

MODIFICATION SPECIAL PERMITS—Continued

Application No.	Docket No.	Applicant	Regulation(s) affected	Nature of special permit thereof
12283-M	Interstate Battery of Alaska Anchorage, AK.	49 CFR 173.159(c)(1); 173.159(c).	Permit to authorize the removal of the wording for disposal or remanufacture allowing batteries to be shipped to remote villages.
12296-M	Clean Earth Systems, Inc. Tampa, FL.	49 CFR 173.12(b)(2)(i)	To modify the special permit to authorize an additional mode of transportation.
13306-M	Ecolab, Inc. St. Paul, MN	49 CFR 172.3 12(a); 173.24a(a)(1); 173.22a.	To renew and modify the special permit to authorize a new specially-designed combination packaging consisting of two plastic inner receptacles having a side closure not oriented in the upward direction for use in transporting Organic peroxide, Division 5.2.
13736-M	ConocoPhillips Anchorage, AK.	49 CFR 172.101 Table, Col. (9B).	To modify the special permit to authorize an increase in the capacity from 350 to 4500 U.S. gallons for bulk containers.
14576-M	Structural Composites Industries (SCI) Pomona, CA.	49 CFR 173.302a and 173.304a.	To modify the special permit to authorize an increase in the maximum water volume from 250 liters to 450 liters and to remove the specific requirements for minimum water volume of 250 liters.
13736-M	ConocoPhillips Anchorage, AK.	49 CFR 172.101 Table, Col. (9B).	To modify the special permit to authorize an
14736-M	U.S. Department of Defense Scott Air Force Base, IL.	49 CFR 172.101 Table Column (9B) and (10A) and § 173.227.	To reissue the special permit originally issued on an emergency basis to authorize transportation in commerce of Nitric acid, red fuming in alternative packaging.
14811-M	Worthington Cylinders of Canada Corp. Tilbury, Ontario, Canada.	49 CFR 173.30 1(a)(1), 173.301(a)(2) and 173.302a(a)(1).	To reissue the special permit originally issued on an emergency basis to authorize the manufacture, marking, sale and use of a non-DOT specification cylinder conforming with DOT Specification 3AA except an alternative flattening test is authorized.
14821-M	Matheson Tri-Gas, Inc. Basking Ridge, NJ.	49 CFR 173.40(e)	To reissue the special permit originally issued on an emergency basis to authorize transportation in commerce of certain manifolded DOT specification 3A and 3AA cylinders containing a material toxic by inhalation in Hazard Zone B.

[FR Doc. E9-16514 Filed 7-14-09; 8:45 am]

BILLING CODE 4909-60-M**DEPARTMENT OF TRANSPORTATION****Federal Aviation Administration****Aviation Rulemaking Advisory Committee—New Task****AGENCY:** Federal Aviation Administration (FAA), DOT.**ACTION:** Notice of new task assignment for the Aviation Rulemaking Advisory Committee (ARAC).

SUMMARY: The FAA assigned the Aviation Rulemaking Advisory Committee (ARAC) a new task to develop maintenance requirements for aircraft used in commercial air tour operations. This is in response to National Transportation Safety Board (NTSB) recommendations. This notice is to inform the public of the new ARAC activity and solicit membership to a new Commercial Air Tour Maintenance (CATM) Working Group to support ARAC on this new task.

FOR FURTHER INFORMATION CONTACT:
Frank Wiederman, Air Carrier

Maintenance Branch, AFS-330, Federal Aviation Administration, 950 L'Enfant Plaza, SW., 5th Floor, Washington, DC 20024; telephone (202) 385-6443, facsimile (202) 385-6474; e-mail frank.wiederman@faa.gov.

SUPPLEMENTARY INFORMATION:**Background**

The FAA established ARAC to provide advice and recommendations to the FAA Administrator on the FAA's rulemaking activities with respect to aviation-related issues. This includes obtaining advice and recommendations on 14 CFR part 136—Commercial Air Tours and National Parks Air Tour Management.

In March 2007, a helicopter, operating under part 135 as an air tour flight, crashed while trying to land in Hawaii. Due to this crash, NTSB, on June 12, 2008, issued two safety recommendations to the FAA that identify the need for a maintenance quality assurance system and maintenance training for commercial air tour operations. The two safety recommendations are as follows:

1. A-08-32: Require that all air tour operators (14 CFR parts 91 and 135) establish and maintain a system for continuously analyzing the performance and effectiveness of their inspection and maintenance program to ensure that all maintenance is performed with the utmost regard for quality and safety.

2. A-08-33: Require air tour operators to provide formal, model specific helicopter maintenance training for their mechanics to ensure an adequate level of competency.

FAA's review of NTSB's safety recommendations further identifies the need for a required inspection program for all commercial air tour operations.

Current FAA regulations require that air carriers operating under parts 121 and 135 (with aircraft type certificated for a passenger seating configuration, excluding any pilot seat, of ten seats or more) for the purpose of conducting air tours are required to have a maintenance quality assurance system, a maintenance training program and a required inspection program. However, similar requirements do not exist for aircraft operated under parts 91 and 135 (with aircraft type certificated for a passenger seating configuration,

excluding any pilot seat, of 9 or fewer seats). This task is intended to address these differences.

The objective of the Commercial Air Tour Maintenance (CATM) Working Group is to recommend a maintenance quality assurance system, a maintenance training program and a required inspection program for operators and air carriers that conduct air tours and operate under parts 91 and 135 (with aircraft type certificated for a passenger seating configuration, excluding any pilot seat, of 9 or fewer seats).

The Task

ARAC is tasked to develop recommendations for a maintenance quality assurance system, a maintenance training program and a required inspection program for operators and air carriers that conduct air tours and who operate under parts 91 and 135 (aircraft type certificated for a passenger seating configuration, excluding any pilot seat, of 9 or fewer seats).

ARAC will be supported by the CATM Working Group who will:

1. Review NTSB's June 12, 2008 letter to the FAA to understand the facts and analysis of the accident findings that lead to issuing safety recommendations A-08-32 and A-08-33. The letter is found at http://www.ntsb.gov/recs/letters/2008/A08_32_35.pdf. (Note: Included in NTSB's letter are safety recommendations A-08-34 and A-08-35. These are not part of this ARAC tasking.)

2. Review Advisory Circulars (AC) 120-79 and 120-16E for available guidance on developing and implementing a maintenance quality assurance system, maintenance training program and required inspection program. A copy of these ACs are at: [http://www.airweb.faa.gov/Regulatory_and_Guidance_Library/rgAdvisoryCircular.nsf/0/c83d3e4ceb74e1df86256d1600587657/\\$FILE/AC120-79.pdf](http://www.airweb.faa.gov/Regulatory_and_Guidance_Library/rgAdvisoryCircular.nsf/0/c83d3e4ceb74e1df86256d1600587657/$FILE/AC120-79.pdf) and [http://www.airweb.faa.gov/Regulatory_and_Guidance_Library/rgAdvisoryCircular.nsf/0/d505ffc06aecc27e862574c6005480a2/\\$FILE/AC%20120-16E.pdf](http://www.airweb.faa.gov/Regulatory_and_Guidance_Library/rgAdvisoryCircular.nsf/0/d505ffc06aecc27e862574c6005480a2/$FILE/AC%20120-16E.pdf).

3. Develop a report containing recommendations for rulemaking and explain the reason and safety benefits for each recommendation and will present the findings at the next ARAC Executive Committee meeting.

If a Notice of Proposed Rulemaking (NPRM) is published for public comment as a result of the recommendations from this tasking, the FAA may ask ARAC to review the comments received and provide a recommended response to them.

