Maritime Helicopters

January 2018 Quality & Safety Notes

Happy New Year

A good year? How do you define a good year in the Quality & Safety Department? No Flight Irregularity Reports? No Ground Occurrence Report? No Audit Findings Whatsoever? No Personal Injuries? No Reports of any kind???

Ahhh, Fantasy Land! What a great place to visit! I'll cut to the chase and tell you that 2017 was a pretty good year in some ways and not such a good year in some others. There is a topic regarding our Safety Management System called "Continuous Improvement". We always have to be seeking ways to make ourselves a safer company in operation and a more quality operation in customer compliance and satisfaction. In 2017, I think our Continuous Improvement was evident. Possibly, because we actually had ***more*** safety reporting than in 2016.

And that is a good thing. Plain and simple: When we are writing up more reports, we seem to be fixing more things that are wrong. Whether it is audit findings or safety reports, we need to know what is wrong in order to fix it.

Maritime Helicopters had no personal injuries beyond basic first aid in 2017, with no OSHA Recordable Injuries. We had no aircraft accidents and no injuries involving our primary business of moving people around the State of Alaska by helicopter.

2018 Flight Irregularity Report Wrap Up

Maritime had a grand total of 38 Flight Irregularity Reports in 2017. That's 14 more reports that in 2014. Which you might think is a bad thing. NOPE! I think we're finally getting to the point where we just might suspect that if we write things up, that we also might get some problems fixed.

We still are having Bell 407 FADEC & Start issues, which account for over a third of our FIRs this year. Within that statistic there are some lessons learned which we should mention. On one aircraft, we had several FIRs for FADEC degrade issues. Several FIRs that is, ***before*** we had a report that accurately described the details of what was happening. Once one of the pilots actually wrote down some details about the Gas Producer Speeds/Engine Temperatures/Start Times regarding what was leading to the FADEC degrades, then the aircraft was fixed pretty darned quickly.

Another instance in the Engine Start issues was that FIRs were not being filled, even though the Bell 407 in question had numerous start problems through the summer and early fall. Again, once an FIR was filled with specific details on the nature of the "hotter than normal" starts, a new HMU was installed on the engine and the problem was fixed. We can't let ourselves get so jaded in the flying business that Alternate Starts are the norm and we just live with problems which we should be writing up.

In other areas of the FIRs, we only had two specifically flight related, ***human factors*** incidents this year. Both led to having to perform investigations on the details due to high cost or property loss. One of these, an engine over-speed was the result of the pilot not being fully familiar with a maintenance procedure. (FADEC Manual Check). It still can't be stressed enough that if you are performing procedures with which you are unfamiliar, STOP, get some instruction or technical help, then proceed. Assume the worst will happen if you don't know.

The other human factors incident in 2017 had to do with a poor weather decision leading to the dropping of a sling load. This is Alaska folks. The forecasting will always be a bit lacking. If you encounter unforecast weather, turn around and go back to where the weather is better, or ***land!*** We probably got lucky on this one.

On to more of the FIR summary: we had only five engine or transmission chips this year. And only one of those on the Bell 412 was of any real consequence. That resulted in the #1 engine and combining gearbox being replaced. Painful in dollars, yes…but it is great that our pilots are performing their emergency procedures correctly and we are fixing and improving our aircraft.

A Bell 206 hydraulic pump failed and caused a customer delay. Great reaction times and fixes on the aircraft there!

An ICS/Comm switch failed, an overtemp light came on despite there being no Overtemp. We had one battery fail which was lucky enough to be close to a replacement battery at a remote site to not delay the customer.

A great find on a preflight was an oil cooler fan shaft which was found on a Bell 407 which had to be condemned and a new fan shaft installed. That led to a customer delay, but ***did not*** lead to a precautionary landing in some remote area with high oil temperatures due to finding the bad shaft on the ground!

2018 Ground Occurrence Report Wrap Up

Oddly enough, we had eight ground occurrence reports in 2016 and eight in 2017. I don't have any idea what that means. We did manage to capture enough data on the GORs to correct a few items. The right-hand cowling on the 407s was chaffing the fuel lines, and that was fixed. Through two different GORs, we learned that the float systems on the aircraft ***were*** a bit more familiar to the Homer mechanics than the Fairbanks crew!

We've now corrected the starter install procedure on the Bell 407 due to a GOR. If you're not aware of that fix, please contact Isaac or Brent.

It seems that most of the GORs had to do with procedural errors...some because of training, some because of incomplete procedures. There was actually only two strictly human error issues in our ground occurrences this year. One, a FOD issue with a plastic cap found in a fuel system which caused no damage. The other hand to do with and improper torque-ing of a Bell 206 Tail Rotor Driveshaft which was found by one of our senior mechanics on a daily inspection. (It's always good to have more than one set of eyes in aircraft maintenance when you can!)

