



Maritime Helicopters

September/3rd Quarter 2018 Quality & Safety Notes



Audits, Audits, Audits

This year we seem to be getting hit from all sides on external and internal audits (and it isn't even Fall Audit Season yet! Quality audits are there for two main reasons: 1. To make sure we are following our procedures as well as our customer's procedures so everyone is safe and as efficient as we can be. 2. More importantly, **to stay employed!** So much of our business relies on our actions, day-to-day, reflecting our policies & procedures, as well as complying with industry and government standards.

REPEAT FINDING: FOD (spare hardware and consumable items) were found in tool boxes during the tool box inspections in both Fairbanks and Homer.

REPEAT FINDING: Tool control procedures in Fairbanks and Homer did not meet the recommendations contained in the AOG. *(We have most of these procedures in place: just expect a little more enforcement to get us to a place where our tool boxes will meet customer's audit standards)*

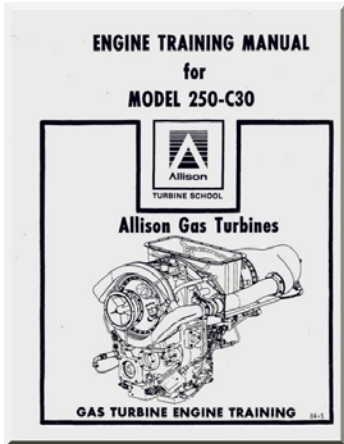
Finding: Maritime Helicopters does not provide dedicated SMS training to all individuals in the organization. An SMS "indoctrination" is accomplished but does not meet the intent of SMS training per the AOG.

Recommendation: Develop a more comprehensive SMS indoctrination training course and add an annual SMS refresher training course for all Maritime Helicopter employees. *(Plan on more SMS Training!)*

New Finding: We can't find the reference for this one, but it seems that one of our customers will not support the use of any plastic container as a secondary storage container for hydraulic fluid. Their logic is that since hydraulic fluid is hygroscopic (attracts water molecules) that plastic containers can't be used. I can't find a reference. Either way, the parts department now has metal bottles to be used for secondary containers if you have leftover hydraulic fluid. Don't use plastic ones anymore.

Engine Power Checks

Back in March, **(AND AGAIN IN JUNE!)** we discussed the general lack of consistency in performing engine power checks on the aircraft. We're **NOT** improving, **AND** there are still a lot of power checks that are not being done on a regular basis. If there is any confusion on how and when these checks are to be done, please talk to Dave or Dave or Steve!



Republished from the June Safety Notes with changes in red.



A Family of Pigs (RERUN!)

Without naming names or places, we need to get control on the cleanliness of our living spaces! Several complaints lately about one of us having to move out of one of the apartments on short notice and leaving a trail of epic destruction in the wake of the departure. Part of the helicopter business is this odd, communal living which we all have to share in. But we have it pretty good. This isn't Nigeria or Kazakhstan with barracks-style accommodations. Try to be a good neighbor with all the common areas and if you have to leave a room on short notice, let somebody know! Jessica or Larry in Fairbanks and Becky in Homer are in contact with the housekeeping people several times a week and can help out. But don't leave a pig sty!

Mechanic Toolbox Talks

Along with more Safety Training! Expect to have more, morning toolbox talks on the hangar floor. Please help Steve, Brent, and Isaac with ideas for Toolbox talks.

Incident Reporting for July-Sept

FIR: 201812, 7/13/2018/0702: Bell 407, (Engine Oil Pressure Reads ZERO)

After Takeoff, during level check; oil pressure gauge indicated 0 psi. The pressure was normal prior to takeoff. Pilot returned aircraft to PS4.

Removed and Replaced Engine Oil Transducer. MOC Okay

Gauges do brake, and maybe this isn't the most interesting FIR in the deck. But it's always go to think about what YOU will do the next time you're not reading any Engine Oil Pressure. A lot of things certainly go through your mind when gauges read ZERO!

FIR 201815, 7/20/2018/1745: Bell 206 L4 (Blade Strike with Terrain)

Pilot was working with geologists in extreme Northeast Alaska in the Ignek Valley (East of Kavik Camp). With one geologist onboard, the pilot was repositioning in a steep sided valley (Google Earth the Ignek Valley folks, it is steep). With a quartering, gusty tailwind from one valley wall, the pilot was attempting to land at the bottom of the gully. In the investigation interview afterwards, the pilot admitted to knowingly attempt the landing closer than the 12' rotor clearance limit in our SOP.

With damage to the blades, pilot repositioned aircraft to the closest appropriate landing area.