Schedule: The tasks must be completed no later than 12 months after the first working group meeting.

ARAC Acceptance of Task

ARAC accepted the task and assigned the task to the CATM Working Group. The working group serves as staff to ARAC and assists in the analysis of assigned tasks. ARAC must review and approve the working group's recommendations. If ARAC accepts the working group's recommendations, it will send them to the FAA. The FAA will submit the recommendations it receives to the agency's Rulemaking Management Council to address the availability of resources and prioritization.

Working Group Activity

The Commercial Air Tour Maintenance (CATM) Working Group must comply with the procedures adopted by ARAC. As part of the procedures, the working group must:

1. Recommend a work plan for completion of the task, including the rationale supporting such a plan for consideration at the next ARAC Executive Committee meeting held following publication of this notice.
2. Give a detailed conceptual presentation of the proposed recommendations prior to proceeding with the work stated in item 3 below.
3. Draft the appropriate documents and required analyses and/or any other related materials or documents.
4. Provide a status report at each meeting of the ARAC Executive Committee.

Participation in the Working Group

The CATM Working Group will be composed of technical experts having an interest in the assigned task. A working group member need not be a representative or a member of the full committee.

If you have expertise in the subject matter and wish to become a member of the working group, write to the person listed under the caption **FOR FURTHER INFORMATION CONTACT** expressing that desire. Describe your interest in the task and state the expertise you would bring to the working group. We must receive all requests by September 14, 2009. The Executive Committee and the FAA will review the requests and advise you whether or not your request is approved.

If you are chosen for membership on the working group, you must represent your aviation community segment and actively participate in the working group by attending all meetings, and providing written comments when

requested to do so. You must devote the resources necessary to support the working group in meeting any assigned deadlines. You must keep your management chain and those you may represent advised of working group activities and decisions to ensure the proposed technical solutions don't conflict with your sponsoring organization's position when the subject is presented to ARAC for approval. Once the working group has begun deliberations, members will not be added or substituted without the approval of the FAA and the working group chair.

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

Meetings of ARAC are open to the public. Meetings of the CATM Working Group will not be open to the public, except to the extent individuals with an interest and expertise are selected to participate. The FAA will make no public announcement of working group meetings.

Issued in Washington, DC, on July 10, 2009.

Pamela Hamilton-Powell,
Executive Director, Aviation Rulemaking Advisory Committee.

[FR Doc. E9-16788 Filed 7-14-09; 8:45 am]
BILLING CODE 4910-13-P

DEPARTMENT OF TRANSPORTATION

Surface Transportation Board

[STB Finance Docket No. 35218]

Meridian Southern Railway, LLC—Construction of Connecting Track Exemption—in Lauderdale County, MS

Meridian Southern Railway, LLC (MDS) has filed a verified notice of exemption under 49 CFR 1150.36 to construct approximately 1,910 feet of track in Lauderdale County, MS. The track to be constructed will extend from the existing MDS track near Interchange Road to a yard track (designated Number 4 track) in the existing Norfolk Southern Railway Company (NS) rail yard near NS milepost 3.2 in Meridian, MS. The track to be constructed will connect MDS to the NS main line, whereas MDS currently connects only to the Kansas City Southern Railway Company main line. The connection will be constructed within existing rail rights-of-way (owned either by MDS or NS) and within an acquired railroad easement.



November 10, 2010

Attention: Norman Joseph, EXCOM chair
Subject: Commercial Air Tour Maintenance (CATM) Recommendation Report.

Dear Mr. Joseph,

On behalf of the chairman, Harold Summers, and the entire Commercial Air Tour Maintenance (CATM) working group, I am formally submitting the recommendation report. The CATM working group was tasked to address two NTSB recommendations and one FAA recommendation requesting an increase in safety as a result of a 2007 helicopter crash in Hawaii.

Our working group first met in November 2009 and we have been working on addressing the recommendations since that time. Each and every member of our group has embraced this responsibility with the highest level of concern for aviation safety and commercial air tour operator viability. We explored all options to address the rulemaking recommendation, but believe our recommendation of advisory circulars is more appropriate, given what we uncovered throughout the duration of the working group.

I look forward to providing a short presentation to EXCOM about our findings and recommendations on December 16th, 2010. I hope to be able to answer any questions you have at that time.

Best Regards,

Daniel E. Woods



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FAA AVIATION RULEMAKING ADVISORY COMMITTEE (ARAC)

COMMERCIAL AIR TOURS MAINTENANCE (CATM) WORKING GROUP

Recommendation Report

November 2010

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Working Group and Interviewees

Working group Members

- Harold Summers, Director of Flight Operations and Technical Services, Helicopter Association International (HAI) – Co-Chairman
- Daniel Woods, Manager of Marketing and Business Development, Turbomeca USA. – Co-Chairman
- Dean Brandt, Papillon Airways, Inc. – Part 135 commercial air tour operator
- Mike Slattery, Papillon Airways, Inc. – Part 135 commercial air tour operator
- Clem Carfaro, Key Air Helicopters – Part 91 commercial air tour operator
- Crystal Maguire, Aeronautical Repair Station Association (ARSA) Note: (Attended first meeting only)

Federal Aviation Administration (FAA) Representatives

- Frank Wiederman, FAA, AFS-330 (Office of Primary Responsibility)
- Katherine Haley, FAA, ARM-200 (Transportation Industry Analyst)
- Jennifer Ciaccio, FAA, AFS-310 (Division Project Management)
- Brenda Courtney, FAA ARM-200 (Rulemaking Manager)

CATM Working group meetings, teleconferences, and web conferences

- November 17-18, 2009 Meeting – Washington, DC
- January 27, 2010 Teleconference
- February 18-20, 2010 Meeting – Houston, TX
- March 16, 2010 Teleconference
- April 21-22, 2010 Meeting – Las Vegas, NV
- May 5, 2010 Web conference
- May 11, 2010 Web conference
- May 18, 2010 Web conference
- May 25, 2010 Web conference

Research

Research Information

- National Transportation Safety Board (NTSB) Safety Recommendation Letter to FAA dated June 12, 2008
- Advisory Circular 120-79, *Developing and Implementing A Continuing Analysis and Surveillance System*
- Advisory Circular 120-16E, *Air Carrier Maintenance Programs*
- Advisory Circular 00-56A, *Voluntary Industry Distributor Accreditation Program*
- *FAA National Air Tour Safety Standards Final Rule*, 68 Federal Register 60571 (October 22, 2003)
- NTSB Aviation Accident Statistics – NTSB Website
- FAA Order 8900.1, Chapter 11, *Flight Standards Geographic Program*
- Air Tour Accident Overview presentation by Robert Matthews at HELI EXPO, Houston, Texas
- Helicopter Tour Operators Committee (HTOC) meeting at HELI EXPO, Houston, Texas
- Tour Operators Program Safety (TOPS) quarterly meeting at HELI EXPO, Houston, Texas
- Examination of servo assembly – During the April meeting at Papillion, the team examined the same part number servo that was installed on the accident helicopter. This gave the team a better understanding of the servo's installation, operations, and effects of a loose rod end on the pilot's control and the inspection of the servo assembly.

The following persons provided information to the CATM working group:

- Dr. William Johnson – FAA, Chief Scientist and Technical Advisor for Human Factors in Aircraft Maintenance Systems
- Mr. David Karalunas – FAA, Manager, Alaska Regional FAA Safety Team.