While we continue to improve our procedures through our ground occurrence lessons learned, it is good to remember that the GOR program is not just for aircraft related corrective actions! Our shops, driving, and even our offices are never completely safe without constant oversight. Please continue to use the GOR as your method of correcting any of our procedures which need improvement!

Human Factors & Aviation

We did have a great success in reducing our human factors incidents by more than 50% in 2017. Kudos to all!

New, New, New Station Checklist.

We've had a lot of discussion about the station checklist and the fact that it is still pretty broad in scope and has many items that are no applicable to different remote sites. For example, the Akutan fuel is provided locally but the truck hasn't been inspected as often as we would inspect our own property and that has led to some problems.

I am modifying the station checklist once more and will include some items like a better review of the monthly Fuel Quality Assurance form. For sites like Akutan that will mean a monthly record of the fuel filter type and change dates. Please go ahead and include that information on the current form at all sites until I get the new form distributed.

If you have items of particular concern that you would want added to the station checklist, please email me at safety@maritimehelicopters.com

Mechanic Toolbox Talks

In order to facilitate a lot of the OSHA/FAA & Maintenance subjects, we're going to again do a "top-of-the-year" refresh to our commitment to the Monday "Toolbox Talks". The frontline supervisors will be working on a list of topics for the 5-10 minute mini-classes to be discussed when laying out the work priorities for the week on Monday morning. Please get with Brent and Isaac if you have subjects that you'd like covered or would like to teach! (Pilots can attend these too!)

Incident Reporting for January

FIR: 201801, 1/4/2018/1448: Bell 407, N407RH Unforecast Weather

Livengood

While returning to Fairbanks, Pilot encountered low ceilings & visibility. Trying the East and West weather routes from Livengood, aircraft experienced icing. PIC returned to RGV65 (Remote Gate Valve) next to Livengood (heat/electric/shelter available). Mechanic was dispatched with vehicle from Fairbanks (with cords, covers, exhaust plugs)

Customer (guard) was returned to Fairbanks with security and pilot returned with mechanic. The following morning, pilot and mechanic returned to the aircraft with a battery cart and pilot returned aircraft to MTF.

FIR: 201802, 1/4/2018-1500: Bell 206L3, 307MH Unforecast Weather

OP27 to Blair Lakes

Aircraft and two JPARC customers were returning from OP27 when Pilot experienced unforecast weather (last observation was 600' and 10 miles visibility at PAFA) When 20 miles south of Fairbanks, airport went IFR and announced 1/2 mile , freezing fog and indefinite ceiling at 400'. Aircraft diverted to Blair Lakes Range. After phoning Chief Pilot, one more attempt was made when visibility was reported greater than one mile. However, PIC determined that the weather was unsafe and returned to Blair Lakes to R.O.N. Aircraft was returned to Metro Field the next morning.

Both of these FIRs show that the Weather Guessers up here in Alaska can be dead wrong. The 7-8 inches of snow that Fairbanks received on the 15th was completely unexpected. I thought the Channel 11 NewsCaster was going to sob on live TV. But just make sure when you hit unforecast weather, that you are making good choices.

Dennis

Dennis S. Busch
Quality and Safety Manager
safety@maritimehelicopters.com
Maritime Helicopters
1915 Donald Ave
Fairbanks, AK 99701
Tel 907.452-1197
Cell 907.750-9548
Fax 907.452-4539

MARITIME HELICOPTERS
PUBLICATIONS
ROUTING MEMORANDUM

DATE: 01/18/18

TO: All Employees

FROM: Quality and safety memo

SUBJECT: January Safety memo

Please complete the verification of receipt below and return this form to the Records Department in Fairbanks via email to faiadmin@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**

01/18/2018

A: SManualAck.wpd

JAN 2018 Safety Notes.pdf

Document ID: cd83c8d2-fcb4-11e7-9402-bc764e11a0a4

Requested:
Jan 18, 2018, 3:37 PM AKST (Jan 19, 2018, 12:37 AM UTC)
Jessica DelRosario (faiadmin@maritimehelicopters.com)
IP: 24.237.120.144

Signed:
Jan 18, 2018, 4:05 PM AKST (Jan 19, 2018, 1:05 AM UTC)
Steve Slade (dom@maritimehelicopters.com)
IP: 74.124.124.158

MARITIME HELICOPTERS
PUBLICATIONS
ROUTING MEMORANDUM

DATE: 03/30/18

TO: All Employees

FROM: Quality and safety memo

SUBJECT: Feb/March Safety memo

Please complete the verification of receipt below and return this form to the Records Department in Fairbanks via email to faiadmin@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**

Maritime Helicopters

FEB/MAR 2018 Quality & Safety Notes

Spring Cleaning

So here I sit on the eighth day of spring wondering about how to get all the audit preparation and safety work for the year, while being especially busy in the air. We've had a busy winter, which is great for the company, but it sure seems like some things have been put on the back burner! Not good! Checking some aircraft logbooks in anticipation of some more external audits, we've found some errors, including the fact that we're getting lazy on engine power checks. (We'll cover that topic here in a bit). It seems like we have some work to do on our sling and bucket equipment before the busy summer season starts. And our own internal auditing needs some sprucing up. Valdez, Kodiak, & the Glenallen Response base crews are excelling at getting their monthly station audits back to me (Thank-You!) Some of the other sites, not so excellent!

