Conclusion

The originally published proposed special conditions have been revised to clarify that the intent of the proposed rule is to require a fire extinguishing system (reference 14 CFR part 23, § 23.1195(a)(1)) only if a fire is not controllable, and to remove the references to engine compartments that do not exist in this engine installation configuration. This amended special condition does not change the original technical requirements of the proposed special conditions that were the same as the previous requirements applied to part 23 airplanes with aft mounted turbine engines. The Eclipse Model 500 powerplant installation does not have a traditional jet engine nacelle design and does not perform the function of what is considered a traditional nacelle from a fire hazard standpoint. Areas that a fire extinguishing system would normally protect against fire hazards, such as nacelle compartments that can accumulate (pool) flammable fluids that can ignite and support combustion, do not exist in the Model 500 engine nacelle design. Therefore, this rule requires the applicant to show that the chosen control means is effective for any fire originating in the engine nacelle area under all operating conditions, including worst case critical conditions. If the applicant cannot meet this requirement as proposed, then a fire extinguishing system as defined in this publication will be required. These revised special conditions were coordinated and concurred with by the applicant. This action affects only certain novel or unusual design features on one model of airplane. It is not a rule of general applicability, and it affects only the applicant who applied to the FAA for approval of these features on the Eclipse Model 500 airplane.

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 21.17; and 14 CFR 11.38 and 11.19.

The Proposed Special Conditions

Accordingly, the Federal Aviation Administration (FAA) proposes the following special conditions as part of the type certification basis for the Eclipse Aviation Corporation Model 500. Engine Fire Extinguishing System

- (a) Fires originating in combustor, turbine, and tailpipe sections of the engine installation which contain lines or components carrying flammable fluids must either:
- (1) be demonstrated at critical conditions to be controllable by test or a combination of test or analysis; or
- (2) a fire extinguishing system must serve each engine compartment.
- (b) If a fire extinguishing system is installed, the system must comply with the following requirements:
- (1) The system must serve each engine compartment;
- (2) The system, the quantity of the extinguishing agent, the rate of discharge, and the discharge distribution must be adequate to extinguish fires. An individual "one shot" system may be used; and
- (3) For a nacelle, the system must be able to simultaneously protect each compartment of the nacelle for which protection is provided.
- (c) If a fire extinguishing system is installed, fire extinguishing agents must meet the following requirements:
- (1) Be capable of extinguishing flames emanating from any burning of fluids or other combustible materials in the area protected by the fire extinguishing system:
- (2) Have thermal stability over the temperature range likely to be experienced in the compartment in which they are stored; and
- (3) If any toxic extinguishing agent is used, provisions must be made to prevent harmful concentrations of fluid or vapors from entering any personnel compartment even though a defect may exist in the extinguishing system.
- (d) If fire extinguishing agents are used, the agent containers must meet the following requirements:
- (1) Have a pressure relief to prevent bursting of the container by excessive internal pressures;
- (2) The discharge end of each discharge line from a pressure relief connection must be located so the discharge of the fire-extinguishing agent would not damage the airplane. The line must also be located or protected to prevent clogging caused by ice or other foreign matter;
- (3) A means must be provided for each fire extinguishing agent container to indicate that the container has discharged or that the charging pressure is below the established minimum necessary for proper functioning;
- (4) The temperature of each container must be maintained, under intended operating conditions, to prevent the pressure in the container from falling

- below that necessary to provide an adequate rate of discharge, or rising high enough to cause premature discharge; and
- (5) If a pyrotechnic capsule is used to discharge the fire extinguishing agent, each container must be installed so that temperature conditions will not cause hazardous deterioration of the pyrotechnic capsule.
- (e) If a fire extinguishing system is installed, system materials must meet the following requirements:
- (1) No material in any fire extinguishing system may react chemically with any extinguishing agent so as to create a hazard; and
- (2) Each system component in an engine compartment must be fireproof.

Issued in Kansas City, Missouri on July 5, 2002.

