DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39


RIN 2120–AA64


AGENCY: Federal Aviation Administration (FAA), Department of Transportation (DOT).

ACTION: Final rule.

SUMMARY: We are adopting a new airworthiness directive (AD) for the products listed above. This AD results from mandatory continuing airworthiness information (MCAI) originated by an aviation authority of another country to identify and correct an unsafe condition on an aviation product. For Model A310 and A330–600 series airplanes, the MCAI describes the unsafe condition as:

Hamilton Sundstrand (HS), the manufacturer of the RAT [ram air turbine], reported the failure during a wind tunnel test of a balance weight fastening screw on the RAT turbine cover. After investigation, it has been discovered that a batch of screws, which are used to attach the balance washers of the RAT turbine assembly, has not been subject to the correct heat treatment, making them more subject to a potential failure. This condition, if left uncorrected, could lead to the ejection of screw heads and detachment of the associated balance washers. The loss of balance washers would increase RAT vibrations, which could lead to a possible detachment of RAT parts and loss of RAT functionality. The loss of the RAT, in combination with a double engine failure, or a total loss of normal electrical power generation, could result in loss of control of the aeroplane.

For Model A318, A319, A320, and A321 series airplanes, the MCAI describes the unsafe condition as:

Hamilton Sundstrand (HS) reported the failure of a balance weight fastening screw on the RAT turbine cover during a wind tunnel test. After investigation, it has been discovered that a batch of screws, which are used to attach the balance washers of the RAT turbine assembly, has not received the correct heat treatment, making them more subject to a potential failure.

For Model A330 and A340 series airplanes, the MCAI describes the unsafe condition as:

Hamilton Sundstrand (HS), the manufacturer of the RAT, reported the failure of a balance weight fastening screw on the RAT cover during a wind tunnel test. After investigation, it has been discovered that a batch of screws, which are used to attach the balance washers of the HS RAT turbine lower gear box assembly, has not been subject to the correct heat treatment and the screws are consequently exposed to potential fracture.

We are issuing this AD to require actions to correct the unsafe condition on these products.

DATES: This AD becomes effective September 9, 2011.

The Director of the Federal Register approved the incorporation by reference of certain publications listed in this AD as of September 9, 2011.

ADDRESSES: You may examine the AD docket on the Internet at http://www.regulations.gov or in person at the U.S. Department of Transportation, Docket Operations, M–30, West Building Ground Floor, Room W12–140, 1200 New Jersey Avenue, SE., Washington, DC.

FOR FURTHER INFORMATION CONTACT: Dan Rodina, Aerospace Engineer, International Branch, ANM–116.

SUPPLEMENTARY INFORMATION:

Discussion

We issued a notice of proposed rulemaking (NPRM) to amend 14 CFR part 39 to include an AD that would apply to the specified products. That NPRM was published in the Federal Register on May 4, 2011 (76 FR 25259). That NPRM proposed to correct an unsafe condition for the specified products.

The MCAI for Model A300–600 and A310 series airplanes states:

Hamilton Sundstrand (HS), the manufacturer of the RAT [ram air turbine], reported the failure of a balance weight fastening screw on the RAT cover during a wind tunnel test. After investigation, it has been discovered that a batch of screws, which are used to attach the balance washers of the HS RAT Turbine Assembly, has not been subject to the correct heat treatment and are consequently exposed to potential fracture.

This condition, if not corrected, might lead to the ejection of screw heads and consequently to the detachment of the associated balance washers. The loss of balance washers could increase RAT vibrations, which might lead to a possible detachment of RAT parts and consequently loss of RAT functionality. The loss of the RAT, in combination with a total engine flame out, could result in loss of control of the aeroplane.

For the reasons described above, this AD requires the identification of the affected RAT turbine assemblies and replacement of all balance weight screws or, in case balance washer detachment is found, replacement of the RAT turbine assembly.

