

EXHIBIT 12
DATE 2/18/11
HB 468

ARMSTRONG HELICOPTERS, LLC



**Debra L. Armstrong
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**Department of the Interior
Associate Director AMD
ATTN: Mr. Mark Bathrick
300 East Malard Drive
Boise, ID 83706**

10-09-09

SUBJECT: Montana DNRC Aircraft (FEPP/UH1-H helicopters).

Hey Mark,

Since talking to you a couple of weeks ago I had a long conversation with Allen Rice in regards to an Interagency Aviation TECH BULLETIN, IA 07-03. Allen is a very honorable man so far as I could tell over the phone and asked me to address some issues I have with Montana DNRC aircraft with you. We downloaded the DOI mutual use agreement you folks have with MDNRC and find a few really disturbing safety issues in regards to their (MDNRC) aircraft which I will address shortly. First I would like to commend you and Allen for taking the time to address my concerns and after talking to you both I believe as do several other operators that we may get some results from the two of you. As stated in the DOI MUA MDNRC aircraft must comply with the same standards that a commercial operator would i.e. AFF, VHF-FM radios, etc. But this is not true in fact:

1. **Fact: MDNRC UH1-H helicopters have the Lycoming T53L13/703 Cobra engines installed. They did not buy an approved STC i.e. Minuteman's 703 conversion. We understand that they are FEPP aircraft and fall under Public Use so they can do what they want whenever they want but what about the safety of the 18 year old kids that are climbing in to these uncertificated aircraft.**

Question: What are they (MDNRC) using for performance charts in regards to Load Calculation's, Density altitude charts, wind azimuth charts, fuel flow charts, etc.? Who designed/engineered these charts? Is this person an engineer?

2. **Fact: MDNRC aircraft are uncertificated, no oversight, no 337's, no STC's, no performance charts, etc. No airworthiness certificate.**

Question: Who or what is returning these uncertificated aircraft to airworthy service? How can they MDNRC "maintain their aircraft in accordance with the military maintenance manuals" when there is no such thing as a UH1-H with tractor tailrotors (209), T53-703 engines, 212 main gear boxes, etc in the military inventory? There are no military manuals TM's that address these modifications.

3. Fact: MDNRC helicopters are transporting USFS, DOI, and state fire fighters in these uncertificated helicopters.

Question: Do the fire fighters know that these aircraft are uncertificated? Do they know what that means? Do the parents, wives, and children of these fire fighters know what uncertificated means?

4. Fact: DNRC aircraft are being carded/inspected for Mutual Use agreements with DOI/USFS.

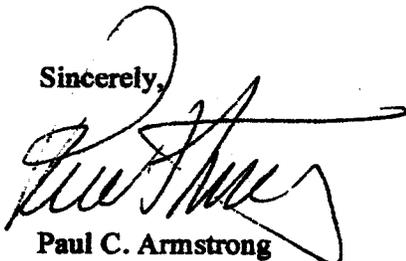
Question: What is DOI/USFS using as an inspection checklist, standard, to approve these uncertificated aircraft for use on fires. See USDA/OIG-A/08601-48-SF(Audit Report), finding 3, to be eligible for the letter/carding the aircraft MUST provide a level of safety and mission effectiveness comparable to contract aircraft. The document that I quoted above says" there are NO DOCUMENTED PROCEDURES FOR DOING SO" How is the DOI/USFS inspecting aircraft that there is no inspection criteria for???? Can I get a copy of whatever your using???

5. Fact: MDNRC aircraft are being dispatched by NRCC and its sub dispatch centers ie. Helena, Miles City, Dillon, etc. on federal USFS/DOI property in direct violation of FEPP regulations, Public Law 103-411, NRCC dispatch procedures, Montana DNRC dispatch procedures, and violating Exclusive Use and Call When Needed contract agreements that USFS and DOI have with commercial vendors.

Question: Why or who is allowing this to happen?

My main question is, how could what I and many operators believe a common sense outfit like OAS-AMD be letting such a safety travesty occur? What is it going to take, a fatality, a crash? I challenge you Mark to stand up and do something to stop this before some young fire fighter finds out what FEPP uncertificated aircraft means the hard way. Stand up and be accounted for Mark, there are a lot of folks in your office that agree with me I know this for a fact.

Sincerely,



**Paul C. Armstrong
Owner/Operator
Chief Pilot
Tamarack Air Services, LLC.
Db. Armstrong Helicopters**

the congressional hearings held in the aftermath. The FAA clearly has no public aircraft jurisdiction. The FAA's regulation at 14 CFR 91.403 provides that "the owner or operator of an aircraft is primarily responsible for maintaining that aircraft in an airworthy condition..." The FS interprets this to mean that the FS assesses the airworthiness for aircraft it operates under the public use aircraft regulations. But in the case of FEPP aircraft that is loaned to States, the FS owns those aircraft, but do not operate those aircraft. The operator becomes the responsible party for maintaining the aircraft in airworthy condition. Any requested changes in the responsibilities would be based on the Administration's desire to adjust roles and responsibilities between the agencies.