James E. Jackson,

Acting Manager, Small Airplane Directorate. [FR Doc. 02–18017 Filed 7–16–02; 8:45 am] BILLING CODE 4910–13–P

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. 2001-CE-21-AD]

RIN 2120-AA64

Airworthiness Directives; Raytheon Aircraft Company 200, 300, and 1900 Series, and Models F90 and A100–1 Airplanes

AGENCY: Federal Aviation Administration, DOT.

ACTION: Notice of proposed rulemaking (NPRM).

SUMMARY: This document proposes to adopt a new airworthiness directive (AD) that would apply to certain Raytheon Aircraft Company (Raytheon) 200, 300, and 1900 series, and Models F90 and A100-1 airplanes. This proposed AD would require you to check the airplane logbook to determine if the elevator(s) have been removed from the airplane. If the elevator(s) have been removed, this proposed AD would also require you to inspect the elevator balance weight attachment screws for correct length, and, if necessary, install new screws that are of improved design and rebalance the elevator, depending on the results of the inspection. This proposed AD is the result of the elevator balance weight attachment screws and balance weights being improperly installed when balancing the elevator after it had been removed for repair or repainting. The actions specified by this

proposed AD are intended to prevent the balance weight attachment screws from becoming loose. Loose screws could come into contact and interfere with the horizontal stabilizer. This interference could restrict elevator movement and result in loss of elevator pitch control.

DATES: The Federal Aviation Administration (FAA) must receive any comments on this proposed rule on or before September 16, 2002.

ADDRESSES: Submit comments to FAA. Central Region, Office of the Regional Counsel, Attention: Rules Docket No. 2001-CE-21-AD, 901 Locust, Room 506, Kansas City, Missouri 64106. You may view any comments at this location between 8 a.m. and 4 p.m., Monday through Friday, except Federal holidays. You may also send comments electronically to the following address: 9-ACE-7-Docket@faa.gov. Comments sent electronically must contain "Docket No. 2001-CE-21-AD" in the subject line. If you send comments electronically as attached electronic files, the files must be formatted in Microsoft Word 97 for Windows or ASCII text.

You may get service information that applies to this proposed AD from Raytheon Aircraft Company, P.O. 9709 E. Central, Kansas 67201–0085; telephone: (800) 429–5372 or (316) 676–3140. You may also view this information at the Rules Docket at the address above.

FOR FURTHER INFORMATION CONTACT: Paul DeVore, Aerospace Engineer, FAA, Wichita Aircraft Certification Office, 1801 Airport Road, Mid-Continent Airport, Wichita, Kansas 67209; telephone: (316) 946–4142; facsimile: (316) 946–4407.

SUPPLEMENTARY INFORMATION:

Comments Invited

How Do I Comment on This Proposed AD?

The FAA invites comments on this proposed rule. You may submit whatever written data, views, or arguments you choose. You need to include the rule's docket number and submit your comments to the address specified under the caption ADDRESSES. We will consider all comments received on or before the closing date. We may amend this proposed rule in light of comments received. Factual information that supports your ideas and suggestions is extremely helpful in evaluating the

effectiveness of this proposed AD action and determining whether we need to take additional rulemaking action.

Are There Any Specific Portions of This Proposed AD I Should Pay Attention to?

The FAA specifically invites comments on the overall regulatory, economic, environmental, and energy aspects of this proposed rule that might suggest a need to modify the rule. You may view all comments we receive before and after the closing date of the rule in the Rules Docket. We will file a report in the Rules Docket that summarizes each contact we have with the public that concerns the substantive parts of this proposed AD.

How Can I Be Sure FAA Receives My Comment?

If you want FAA to acknowledge the receipt of your mailed comments, you must include a self-addressed, stamped postcard. On the postcard, write "Comments to Docket No. 2001–CE–21–AD." We will date stamp and mail the postcard back to you.

Discussion

What Events Have Caused This Proposed AD?

Raytheon notified FAA of three incidents in which the elevator jammed during takeoff and landing on Models 200, B300, and 1900C airplanes. Investigations showed the cause for the elevator to jam was that the attachment screws and balance weights were not properly installed when the elevators were balanced after they were removed for repair or repainting.

Improperly installed balance weight

Improperly installed balance weight attachment screws could result in the screws becoming loose and contacting and interfering with the horizontal stabilizer. Interference with the horizontal stabilizer could result in restricted elevator movement.