The MCAI for Model A318, A319, A320, and A321 series airplanes states:

Hamilton Sundstrand (HS) reported the failure of a balance weight fastening screw on the RAT turbine cover during a wind tunnel test. After investigation, it has been discovered that a batch of screws, used to attach the balance washers of the RAT Turbine assembly, has not received the correct heat treatment, making them more subject to a potential failure.

This condition, if left uncorrected, could lead to the ejection of screw heads and detachment of the associated balance washers. The loss of balance washers would increase RAT vibrations, which could lead to a possible detachment of RAT parts and loss of RAT functionality. The loss of the RAT, in combination with a double engine failure, or a total loss of normal electrical power generation, could result in loss of control of the aeroplane.

For the reasons described above, EASA AD 2009–0259 was issued in December 2009 to require the replacement of all balance weight screws on the affected RAT turbine assemblies, or replacement of the RAT, if any balancing washer was found missing.

This AD retains some of the requirements of AD 2009–0259, which is superseded, and corrects its applicability by adding Airbus model A320–215 and A320–216 aeroplanes which were inadvertently omitted. Also, this AD requires the replacement of the set of balancing weights screws before the next operational or functional check of the RAT assembly.

The MCAI for Model A330 and A340 series airplanes states:

Hamilton Sundstrand (HS), the manufacturer of the RAT, reported the failure of a balance weight fastening screw on the RAT cover during a wind tunnel test. After investigation, it has been discovered that a batch of screws, which are used to attach the balance washers of the HS RAT Turbine lower gear box assembly, has not been subject to the correct heat treatment and the screws are consequently exposed to potential fracture.

This condition, if not corrected, might lead to the ejection of screw heads and consequently to the detachment of the associated balance washers. The loss of balance washers could increase RAT vibrations, which might lead to a possible detachment of RAT parts, and thus to damage to the aeroplane and risk of injury to persons on the ground.

For the reasons described above, this AD requires the identification of the affected RAT turbine lower gear box assemblies and replacement of all balance screws or, in case balance washer detachment is found, replacement of the RAT turbine lower gear box assembly.

You may obtain further information by examining the MCAI in the AD docket.

Comments

We gave the public the opportunity to participate in developing this AD. We received no comments on the NPRM or on the determination of the cost to the public.

Conclusion

We reviewed the available data and determined that air safety and the public interest require adopting the AD as proposed.

Differences Between This AD and the MCAI or Service Information

We have reviewed the MCAI and related service information and, in general, agree with their substance. But we might have found it necessary to use different words from those in the MCAI to ensure the AD is clear for U.S. operators and is enforceable. In making these changes, we do not intend to differ substantively from the information provided in the MCAI and related service information.

We might also have required different actions in this AD from those in the MCAI in order to follow our FAA policies. Any such differences are highlighted in a NOTE within the AD.

Costs of Compliance

Based on the service information, we estimate that this AD will affect about 1,004 products of U.S. registry. We also estimate that it will take about 2 work-hours per product to comply with the basic requirements of this AD. The average labor rate is $85 per work-hour. Required parts will cost about $100 per product. Where the service information lists required parts costs that are covered under warranty, we have assumed that there will be no charge for these costs. As we do not control warranty coverage for affected parties, some parties may incur costs higher than estimated here. Based on these figures, we estimate the cost of the AD on U.S. operators to be $271,080, or $270 per product.

Authority for This Rulemaking

Title 49 of the United States Code specifies the FAA’s authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. “Subtitle VII: Aviation Programs,” describes in more detail the scope of the Agency’s authority.

We are issuing this rulemaking under the authority described in “Subtitle VII, Part A, Subpart III, Section 44701: General requirements.” Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

Regulatory Findings

We determined that this AD will not have federalism implications under Executive Order 13132. This AD will 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.

For the reasons discussed above, I certify this AD:

1. Is not a “significant regulatory action” under Executive Order 12866;
2. Is not a “significant rule” under the DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979); and
3. 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.

We prepared a regulatory evaluation of the estimated costs to comply with this AD and placed it in the AD docket.