The following persons made presentations to the CATM working group:

- Mr. Robert Matthews – FAA Senior Aviation Safety Analyst, Aviation Safety Information Analysis and Sharing Division
- Mr. Ron Price – NTSB, Aerospace Engineer (Rotorcraft), Office of Aviation Safety

The CATM working group interviewed the followings persons:

- Mr. Daniel J. Teske – FAA, Aviation Safety Inspector, Las Vegas Flight Standards District Office (FSDO).
- Mr. Ron Williams – FAA, Aviation Safety Inspector, Las Vegas FSDO. Ron Williams is the principle maintenance inspector (PMI) referred to in the NTSB letter, who expressed the difficulty of having the certificate in one location and the actual operations in a separate location.

Executive Summary

On July 15, 2009, the Federal Aviation Administration (FAA) tasked Aviation Rulemaking Advisory Committee (ARAC) to provide advice and recommendations to address both the National Transportation Safety Board (NTSB) and the FAA recommendations on air tour accidents.

Specifically, the FAA tasked ARAC to address the following:

- NTSB Recommendation A-08-32: Require all air tour operators (parts 91 and 135) to establish and maintain a system for continuously analyzing the performance and effectiveness of their inspection and maintenance program to ensure that all maintenance is performed with the utmost regard for quality and safety
- NTSB Recommendation A-08-33: Require air tour operators to provide formal, model-specific helicopter maintenance training for their mechanics to ensure an adequate level of competency
- FAA Recommendation: Require air tour operators to have a required inspection program

On November 17, 2009, the Commercial Air Tour Maintenance (CATM) working group met to begin the tasking. The CATM working group, being extremely conscious of the long-term effects and responsibility of the task, compiled, reviewed and analyzed the data used as a basis for the NTSB and the FAA recommendations on the proposed rulemaking as outlined above. This report presents the CATM working group's findings and recommendations to the Executive Committee.

The CATM working group recommends the FAA publish the following two advisory circulars (AC) as an alternative to rulemaking:

- AC on air tour best practices
- AC on air tour voluntary accreditation

Background

On March 8, 2007, an Aerospatiale (Eurocopter) model AS350BA helicopter, operated by Heli-USA Airways, Inc. crashed into terrain following a loss of control while landing at Princeville Airport, Princeville, Hawaii. The pilot and three passengers were killed, three passengers were seriously injured, and the helicopter was substantially damaged. Heli-USA conducted the flight under the provisions of Title 14, of the Code of Federal Regulations (14 CFR) part 135 as a commercial air tour flight.

At the accident site, the NTSB found the lower rod end (reference “bolt” in figure 1) on the flight control servo separated (backed out) from the servo piston. There was no evidence of thread damage to the rod end or piston. However, the NTSB found a loose rod end nut and a severely worn locking washer still attached to the separated rod end.

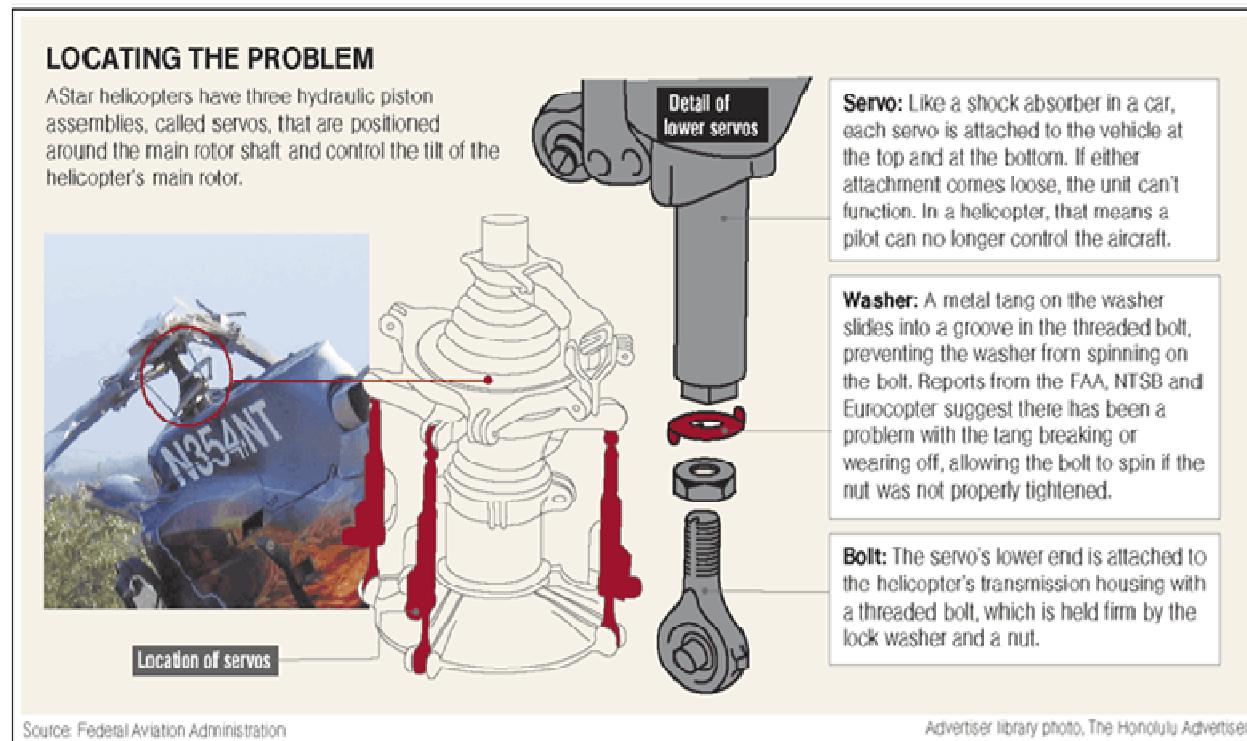


Figure 1

During the follow-up investigation, the NTSB found the following:

- Heli-USA installed the servo on the helicopter 131 hours before the accident flight.
- The mechanic that installed the servo did not tighten the rod end nut to the proper (manufacturer's) torque value.
- There was no maintenance record for the additional inspection required by Heli-USA's manual for servo installations.
- The mechanic that installed the servo had not been to formal model AS-350 helicopter maintenance training required by Heli-USA's manual

- The helicopter had undergone several extensive and detailed inspections after the mechanic installed the servo without detecting the unsecured rod end.

The NTSB concluded that because Heli-USA did not have an effective quality assurance program, it did not detect maintenance errors, which led to the accident. They also concluded that formal, model-specific maintenance training is a valuable tool and is crucial to the conduct of proper maintenance actions.

The NTSB reviewed other air tour helicopter accidents involving mechanical failures or malfunctions in which correctly performed maintenance, inspections or procedures could have prevented the accidents and found similar issues with inadequate quality assurance programs and lack of model-specific maintenance training.

The NTSB issued the following two recommendations to the FAA:

- NTSB Recommendation A-08-32: Require all air tour operators (parts 91 and 135) to establish and maintain a system for continuously analyzing the performance and effectiveness of their inspection and maintenance program to ensure that all maintenance is performed with the utmost regard for quality and safety.
- NTSB Recommendation A-08-33: Require air tour operators to provide formal, model-specific helicopter maintenance training for their mechanics to ensure an adequate level of competency.

Following the review of the safety recommendations, the FAA added an additional recommendation:

- Require all air tour operators to establish a required inspection program for an additional inspection (second set of eyes) of certain items of maintenance which if performed improperly or if improper parts or materials are used could affect the safe operation of the aircraft.

Regulatory Review

The CATM working group noted apparent inconsistencies with terms, definitions and regulations applicable to air tours.