What Are the Consequences if the Condition Is Not Corrected?

If this condition is not detected and corrected, loose screws could interfere with the horizontal stabilizer, which could cause restricted elevator movement. This condition could result in loss of elevator pitch control.

Is There Service Information That Applies to This Subject?

Raytheon has issued Mandatory Service Bulletin SB 27–3187, Rev. 1, September, 2001. What Are the Provisions of This Service Information?

The service bulletin includes procedures for:

- —Determining whether the elevator has been removed for repair or repaint;
- —Inspecting the elevator balance weight attachment screws to determine if they are the correct length;
- Correcting the installation of improperly installed screws; and
- —Rebalancing the elevators with new attachment bolts.

The FAA's Determination and an Explanation of the Provisions of This Proposed AD

What Has FAA Decided?

After examining the circumstances and reviewing all available information related to the incidents described above, we have determined that:

- —The unsafe condition referenced in this document exists or could develop on other 200, 300, and 1900 series, and Models F90 and A100–1 airplanes of the same type design;
- Certain actions specified in the previously-referenced service information should be accomplished on the affected airplanes; and
- —AD action should be taken in order to correct this unsafe condition.

What Would This Proposed AD Require?

This proposed AD would require you to check the airplane logbook to determine if the elevator(s) has/have been removed from the airplane. If the elevator(s) has/have been removed, this proposed AD would also require you to inspect the elevator balance weight attachment screws for correct length, and, if necessary, install new screws that are of improved design and rebalance the elevator, depending on the results of the inspection.

Cost Impact

How Many Airplanes Would This Proposed AD Impact?

We estimate that this proposed AD affects 2334 airplanes in the U.S. registry.

What Would Be the Cost Impact of This Proposed AD on Owners/Operators of the Affected Airplanes?

We estimate the following costs to accomplish the proposed check of the airplane logbook:

| Labor cost | Parts cost | Total cost per airplane | Total cost on U.S. operators |
|--------------------------|---------------|-------------------------|------------------------------|
| 1 workhour × \$60 = \$60 | None required | \$60 | \$140,040 |

We estimate the following costs to accomplish the proposed inspection of the elevator balance weight attachment screws that would be required based on the results of the proposed logbook check. We have no way of determining the number of airplanes that may need such inspection:

| Labor cost | Parts cost | Total cost per airplane |
|----------------------------|---------------|-------------------------|
| 2 workhours × \$60 = \$120 | None required | \$120 |

We estimate the following costs to accomplish the proposed replacement of the elevator balance weight attachment screws that would be required based on the results of the proposed inspection for airplanes in which the logbook check reveals that further inspection is necessary. We have no way of determining the number of airplanes that may need such replacements:

| Labor cost | Parts cost | Total cost per airplane |
|--------------------------|---|-------------------------|
| 1 workhour × \$60 = \$60 | \$16 per bolt × 2 bolts per elevator = \$32 | \$92 |

Regulatory Impact

Would This Proposed AD Impact Various Entities?

The regulations proposed herein would not have a substantial direct effect on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government. Therefore, it is determined that this proposed rule would not have federalism implications under Executive Order 13132.

Would This Proposed AD Involve a Significant Rule or Regulatory Action?

For the reasons discussed above, I certify that this proposed action (1) is not a "significant regulatory action" under Executive Order 12866; (2) is not a "significant rule" under DOT

Regulatory Policies and Procedures (44 FR 11034, February 26, 1979); and (3) if promulgated, will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act. A copy of the draft regulatory evaluation prepared for this action has been placed in the Rules Docket. A copy of it may be obtained by contacting the Rules Docket at the location provided under the caption ADDRESSES.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Safety.