OIG Position

Since FS is accepting full responsibility for assessing and certifying the airworthiness of its firefighting aircraft, we accept FS' management decision on this recommendation. For final action, FS needs to provide the Office of the Chief Financial Officer documentation supporting its decision.

Finding 2

FS Needs To Develop an Overall Implementation Plan To Ensure the Airworthiness of All Its Firefighting Aircraft

Regardless of how responsibility is allocated between FS and FAA, FS must still develop an overall implementation plan to ensure the airworthiness of its firefighting aircraft. FS has been addressing the immediate risks identified for some of the aircraft used for fire suppression. It now needs to finalize a long-term risk management airworthiness program for all of its aircraft. Such proactive planning will require FS to overcome technical, financial, and legislative challenges. FS needs to establish realistic timeframes that prioritize its aircraft assessments. Without adopting this approach, FS lacks assurance that it is using its resources optimally to mitigate the considerable risks that come with flying firefighting missions.

In general, a central objective of FS' air safety program is to conduct planning processes that comply with its National Aviation Safety and Mishap Prevention Plan (the plan).⁶ FS' National Aviation Safety and Training Manager is responsible for developing, implementing,

⁶ Forest Service Manual (FSM) 5700 ch. 5720.45 (February 4, 2005).

monitoring, and overseeing the plan.⁷ The plan affirms safety as a “core organizational value” and establishes a system safety approach to safeguard against aviation accidents.⁸

In terms of aviation, system safety is defined as: “using analytical techniques to identify system weaknesses and conditions that if left unchanged could lead to unwanted events” and then developing appropriate countermeasures.⁹ In terms of risk management, a systems approach is defined as: “the application of special technical and managerial skills to the systematic, forward-looking identification and control of hazards throughout the life cycle of a project, program, or activity.”¹⁰

FS recognizes that it must be flexible enough to change its aviation risk management techniques as the situation allows from a time-critical, “on the run” approach, which deals with urgent problems needing immediate solutions, to a strategic process appropriate for “long-range planning for complex missions or program development and review.”¹¹ FS is therefore currently in the process of shifting from the time-critical risk management practices triggered by the two fatal aircraft accidents in 2002 to the long-term strategic development of an air safety program that mitigates risks inherent to flying firefighting missions.

To effect this proactive, strategic risk management approach, the blue-ribbon panel report and NTSB’s recommendations indicated that FS should develop maintenance and inspection programs for all its firefighting aircraft. Since the panel singled out airtankers as especially at risk, FS discontinued operations for the two airtanker models that crashed in 2002. In response to the NTSB report, FS temporarily grounded the remaining six airtanker models in 2004 until it could assess whether they were safe to fly in the firefighting environment.

Although its assessment at the time was not specifically designed to determine the appropriate maintenance and inspection programs necessary for the firefighting environment, FS ultimately determined that two of the airtanker models should be allowed to continue firefighting. FS based its decision primarily on the availability of test data from the manufacturer, the original owner of the aircraft, and from other sources needed to establish airworthiness standards for the aircraft for the firefighting environment. Such data were not readily

⁷ FSM 5700 ch. 5720.45 (February 4, 2005).

⁸ National Aviation Safety and Mishap Prevention Plan (NASMPP) 1.1(B) (June 2005).

⁹ NASMPP 1.3 (June 2005).

¹⁰ NASMPP app. 1, p. 15 (June 2005).

¹¹ NASMPP 6.2 (June 2005).

available for the other airtankers that were grounded. FS also grounded its lead planes, which were also identified as at risk, and chose another model that was better suited to firefighting (e.g. more robust airframe and stronger engines), though it had also not been certified or thoroughly assessed for firefighting operations. Preliminary analysis suggests that the lead planes may be even more vulnerable in the fire environment than the airtankers.¹² These actions were sufficient to respond to immediate hazards but not adequate to mitigate long term risks.

On April 5, 2005, the Secretary of the Interior and the Secretary of Agriculture jointly submitted a plan to NTSB responding to its recommendations. In accordance with the plan, FS agreed to develop maintenance and inspection programs for aircraft that are used in the firefighting environment and to develop a Special Purpose Operations and Airworthiness Manual to clearly articulate maintenance and inspection standards for firefighting aircraft. NTSB responded on July 6, 2005, accepting the FS' plan but expressing concern that the actions FS agreed to take only addressed large airtankers. NTSB wanted FS' plan to address all of its firefighting aircraft.

Complicating matters, FS currently possesses neither the technical information nor the expertise to assess its firefighting aircrafts' airworthiness, which is necessary for developing a comprehensive air safety program. To conduct an airworthiness assessment requires indepth knowledge of the structural, mechanical, and design elements that impact each aircraft's operation. Since most of the aircraft have design specifications that do not provide relevant information about their firefighting capabilities, FS would need to collect specific stress and performance data for each model and then analyze the results relative to its history, modifications, and fire use. Therefore, FS has had to use a private contractor to assess the airworthiness of the remaining two airtanker models previously mentioned that were allowed to continue to fly firefighting missions. Through the contractor, FS has completed its assessment of its large airtanker fleet and has developed the appropriate maintenance and inspection programs for the aircraft. FS has also deliberated about conducting airworthiness assessments for its lead planes, smoke jumpers (which carry firefighters to remote fires), and other aircraft including helicopters.