Let's get started on some spring cleaning!

Engine Power Checks

For those of you whom haven't gotten the chance to hear me blather on about the CH-47 Chinook, you may not know that I wasn't "The Safety Guy" in the Army. I was a Maintenance Officer. My pet peeve? Pilots and Maintenance pilots not doing their engine power checks.

Why do Power Checks matter? Engine condition trend monitoring is an integral part of maintenance on the basis of condition, and it is based on the fact that, during an extended period of time it is possible to tell the difference between normal and faster degradation of engine performances. The engines on these Bell helicopters are great! And our great mechanics and records department make sure that we are flying them within Bell's/Rolls-Royce's guidelines. However, on a day to day basis, when you get the aircraft ***today*** that I landed on a gravel bar ***yesterday***, how do you know I didn't ingest a heap of sand right through the compressor?

That does beg the question…What is the most consistent engine degradation, power trend that we can find by doing our engine power checks??? The answer: The need for an engine wash. The figure I've included is from an Allison engine study from the 1990s. It very applicable today. Engine temperatures go up (degraded performance) as engines get dirty, plain and simple.

And every time I've seen an engine with FOD damage ***in between*** time-before-overhaul? It was first identified by higher than normal temperatures on power checks.

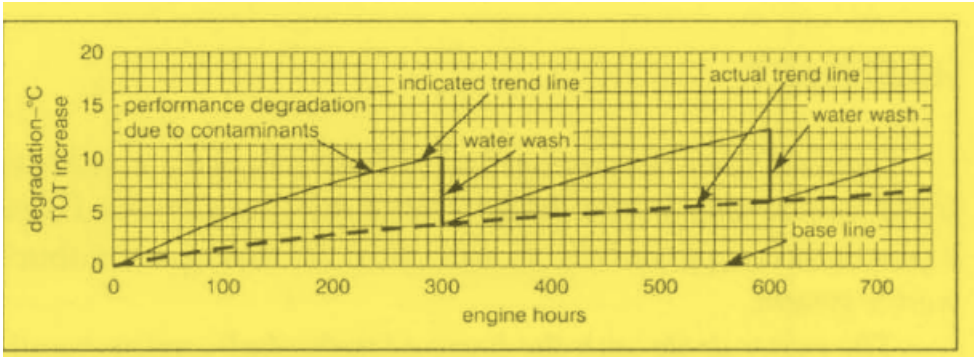


Figure 4 - Effect of engine wash on trend line

Please, please, please! Do your engine power checks! I am going to have the CAS memo and pertinent data attached to this safety letter in the form of forwarded emails from the Chief Pilot. Pilots! Please review those documents from 2015.

New, New, New Station Checklist.

Always in a state of revision! The newest version of the Monthly Station Checklist is on the Maritime Portal and include here as an attachment. I'll keep improving the number and quality of the references as we go along. But I wanted to get this version out because it has the Fuel Quality blocks that I've discussed in past months (please note those changes in section 500. Please use this for your shift/monthly checklist at all the remote sites.

Maritime Helicopters Inc. **Internal Evaluation Program**

Station Checklist

Location:_____ Date:_____

Criteria	Reference	Y	N	N/A
100. AIRCRAFT				
1. Aircraft Information				
a. Type				
b. Tail Number				
c. Total Time				
2. Does the aircraft conform to contract requirements?				
3. Are the aircraft Airworthiness and Registration Certificates present and serviceable?				
4. Is the weight and balance with equipment list correct?				
5. Are there any airworthiness discrepancies noted?				
6. Is the MEL status correct?	206/407MEL			
7. Is the MEL/NEF system being utilized?	206/407MEL			
8. Are the aircraft logbook entries complete?				
9. Do the aircraft placards conform to the Flight Manuals?				
10. Are additional safety items particular to this aircraft serviceable (floats, life rafts, PFDs, flares, Alyeska kits, etc.)				
11. Do the aircraft have a fuel sampling kit?				
12. Are the aircraft fuel samples taken daily?				
13. Are aircraft being properly secured at night?				
14. Is the aircraft clean inside and out?				
15. Is there a Hazmat Booklet on board the aircraft/IPOD/IPAD?				
16. Are seats, seat belts and harnesses in good condition and secure?				
17. Are the trim, cargo net area and tub liners in good condition?				
18. Are there sufficient passenger briefing cards available?				
19. Is the interior paint in good condition and clean?				
20. Are the hearing protectors in proper quantity and good condition?				
21. Is the exterior paint in good condition and clean? Free from corrosion, working rivets, cracks and other damage?				
22. Are doors seals in good working condition and sealing properly?				
23. Is the cargo/baggage door(s) and compartments in good condition, clean, seals tight and free from corrosion?				
24. Is there any evidence of obvious external oil leakage?				