The Proposed Amendment

Accordingly, under the authority delegated to me by the Administrator, the Federal Aviation Administration proposes to amend part 39 of the Federal Aviation Regulations(14 CFR part 39) as follows:

PART 39—AIRWORTHINESS DIRECTIVES

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

2. FAA amends § 39.13 by adding a new airworthiness directive (AD) to read as follows:

Raytheon Aircraft Company: Docket No. 2001–CE–21–AD

(a) What airplanes are affected by this AD? This AD affects the following airplane models and serial numbers that are certificated in any category:

| Model | Serial Nos. | |
|---|---|--|
| (1) F90 | LA-2 through LA-236. | |
| (2) A100–1 (U–21J) | | |
| (3) A200 (C-12C) | | |
| (5) A200CT (C-12D), (C-12F), (RC-12D), (FWC-12D), (RC-12G), | BP-1, BP-7 through BP-11, BP-22, BP-24 through BP-63, FC-1 | |
| (RC-12H), (RC-12K), or (RC-12P). | through FC-3, GR-1 through GR-19, FE-1 through FE-9, FE-25 through FE-36. | |
| (6) B200 | BB-734, BB-793, BB-829, BB-854 through BB-870, BB-874 through BB-891, BB-894, BB-896 through BB-911, and BB-913 through BB-1652. | |
| (7) B200C | BL-37 through BL-57, BL-61 through BL-72, BL-124 through BL-140. | |
| (8) B200C (C-12F), (C-12R), (UC-12M), or (UC-12F) | BL-73 through BL-112, BL-118 through BL-123, BP-64 through BP-71, BU-1 through BU-12, BV-1 through BV-12, and BW-1 through BW-29. | |
| (9) B200CT | BN-2 through BN-4, FG-1 and FG-2. | |
| (10) B200T and 200T | BT-1 through BT-38. | |
| (11) 200 | BB-2, BB-6 through BB-733, BB-735 through BB-792, BB-794 through BB-828, BB-830 through BB-853, BB-872, BB-873, BB-892, BB-893, and BB-912. | |
| (12) 200C | BL-1 through BL-23 and BL-25 through BL-36. | |

| Model | Serial Nos. |
|------------|---|
| (13) 200CT | FA-1 through FA-230 and FF-1 through FF-19. FL-1 through FL-241. FM-1 through FM-9 and FN-1. UA-2 and UA-3. UB-1 through UB-74 and UC-1 through UC-174. |

- (b) Who must comply with this AD? Anyone who wishes to operate any of the airplanes identified in paragraph (a) of this AD must comply with this AD.
- (c) What problem does this AD address? The actions specified by this AD are intended

to prevent the balance weight attachment screws from becoming loose. Loose screws could come into contact and interfere with the horizontal stabilizer. This interference could restrict elevator movement and result in loss of elevator pitch control.

(d) What actions must I accomplish to address this problem? To address this problem, you must accomplish the following:

| Actions | Compliance | Procedures |
|---|--|--|
| (1) Check the airplane logbook to determine whether the elevator(s) has/have been removed. The owner/operator holding at least a private pilot certificate as authorized by section 43.7 of the Federal Aviation Regulations (14 CFR 43.7) may check the airplane logbook. | Within the next 200 hours time-in-service (TIS) after the effective date of this AD. | No special procedures required to check the logbook. Raytheon Mandatory Service Bulletin SB 27–3187, Rev. 1, Revised: September, 2001, references this airplane logbook check. |
| (2) If, by checking the airplane logbook:(i) the pilot can positively show that both elevators have never been removed, then the requirements of paragraphs (d)(2)(ii) and (d)(3) of this AD do not apply. You must make an entry into the aircraft records that shows compliance with this portion of the AD, in accordance with section 43.9 of the Federal Aviation Regulations (14 CFR 43.9). (ii) the pilot identifies that the elevator(s) has/have been removed, or if complete records of elevator(s) do not exist, inspect the elevator balance weight attachment screws to determine if they are the correct length (d)(2)(ii) of this AD, the elevator balance weight attachment screws are found to be the correct length, paragraph (d)(4) of this AD does not apply. | Within the next 200 hours time-in-service (TIS) after the effective date of this AD. Not Applicable | In accordance with the Accomplishment Instructions section of Raytheon Mandatory Service Bulletin SB 27–3187, Rev. 1, Revised: September, 2001. In accordance with the Accomplishment Instructions section of Raytheon Mandatory Service Bulletin SB 27–3187, Rev. 1, Revised: September, 2001. |
| (4) If, during the inspection required in paragraph (d)(2)(ii) of this AD, the elevator balance weight attachment screw(s) is/are found to be the incorrect the length, remove and rebalance elevator(s) by installing the balance weights with the appropriate new elevator balance weight attachment bolts, part number (P/N) in the range of NAS6703HU12 through NAS6703HU22, that have drilled heads and are secured with safety wire, and re-install the elevator. | Prior to further flight after the inspection required in paragraph (d)(2)(ii) of this AD. | In accordance with the Accomplishment Instructions section of Raytheon Mandatory Service Bulletin SB 27–3187, Rev. 1, Revised: September, 2001, and the applicable maintenance manual. |
| (5) Do not install, on any affected airplane, an elevator that has been rebalanced unless it has been rebalanced by installing the balance weights with the appropriate new elevator balance weight attachment bolts, P/N in the range of NAS6703HU12 through NAS6703HU22, that have drilled heads and are secured with safety wire. | As of the effective date of this AD. | Not applicable. |

