAR 25.1327 Direction Indicator

(a) Each magnetic direction indicator must be installed so that its accuracy is not excessively affected by the airplane's vibration or magnetic fields.

(b) The magnetic direction indicator required by FAR/JAR 25.1303 (a) (3) may not have a deviation, after compensation, in normal level flight, greater than 10 degrees on any heading.

(c) Direction indicators required by FAR/JAR 25.1303(b)(6) must have an accuracy adequate for the safe operation of the airplane

**7. How does this proposed standard address the underlying safety issue (identified in #1)?**

The proposed standard provides a requirement for instruments that display direction information, for safe operation of the airplane, considering that the related equipment will have some errors due to the performance of the equipment itself as well as conventional installation characteristics.

**8. Relative to current FAR, does the proposed standard increase, decrease, or maintain the same level of safety?**

The proposed standard may increase the level of safety by clarifying the requirements for the direction indicators required by FAR/JAR 25.1303(a)(3) and 25.1303(b)(6).

**9. Relative to current industry practice, does the proposed standard increase, decrease, or maintains the same level of safety?**

Maintains the same level of safety.

**10. What other options have been considered and why were they not selected?**

The group considered leaving FAR/JAR 25.1327 as-is and incorporating 25X1328 into a new FAR 25.1328, and to have a new AC/ACJ 25.1328. This option was rejected because it would have resulted in two conflicting rules covering the same subject.

## AVHWG SRD Harmonization

The group also considered removing 25.1327 and including all relevant rules into a harmonized FAR/JAR 25.1328. This option was rejected because other regulations and advisory material may reference the existing FAR/JAR 25.1327 (e.g. FAR/JAR 25.1459 for Flight Recorders).

The group also proposed a different harmonized paragraph (c) of FAR/JAR 25.1327, that accounted for the individual errors described in the ACJ25X1328. However, in the spirit of enveloping, this proposed option was rejected.

**11. Who would be affected by the proposed change?**

Nobody, since this is current industry practice.

New JAA certifications will require reference only to JAR 25.1327 instead of both JAR 25.1327 and JAR 25X1328.

**12. To ensure harmonization, what current advisory material (e.g., ACJ, AMJ, AC, policy letters) need to be included in the rule text or preamble?**

The current ACJ25X.1328 needs to be reviewed and modified as appropriate to write a harmonized AC/ACJ 25.1327.

**13. Is existing FAA advisory material adequate?**

N/A.

**14. If not, what advisory material should be adopted?**

The current ACJ25X.1328 needs to be reviewed and modified as appropriate to write a harmonized AC/ACJ 25.1327.

**15. How does the proposed standard affect the current ICAO standard?**

The AVHWG is not aware of any.

**16. How does the proposed standard affect other HWG's?**

None affected.

**17. What is the cost impact of complying with the proposed standard?**

None anticipated, because current industry practice is already compliant with the proposed standard.

**18. Does the HWG want to review the draft NPRM at "Phase 4" prior to publication in the Federal Register?**

Yes.

**19. In light of the information provided in this report, does the HWG consider that the "fast Track" process is appropriate for this rulemaking project, or is the project too complex or controversial for the "Fast Track" process?**

This project is appropriate for the "Fast Track" process.

**AC/ACJ 25.1327  
DIRECTION INDICATOR**

(Final Report)

(as agreed in AVHWG meeting#6 in Montreal on 28 June 2000)

**1. What is the underlying safety issue addressed by AC/ACJ?**

Assures that instruments identified in FAR/JAR 25.1303(b)(6) have an accuracy which is adequate for safe operation of the airplane, considering that the related equipment will have some errors due to conventional installation characteristics or the performance of the equipment itself.

This corresponds to the proposed harmonized FAR/JAR 25.1327, which has been submitted in conjunction with this report.

**2. What are current FAR and JAR standards?**

There is no current FAR AC.

Current ACJ 25X1328

1. After correction the deviation on any heading should not exceed 1°, except that –
  - a. On aeroplanes with a short cruising range, the above limit may be extended after consultation with the National Authority.
  - b. A change in deviation due to the current flow in any item of electrical equipment and its associated wiring is permissible, but should not exceed 1°. The combined change for all such equipment, with all combinations of electrical load, should not exceed 2°.
  - c. A change in deviation due to the movement of any component, (e.g. controls or undercarriage) in normal flight is permissible, but should not exceed 1°.
2. The change in deviation due to the proximity of any item of equipment containing magnetic material should not exceed 1° and the combined change for all such equipment should not exceed 2°.