Although FS plans to assess the airworthiness of all its remaining aircraft, to date FS has only developed a methodology for assessing the

¹²Consolidation and Analysis of Loading Data in Firefighting Operations: Analysis of Existing Data and Definition of Preliminary Air Tanker and Lead Aircraft Spectra pp. 4-11 (October 2005).

lead planes and lacks an overall implementation plan including timeframes and cost to complete the assessments for the other aircraft. FS has also not finished the Special Purpose Operations and Airworthiness Manual that it agreed to develop in response to NTSB's recommendations. According to FS, it had hired a contractor to develop the Special Purpose Operations and Airworthiness Manual but ran out of money before the manual was completed. FS already has an operations manual for its helicopters and agreed that it would also be a useful document to have for its fixed-wing aircraft to ensure the safe operations of the aircraft. According to FS, it intends to complete the manual.

NTSB's recommendations, the blue-ribbon panel's report, and FS' own guidance agree that the agency needs to adopt a long-term, strategic plan to mitigate the risks associated with firefighting aviation by adopting an airworthiness assessment and maintenance plan geared to firefighting that includes all its firefighting aircraft. To accomplish this, FS needs to develop an overall implementation plan to ensure that the airworthiness assessments are timely completed for all of its firefighting aircraft. The plan should prioritize the workload based on the relative risks of each aircraft model considering its mission requirements for the firefighting environment. The plan should include realistic timeframes for completing the assessments. FS can also use the plan to prioritize funding and to notify Congress of program costs. Once the airworthiness assessments are complete, FS will also need to amend vendor contracts to require that all aircraft leased for firefighting meet the airworthiness standards established for the aircraft and that vendors have the appropriate maintenance and inspection programs for the aircraft.

Recommendation No. 2

Develop an overall implementation plan to complete airworthiness assessments on all aircraft FS uses for firefighting. The plan should prioritize the assessments based on the relative risks of each aircraft model considering its mission requirements for the firefighting environment, and establish timeframes for completion.

Agency Response

The FS concurs with this audit recommendation. A detailed plan to complete airworthiness assessments on all aircraft the FS uses for firefighting will be formulated by January 31, 2009. The plan will include the airworthiness assurance methodology, aircraft

prioritization by mission type, schedule for completion, and budget and staffing needs.

OIG Position

We accept FS' management decision on this recommendation. For final action, FS needs to provide the Office of the Chief Financial Officer a copy of its plan to complete the airworthiness assessments on all its firefighting aircraft.

Recommendation No. 3

Specify FS' timeframe for completing the Special Purpose Operations and Airworthiness Manual in the overall implementation plan developed in Recommendation No. 2.

Agency Response

The FS concurs with this audit recommendation. The general outline for a Special Purpose Operations and Airworthiness Manual will be accomplished in conjunction with the fielding of three agency owned P-3's and included in the detailed plan requested in Recommendation No. 2. The FS' estimated completion date for this action is January 31, 2009.

OIG Position

We accept FS' management decision on this recommendation. For final action, FS needs to provide the Office of the Chief Financial Officer its timeframe for including the outline it develops for the Special Purpose Operations and Airworthiness Manual in its airworthiness implementation plan.

Recommendation No. 4

Prioritize existing funds to accomplish the assessments within the timeframes specified in the plan.

Agency Response

The FS concurs with this audit recommendation. Detailed budget and staffing projections based on existing program funding will be included in the plan requested in Recommendation No. 2. The FS' estimated completion date for this action is January 31, 2009.

aircraft contracts currently being renewed. However, there is a 5-year timeframe for the expiration and renewal of the other aircraft contracts, and those will be amended to reflect the applicable standards and programs required on a rolling basis, over the next 5 years.

OIG Position

We accept FS' management decision on this recommendation. For final action, FS needs to provide the Office of the Chief Financial Officer documentation showing that the agreed upon action has been taken.

Finding 3

FS Needs To Ensure Airworthiness of FEPP Aircraft

FS' airworthiness assessment, maintenance, and inspection programs do not include firefighting aircraft it loans to States through the Federal Excess Personal Property Program (FEPP). FS has not considered this a priority because the agency largely gives up both management and operational control of the aircraft – particularly FEPP aircraft not used on Federal fires – once they pass into State hands. However, since FS by law retains title to the loaned aircraft wherever they fly, the agency is exposed to potential liability.

FS loans FEPP aircraft to States if they use it predominately for firefighting. Through FEPP, the States essentially gain access to aircraft they are not otherwise able to afford. FS enters into cooperative agreements with individual States for the property but retains ownership. FS pays States for a portion of their costs when their FEPP aircraft take part in the agency's firefighting operations but to participate they must obtain an approval letter from FS.