Revision: 18-1 28 Feb 2018 Page D-1

The new Station Checklist will be attached to this Safety letter from the FAI Admin's office!

Mechanic Toolbox Talk

I was going to say a few words about fire safety, but I think I'll just leave it at the picture… There is an arson joke here, but I don't think it would 'catch". ***How not to dry paint.***

Incident Reporting for Feb/Mar

FIR: 201801, 2/5/2018/1355: Bell 206L4, Faulty N1 Gauge

During engine Start with a ground power unit at one of the remote stations, the Gas Producer (N1) gauge was fluctuating and making audible "clicking" sounds**.** Customers were delayed as pilot and mechanic attempted trouble-shooting, including the swapping of the N1 Tachometer Generator. After determining that the problem was the gas itself, the customer flight was cancelled and a new N1 Gauge was ordered. The parts were sent and then received (by both air and boat) on the 7th. New N1 Gauge fixed the issue. Aircraft was returned to service.

Not much to say about this one. When a gauge goes bad, you just have to do the best troubleshooting you can and then get the parts ordered as quickly as possible (as the crew did in this case). It's Alaska, sometimes parts take a while.

FIR: 201804, 3/7/2018 Bell 206L4, Hydraulic Actuator Failure

I'm still awaiting the Irregularity Report on this one. Just a quick note to mention that a copy of the FIR should be kept in each aircraft logbook can. The FIRs can also be found on the Maritime Web Portal. Thanks.

SDS of the Month: Imron Paints! (A bit of a family…all have similar qualities. I'll be picking on Imron Elite Productive.)

2. Hazards identification

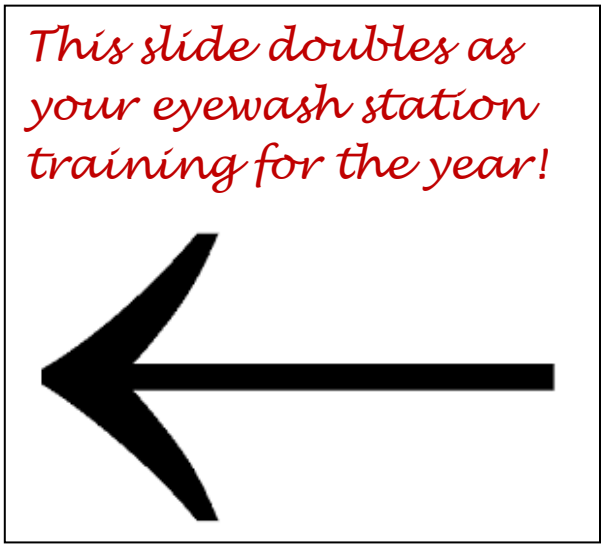
This preparation is hazardous per the following GHS criteria

GHS-Classification

Flammable liquids	Category 2
Skin sensitization	Category 1
Target Organ Systemic Toxicant - Single exposure	Category 3

GHS-Labelling

Hazard symbols
Signal word: Danger
Hazard statements
Highly flammable liquid and vapor.
May cause an allergic skin reaction.
May cause drowsiness or dizziness.
Precautionary statements
Keep away from heat/sparks/open flames/hot surfaces. No smoking.
Ground/bond container and receiving equipment.
Use explosion-proof electrical/ventilating/lighting equipment.
Use only non-sparking tools.
Take precautionary measures against static discharge.
Avoid breathing dust/ vapors/ spray.
Use only outdoors or in a well-ventilated area.
Contaminated work clothing should not be allowed out of the workplace.
Wear protective gloves/protective clothing/eye protection/face protection.
IF ON SKIN: Wash with plenty of soap and water.
IF ON SKIN (or hair): Remove/ Take off immediately all contaminated clothing. Rinse skin with water/ shower.
IF INHALED: Remove person to fresh air and keep comfortable for breathing.
IF exposed or if you feel unwell: Call a POISON CENTER or doctor/ physician.
Specific treatment (see supplemental first aid instructions on this label).
If skin irritation or rash occurs: Get medical advice/ attention.



4. First aid measures

Eye contact

Remove contact lenses. Irrigate copiously with clean, fresh water for at least 15 minutes, holding the eyelids apart. Seek medical advice.

Skin contact

Do NOT use solvents or thinners. Take off all contaminated clothing immediately. Wash skin thoroughly with soap and water or use recognized skin cleanser. If skin irritation persists, call a physician.