Examining the AD Docket
You may examine the AD docket on the Internet at http://www.regulations.gov; or in person at the Docket Operations office between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains the NPRM, the regulatory evaluation, any comments received, and other information. The street address for the Docket Operations office (telephone (800) 647–5527) is in the ADDRESSES section. Comments will be available in the AD docket shortly after receipt.

List of Subjects in 14 CFR Part 39
Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

Adoption of the Amendment
Accordingly, under the authority delegated to me by the Administrator, the FAA amends 14 CFR part 39 as follows:

PART 39—AIRWORTHINESS DIRECTIVES

§ 39.13 [Amended]

■ 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. The FAA amends § 39.13 by adding the following new AD:


Effective Date
(a) This airworthiness directive (AD) becomes effective September 9, 2011.

Affected ADs
(b) None.

Applicability
(c) This AD applies to the Airbus airplanes listed in paragraphs (c)(1), (c)(2), (c)(3), (c)(4), and (c)(5) of this AD, certified in any category:


(4) Model A340–211, –212, –213, –311, –312, and –313 airplanes; all manufacturer serial numbers, if equipped with a Hamilton Sundstrand RAT turbine lower gearbox assembly, as identified by part number in Hamilton Sundstrand Service Bulletin ERPS06G–29–6, dated July 20, 2009; or equipped with a Hamilton Sundstrand RAT turbine lower gear box assembly on which the part number cannot be determined.

(5) Model A340–541 and –642 airplanes, all manufacturer serial numbers, if equipped with a Hamilton Sundstrand RAT turbine lower gearbox assembly, as identified by part number in Hamilton Sundstrand Service Bulletin ERPS33G–29–1, dated July 20, 2009; or equipped with a Hamilton Sundstrand RAT turbine lower gear box assembly on which the part number cannot be determined.

(d) Air Transport Association (ATA) of America Code 29: Hydraulic power.

Reason
(e) For Model A310 and A300–600 series airplanes, the MCAI describes the unsafe condition as:

Hamilton Sundstrand (HS), the manufacturer of the RAT, reported the failure of a balance weight fastening screw on the RAT turbine cover during a wind tunnel test. After investigation, it has been discovered that a batch of screws, used to attach the balance washers of the RAT Turbine assembly, has not received the correct heat treatment, making them more subject to a potential failure.

This condition, if left uncorrected, could lead to the ejection of screw heads and detachment of the associated balance washers. The loss of balance washers would increase RAT vibrations, which could lead to a possible detachment of RAT parts and loss of RAT functionality. The loss of the RAT, in combination with a double engine failure, or a total loss of normal electrical power generation, could result in loss of control of the aeroplane.

For Model A318, A319, A320, and A321 series airplanes, the MCAI describes the unsafe condition as:

Hamilton Sundstrand (HS) reported the failure of a balance weight fastening screw on the RAT turbine cover during a wind tunnel test. After investigation, it has been discovered that a batch of screws, used to attach the balance washers of the RAT Turbine assembly, has not received the correct heat treatment, making them more subject to a potential failure.

This condition, if left uncorrected, could lead to the ejection of screw heads and detachment of the associated balance washers. The loss of balance washers would increase RAT vibrations, which could lead to a possible detachment of RAT parts and loss of RAT functionality. The loss of the RAT, in combination with a double engine failure, or a total loss of normal electrical power generation, could result in loss of control of the aeroplane.

(f) You are responsible for having the actions required by this AD performed within the compliance times specified, unless the actions have already been done.

Actions
(g) At the applicable time specified in paragraph (g)(1), (g)(2), or (g)(3) of this AD: Inspect to determine the part number and serial number of the RAT turbine lower gear box assembly, in accordance with the applicable Airbus all operator telex (AOT) identified in table 1 of this AD. If the RAT turbine lower gear box assembly has a part number and a serial number that are not listed in the applicable Hamilton Sundstrand service bulletin identified in table 2 of this AD, no further action is required by this AD, except as required by paragraph (k) of this AD. A review of airplane maintenance
(1) For airplanes identified in paragraph (c)(1) of this AD: Before the next RAT spin test, or within 1,500 flight hours or 9 months after the effective date of this AD, whichever occurs first.