Note 1: The compliance times specified in Raytheon Mandatory Service Bulletin SB 27–3187, Rev. 1, Revised: September, 2001, are different from those required by this AD. The compliance times in this AD take precedence over those in the service bulletin.

- (e) Can I comply with this AD in any other way? You may use an alternative method of compliance or adjust the compliance time if:
- (1) Your alternative method of compliance provides an equivalent level of safety; and

(2) The Manager, Wichita Aircraft Certification Office (ACO), approves your alternative. Submit your request through an FAA Principal Maintenance Inspector, who may add comments and then send it to the Manager, Wichita ACO.

Note 2: This AD applies to each airplane identified in paragraph (a) of this AD, regardless of whether it has been modified, altered, or repaired in the area subject to the requirements of this AD. For airplanes that

have been modified, altered, or repaired so that the performance of the requirements of this AD is affected, the owner/operator must request approval for an alternative method of compliance in accordance with paragraph (e) of this AD. The request should include an assessment of the effect of the modification, alteration, or repair on the unsafe condition addressed by this AD; and, if you have not eliminated the unsafe condition, specific actions you propose to address it.

(f) Where can I get information about any already-approved alternative methods of compliance? Contact Paul DeVore, Aerospace Engineer, FAA, Wichita Aircraft Certification Office, 1801 Airport Road, Mid-Continent Airport, Wichita, Kansas 67209; telephone: (316) 946–4142; facsimile: (316) 946–4407.

(g) What if I need to fly the airplane to another location to comply with this AD? The FAA can issue a special flight permit under sections 21.197 and 21.199 of the Federal Aviation Regulations (14 CFR 21.197 and 21.199) to operate your airplane to a location where you can accomplish the requirements of this AD.

(h) How do I get copies of the documents referenced in this AD? You may get copies of the documents referenced in this AD from Raytheon Aircraft Company, P.O. Box 85, Wichita, Kansas 67201–0085; telephone: (800) 429–5372 or (316) 676–3140. You may view these documents at FAA, Central Region, Office of the Regional Counsel, 901 Locust, Room 506, Kansas City, Missouri 64106

Issued in Kansas City, Missouri, on July 9, 2002.

Michael K. Dahl,

Acting Manager, Small Airplane Directorate, Aircraft Certification Service.

[FR Doc. 02–17885 Filed 7–16–02; 8:45 am] BILLING CODE 4910–13–P

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. 2000-NM-57-AD]

RIN 2120-AA64

Airworthiness Directives; McDonnell Douglas Model DC-9-10, -20, -30, -40, and -50 Series Airplanes

AGENCY: Federal Aviation Administration, DOT.

ACTION: Supplemental notice of proposed rulemaking; reopening of comment period.

SUMMARY: This document revises an earlier proposed airworthiness directive (AD), applicable to certain McDonnell Douglas Model DC-9-10, -20, -30, -40, and -50 series airplanes, and C-9 (military) airplanes, that would have required, among other actions, various inspections to detect cracks of the cockpit enclosure window sill, and follow-on and corrective actions, as applicable. This new action revises the proposed rule by revising certain procedures and clarifying the proposed requirements. The actions specified by this new proposed AD are intended to prevent fatigue cracking of the internal doublers and frame structure of the fuselage skin of the cockpit enclosure window sill, which could result in rapid decompression of the fuselage and consequent reduced structural integrity of the airplane. This action is intended to address the identified unsafe condition.