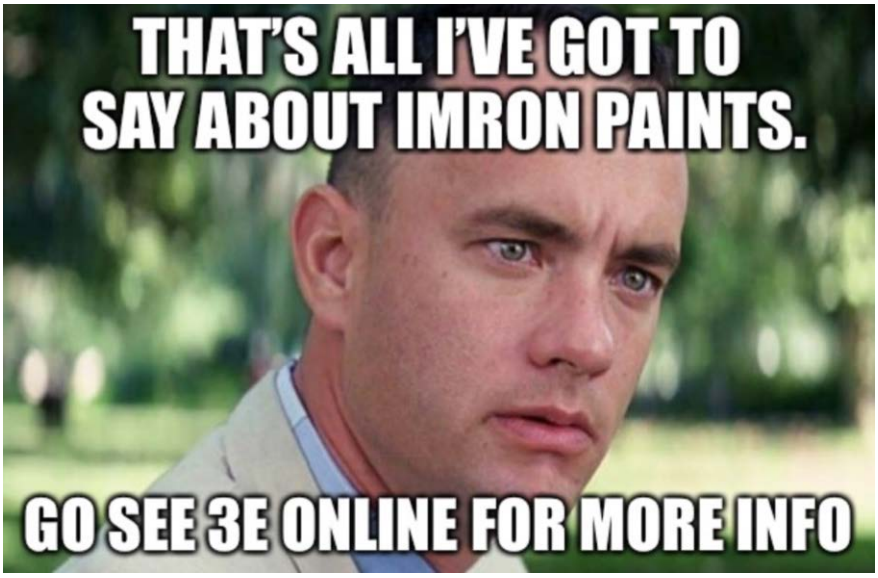
Inhalation

Avoid inhalation of vapor or mist. Move to fresh air in case of accidental inhalation of vapors. If breathing is irregular or stopped, administer artificial respiration. If unconscious place in recovery position and seek medical advice. If symptoms persist, call a physician.

Ingestion

If swallowed, seek medical advice immediately and show this safety data sheet (SDS) or product label. Do NOT induce vomiting. Keep at rest.

Most Important Symptoms/effects, acute and delayed
Inhalation
Ingestion
May result in gastrointestinal distress.
Skin or eye contact
May cause irritation or burning of the eyes. Repeated or prolonged liquid contact may cause skin irritation with discomfort and dermatitis.
Indication of Immediate medical attention and special treatment needed if necessary
No data available on the product. See section 3 and 11 for hazardous ingredients found in the product.



New Hire Safety Briefings

I still need to round up the following individuals for the New Hire Safety Briefing. You can run, but you can't hide!

Keaton Molt
Ben Johnson
Bryan Minnear
Scott McCollum
Scott Dye

Dennis S. Busch
Quality and Safety Manager
safety@maritimehelicopters.com
Maritime Helicopters
1915 Donald Ave
Fairbanks, AK 99701
Tel 907.452-1197
Cell 907.750-9548
Fax 907.452-4539