To be eligible for the letter, the aircraft must provide a level of safety and mission effectiveness comparable to FS' contract aircraft and they must be compatible with FS operations, i.e., the aircraft must meet FS standards.¹³ FS' management stated that its policy is to inspect each eligible aircraft, but there are no documented procedures for doing so. Currently, 17 States have a total of 149 FEPP aircraft that are operational, of which 73 are eligible to fly on Federal fires (see exhibit C).

¹³ FSM 5713.43 (March 29, 2006).

While 73 of the 149 FEPP aircraft must meet FS' firefighting maintenance and inspection standards to fly on Federal fires, FS requires that the other 76 only meet their original maintenance standards to fly on State or local fires. (As discussed in Finding 1, FS' current standards for the aircraft it uses on its own fires may also be inadequate to meet the demands of the firefighting environment.) For non-Federal firefighting, FS only requires States to have the aircrafts' operating plans and FAA registrations, and to maintain them according to their original military or FAA-approved standards. It is up to the States to decide whether or not to maintain their FEPP aircraft to the level required to fly on Federal fires.

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THERE IS NO
ORIGINAL FAA

FAA HAS AN
AUTHORITY!

The standards for both FS and FEPP aircraft have primarily been developed to meet the needs of civilian and military operations and not firefighting, which requires aircraft to execute frequent, stressful maneuvers in a turbulent atmosphere. Investigations by NTSB and a blue-ribbon panel commissioned by FS both concluded that FS must assess the airworthiness of its firefighting aircraft and develop maintenance and inspection programs geared to the demands of firefighting. FS has accepted the conclusion that the best way to mitigate the risks associated with using firefighting aircraft is to implement a safety program that assesses and maintains them in terms of their firefighting use. However, since States do not have to follow these standards if they do not fly their FEPP aircraft on Federal fires, the risk to these planes remains unmitigated.

In May 1992, the Office of General Counsel (OGC) issued a formal opinion addressing the Government's potential liability for FEPP aircraft loaned to States for firefighting. According to the opinion, title to the aircraft, which remains with the Government after they are transferred, does not determine the Government's potential liability for the subsequent accidents involving these aircraft. However, one of the key factors is who has operational control over the aircraft. In those instances where the FEPP aircraft are used on Federal fires, FS generally has operational control of the aircraft since it is in charge of the overall firefighting operation. This control would extend to the pilot's day-to-day operations and performance even though the pilot is not officially a Government employee.

For those FEPP aircraft not used on Federal fires, the Government's potential liability is less clear since in these cases FS does not have operational control over the aircraft. However, according to an OGC staff attorney we spoke to, FS can still be held liable if the agency is proven negligent in its duties pertaining to the aircraft and if the law in the State in which the accident occurred prohibited FS from delegating



United States Department of the Interior

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AVIATION MANAGEMENT

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June 10, 2010

Mr. Paul Armstrong
Ms. Debra Armstrong
Tamarack Air Services, LLC
548 Hohenstien Lane
Stevensville MT 59870

Dear Mr. & Ms. Armstrong:

I regret it has taken me this long to respond to your October 2009 letter regarding the Montana Department of Natural Resources' (DNRC) modified UH-1H helicopters. However, it was only until very recently that we were able to organize a team of subject matter experts from Aviation Management (AM) and the Forest Service to visit Montana DNRC and investigate these matters first hand.

The visit to MT DNRC had three objectives. The first was to inspect eight DNRC aircraft (certificated and un-certificated, fixed and rotary wing) against a newly approved *Cooperator Aviation Standard for Interagency Fire*. MT DNRC was the first state aviation activity to be inspected against these new standards which equate to those used for our commercial aviation contracts.

The second objective was to assess whether the MT-205 modifications, DNRC maintenance and inspection programs provided an acceptable level of safety. As you know, the FAA does not have a process for approving un-certificated public-use aircraft. In the case of the MT DNRC it is up to the Forest Service and the US Department of the Interior to determine if Federal Excess Personal Property (FEPP) aircraft can provide a level of safety and mission effectiveness comparable to certificated aircraft.

The third objective was to investigate the allegations in your September 8, 2009 SAFECOM, letter dated October 9, 2009, and email of May 6, 2010, and provide you with a well-researched response.

In reference to your specific questions from your October 9 letter:

1. MT DNRC uses performance charts developed by an FAA-designated engineering representative (DER) who had a distinguished career as an engineer for Bell Helicopters prior to being designated by the FAA as a DER. Members of our inspection team believe this engineer to be exceptionally well qualified.
2. The joint Forest Service-Department of the Interior team reviewed the engineering data associated with all alterations and modifications made to the aircraft. They found DNRC closely paralleled the modification procedures required of commercial operators. FAA Forms 337 were used to document modifications; and changes were made to the Instructions for Continued Airworthiness. In lieu of the military manuals, DNRC developed a comprehensive library of technical manuals they call "Service Instructions" (SIs). These Service Instructions incorporate the entire system, including modifications to the airframe and all components, and give the mechanic one place to go for the most current information on proper assembly, removal, and inspection of components. Our inspectors closely followed the detailed process contained in the FAA 8300 Inspectors Handbook for reviewing commercial operators and concluded that DNRC program provided an equivalent level of safety.
3. Our Federal fire crews are briefed and understand that these FEPP aircraft are un-certificated. However, they also understand that these aircraft are inspected annually by Forest Service and/or AM, just as we do for all aircraft provided by contract vendors.