Part 136 contains requirements, in addition to the operating rules in parts 91, 135 and 121, for commercial air tour operators and operations. Part 136 defines a commercial air tour as a flight conducted for compensation or hire in an airplane or helicopter where the purpose of the flight is sightseeing. It also defines commercial air tour operator as any person who conducts a commercial air tour.

Section 136.1(d)(1-8) prescribes, the FAA may consider the following factors in determining whether a flight is a commercial air tour for purposes of this subpart:

- (1) Whether there was a holding out to the public of willingness to conduct a sightseeing flight for compensation or hire;
- (2) Whether the person offering the flight provided a narrative that referred to areas or points of interest on the surface below the route of the flight;

-
- (3) The area of operation;
 - (4) How often the person offering the flight conducts such flights;
 - (5) The route of the flight;
 - (6) The inclusion of sightseeing flights as part of any travel arrangement package;
 - (7) Whether the flight in question would have been canceled based on poor visibility of the surface below the route of the flight; and
 - (8) Any other factors that the FAA considers appropriate.

The CATM working group believes these additional factors makes compliance with part 136 questionable especially to persons who perform, or want to perform, an occasional air tour flight. The CATM working group could not find any FAA directive that explains how it applies these additional factors for determining part 136 compliance.

Adding to the confusion and the potential for non-compliance is another definition of commercial air tour in part 93, Special Air Traffic Rules. Section 93.303, which applies to persons operating aircraft in the Grand Canyon National Park Special Flight Rules Area, defines commercial air tour as follows:

Section 93.303 states that, commercial air tour means any flight conducted for compensation or hire in a powered aircraft where a purpose of the flight is sightseeing. If the operator of a flight asserts that the flight is not a commercial air tour, factors that can be considered by the Administrator in making a determination of whether the flight is a commercial air tour include, but are not limited to:

- (1) Whether there was a holding out to the public of willingness to conduct a sightseeing flight for compensation or hire;
- (2) Whether a narrative was provided that referred to areas or points of interest on the surface;
- (3) The area of operation;
- (4) The frequency of flights;
- (5) The route of flight;
- (6) The inclusion of sightseeing flights as part of any travel arrangement package; or
- (7) Whether the flight in question would or would not have been canceled based on poor visibility of the surface.

The definition in part 93 is slightly different to the definition of commercial air tour in part 136.

The CATM working group believes that industry and the FAA inconsistently use the words “sightseeing” and “commercial air tours” to differentiate between part 91 and 135 flights respectively. Per the definition in part 136, they are all commercial air tours. During an FAA presentation on air tour accident data the presenter (Mr. Matthews) referred to two groups of operators - part 91 “sightseeing” and part 135 “commercial air tours”. The CATM working group could not find an FAA directive that explains the different uses of these words in the regulations.

The CATM working group found two significantly different FAA safety standards for governing commercial air tours and commercial air tour operators. The first standard applies to persons certificated as air carriers under part 119. These air carriers perform commercial air tours under the authority of their certificate. They operate at the highest level of safety under parts 121 and 135. They receive the highest level of FAA oversight. However, because the FAA has no means of identifying part 121 and 135 air carriers that perform commercial air tours, their numbers are unknown.

Note: The FAA is able to determine the number of part 121 and part 135 air carriers that perform air tours in Hawaii and the Grand Canyon because they are issued operations specifications for these locations. However, the FAA does not issue specific operations specification for other locations.

The second standard applies to persons who perform commercial air tours under part 91. Section 91.407 allows a person to perform a commercial air tour if the flight is in an airplane or helicopter, begins and ends at the same airport, and is conducted within a 25-statute mile radius of that airport. This group performs commercial air tours under the authority of a letter of authorization (LOA) issued by the local Flight Standards District Office (FSDO). They are not required by statute to meet a high level of safety because they are not certificated, they operate under a less restrictive operating rule (part 91), and they receive the least amount of FAA surveillance. The FAA is able to determine the number of part 91 commercial air tour operators because the FAA tracks the LOA's in an FAA database. Based on the available information, this group represents the largest number of operators who perform commercial air tours.

Similar to § 91.407, commercial air tour operators are persons performing commercial air tour under § 91.406. Section 91.406 provides for commercial air tour operations in connection with charitable and non-profit events. These commercial air tour operations have limitations similar to those in § 91.407 operations. However, unlike the tracking of § 91.407 LOAs, the FAA does not track these authorizations and therefore, only the local FSDO's know the numbers.

Current FAA regulations require all part 119 air carriers operating under parts 121 and 135 (with aircraft type certificated for a passenger seating configuration, excluding any pilot seat, of 10 seats or more) to have the additional maintenance requirements recommended by the NTSB and the FAA. They must have a maintenance quality assurance system, which is called a continuing analysis and surveillance system (CASS). Other requirements are having a maintenance-training program and an inspection program. However, these maintenance requirements are not required for aircraft operated under parts 91 and 135 (with aircraft type certificated for a passenger-seating configuration, excluding any pilot seat, of 9 or fewer seats). Therefore, the recommendations will only affect persons performing commercial air tours under part 91 and 135 with aircraft that have 9 or fewer passenger seats.

The CATM working group believes there is a connection between the commercial air tour business model and the applicable operating rule. Normally, operators performing commercial air tours as a primary business operate under parts 121 and /or 135. Operators performing commercial air tours on

demand have the ability to operate under part 91. Additionally, commercial air tour operators generally conduct air tour operations on a seasonal basis. Because of these factors, commercial air tour operators often use their aircraft for purposes other than performing air tours. Finally, air tour operators with multiple aircraft might not use the same aircraft to perform an air tour all the time. The CATM working group notes the proposed NTSB and the FAA regulatory maintenance requirements cannot be started and stopped each time an aircraft goes from commercial air tour operations to other operations. Therefore, the CATM working group believes the proposed additional maintenance requirements identified for commercial air tour operations are unjustified when considered with these factors.

Insufficient Data

One of the biggest challenges the CATM working group faced is obtaining complete and accurate data on commercial air tours. Since operators who perform commercial air tours are not required to report hours flown, statistical data on accident rates are not available – only estimates. During one of the meetings, Mr. Matthews, from the FAA, informed the CATM working group about a survey it conducts that includes data on commercial air tours.

(Ref. http://www.faa.gov/data_research/aviation_data_statistics/general_aviation/) After reviewing it, the CATM working group found problems with the data:

- The survey is voluntary.
- The accuracy of data is questionable.
- The survey includes only general aviation and part 135 on-demand operators, and does not include part 135 commuter operators.
- The data is not current. The latest survey is from 2008.

Additionally, the NTSB does not publish statistical data specific to commercial air tour accidents. As indicated at the bottom of the chart on the NTSB website, <http://www.ntsb.gov/aviation/Table9.htm>, the NTSB includes air tour data in part 135 on-demand operations.

Conflicting NTSB Recommendations

In trying to determine and target regulatory applicability, the CATM working group questioned the rationale behind the NTSB's recommendations. Specifically, the NTSB's first recommendation applies to all air tour operators whereas the second recommendation applies only to helicopter air tour operators. The CATM working group questioned the basis for targeting only helicopter operators for a higher level of training.

The first recommendation requires all air tour operators to implement a maintenance quality assurance system. The CATM working group notes that the NTSB's wording of the recommendation is similar to the part 121 and 135 regulations for a CASS. Air carriers use a CASS to find and correct maintenance program deficiencies. The NTSB representative stated that it intentionally did not specify a CASS because it envisioned something similar to but not the same as a CASS. The CATM working group concluded the FAA would have to develop another program or system to comply with the NTSB's recommendation.