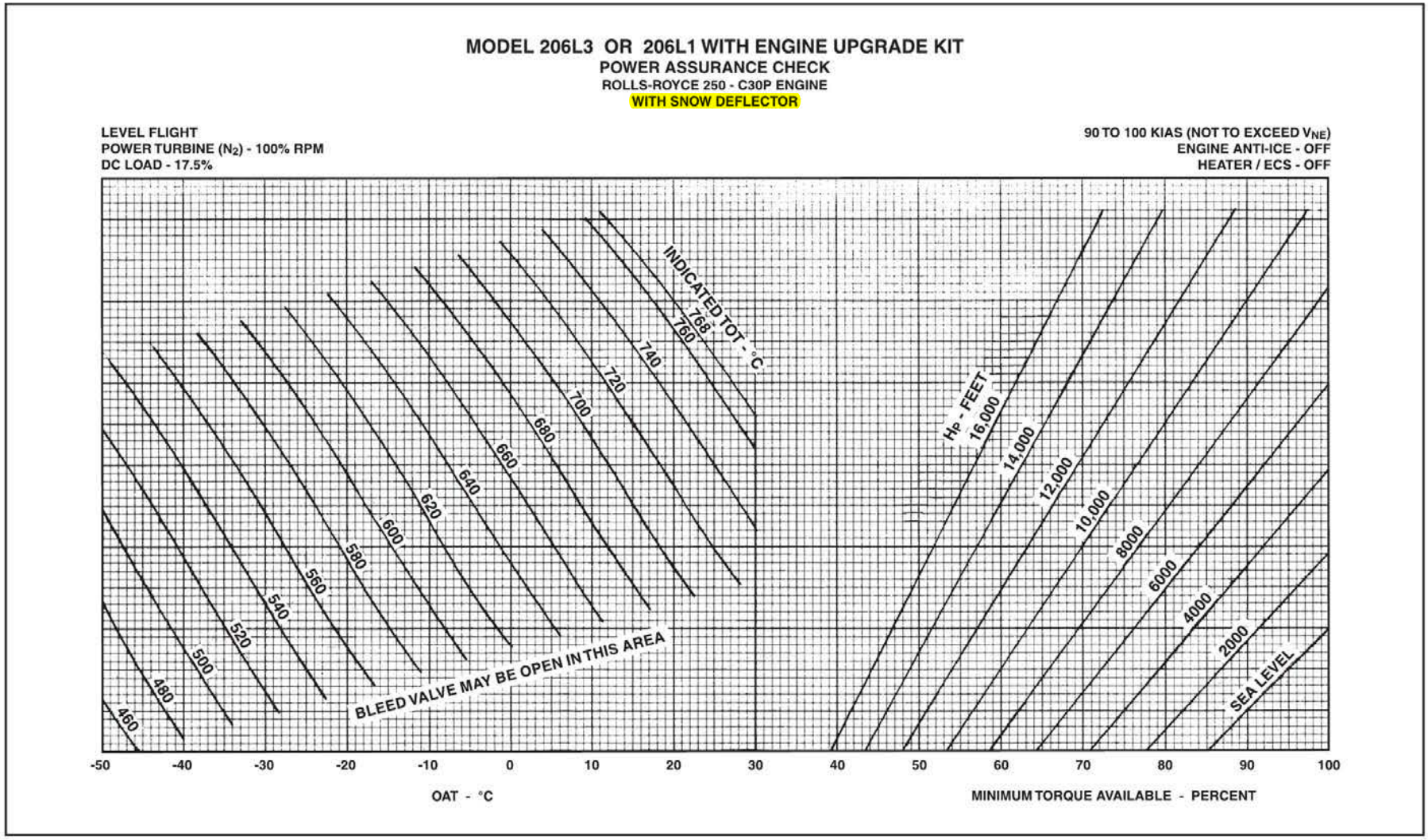


Figure 4-1. Power Assurance Check (Sheet 1 of 2)