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June 22, 2010

4. As noted above, the new Cooperator Standard provides both a standard by which Forest Service and DOI can inspect certificated and non-certificated State-owned aircraft as well as a process by which we can inspect and "accept" the configuration, maintenance, and inspection program as "providing a level of safety and mission effectiveness comparable to contract aircraft". Based on the recommendation of our joint inspection team, I have signed just such an acceptance document on the MT-205 program.
5. It is important to note that Aviation Management does not exercise operational control over any State or Federal aviation assets. Any determination of inappropriate or improper dispatching is beyond our purview. However, it is important to note that, under 49 USC §§ 40102(a)(41) and 40125, these aircraft meet the definition of public aircraft.

Your May 6 letter contains additional issues which deserve additional explanation. By law, the FAA has no direct jurisdiction or oversight over public use aircraft. Even if DNRC so desired, the FAA has no processes by which a non-certificated public use aircraft may receive FAA approval. It is up to the appropriate government agencies to provide the necessary oversight. In this case, both the Forest Service and AM exercise program oversight. While it is true that DNRC can set their own standard as long as they stay within their local arena, they need to meet our standards in order to enter into cooperative agreements. We think it worthwhile to note that the FAA recently visited the DNRC facility and found no faults with their operation.

We specifically investigated the issue of the pillow block bolts. Our team verified that the main rotor head was properly built up in accordance with the DER's specifications. The specific pillow block bolts were found to be applicable to this configuration and torque limit. Further, our team noted that because these bolts must be replaced every time torque is broken on the nut, they were in fact being replaced more often than required. Again, the Montana FAA Flight Standards District Office responded to a similar complaint and reached the same conclusion.

Lastly, we have attempted to obtain third party confirmation of the situation and maneuvering that you described in your September 8 SAFECOM. However, the Broadwater County Rural Fire Chief has not returned our phone calls. DNRC confirmed that two of their helicopters supported that fire, but denied performing extreme maneuvers or unnecessarily endangering onlookers.

In summary, at your urging, AM and the U.S. Forest Service expended a substantial number of man hours to investigate each and every one of your concerns regarding the Montana DNRC MT-205 program. We dispatched our most highly qualified maintenance inspectors to the scene and confirmed with other experts before developing final conclusions. We believe their program has achieved an acceptable, and commendable, level of safety and have recognized it with the first formal acceptance of its type. We realize that you and other vendors in the area may view this program as a competitor for fire work, however, Federal and State governments have, through legislation and contract language, agreed to limit their performance of defined governmental function in order to afford business opportunities to the private sector.

Should you have future concerns, please feel free to contact AM's Technical Chief, Ralph Getchell at 208-433-5077 or Ralph_Getchell@nbc.gov.

Sincerely,



Mark L. Bathrick
Associate Director



United States Department of the Interior
National Business Center
Aviation Management
300 E. Mallard Dr., Ste 200
Boise, Idaho 83706-3991



June 11, 2010

Ms. Mary Sexton, Director
Montana Department of Natural Resources and Conservation
1625 E. Eleventh Avenue
Helena, Montana 59620

Dear Ms. Sexton:

In late May 2010, a joint team of DOI Aviation Management (AM) and Forest Service subject matter experts visited your aviation facility for a proof of concept test of the new Cooperator Aviation Standards. In addition to inspecting a total of eight (8) aircraft for compliance, the team conducted an in-depth examination of DNRC's MT-205 program to assess the suitability of these un-certificated aircraft for carriage of Federal fire crews during initial response operations.

The following areas were inspected:

- Maintenance facility
- Records management
- Technical manuals
- Parts organization and traceability
- Major alterations and modifications, supporting charts and technical data
- Airworthiness Directives and Technical Bulletins
- Inspection program, time life, and retirement compliance
- Aging aircraft program

The team made three (3) recommendations for improving program safety:

1. That MT DNRC considers adding a monitoring system that audibly signals and electronically captures over torques and other out-of-limit situations to each MT-205;
2. That DNRC's aging aircraft program be made a formal part of your program; and
3. That DNRC install keeperless cargo hooks to meet the same one-handed loading specification required of our commercial vendors.

Overall, AM accepts Montana DNRC's MT-205 configuration, maintenance and inspection program as meeting an acceptable level of safety for cooperator fire operations. This acceptance will remain in effect until rescinded or amended in writing, confirmed each year as a result of our annual cooperator inspection visit. Please contact the AM Technical Services Division Chief, Ralph Getchell (208 433-5077) if you have additional questions.