DATES: Comments must be received by August 6, 2002.

ADDRESSES: Submit comments in triplicate to the Federal Aviation Administration (FAA), Transport Airplane Directorate, ANM-114, Attention: Rules Docket No. 2000-NM-57-AD, 1601 Lind Avenue, SW., Renton, Washington 98055-4056. Comments may be inspected at this location between 9 a.m. and 3 p.m., Monday through Friday, except Federal holidays. Comments may be submitted via fax to (425) 227-1232. Comments may also be sent via the Internet using the following address: 9-anmnprmcomment@faa.gov. Comments sent via fax or the Internet must contain "Docket No. 2000-NM-57-AD" in the subject line and need not be submitted in triplicate. Comments sent via the Internet as attached electronic files must be formatted in Microsoft Word 97 for Windows or ASCII text.

The service information referenced in the proposed rule may be obtained from Boeing Commercial Aircraft Group, Long Beach Division, 3855 Lakewood Boulevard, Long Beach, California 90846, Attention: Data and Service Management, Dept. C1–L5A (D800–0024). This information may be examined at the FAA, Transport Airplane Directorate, 1601 Lind Avenue, SW., Renton, Washington; or at the FAA, Los Angeles Aircraft Certification Office, 3960 Paramount Boulevard, Lakewood, California.

FOR FURTHER INFORMATION CONTACT:

Technical Information: Wahib Mina, Aerospace Engineer, Airframe Branch, ANM-120L, FAA, Los Angeles Aircraft Certification Office, 3960 Paramount Boulevard, Lakewood, California 90712; telephone (562) 627-5324; fax (562) 627-5210.

Other Information: Judy Golder, Airworthiness Directive Technical Editor/Writer; telephone (425) 687–4241, fax (425) 227–1232. Questions or comments may also be sent via the Internet using the following address: judy.golder@faa.gov. Questions or comments sent via the Internet as attached electronic files must be formatted in Microsoft Word 97 for Windows or ASCII text.

SUPPLEMENTARY INFORMATION:

Comments Invited

Interested persons are invited to participate in the making of the proposed rule by submitting such written data, views, or arguments as they may desire. Communications shall identify the Rules Docket number and be submitted in triplicate to the address specified above. All communications received on or before the closing date for comments, specified above, will be considered before taking action on the proposed rule. The proposals contained in this action may be changed in light of the comments received.

Submit comments using the following format:

- Organize comments issue-by-issue. For example, discuss a request to change the compliance time and a request to change the service bulletin reference as two separate issues.
- For each issue, state what specific change to the proposed AD is being requested.
- Include justification (e.g., reasons or data) for each request.

Comments are specifically invited on the overall regulatory, economic, environmental, and energy aspects of the proposed rule. All comments submitted will be available, both before and after the closing date for comments, in the Rules Docket for examination by interested persons. A report summarizing each FAA-public contact concerned with the substance of this proposal will be filed in the Rules Docket.

Commenters wishing the FAA to acknowledge receipt of their comments submitted in response to this action must submit a self-addressed, stamped postcard on which the following statement is made: "Comments to Docket Number 2000–NM–57–AD." The postcard will be date stamped and returned to the commenter.

Availability of NPRMs

Any person may obtain a copy of this NPRM by submitting a request to the FAA, Transport Airplane Directorate, ANM–114, Attention: Rules Docket No. 2000–NM–57–AD, 1601 Lind Avenue, SW., Renton, Washington 98055–4056.

Discussion

A proposal to amend part 39 of the Federal Aviation Regulations (14 CFR part 39) to add an airworthiness directive (AD) applicable to certain McDonnell Douglas Model DC-9-10, -20, -30, -40, and -50 series airplanes and C-9 (military) airplanes was published as a notice of proposed rulemaking (NPRM) in the Federal Register on September 18, 2000 (65 FR 56270). That NPRM would have required, among other actions, various inspections to detect cracks of the cockpit enclosure window sill, and follow-on and corrective actions, as