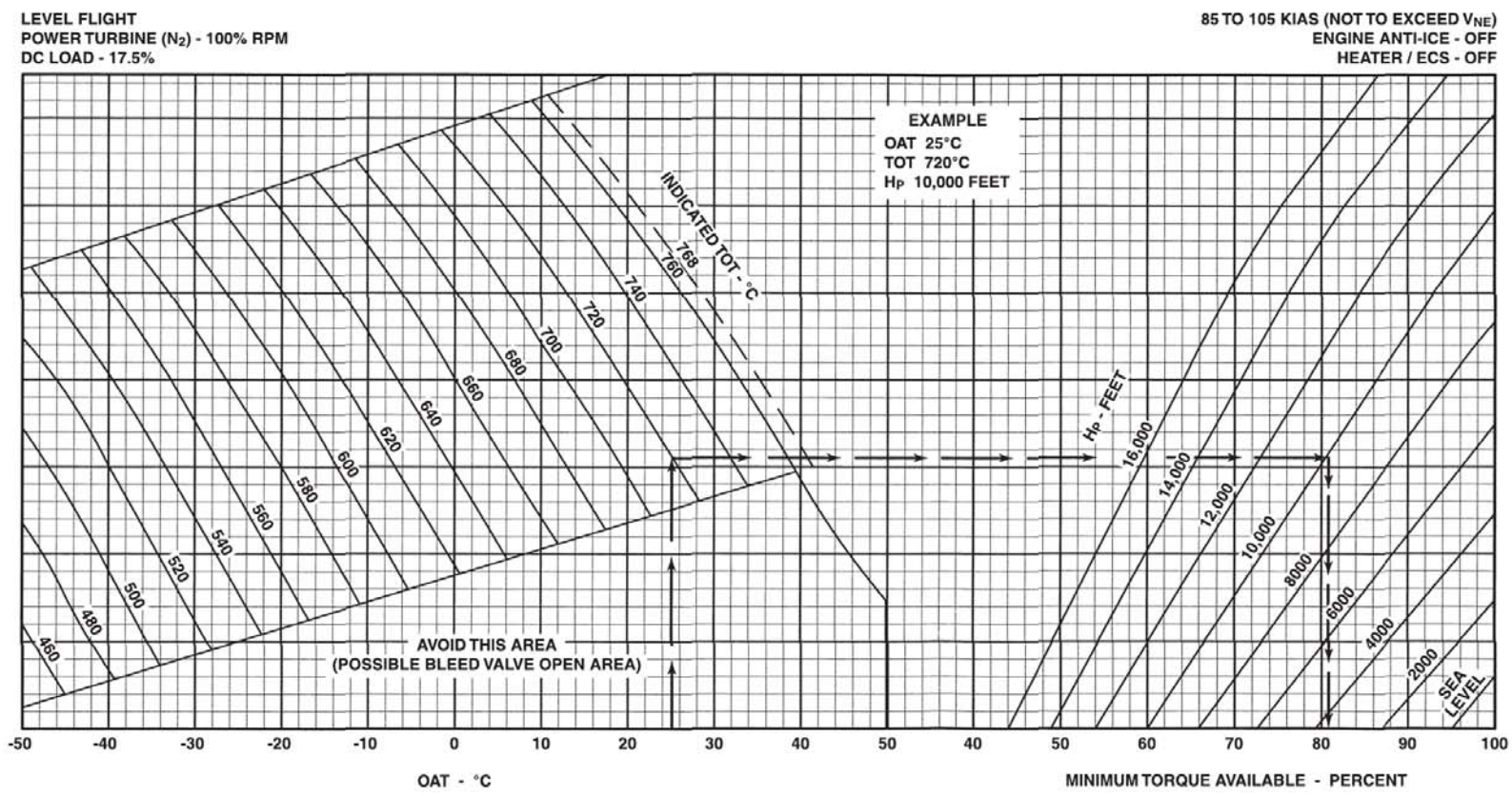


Figure 4-1. Power Assurance Check

Maritime Helicopters

Rolls Royce Engine Performance Trend Chart

Aircraft Model	Registration Number	Engine Serial Number	Month / Year

Date	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
48																															
46																															
44																															
42																															
40																															
38																															
36																															
34																															
32																															
30																															
28																															
26																															
24																															
22																															
20																															
18																															
16																															
14																															
12																															
10																															
8																															
6																															
4																															
2																															
0																															
-2																															
-4																															
-6																															
-8																															
-10																															
-12																															
-14																															
-16																															

Rev. orig 06/01/14

Station Checklist

Location:_____ Date: _____

Criteria	Reference	Y	N	N/A
100. AIRCRAFT				
1. Aircraft Information				
a. Type				
b. Tail Number				
c. Total Time				
2. Does the aircraft conform to contract requirements?				
3. Are the aircraft Airworthiness and Registration Certificates present and serviceable?				
4. Is the weight and balance with equipment list correct?				
5. Are there any airworthiness discrepancies noted?				
6. Is the MEL status correct?	206/407MEL			
7. Is the MEL/NEF system being utilized?	206/407MEL			
8. Are the aircraft logbook entries complete?				
9. Do the aircraft placards conform to the Flight Manuals?				
10. Are additional safety items particular to this aircraft serviceable (floats, life rafts, PFDs, flares, Alyeska kits, etc.)				
11. Do the aircraft have a fuel sampling kit?				
12. Are the aircraft fuel samples taken daily?				
13. Are aircraft being properly secured at night?				
14. Is the aircraft clean inside and out?				
15. Is there a Hazmat Booklet on board the aircraft/IPOD/IPAD?				
16. Are seats, seat belts and harnesses in good condition and secure?				
17. Are the trim, cargo net area and tub liners in good condition?				
18. Are there sufficient passenger briefing cards available?				
19. Is the interior paint in good condition and clean?				
20. Are the hearing protectors in proper quantity and good condition?				
21. Is the exterior paint in good condition and clean? Free from corrosion, working rivets, cracks and other damage?				
22. Are doors seals in good working condition and sealing properly?				
23. Is the cargo/baggage door(s) and compartments in good condition, clean, seals tight and free from corrosion?				
24. Is there any evidence of obvious external oil leakage?				

Station Checklist

Criteria	Reference	Y	N	N/A
100. AIRCRAFT				
24. Is the Rotorcraft Flight Manual at the current revision level and in the aircraft?				
25. Are all the required Flight Manual supplements installed?				
26. Is the compass card installed and legible?				

Criteria	Reference	Y	N	N/A
200. AIRCRAFT MANUALS/FORMS (follow specifics when you can: otherwise simply self-audit records as they apply to your site)				
1. Are maintenance and support manuals available? (Bell, Rolls Royce, Airbus, Company Manuals) (Or readily available online?)				
2. Are revisions current IAW Maritime's Master Publication List?				
3. Are personnel A&P certificates and RII cards available for inspection?				
4. Have deferred discrepancy write-ups been checked?				
5. Is there adequate communications between pilots and mechanics concerning write-ups?				
6. Are the flight sheets completed properly and the flight times added accurately?				
7. Are all folders of aircraft IPAD current with latest changes? Are **Foreflight** updates current? Fully charged and all charging equipment serviceable?	Chapter 21 Maritime SOP			

Criteria	Reference	Y	N	N/A
300. AIRCRAFT SPARE PARTS				
1. Are serviceable and unserviceable aircraft parts stored separately?	Maritime Repair Station Manual			
2. Are aircraft parts protected with bags and openings plugged as required?	"			
3. Are all parts tagged to identify item and source as required	"			
4. Are all tags properly signed?	"			
5. Are all spare tubes and hoses capped?	"			
6. Are shelf life items within expiration dates?	"			
7. Is a parts inventory available and up to date?	"			

Criteria	Reference	Y	N	N/A
400. AIRCRAFT SUPPLEMENTAL EQUIPMENT (sling, aux tank, uninstalled equipment, etc.)				
1. Is the equipment stored with openings covered, lines properly capped and electrical connectors protected?	"			
2. Is the litter kit in serviceable condition?				
3. Are dual controls in serviceable condition?				
4. Is the sling gear serviceable with load tags installed?				
5. Are Aircraft Computers, diagnostic computers, IPods all fully charged and complete with cords, chargers, etc.?				