**3. What are the differences in the standards?**

There is no standard FAA AC 25-1327, while there is a related JAA ACJ 25X1328.

**4. What, if any, are the differences in required means of compliance?**

ACJ 25X1328 provides interpretation for a stabilized magnetic indicator, with a suggested accuracy dependent on magnetic effects. There is no related FAA AC.

**5. What is the proposed action?**

Use the existing ACJ25X1328 as a baseline for a harmonized AC/ACJ 25.1327. This corresponds with the proposed harmonized rule (FAR/JAR 25.1327), which essentially eliminates the existing JAR 25X1328. Update the harmonized AC/ACJ to clarify what is necessary for safe operation of an airplane, and to correspond with the minimum operational performance standards (MOPS) of the equipment.

**6. What should the harmonized standard be?**

AC/ACJ 25.1327

This AC addresses the accuracy of stabilized magnetic heading systems, required for safe operation of the airplane. These systems include means to compensate or correct for errors induced by stable magnetic effects in the airplane. Additional effects due to electromagnetic transients and configuration changes are not normally “compensated” by the magnetic heading system and are also included in this AC.

Should the correction become unavailable (either intentionally or unintentionally), the effects of the resulting heading indication should be considered for safe operation of the airplane. This AC addresses the condition where correction is available and the condition where correction is not available (or failed).

In most circumstances, heading information is not directly used as the primary means of navigation. This condition should permit the applicant to show that the accuracy adequate for the safe operation of the airplane may be different than what is defined in this AC.

1. After correction the cumulative deviation on any heading should not exceed 5°, based on the following:
  - a. A change in deviation due to the equipment of the heading system components, the total of which should not exceed 2°.
  - b. A change in deviation due to the current flow in any item of electrical equipment and its associated wiring is permissible, but should not exceed 1°. The total cumulative effect for all combinations of equipment, with all combinations of electrical load, should not exceed 2°.
  - c. A change in deviation due to the movement of any component, (e.g. controls or undercarriage) in normal flight is permissible, but should not exceed 1°.
2. If correction fails or is not available, the change in deviation due to the proximity of all equipment containing magnetic material should not exceed 2°.

Note: On airplanes with a short cruising range, the above limits may be extended after consultation with the National Authority. For airplanes that do not depend on direction or heading information for navigation (VOR, ILS, FMS, GPS), the above limits may be extended after consultation with the National Authority.

## AVHWG SRD Harmonization

7. **How does this proposed standard address the underlying safety issue (identified in #1)?**  
The proposed standard provides a clarification to the basic requirement for certain instruments that display direction information.
8. **Relative to current FAR, does the proposed standard increase, decrease, or maintain the same level of safety?**  
The proposed standard may increase the level of safety by clarifying the harmonized requirement (FAR/JAR 25.1327).
9. **Relative to current industry practice, does the proposed standard increase, decrease, or maintains the same level of safety?**  
Maintains the same level of safety.
10. **What other options have been considered and why were they not selected?**  
The group considered using the ACJ25X1328 as is, but rejected it because it needed some clarification.
11. **Who would be affected by the proposed change?**  
Nobody, since this is already considered standard industry practice.
12. **To ensure harmonization, what current advisory material (e.g., ACJ, AMJ, AC, policy letters) need to be included in the rule text or preamble?**  
This is a modification of current advisory material (ACJ25X1328).
13. **Is existing FAA advisory material adequate?**  
There is no existing FAA advisory material.
14. **If not, what advisory material should be adopted?**  
This is a modification of current advisory material (ACJ25X1328).
15. **How does the proposed standard affect the current ICAO standard?**  
The AVHWG is not aware of any.
16. **How does the proposed standard affect other HWG's?**  
None affected.
17. **What is the cost impact of complying with the proposed standard?**  
None anticipated, because current industry practice is already compliant with the proposed standard.
18. **Does the HWG want to review the draft NPRM at "Phase 4" prior to publication in the Federal Register?**  
Yes.

AVHWG SRD Harmonization

19. **In light of the information provided in this report, does the HWG consider that the “fast Track” process is appropriate for this rulemaking project, or is the project too complex or controversial for the “Fast Track” process?**

This project is appropriate for the “Fast Track” process.