Sincerely,

Mark L. Bathrick
Associate Director

Attachment (1): AMD Team Review Trip Report

cc: AMD Regional Directors
USFS National Aviation Office (Norbury)
NIAC Chair (Hamilton)

Trip Report Interagency Cooperator Team Review of Montana DNRC May 2010

The purpose of this Interagency team review was to investigate contractor questions and statements regarding the operation of the Montana State helicopters and to perform a proof of concept inspection applying the new 2010 Cooperators Aviation Standards.

The team was comprised of a total of five members of the Interagency Aviation Fire Staff; Aviation Maintenance Inspectors Dave Parsons from the Department of the Interior and John Nelson and Rick Howe from the USDA Forest Service, FS Region One Aviation Officer Margaret Doherty, and Ralph Getchell, Chief of AMD's Technical Services Division, DOI. MT DNRC Chief Pilot Chuck Brenton and Maintenance Chief Ed Martin were our primary DNRC contacts.

The team inspected two Bell 206 helicopters and one Cessna 180, all certificated, using the 2010 Cooperator Standard. The team also inspected the entire fleet of five un-certificated MT205 helicopters and associated records including the records on current modifications. While all team members understand the basic concept that the FAA has no authority to approve "public-use" aircraft, we agreed to use the processes outlined in the FAA 8300 Inspectors Handbook for reviewing FAA commercial operators, to provide a detailed framework for examining the MT205 program.

OBSERVATIONS

Maintenance Facility is in excellent condition and provides adequate housing for the entire fleet indoors for maintenance. The hangar and shop areas are clean and well organized. All maintenance related areas have sufficient lighting, electrical power and compressed air outlets. Tools are organized and calibration control seemed to be in place.

Records Management was reviewed for accurate entries and current status sheets. No problems were found on hard copy records reviewed. Status sheets were all updated except current aircraft presently in work.

Technical Manuals are always difficult regarding older aircraft; however Montana DNRC has current technical manuals in place for all aircraft including the modifications on the MT205. These modification manuals are called the "Service Instruction's" (SI) and incorporate the entire system, including modifications to the airframe, components and related system. This gives the technician one place to go for updates on proper assembly, removal and detailed inspection criteria. These manuals are well organized and available to the field mechanic in electronic and paper copies. We did not see a distribution list or a current revision system in place for tracking changes.

Parts organization and Traceability was excellent. All parts and components are bar coded for complete traceability from receiving to work order placement on the aircraft. Inventory was reviewed and found to be well organized with proper controls and procedures.

Major Alterations and Modifications documents were reviewed and met the same procedural requirements as in commercial programs. Montana DNR has taken the effort to organize and document procedures for changes made to the basic Army UH-1H model helicopter. These modifications and changes follow the same basic step procedures placed on commercial 135 operators; however no final FAA approval is required nor allowed for government programs operating under the definition of "public".

Montana DNR has developed a self-issued type certificate to be used by both mechanics and inspector as a starting point for current aircraft data. This document can then be used in the inspection process for return to service same as commercial programs. Changes to this type certificate are called "modifications" and must follow a procedure for documents and approvals similar to FAA procedures established for commercial aircraft. FAA Forms 337 are used to document these modification and instructions for Continued Airworthiness (ICA) are then incorporated into the inspection program to detail how to maintain these changes. Service Instructions (SI) are established to show detailed instructions for the mechanic to install the modification and the ICA's also provides instructions for maintaining these changes. Criteria for what is termed "acceptable data" have been established in the 2010 Cooperators Standards for these modifications. Montana DNR has followed these criteria.

Montana DNR contracted with an FAA Designated Engineering Representative (DER) for the review of those modifications that required fatigue analysis on the airframe and components, including structural analysis, taking into account the aircrafts operational and performance profile of repetitive lift. The results of this effort have given Montana DNRC accurate aircraft performance charts and a comprehensive maintenance program that have been validated by an FAA approved DER. This individual is a former Bell Helicopter structures and fatigue engineer and is considered by the team to be exceptionally well qualified to make these assessments.

Airworthiness Directives and Technical bulletins were reviewed for compliance with 14 CFR 91.417. A good system for record keeping was in place. Military bulletins were also reviewed for compliance with no problems found.

Inspection program, time life and retirement compliance were reviewed and found adequate. ICA's were added to the inspection program for the modifications listed. Time life limits were not elevated without a FAA Designated Engineering representative (DER) review of the changes.

Aging Aircraft Program was in evidence but not formalized. This program is required for all FAA 135 maintenance programs and is highly recommended by the FAA and this team.

The pillow block bolts and high torque issues raised by the contractors were found to be inaccurate. Proper main rotor head build-up was verified and found compatible with the engine/main transmission configuration installed and the maximum torque settings allowed in the performance data developed and verified by the FAA Designated Engineering representative (DER). The Montana FAA Flight Standards District Office was charged to investigate these same contractor concerns in response to a similar complaint. While in Montana, the team conferred with the FAA. Our inspection team's findings are in agreement with the FAA's inspectors from the Helena Flight Standards District Office.