(2) For airplanes identified in paragraph (c)(2) of this AD: Before the next RAT spin test, or within 3,000 flight hours or 12 months after the effective date of this AD, whichever occurs first.

(3) For airplanes identified in paragraph (c)(3), (c)(4), and (c)(5) of this AD: Before the next RAT spin test, or within 3,000 flight hours or 8 months after the effective date of this AD, whichever occurs first.

(h) If, during the inspection required by paragraph (g) of this AD, the RAT turbine lower gear box assembly has a part number and a serial number identified in the applicable Airbus AOT specified in table 1 of this AD, or if the part number or serial number of the RAT turbine lower gear box assembly cannot be determined: Before further flight, inspect the RAT turbine lower gear box assembly to determine if the nameplate is identified with the applicable symbol specified in table 3 of this AD, in accordance with the applicable Airbus AOT specified in table 1 of this AD. If the RAT turbine lower gear box assembly nameplate has the applicable symbol that is identified in table 3 of this AD, no further action is required by this AD except as required by paragraph (k) of this AD. A review of airplane maintenance records is acceptable in lieu of this inspection if the symbol identified on the nameplate can be conclusively determined from that review.

(1) If all balance screws are fitted on the turbine and are not fractured or missing, at the applicable time specified in paragraph (i)(1)(i), (i)(1)(ii), or (i)(1)(iii) of this AD: Replace the RAT turbine lower gear box assembly with a new or serviceable RAT turbine lower gear box assembly, or replace all balance screws on the RAT turbine lower gear box assembly with new or serviceable balance screws, in accordance with the applicable Airbus AOT specified in table 1 of this AD.

(i) If, during the inspection required by paragraph (h) of this AD, the RAT turbine lower gear box assembly does not have the applicable symbol specified in table 3 of this AD: Before further flight, do a general visual inspection for the missing and fractured balance screws and for missing washers in accordance with the applicable Airbus AOT specified in table 1 of this AD.

(i) For airplanes identified in paragraph (c)(1) of this AD: Within 1,500 flight hours or 9 months after the effective date of this AD, whichever occurs first.

(ii) For airplanes identified in paragraph (c)(2) of this AD: Within 3,000 flight hours or 12 months after the effective date of this AD, whichever occurs first.

(iii) For airplanes identified in paragraphs (c)(3), (c)(4), and (c)(5) of this AD: Within 3,000 flight hours or 8 months after the effective date of this AD, whichever occurs first.

(2) If one or more screws are fractured but the associated balance washers are still fitted on the RAT turbine lower gear box assembly, before further flight, do the actions specified in paragraph (i)(2)(i) or (i)(2)(ii) of this AD, in accordance with the applicable Airbus AOT specified in table 1 of this AD.

(i) Replace the RAT turbine lower gear box assembly with a new or serviceable RAT turbine lower gear box assembly.

(ii) Replace all balance screws on the RAT turbine lower gear box assembly with new or serviceable balance screws, including replacing any missing washers.

### TABLE 1—AIRBUS AOTS

<table>
<thead>
<tr>
<th>Model</th>
<th>Document</th>
<th>Date</th>
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</thead>
</table>

### TABLE 2—APPLICABLE HAMILTON SUNDSTRAND SERVICE BULLETINS

<table>
<thead>
<tr>
<th>Model</th>
<th>Document</th>
<th>Date</th>
</tr>
</thead>
</table>

### TABLE 3—NAMEPLATE IDENTIFICATION

<table>
<thead>
<tr>
<th>Model</th>
<th>Symbol</th>
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<tbody>
<tr>
<td>Model A300–600 series airplanes</td>
<td>29–7</td>
</tr>
<tr>
<td>Model A310 series airplanes</td>
<td>29–15</td>
</tr>
<tr>
<td>Model A318 series airplanes</td>
<td>29–8</td>
</tr>
<tr>
<td>Model A321 series airplanes</td>
<td>29–6</td>
</tr>
<tr>
<td>Model A330–200 and A330–300 series airplanes</td>
<td>29–6</td>
</tr>
<tr>
<td>Model A340–500 and A340–600 series airplanes</td>
<td>29–1</td>
</tr>
</tbody>
</table>
(3) If one or more screws are fractured and any balance washer is missing, before further flight, replace the RAT turbine lower gear box assembly with new or serviceable RAT turbine lower gear box assembly, in accordance with the applicable Airbus AOT specified in table 1 of this AD.