The second recommendation requires air tour operators to provide formal, model-specific helicopter training. Whereas the first recommendation references air tour operators as an industry, the second recommendation addresses only helicopter air tour operators. The NTSB investigator explained the focus of model specific training should be on helicopters due to the higher level of mechanical complexity. Another issue within this recommendation is the NTSB specifies the training should provide “an adequate level of competency,” but did not provide additional guidance as to what constitutes as “adequate.” Also, there was no explanation of what formal training means. Mr. Price, the NTSB investigator, clarified that formal training could include on-the-job training, manufacturer provided maintenance training courses, in-house training, and having an experienced mechanic, inspection authorization (IA) or director of maintenance instruct and document the performance of maintenance tasks.

The CATM working group requested from the NTSB supporting data in reference to the accident information from its statement that “25 (35%) of the air tour helicopter accidents involved mechanical failures or malfunctions which correctly performed maintenance inspections or procedures could have prevented the accident.” The NTSB did not provide the requested data.

Finally, the CATM working group identified a significant number of larger part 135 commercial air tour operators who voluntarily use formal factory maintenance training programs (when available), as well as informal factory provided training through the use of technical field representatives. This finding appears to conflict with the NTSB report.

Human Factors

There was no reference to human factors in the NTSB’s accident report and safety recommendation letter. The CATM working group’s FAA representative contacted Dr. William Johnson, FAA Chief Scientist and Technical Advisor for Human Factors in Aircraft Maintenance Systems and asked if there is a probability of human factors contributing to the accident. Dr. Johnson responded there is an 80% chance that human factors did contribute to the accident and that with helicopter air tours the percentage could be higher. Dr. Johnson indicated to the CATM working group they must have all the data, including human factors, to make an enlightened recommendation for this tasking.

Based on Dr. Johnson’s response, the CATM working group asked the NTSB investigator to comment on why there was no reference to human factors in the accident report or the safety recommendation letter to the FAA. The investigator responded the accident was a human factor nightmare. He did not expound on his statement but informed the group that Heli-USA had asked the mechanic to stay at work past his shift to install the servo. The mechanic agreed and installed the servo himself. The CATM working group believes this information is strong evidence that human factors played a role in this accident.

FAA Office of Accident Investigation (AAI) statistics

Mr. Robert Matthews, the FAA Senior Aviation Safety Analyst, discussed the FAA’s annual voluntary General Aviation and Air Taxi Activity Survey. The survey has been collecting data since 2004. He said the number of air tour operators, accidents, and incidents reported in the survey are based on estimates regarding primary use of aircraft. It is important to note, the data on primary use are only as good as what the operators voluntarily report.

The data captured by Mr. Matthews does not differentiate between mechanical failures that could not have been caught in advance and other failures on the part of mechanics or failures due to other maintenance related processes such as maintenance standards operating processes, manuals, service bulletins, or human factors.

According to Mr. Matthews, “part 135 air tour fleet cannot be precisely identified because any part 135 certificate holder can offer air tours or any other for-hire service. Many air tour operators offer multiple services.” Additionally, the FAA does not require a part 135 operator to report air tour operation activities. Therefore, the CATM working group is unable to identify the number of part 135 operators who perform air tours.

Part 91 includes nomadic operators who work special events, plus local pilots who participate in fundraisers. Those operators are limited to three events per year and must get approval from the local FSDO. However, unlike the part 91 operators who are authorized to perform air tour under § 91.407 with an LOA (D049) and are listed in the FAA database under a unique identifier, the data for part 91 air tour operators operating under § 91.406 (charitable events) are scattered among 90 FSDOs and “sightseeing” would be a minor activity for the aircraft involved.

It is very difficult to get complete set of data on the number of air tour operations, the number of hours flown and accident rates. Flight tour operators consider number of hours flown as confidential information and releasing it to the public would allow competitors to underbid each other. As a result, there is no data on accident rates for air tour operations based on number of hours flown.

Lack of statistics on FAA inspector surveillance and oversight activities for air tour operators

The FAA could not provide the CATM working group with the requested data and information of operators performing air tours and air tour operations because of inadequacies in the FAA systems and databases used to track and report information. The FAA’s computer-based application called Safety Performance Analysis System, which is used to evaluate both current and historical safety related aviation data, with few exceptions, is unable to produce information and reports specifically on operators performing air tours and air tour operations.

Another FAA application called Program Tracking and Recording System used to record and report inspector (field) activities including surveillance also is not designed to collect and report activity specific to operators performing air tours and air tour operations.

Finally, the FAA’s application that captures vital information about operators and their operations does not contain the necessary components to capture operators performing air tours.

The FAA representative told the working group that he has informed the FAA personnel responsible for these systems about the lack of statistical information and that some changes are being made that will provide for the capture and reporting on some air tour activities.

Increase in FAA Surveillance

The CATM working group believes that adequate FAA surveillance of commercial air tour operators and operations is an important aspect of quality assurance. The CATM working group strongly supports

the NTSB recommendation A-08-34 and believes that a requirement to increase the FAA inspections of commercial air tour operations would ensure a higher quality service and increase safety.

The FAA provided information on the National Flight Standards Work Program Guidelines (NPG) which details the required inspections (R items) that the FAA must accomplish during the year. To date, these work programs do not include any requirements (R items) to inspect part 91 operations. As told to the working group, the 2011 NPG will include requirements for surveillance of part 91 operators.

During the April working group meeting, the principal inspector acknowledged the need for increased surveillance of air tour operators. Inspectors must prioritize their work and focus on operations with the highest risk factors. This inspector was of the opinion the highest risk factor in the air tour industry is in operations, not maintenance

Remote operations (where the operator holds an operating certificate in one region but operates in a different one) provide another challenge for the FAA inspectors in surveillance of the air tour industry. Current budget levels do not often allow the Principal Maintenance Inspector (PMI) to travel to the remote locations to perform inspections. The PMI is then tasked with requesting help from the local FSDO. Local inspectors often lack specific knowledge about the remote air tour operator's: manuals, procedures, process, aircraft and corporate culture to provide comprehensive conclusions.

The FAA inspectors repeatedly indicated the FAA does not have the resources, including time, budget, and inspectors, necessary to provide adequate oversight to the air tour industry.

In the working group's opinion the recommended AC to enhance the FAA oversight would provide a positive influence on air tour operators with poor corporate safety culture. Regarding the Heli-USA accident, the group concluded the rules and procedures already in place were not followed and additional regulations would not have prevented the accident. Proactive and preventative FAA oversight focused on ensuring the operator followed the processes already in place at its organization would have provided the best opportunity to break the accident chain.

On-Going Industry Efforts

The working group discussed the current efforts that are used to strengthen aviation safety in the air tour industry. For example, HAI is in partnership with International Helicopter Safety Team to develop and produce Safety Management System (SMS) programs. Another example is operators can join the Tour Operators Program Safety (TOPS) that requires higher levels of operational oversight, personnel training, and experience minimums and equipment standards for its members. Both HAI and TOPS require its members to conduct maintenance to higher standards than what the federal regulations require.

In February, the CATM working group attended the HeliEXPO in Houston, TX and went to two meetings; the HTOC meeting and the TOPS meeting. At the HTOC meeting, the working group learned that HAI is in the process of developing an audit process similar to what TOPS already has for air tour operations. During the TOPS meeting, the working group learned about the current efforts to market the TOPS accreditation program.

Currently, TOPS partners with the FAA and require its members to recognize maintenance safety through the FAA Maintenance Technician Awards Program and industry safety award programs.