Both rotor blades contacted the gully slope and caused the following damage in addition to the blade (because of sudden stoppage). Replaced: Main rotor hub, mast assembly, input driveshaft, freewheeling unit, and engine gearbox. Parts removed, Non-Destructive Inspected (NDI) and installed: Engine mounts, all tail rotor driveshaft segments, hangar, and disk packs. Total Cost of the Incident: Approximately \$630,000.00

A landing in very remote areas and impromptu landing areas is one of the most difficult things we do in this business. But a landing area isn't a landing area if it doesn't meet some very simple criteria. Slope within aircraft limits, landing direction favorable with the wind, good landing surface, no dangerous debris and adequate rotor and tail rotor clearance all need consideration. So if a landing area does not meet these criteria, it isn't a landing area. Our customers pay for safe landing area decisions.

That's an expensive and dangerous couple of minutes, folks. Please give it a minute to consider the decision making before and after the blade strike. 20/20 hindsight can be a great teacher.

The only positive that came out of this incident is that the Emergency Response Plan and ERP decision making led to a safe outcome for everyone involved. All of the scientists were safely returned to their base camp within 3-4 hours of the event. The aircraft was airlifted for repair with our Bell 412 within about 30 hours. The satellite call to the rear was sent via the satellite phone of the scientists. (The pilot shut the aircraft down quickly because of the vibration and didn't make the call on the aircraft satellite radio).

Let's spend some time thinking about this one.



FIR 201812, 7/13/2018/0702: Bell 407 (Transmission Oil Pressure Indications?)

Following a normal startup and run-up, the XMSN Oil Pressure Caution light illuminated in flight. Both Pressures and Temperatures were normal with no decrease or increase so the flight was returned to the departure point. Following shutdown the aircraft was inspected for low oil levels and/or leaks. No faults were found. Both operations and maintenance were advised of the situation. Aircraft was returned to base station.

. During that subsequent run-up, the caution light extinguished normally with no further indications.

Another FIR showing us that when all the systems required for flight aren't working...land or go back home, and figure it out.

FIR 201816, 4/17/2018/2000: (Bell 407 Chip Illuminated)

Flight with AT&T Customer enroute to Buck Repeater. Transmission Chip light Illuminated. Pilot landed aircraft to check chip detectors. Nothing was found on Upper Transmission or Rotor Brake detectors. There were small pieces of shiny material on the lower plug. Material was non-magnetic. Called Fairbanks maintenance lead for confirmation and direction. Cleaned Chip detector and reinstalled. Performed leak check ground run. Then performed 20 minute ground run. No faults noted. Aircraft returned to service/mission

A couple of noted on this one since it was my FIR. For Emergency Response Plan purposes, this one was easy to coordinate with maintenance as I was in cell phone coverage. Make sure you have in your bag of tricks, the method you would use for contacting the folks back home for each situation, near or far.

As far as the chip detector was concerned, since there was nothing on the Upper Chip Detector or Rotor Brake detector, make sure you know how to take the upper crown cowling off these Bells. There is an easy direction to take it off and a hard direction. I won't say which way I used first!

Last, but not least... a quick mentioned that historically, if maintenance has done work on the Rotor Brake, the first ground run sometime does produce a Chip light. You may want to add a couple minutes on the ground to cycle the transmission oil through the system a bit before blasting off into the sky for a nuisance Chip.

GOR 201810, 9/24/2018/1300: Bell 407 (Engine Start issue)

Pilot had discussed a non-normal start on the engine and so a ground run was performed to diagnose any trouble. Engine would not start after 3 attempts.

Mechanic removed and replaced engine exciter box. Also removed and cleaned igniter and reinstalled. Ops Check was okay with no faults.

SDS of the Month:

I'm not going to include an SDS (Safety Data Sheet) this quarter as this letter is getting pretty full as it is. But just so everyone remembers how to extract an SDS from the worldwide web...

<https://www.3eonline.com/EeeOnlinePortal/DesktopDefault.aspx>

For most uses, our company User's Name: **Mechanics** and the Password: **maritime2015** will get you all the information you need. For parts personnel, let me know if you need help adding Safety Data Sheets

The screenshot shows the Maritime Helicopters website interface. At the top left is the logo for Maritime Helicopters. Below the logo is a navigation bar with tabs for Home, SDS, Inventory, Report Center, and Help. The Home tab is currently selected. Below the navigation bar is a section titled "Quick Links" with four main categories: SDS, Inventory, Report Center, and Help. Each category has a list of sub-links. The SDS link points to "Search for SDS". The Inventory link points to "Search Inventory" and "Inventory Statistics". The Report Center link points to "Inventory Reports". The Help link points to "Training Center", "IT Requirements for 3E Protect™", "Glossary of Terms - Environmental Health & Safety", and "Contact Verisk 3E". At the bottom of the screenshot is a contact information box for Verisk 3E, including an email address for support and updates, and a phone number for a representative.