**FAA AD Differences**

Note 1: This AD differs from the MCAI and/or service information as follows: No differences.

**Other FAA AD Provisions**

(i) The following provisions also apply to this AD:

(1) **Alternative Methods of Compliance (AMOCS):** The Manager, International Branch, ANM–116, Transport Airplane Directorate, FAA, has the authority to approve AMOCS for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or local Flight Standards District Office, as appropriate. If sending information directly to the International Branch, send it to Attn: Dan Rodina, Aerospace Engineer, International Branch, ANM–116, Transport Airplane Directorate, FAA, 1601 Lind Avenue, SW., Renton, Washington 98057–3356; telephone (425) 227–2125; fax (425) 227–1149. Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the local flight standards district office/certificate holding district office. The AMOC approval letter must specifically reference this AD.

(ii) **Airworthy Product:** For any requirement in this AD to obtain corrective actions from a manufacturer or other source, use these actions if they are FAA-approved. Corrective actions are considered FAA-approved if they are approved by the State of Design Authority (or their delegated agent). You are required to assure the product is airworthy before it is returned to service.

(3) **Reporting Requirements:** A Federal agency may not conduct or sponsor, and a person is not required to respond to, nor shall a person be subject to a penalty for failure to comply with a collection of information subject to the requirements of the Paperwork Reduction Act unless that collection of information displays a current valid OMB Control Number. The OMB Control Number for this information collection is 2120–0056. Public reporting for this collection of information is estimated to be approximately 5 minutes per response, including the time for reviewing instructions, completing and reviewing the collection of information. All responses to this collection of information are mandatory. Comments concerning the accuracy of this burden and suggestions for reducing the burden should be directed to the FAA at: 800 Independence Ave., SW., Washington, DC 20591, Attn: Information Collection Clearance Office, AES–200.

**Related Information**

(m) Refer to the applicable MCAI European Aviation Safety Agency (EASA) AD specified in table 4 of this AD, the Airbus AOTs specified in table 1 of this AD, and the Hamilton Sundstrand service bulletins specified in table 2 of this AD, for related information.

### TABLE 4—EASA ADs

<table>
<thead>
<tr>
<th>For model—</th>
<th>EASA AD—</th>
<th>Dated—</th>
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</thead>
</table>

### Material Incorporated by Reference

(n) You must use the service information contained in table 5 of this AD, as applicable, to do the actions required by this AD, unless the AD specifies otherwise.

### TABLE 5—MATERIAL INCORPORATED BY REFERENCE

<table>
<thead>
<tr>
<th>Document</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Airbus All Operator Telex A300–29A6062</td>
<td>September 1, 2009.</td>
</tr>
</tbody>
</table>

(1) The Director of the Federal Register approved the incorporation by reference of this service information under 5 U.S.C. 552(a) and 1 CFR part 51.

(2) For Airbus service information identified in this AD, contact the appropriate office listed below.

(i) For Model A300–600 and A310 series airplanes: Airbus SAS—EAW (Airworthiness Office), 1 Rond Point Maurice Bellonte, 31707 Blagnac Cedex, France; telephone +33 5 61 93 36 96; fax +33 5 61 93 44 51; e-mail: account.airworth-eas@airbus.com; Internet http://www.airbus.com.

(ii) For Model A318, A319, A320, and A321 series airplanes: Airbus, Airworthiness
SUMMARY: This action will modify Class E airspace at Forsyth, MT. Controlled airspace is necessary to accommodate aircraft using Area Navigation (RNAV) Global Positioning System (GPS) standard instrument approach procedures at Tillitt Field Airport. This action also corrects a typographical error in the regulatory text for the Class E airspace area. This action improves the safety and management of Instrument Flight Rules (IFR) operations at the airport.