Another requirement is to share maintenance information with other operators through the Maintenance Malfunction Information Reporting process.

Learning about the different industry groups and current practices proves to the working group there are many air tour operators that go above and beyond what is required under the current regulations. As a result, the working group recommends (in the AC) that the FAA partner with industry groups such as HAI and TOPS to create a voluntary accreditation program that would increase safety in this industry.

Issues with Rulemaking

Rulemaking directed specifically toward air tour operations would appear arbitrary to the aviation community as a whole. Rulemaking applicable to both types of operations would require all part 91 operators to meet and in fact exceed the current part 135 (9 or less) requirements.

Based on the findings, the working group believes it is unjustifiable to impose the NTSB's and the FAA's proposed additional maintenance requirements resulting from air tour accidents on all operators performing air tours regardless of the size, primary business model, part under which they operate or type of aircraft used in their operation.

Specifically, the NTSB did not make a strong case in supporting its own recommendations. Given there are multiple facts and figures presented in the NTSB's recommendation that cannot be quantified, the working group concludes it would be difficult to perform a rulemaking analysis or justify such a rulemaking that would affect all operators.

The working group also discussed whether rulemaking would prevent accidents such as Heli-USA. The conclusion is there are enough rules in place that are not currently enforced. This was further proven by the FAA aviation safety inspectors from the Las Vegas FSDO. Both inspectors discussed the lack of time to perform the required inspections. This in turn led the group to believe the FAA would not be able to adequately certificate, inspect, and enforce regulations intended for air tour on multi-use aircraft on operators who perform air tours.

Similarly, a rule requiring a maintenance quality assurance system for operators performing infrequent air tours simply because the aircraft is used in air tour operations implies air tourists should be provided with a higher level of maintenance safety than passengers under other part 135 (9 or less) operations.

Based on the reasons discussed, the CATM working group firmly believes rulemaking is not the solution to the tasking.

Economic Impact

The CATM working group voiced concern over the economic impact formal rulemaking would have on the air tour industry, specifically on the smaller part 91 operators. In considering whether to recommend formal rulemaking, the working group noted that a Regulatory Flexibility Analysis¹ would likely reveal other reasonable regulatory alternatives that would minimize economic burdens for affected small entities. Additionally, the economic impact on operators who perform a limited number of tours per year (regardless of other 91 and/or 135 activity) would be difficult to quantify. Two different sets of regulatory standards based on the mission profile would also be difficult to fiscally quantify. After

¹ 5 U.S.C. Chapter 6

much discussion and deliberation, the working group concludes the two AC's would minimize the economic burden on small businesses while still achieving the objectives of the rule.

Response to Specific NTSB and FAA Recommendations

Quality Assurance

The CATM working group reviewed several possible quality assurance and/or SMS requirements and came to the conclusion these programs can be implemented effectively at any level. The main issue in instituting a rule requiring the use of these types of systems centers around the applicability and effectiveness of the systems on a non-voluntary basis unless the rule provides the minimum requirements for the system.

It would be limiting, with the understanding each operation has different constraints, challenges, and opportunities, to have minimum requirements of a quality assurance or SMS program that would be viable to each operation.

Training

The NTSB letter recommended "Requir[ing] air tour operators to provide formal, model specific helicopter maintenance training for their mechanics." Training can be classified as in-house, on-the-job training, human factors, etc. The working group agrees the definition of training should not be restricted to "model specific" training.

Although the NTSB asks for "formal" training that provides an "adequate level of competency," it does not define what it considers to be formal and adequate. The NTSB representative explained the NTSB would consider formal training to include on-the-job training, instruction manual, in-house and other training, or having an IA or director of maintenance show the mechanic how to perform checks. The NTSB representative clarified if on-the-job training is signed off on in one day, it will not be considered as adequate.

The CATM working group identified that maintenance quality assurance systems and training requirements are already in place for many air tour operators. To propose a rule to require air tour maintenance personnel to complete "formal, model-specific training" prior to performing maintenance appears redundant in lieu of § 65.81(a), which states a certificated mechanic "may not supervise the maintenance, preventative maintenance, or alteration of, or approve and return to service, any aircraft or appliance, or part thereof, for which he is rated unless he has satisfactorily performed the work concerned at an earlier date."

Most maintenance errors are a result from mechanics not following the rules and not from a lack of training on the specific model. The data analyzed by the working group does not prove that a lack of factory model-specific training is the root cause of accidents.

The working group identified a large number of aircraft performing "air tour" operations for which factory authorized maintenance training is not available due to the age and model of the aircraft. It is important that model specific training be open to interpretation by the oversight agencies because specifying would hinder some operators and its aircraft.

The NTSB did not address potential human factor trainings as a factor or viable option to model specific maintenance training. The NTSB also did not include human factors training in its accident statistics.

The working group recommends that human factors training be incorporated into the training programs discussed in the recommended ACs.

Required Inspection Items (RII)

The CATM working group recognizes the benefits of a required inspection program and recommends that the FAA include required inspection information in the recommended ACs.

The CATM working group agrees that a required inspection program might be an effective solution; however, one size does not fit all. For one type of operator, (i.e. multiple personnel, single base) a second inspection by a certified mechanic may be quite positive yet the same requirement would be overly restrictive for a single mechanic or in remote maintenance operations. Again, the working group recognizes the importance and positive effect of these programs; however, the effectiveness is proportional to the operator's corporate culture.

It is important to note an RII was included in Heli-USA's operations manual. It was a fact that Heli-USA's secondary maintenance inspection (required in the operations manual) failed to break the accident chain. Again, this demonstrates the difficulty of implementing rulemaking that would be effective and fit each individual operator's constraints.

Additional Considerations

The CATM working group notes the NTSB data appears to conflict with its safety recommendations. The NTSB's press release for 2009 aviation accident statistics, dated April 8, 2010, reported, "on-demand Part 135 operations had the lowest number of accidents and fatal accidents for that type of air operation in the last 2 decades." According to the press release, "On demand part 135 operations reported 47 accidents in 2009, a decrease from 58 in 2008. Fatalities also decreased from 69 in 2008 to 17 in 2009". On-demand part 135 data included commercial air tours, which appears to conflict with the NTSB's recommendation for additional rules for air tour operations.

In the Heli-USA accident, the operator's manuals included requirements for model specific maintenance training, RII, and a secondary inspection. These elements were all included in the NTSB and the FAA recommendations on new rulemaking yet these rules were already voluntary established between the operator and the FAA at the time the accident occurred. It is highly unlikely additional rules would have prevented the accident without a proactive surveillance and enforcement program on the FAA's part.

Conclusion

Given the lack of complete and reliable data on commercial air tours in order to consider rulemaking, as requested by the FAA in the ARAC tasking, the CATM working group recommends the FAA not seek rulemaking. Instead, the working group recommends alternatives to rulemaking, such as the two recommended advisory circulars.

As described in this report, the CATM working group believes there is strong evidence to support that human factors played a key role in the Heli USA accident in Princeville, Hawaii. Additionally, the NTSB would not respond to the CATM's numerous request for the reports to support their statement that 25 of the air tour helicopter accidents involved mechanical failures or malfunctions, and could have been prevented if correctly performed the maintenance inspections or procedures.

The FAA data on air tour operators, as a group, is severely lacking (and in some cases, non-existent) to justify proceeding with rulemaking. Specifically, the FAA could not show accurate numbers of part 135 commercial air tour operators or operations.

The CATM working group believes the air tour industry needs a comprehensive AC that includes "best practices" already being used by many professional commercial air tour operators. Additionally, the working group recommends a voluntary accreditation program for air tour operators to promote higher safety standards.