Maritime Helicopters

Home SDS Inventory Report Center Help

Home

Quick Links

- SDS
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 - Training Center
 - IT Requirements for 3E Protect™
 - Glossary of Terms - Environmental Health & Safety
 - Contact Verisk 3E

Contact Verisk 3E:
Questions and comments - Support@Verisk3E.com
SDS updates - updates@verisk3e.com
Talk to a Verisk 3E representative - Call Verisk 3E at 1-800-451-8346 or +1(760) 602-8703
Want Verisk 3E to call you? - Click the "3E InstaCall" graphic on the lower left hand corner.

Red Sock-Green Sock

Another Policy which we need to redouble our efforts on following is the Red Sock-Green Sock Program. If it is beginning to feel like this month's Safety Notes deal with adherence to policies we already have in place? It is.

I know that this policy might seem like it isn't needed at the remote sites where there is only one aircraft, one, and maybe one mechanic...but from the outside auditor's perspective of quality, if we have a policy, we have to follow it throughout the company. Here is the text, direct from CASS Memo M-14-03. Please commit now to using the policy consistently!

Maritime Helicopters utilizes the cyclic sock system as an added level of protection during maintenance functions. Any time maintenance is being done on an aircraft for any reason a red sock shall be installed on the pilot's cyclic stick.

Green sock = Aircraft is airworthy and ready for use.

Red Sock = Aircraft is not airworthy. Contact maintenance before touching aircraft.

No sock = Aircraft is airworthy and has not had maintenance done after the last flight.

This system in no way removes or lessens the requirement to make a log book entry any time maintenance is performed.

Here is some info that Alyeska wanted us to remind everyone of: All TAPS workers need to be aware of the rules regarding incident reporting and Post Incident D&A testing while on TAPS. This reporting is in addition to the reporting system (GORs and FIRs) that we must perform as Maritime Helicopter employees.

To:	All TAPS Workers	Subject:	Post Incident Drug & Alcohol Testing	
From:	Tom Brady OHU/Worker's Compensation Mgr.	Date:	2/24/2009	File Number:

The Safety and Health of all employees working on TAPS is one of our highest priorities. To achieve this, Alyeska has developed a number of procedures to better ensure a safe work environment. Employees who are free from the affects of drugs and alcohol are vital to our ability to sustain a safe work environment on TAPS. As such, we continually look for opportunities to further strengthen this assurance and are now implementing post-accident drug and alcohol testing. **Beginning March 10, 2009** this testing shall be conducted following any injury or vehicle incident as defined below:

Alyeska will conduct urine drug and breathe alcohol tests on all TAPS workers involved in an incident resulting in:

- 1. Any work related injury requiring treatment beyond first-aid or assessment above what is or would have been provided by the local security/tech medic. (Examples: Referred by Alyeska Occupational Health to a physician or other Health Care Provider to determine the extent of the injury such as needing an x-ray or assessment by a specialist.)***
{Note: In locations where security/tech medics are not available, testing is required if the treatment exceeds what would have been provided by the security/tech medic or is classified as a OSHA Recordable on the initial examination regardless of seeing a physician or other Health Care Provider.}
- 2. Vehicle incidents regardless of extent of the damage. (Defined as damage regardless of the extent of the damage.)***
{Note: The following types of vehicle incidents will not require drug & alcohol testing :}
 - Damage caused by wind***
 - Damage caused by rocks from other vehicles***
 - Observed damage***
 - Animal strikes involving birds only***

All TAPS workers are required to report any work-related injury or vehicle incident involving an Alyeska or Contractor owned, leased or rented vehicle used on TAPS to their supervisor immediately. Upon notification, the supervisor shall contact Alyeska Security / Medics to evaluate any injury and, for vehicle incidents, direct the employee to the nearest collection facility for drug and alcohol testing. Such testing must occur immediately – within eight hours). As always, medical treatment of any injured personnel takes priority. Results from all testing shall follow Alyeska's current drug and alcohol procedures per TAPS Documents OHU-8.05 and OHU-8.03.

Please contact your supervisor or Contract Representative with any questions related to this requirement.

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**MARITIME HELICOPTERS
PUBLICATIONS
ROUTING MEMORANDUM**

DATE: 10/04/18

TO: All Employees

FROM: Quality and safety memo

SUBJECT: September Safety memo

Please complete the verification of receipt below and return this form to the Records Department in Fairbanks via email to faiaadmin@maritimehelicopters.com or by fax to (907)452-4539

BY SIGNING THIS FORM I ACKNOWLEDGE I have reviewed and will comply with the memo listed above

EMPLOYEE SIGNATURE

DATE