DATES: Effective date, 0901 UTC, October 20, 2011. The Director of the Federal Register approves this incorporation by reference action under 1 CFR part 51, subject to the annual revision of FAA Order 7400.9 and publication of conforming amendments.

SUPPLEMENTARY INFORMATION:

On June 7, 2011, the FAA published in the Federal Register a notice of proposed rulemaking to modify controlled airspace at Forsyth, MT (76 FR 32879). Interested parties were invited to participate in this rulemaking effort by submitting written comments on the proposal to the FAA. No comments were received.

Class E airspace designations are published in paragraph 6005 of FAA Order 7400.9U dated August 18, 2010, and effective September 15, 2010, which is incorporated by reference in 14 CFR Part 71. The Class E airspace designations listed in this document will be published subsequently in that Order.

The Rule

This action amends Title 14 Code of Federal Regulations (14 CFR) Part 71 by modifying Class E airspace extending upward from 700 feet above the surface, at Tillitt Field Airport, Forsyth, MT, to accommodate IFR aircraft executing RNAV (GPS) standard instrument approach procedures at the airport. This action also corrects a typographical error in the regulatory text of the Class E airspace area by correcting ‘lat. 46°05′00″N., long. 106°21′03″W. ’ to ‘lat. 46°05′00″N., long. 106°21′03″W.’. This action is necessary for the safety and management of IFR operations. Except for administrative changes, and the changes listed above, this rule is the same as that proposed in the NPRM.

The FAA has determined this regulation only involves an established body of technical regulations for which frequent and routine amendments are necessary to keep them operationally current. Therefore, this regulation: (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) does not warrant preparation of a regulatory evaluation as the anticipated impact is so minimal. Since this is a routine matter that will only affect air traffic procedures and air navigation, it is certified this rule, when promulgated, will not have a significant economic impact on a substantial number of small entities under the criteria of the Regulatory Flexibility Act. The FAA’s authority to issue rules regarding aviation safety is found in Title 49 of the U.S. Code. Subtitle 1, Section 106 discusses the authority of the FAA Administrator. Subtitle VII, Aviation Programs, describes in more detail the scope of the agency’s authority. This rulemaking is promulgated under the authority described in Subtitle VII, Part A, Subpart I, Section 40103. Under that section, the FAA is charged with prescribing regulations to assign the use of airspace necessary to ensure the safety of aircraft and the efficient use of airspace. This regulation is within the scope of that authority as it establishes additional controlled airspace at Tillitt Field Airport, Forsyth, MT.

List of Subjects in 14 CFR Part 71

Airspace, Incorporation by reference, Navigation (air).

Adoption of the Amendment

In consideration of the foregoing, the Federal Aviation Administration amends 14 CFR part 71 as follows:

PART 71—DESIGNATION OF CLASS A, B, C, D AND E AIRSPACE AREAS; AIR TRAFFIC SERVICE ROUTES; AND REPORTING POINTS

§ 71.1 [Amended]

1. The authority citation for 14 CFR Part 71 continues to read as follows:


2. The incorporation by reference in 14 CFR Part 71.1 of the Federal Aviation Administration Order 7400.9U, Airspace Designations and Reporting Points, dated August 18, 2010, and effective September 15, 2010 is amended as follows:

Paragraph 6005 Class E airspace areas extending upward from 700 feet or more above the surface of the earth.

ANNEXE E5 Forsyth, MT [Modified]

Tillitt Field Airport, MT

(Lat. 46°16′16″N., long. 106°37′26″W.)

That airspace extending upward from 700 feet above the surface within a 7-mile radius of Tillitt Field Airport, and within 2.5 miles north and 5.5 miles south of the 075° bearing of the airport extending from the 7-mile radius to 13 miles east of the airport; that airspace extending upward from 1,200 feet