Therefore, in conjunction with increased FAA surveillance, the CATM working group recommends the FAA develop the following ACs—

1. The Air Tour Operator's "Best Practices" Manual. The AC would act as an informative tool for air tour operators to use as a guide when deciding to perform air tours. The "How To" would be directed to both maintenance and operations.
2. Voluntary Air Tour Industry Accreditation Program. This AC would create a program maintained by the HAI and endorsed by the FAA. The program should model the AC 00-56A, Voluntary Industry Distributor Accreditation Program. The elements of the program could derive from TOPS membership standards.

The AC's would not only address but would exceed the NTSB's recommendations for air tour operators to establish a quality assurance and training program, but on a voluntary basis.



January 3, 2011

Federal Aviation Administration
800 Independence Avenue, SW
Washington, D.C. 20591

Attention: Pam Hamilton, Director, Office of Rulemaking.

Subject: ARAC Recommendation, Commercial Air Tour
Maintenance (CATM)

Reference: ARAC Tasking, Federal Register (Volume 74, number 134,
July 15, 2009)

Dear Pam,

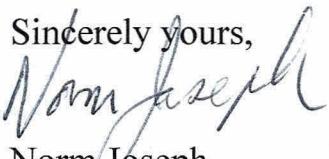
The ARAC Executive Committee and the Commercial Air Tour Working Group (CATM) are pleased to submit the attached report and presentations as an ARAC recommendation. This report addresses the referenced tasking in which ARAC was asked to develop maintenance requirements for aircraft used in commercial air tour operations. The ARAC Executive Committee has approved this report for transmittal as an ARAC recommendation to the FAA.

While there is consensus that the report fulfills the tasking, several related comments and issues surfaced as the report was discussed by the ARAC Executive Committee. The summary below is presented as information for FAA consideration:

- The definition of Air Tour Operator is confusing.
- Aircraft used in Air Tour operations are frequently also used in other operations, making a single standard difficult.

- Air Tours are operated under Part 91, Part 135, Part 136 and perhaps Part 121 causing confusion in the industry and making it impossible for the flying public to determine the conditions the tour is conducted under or the level of FAA oversight.
- No accurate data is collected by the FAA on Air Tour operations.
- Many operators offer tours at numerous and widespread locations making FAA surveillance, oversight and enforcement difficult.
- European regulations require type rating for maintenance providers.
- Air Tour operators may benefit from a Safety Management System (SMS) requirement.
- Requirements in authorizing Letter of Agreement (LOA) should be standardized and applied consistently.

I would like to express our thanks to all the CATM working group members for their dedication in completing this challenging task.

Sincerely yours,

Norm Joseph
ARAC Chairman

Copy: Renee Butner-FAA Office of Rulemaking
ARAC EXCOM
Katherine Haley-FAA Representative CATM



U.S. Department
of Transportation

**Federal Aviation
Administration**

800 Independence Ave., S.W.
Washington, DC 20591

February 1, 2011

Mr. Norman Joseph
V.P. of Rulemaking
Airline Dispatchers Federation
30 Camden Village Dr.
Newnan, GA 30265-5555

Dear Mr. Joseph:

This is in response to your January 3, 2011 letter. Your letter transmitted to the Federal Aviation Administration (FAA) the Aviation Rulemaking Advisory Committee (ARAC) recommendation from the Commercial Air Tours Maintenance (CATM) working group. The Executive Committee (EXCOM) approved the working group's recommendation following the December 16, 2010 meeting. The FAA accepts the recommendation.

In addition to approving the recommendation report, you state that EXCOM would like the FAA to consider the issues outlined in your letter regarding the additional problems that were discovered in the air tour industry. The FAA will review and evaluate the additional issues you outlined, and provide feedback at a later time.

I wish to thank the CATM working group and EXCOM members who provided resources to develop, review, and approve the recommendation. The report and the other official documents will be placed on the ARAC website.

We consider your submittal of the CATM working group recommendation report as completion of the original tasking issued on July 10, 2009 (74 FR 34390, July 15, 2009) and therefore, have closed this task. We will keep the committee apprised of the agency's efforts on this recommendation through the FAA report at future EXCOM meetings.

Sincerely,

/s/

Pamela Hamilton-Powell
Director, Office of Rulemaking



U.S. Department
of Transportation
Federal Aviation
Administration

Advisory Circular

Subject: Recommended Aircraft Maintenance Practices for Commercial Air Tour Operators

Date: 1/22/14

AC No: 136-2

Initiated by: AFS-300

Change:

1. WHAT IS THE PURPOSE OF THIS ADVISORY CIRCULAR (AC)? This AC describes maintenance practices that we, the Federal Aviation Administration (FAA), recommend for aircraft that you, a commercial air tour operator, use to perform commercial air tours. (We list these operations in Paragraph 2.) We based these practices, in part, on National Transportation Safety Board (NTSB) safety recommendations. The recommended practices in this AC aren't mandatory and don't constitute a regulation. However, we believe that when properly followed, these practices can increase safety in your operation and reduce the number of maintenance-related air tour accidents.

2. TO WHOM DOES THIS AC APPLY? This AC applies to commercial air tour operators that perform commercial air tours under Title 14 of the Code of Federal Regulations (14 CFR) part 91 and under 14 CFR part 135 with aircraft maintained under § 135.411(a)(1). You should note that 14 CFR part 136, § 136.1 defines a *Commercial Air Tour* as a flight performed for compensation or hire in an airplane or helicopter where a purpose of the flight is sightseeing. Also, § 136.1 defines a *Commercial Air Tour Operator* as any person who performs a commercial air tour.

3. WHY DID WE WRITE THIS AC? This AC addresses recommendations from the Aviation Rulemaking Advisory Committee (ARAC) and NTSB for:

- Commercial air tour operators to establish and maintain a system for continuously analyzing the performance and effectiveness of their inspection and maintenance program. This ensures that all maintenance is performed with the utmost regard for quality and safety. (In this AC, we refer to this system as a maintenance quality assurance (QA) system.)
- Commercial air tour operators to provide formal, model-specific, helicopter maintenance training for their mechanics to ensure an adequate level of competency.

4. WHAT ARE THE CURRENT REGULATORY MAINTENANCE REQUIREMENTS FOR AIRCRAFT THAT COMMERCIAL AIR TOUR OPERATORS USE?

a. Title 14 CFR Parts 91 and 43. Parts 91 and 43 contain the aircraft maintenance requirements for commercial air tour operations conducted under part 91. You should note that these maintenance requirements are the same requirements that apply to aircraft *not* used in passenger-carrying operations for compensation or hire.

b. Part 135. Maintenance requirements for aircraft used to perform commercial air tours under part 135, with aircraft maintained under § 135.411(a)(1), are essentially the same as those that apply to part 91. However, under part 135, you must also comply with the following sections:

- Section 135.415, Service Difficulty Reports;
- Section 135.417, Mechanical Interruption Summary Report;
- Section 135.421, Additional Maintenance Requirements; and
- Section 135.422, Aging Airplane Inspections and Records Reviews for Multiengine Airplanes Certificated with Nine or Fewer Passenger Seats. (Multi-engine scheduled service.)

NOTE: Not applicable to aircraft operated within the State of Alaska.

c. Requirements for Mechanics and Maintenance. Regardless of the operating rule under which you conduct air tours, we have no requirements for aircraft model-specific training for mechanics, or a maintenance QA system. Also, we have no aircraft maintenance requirements in the air tour rule described in part 136.