CONCLUSIONS:

**Montana DNRC's maintenance and inspection program does meet an acceptable level of safety.
Recommendations for improvement**

1. **Helicopter Torque Monitoring System:** The torque system installed on the MT205 helicopters has a preset torque warning light on the instrument gauge to alert the pilot when he has reached the maximum torque setting. This type of warning is a nice function for the pilot and maintenance staff. However during repetitive lift operations, most high torque setting are usually triggered while the pilot has his head out the door looking down at the bucket or long line. This system does not record how high the over torque was nor does it record the duration in time the event took place. No accurate information regarding the over torque event can be captured.

A number of electronic systems are available that capture all over torque events and provides early audible notifications even before the over torque event occurs. Some of these systems can monitor multiple signals at one time. These systems, sometimes called Health and Usage Monitoring Systems (HUMS), gives the pilot and maintenance staff accurate warnings on events that ensures safe operating limits and insures proper maintenance action is followed after an exceeded events occur. These systems have evolved over the past 10 years and developed a proven track record of success to large and small aviation operators.

2. **Aging Aircraft Program:** Program work towards an Aging Aircraft Program is obviously present in many areas. Old wire is being replaced, painting aircraft and proper corrosion control practices are in place; however formalizing this into the maintenance program will document the process.
3. **Keepless Hooks:** For numerous safety reasons, keeperless cargo hooks are required on Forest Service and Interior contracts. Adding this type of hooks to the MT205 program will provide the same safe, one-handed loading requirement as commercial operators have; and will provide improved reliability in maintenance.

Ralph W. Getchell
Chief, AMD Technical Services

RECEIVED

FEB 19 2010

D.N.R.C.

MARK L. CARMAN

Attorney at Law

Carman Law Office, P.C.

Windsor Court, Suite 303
10 North 27th Street
Billings, MT 59101

February 17, 2010

State of Montana,
Department of Natural Resources & Conservation
1625 11th Avenue
Helena, MT 59260

Attn: Ted Mead, Chief of Fire and Aviation Management Bureau

Re: FOIA Public Records Request

Dear Mr. ^{Ted}Mead:

Under Montana Law, I am requesting that you, or the Custodian of Records, produce for our inspection and/or copying the following documents and electronic records from January 1, 2004 through December 31, 2009:

- 1.) Balance Sheet and Depreciation Schedule of Assets owned by the DNRC which are used or related to aviation operations;
- 2.) Any payments, assistance, reimbursement, allowance, or compensation (employee or non employee) from the federal government or from any other state agency (including agencies of the State of Montana) to the State of Montana, Department of Natural Resources ("DNRC") in regards to firefighting assistance or any other work performed with its UH-1 helicopters;
- 3.) A complete profit and loss and expense summary statement for the aviation activities and resources of DNRC;
- 4.) Line item list of transfer of funds (such as an interagency or interstate department transfer billing or allowance) arising from the aviation activities and resources of DNRC;
- 5.) Detailed revenue and income statements for each year (breakdown by aircraft and source) arising from the aviation activities and resources of DNRC;
- 6.) Provide/define mission requirements and other terms or parameters in regards to the Record of Aircraft Use Reports, including but not limited to "Fire Other" and "Fire Administration";
- 7.) A breakdown of costs from the Record of Aircraft Use Report (who incurs the costs and where do the costs get billed and/or allocated) regarding the aviation activities and resources of DNRC;

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- 8.) Provide all aircraft modification, maintenance and engine records for 387M, 388M, 394M, 395M & 398M including but not limited to:
 - a. Aircraft and engine log books;
 - b. time life components installed;
 - c. time life component retirement schedule;
 - d. overhaul records and component cards;
 - e. AD and SB compliance list; and
 - f. equipment list and Weight and Balance for each aircraft.

Note: We already have the aircraft maintenance records for 388M.
- 9.) All costs, invoices, bills, statements and expenses for each engine overhaul;
- 10.) All email and written correspondences between the following persons regarding UH-1 helicopters: Chuck Brenton, Eddie Martin, Mary Sexton, Ted Mead, and Bob Harrington;
- 11.) Daily Aircraft Logs for 394M, 395M, 387M, 388M and 398M. **Note:** We have already received Aircraft Log for 388M for 2009;
- 12.) A copy of your drug test program/policy for DNRC UH-1 helicopter pilots, mechanics and fuel truck drivers;
- 13.) All costs, invoices, bills, statements and expenses pertaining to the T53-L-703 engine installation and tail rotor location modification.
- 14.) All costs, invoices, bills, statements and expenses pertaining to modifications to UH-1 DNRC helicopters, including but not limited to, high skids, bubble door, radio packages, left pedal operations and left seat PIC, and remote hooks;
- 15.) Annual Federal Excess Aircraft Use Reports for each aircraft submitted to the regional/area FEPP manager;
- 16.) The last two Reconciled Inventories filed with FEPP for all property in the possession of Montana DNRC as listed on Property Management Inventory System (IPMS);
- 17.) SF-122 Form and all related attachments filed by Montana DNRC;
- 18.) GSA Form 3550, Government Aircraft Inventory Form and all related attachments filed by Montana DNRC;
- 19.) DD-1348-1, Single Line Item Release/Receipt Form filed by Montana DNRC;
- 20.) Form AD-112's filed by Montana DNRC;
- 21.) Form SF-120's filed by Montana DNRC;
- 22.) All costs, invoices, bills, statements and expenses pertaining to the acquisition of all peripheral support equipment for UH-1 Helicopters, including but not limited to water buckets, remote hooks, long lines, seed buckets, concrete buckets, aerial ignition devices, spray systems and including equipment purchased prior to January 1, 2004;
- 23.) Payments made to Montana DNRC Aviation support personnel, including but not limited to payments to employees located at dispatch centers throughout Montana during Fire Season;
- 24.) All USFS Mechanic Cards and documents relating to certification for DNRC mechanics who perform work on DNRC UH-1 helicopters;