5. HOW CAN I FOLLOW THE RECOMMENDATION FOR AIRCRAFT MODEL-SPECIFIC TRAINING IF REGULATIONS DON'T REQUIRE IT?

a. Finding a Qualified Mechanic. Although we don't have regulatory requirements for aircraft model-specific training for mechanics, there still are mechanics who have this training. If you don't employ and train your own qualified mechanic, you'll have to find one with the recommended training

(1) Manufacturer's Authorized Service Center. You're likely to find a qualified mechanic with the recommended training at a manufacturer's authorized service center. Some aircraft manufacturers require or provide factory aircraft training on their products to mechanics as a condition for obtaining the service center authorization. Some aircraft manufacturers list their authorized service centers on their Web site and include applicable aircraft models, or they'll provide this information if contacted. Once you find an acceptable service center, you should take the extra step to ensure the mechanic performing the work on your aircraft has the recommended training. If asked, maintenance providers and mechanics should be willing to provide information about training and experience.

(2) Certificated Repair Stations (CRS). You might also find a qualified mechanic with the recommended training at a CRS. (You should note that some manufacturer's service centers are CRS.) However, while a repair station must have an approved training program, it may or may not include aircraft model-specific training for the mechanic working on your aircraft. We recommend that you inquire about the training for the mechanic that will work on your aircraft.

b. Other Qualifications. You should note that aircraft model-specific training is only one factor in judging a mechanic's qualifications. You should also consider experience and skill. Additionally, there are different types of training, such as manufacturer's training, on-the-job training (OJT), and third-party training. There are also aircraft systems training, engine training,

and specialized training. Regardless of the training the mechanic receives, it should apply to the aircraft make/model and the work that you need performed.

6. HOW CAN I FOLLOW THE RECOMMENDATION FOR A MAINTENANCE QUALITY ASSURANCE SYSTEM?

a. Required Inspection. Conducting *required inspection* is one simple but effective method you can use to control maintenance errors. The basic idea for this practice is for a qualified mechanic who didn't perform any of the work involved to inspect the work of another qualified mechanic. You perform a required inspection on *items of maintenance* that could result in a failure, malfunction, or defect that endangers the safe operation of an aircraft if not performed properly or if improper parts or materials are used.

NOTE: You shouldn't confuse *required inspections* with the inspection that parts 43 and 91 require. A *required inspection* is a focused inspection following maintenance on critical systems or components described in paragraph a above. Inspections, as used in parts 91 and 43, refers to inspections listed in § 91.405.

(1) Identifying Required Inspection Items (RII).

(a) To conduct required inspections, you'll first have to identify what qualifies as a RII. For example, because the items below meet the criteria for a required inspection, they might be on your required inspection list:

1. Maintenance performed on:
 - A helicopter flight control system,
 - A helicopter tail rotor drive system,
 - A helicopter main rotor drive system, and
 - A helicopter transmission mount assembly;
2. Powerplant installation on helicopters;
3. Replacement of helicopter landing gear assembly;
4. Engine or propeller installation on single-engine, fixed-wing aircraft; and
5. Replacing and rigging flight controls (fixed-wing aircraft).

(b) Some manufacturers incorporate required inspection-like items into their aircraft maintenance manual procedures. You can verify this by either reviewing the manual or contacting the aircraft manufacturer. If the manufacturer doesn't include required inspection items in its maintenance manual, you should ask the manufacturer to help you identify the aircraft systems or components that fall into this (critical) category.

1. Information for the Mechanic. Once identified, you'll need to provide the list to your maintenance provider and request they perform and record the required inspection. You

might need to explain that the required inspection, although not required by regulation, is a standard you have set for maintenance on your aircraft. You might also need to explain the required inspection concept to your maintenance provider or mechanic. Although written primarily for air carriers using a Continuous Airworthiness Maintenance Program (CAMP), the current edition of AC 120-16, Air Carrier Maintenance Programs, Chapter 7, provides information on the required inspection concept. However, we wouldn't expect a small commercial air tour operator to have the same level of detail in its required inspection program that an air carrier has in its program.

b. Document Reviews. Another QA practice you can use in your operation is a review of all the paperwork and maintenance records produced during the inspection or maintenance visit.

(1) Section 91.405(b) requires you to ensure that maintenance personnel make appropriate entries in the aircraft maintenance records indicating your aircraft has been approved for return to service. Section 43.5 contains the regulatory requirements for the approval for return to service following maintenance, preventive maintenance, rebuilding, or alteration. Additionally, you should ensure that the maintenance provider accomplished the applicable additional performance requirements for inspections, as stated in § 43.15.

(2) Your careful review of the paperwork and maintenance records produced during an inspection or maintenance visit allows you to meet your responsibilities for ensuring aircraft airworthiness that §§ 91.403(a) and 135.413(a) require. Reviewing the documents also allows you to ensure the work performed is complete and accurate before you operate the aircraft. Finally, it provides you with a list of maintenance items to focus on when performing your preflight inspections

7. ARE THERE ANY INDUSTRY GROUPS OR ORGANIZATIONS THAT CAN HELP ME RAISE THE LEVEL OF SAFETY FOR MY COMMERCIAL AIR TOUR OPERATION?

a. Industry Organizations. You can join an industry organization that offers support and services, and promotes safety in the air tour industry. These organizations provide members with support and services that include maintenance standards for an operator to meet. They also conduct audits to verify an operator meets the standards. Two organizations that support commercial air tours are Tour Operators Program of Safety (TOPS) and Helicopter Association International (HAI).

b. FAA Resources. You can also participate in our FAA Safety Team (FAASTeam) seminars, which you can find at: <https://www.faasafety.gov/SPANS/events/EventList.aspx>

8. WHY SHOULD I FOLLOW MAINTENANCE PRACTICES THAT AREN'T REGULATORY?

a. NTSB Recommendations. In 1995, the NTSB recommended that the FAA bring all commercial air tour flights under part 135 requirements. This didn't occur because of the overwhelming opposition to the Notice of Proposed Rule Making (NPRM). The final rule did, however, include a new part (part 136) that added new requirements for commercial air tour

operations. However, the NTSB was still concerned because the part 136 requirements didn't address all identified safety issues, one of which was aircraft maintenance.

b. High-Risk Operations. In its 2010 report to Congress on FAA Oversight of On-Demand Aircraft Operations, the Department of Transportation (DOT) Office of the Inspector General (OIG) described commercial air tour operations as high-risk because of the operating environment. The OIG noted that despite the high risk, the regulations allowed some commercial air tour operators to fly for hire under part 91, which are the regulations associated with general aviation (GA). There are roughly 1,300 commercial air tour operators authorized to conduct commercial air tours under § 91.147. Also, many more commercial air tour operators perform air tours under § 91.146 and part 135.

c. Lowering the Number of Accidents. Even though there has been an overall decline in air tour accidents, the *total* number of accidents is significantly higher than air carriers operating under parts 121 and 135 as commuters. To lower the total number of accidents, commercial air tour operators will have to look for ways to increase the level of safety in their operations. This AC presents one way for you to take an active part in increasing safety in your maintenance operations.

9. WHERE CAN I SEND COMMENTS AND QUESTIONS REGARDING THIS AC?
For comments and questions concerning this AC, contact the Air Carrier Maintenance Branch (AFS-330) at (202) 385-6426 or write to:

Federal Aviation Administration
Aircraft Maintenance Division
Air Carrier Maintenance Branch, AFS-330
950 L'Enfant Plaza, S.W. 5th Floor
Washington, DC 20024



/s/

John Barbagallo
Deputy Director, Flight Standards Service