- 25.) All leases, costs, invoices, bills, statements and expenses pertaining to the leasing and maintenance of buildings used for DNRC aviation operations (including Helena Hanger) as referenced by Acct #'s 062527 & 062529;
- 26.) Inspection reports, photographs, analysis and testing related to cracking, failure, or suspected metal fatigue for the tail boom/longeron on UH-1 DNRC helicopters;
- 27.) DNRC and FEPP policies and procedures on the receipt and tagging of FEPP property; and
- 28.) A copy of the all insurance policies which purport to provide coverage for the aviation resources and operations of the DNRC.

Lindsey McDole will remain as the contact person in regards to these requests. If you need us to clarify a request or believe the request can be reworded in a manner which provides us the necessary information, but reduces the burden upon your department please bring it to the attention of Lindsey. Lindsey will be in contact with you regarding the schedule for the production of the above information. She may be reached at (386) 689-4173 or by email. If any legal issues arise in regards to this request, please have Mark Phares contact me directly.

Sincerely,



Mark L. Carman

MARK L. CARMAN

Attorney at Law

Carman Law Office, P.C.

Windsor Court, Suite 303
10 North 27th Street
Billings, MT 59101

July 1, 2010

Mark Bathrick
Associate Director
National Business Center
Aviation Management
300 E. Mallard Dr., Ste 200
Boise, ID 83706

Dear Mr. Bathrick:

I was provided a copy of your June 10, 2010 letter to Paul and Debra Armstrong. I do not have the Armstrongs' letter to you, which obviously precipitated your response. Nevertheless, your letter does raise issues concerning an ongoing investigation by my client, Aviation Watch, Inc. I am enclosing the initial report prepared on behalf of Aviation Watch, Inc. which deals with the use of highly modified UH-1 aircraft by the Montana DNRC. First of all, I would like to request a copy of the *Cooperator Aviation Standard for Interagency Fire*. I was unable to locate any information that this has been formally adopted by your agency. I would also request you provide me information regarding its formal adoption.

Based upon my review of your letter of June 10th it would appear that you do not have all of the necessary information to properly review the DNRC program or its aircraft. For example your letter seems to accept that the proper compliance with ADs and time/life inspections are being carried out. As you are aware the Interagency Helicopter Operations Guide requires compliance with time life inspections and replacement as well as FAA ADs and manufacturer service bulletins. The attached paper reflects a number of violations of these requirements. Your letter makes reference to the pillow block bolts. In that regard you need to understand that these components are being regularly over-torqued and required inspections and replacements are not being carried out as required by your agencies regulations and standards. Neither your regulations, standards or that of any other agency allows these torque and life limited standards to be ignored or modified, especially on the advice of the aircraft owner's private consultant.

Your letter indicates that your agency is willing to accept the statements of a private consultant hired by the Montana DNRC. Such a procedure is not approved by any governmental agency dealing with aviation safety. This is especially disturbing when you consider that there are false representations about one of the consultants being a DER when that is in fact not true. Also the consultants are not DER's in the area on which they provide their consulting report. You must remember that it is the federal agencies which will be

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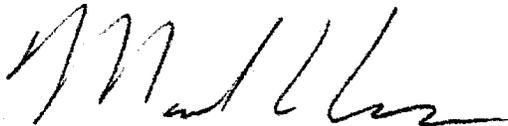
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liable for any resulting accidents. You should also note that the documents supplied by the DER were for the most part supplied after concerns were raised by us last fall and long after the modifications were made.

Hopefully, after reading our paper, you will understand that it is an error to state that DNRC "closely paralleled the modification procedures required of commercial operators." There are no parallels, and the DNRC modifications are diametrically opposed to private certification processes.

If you have any questions concerning the information in this paper, do not hesitate to give me a call. I look forward to receiving the information requested in this letter. As we will be meeting with a number of governmental officials in the next few weeks I would ask you to send the new standards as soon as possible.

Sincerely,

A handwritten signature in black ink, appearing to read "Mark L. Carman". The signature is fluid and cursive, with the first name "Mark" being the most prominent part.

Mark L. Carman