Criteria	Reference	Y	N	N/A
500. FUEL SYSTEM				
If there is no fuel system to maintain, mark N/A here. Akutan Personnel must inspect fuel tanker.	Maritime FQM			
1. Are the tanks properly grounded and labeled? Or, are tanker grounding cables in good working order?	Maritime FQM			
2. Are fire extinguishers available and serviceable with current inspection tags?	NFPA 407			
3. Are daily, weekly, and monthly fuel system inspections being complied with?	Maritime FQM			
4. Are fuel sump jars being used properly on a daily basis?	Maritime GoM			
5. Are proper refueling procedures being followed?	NFPA 407			
6. Is the Daily Fuel Quality Form completed daily?	Maritime FQM			
7. Fuel Change Date on pump or truck _____	Maritime FQM			
8. Filter Type/Part Number at this site_____ _____	Maritime FQM			

Criteria	Reference	Y	N	N/A
600. SUPPORT EQUIPMENT & FACILITIES				
1. Is the oil and chemical storage area neat and orderly?	OSHA 1926.152			
2. Has a FOD ramp check been performed?	FAA AC No. 150/5210-24 NAS 412			
3. Do the compressor water/air separator and air pressure gauges function properly?				
4. Are battery carts being properly maintained and functional?				
5. Are all ground handling wheels operational and functional?				

6. Do powered carts (Tug-a-Lug) operate properly, no loose parts, electrical connections clean, no frayed wires, wheels inflated and drive shafts tight, battery at proper fluid level, and hydraulic at proper fluid level?				

Criteria	Reference	Y	N	N/A
600. SUPPORT EQUIPMENT & FACILITIES				
7. Are aircraft grounding leads in good condition and being used?				
8. Is the hangar facility clean, neat and orderly?				
9. Are the large tools (i.e. brakes, band saws, presses, etc.) in good condition?	OSHA 1910.211 -.244			
10. Are all open oil/solvent containers removed from the hangar and stored in a flameproof cabinet at the end of each day?	OSHA 1910. Part H			
11. Are the exterior of the buildings clean?				
12. Is there sufficient parking for customers and employees?				
13. Is the parking ramp in good condition?				
14. Is the customer waiting area large enough?				
15. Is the customer waiting area clean and neat?				
16. Are the restroom facilities in proper working order and are they kept clean?				
17. Are customers kept off the flight line except to board or de-board an aircraft?				
18. Is the aircraft ramp in good condition?				
19. Is the ramp area clean, free of oil and fuel spills?				
20. Are the flight line markings clear? Are the lights in working order				
21. Is the windsock in acceptable condition?	FAA AC 150/5345.27D			
22. Are work stands & ladders stored properly when not in use?	OSHA 1910.23			
23. Is there a spring scale available for use to weigh in customers and baggage?	GoM			
24. Is there a spring scale available for aircraft weight and balance use in the field?	GoM			
25. Is a copy of Maritime's Alaska Air Carrier Certificate posted?	14 CFR			
27. Are standard HR and OSHA workplace posters posted?	OSHA 1903.2			
28. Is the aircraft battery charger in good condition?				
29. Is the pneumatic leak checker in good condition?				

Station Checklist

Criteria	Reference	Y	N	N/A
700. OSHA & FIRE SAFETY				
1. Are in-use flammable materials stored in separate fireproof containers?				
2. Are fire extinguishers available and serviceable with a current inspection tag?	NFPA 407 & OSHA			
3. Are exit signs clearly marked?	OSHA 1910 Part E			
4. Is lighting adequate and working properly?	OSHA 1910 Part E			
5. Are eyewash stations available and in proper working order with current inspection tag?	1910.151(c)			
6. Are inoperative items removed from service?				
7. Are electrical control panels serviceable with no visible damage?				
8. Are protective guards present for machines with rotating parts?				
9. Are the eye and face shields present in the vicinity of the grinder, drill press or other machines with rotating parts and are they being used?				
10. Are safety signs posted requiring protective gear to be used on the machinery?				
11. Is hearing protection available and visible?				
12. Is a first aid kit available? Has it been inspected, restocked and signed off?				
13. SDS- 3E Company Site being utilized? Telephone Backup? (Safety Data Sheets)				
14. Are portable fire extinguishers maintained in a fully charged and operable condition?	NFPA 408			

Criteria	Reference	Y	N	N/A
800. PRECISION TOOLS				
1. Are tools properly stored?				
2. Are special tools properly tagged and within calibration?	Maritime GoM			

Station Checklist

Criteria	Reference	Y	N	N/A
900. COMPANY VEHICLES				
1. Do the Company vehicles contain:				
a. Registration?				
b. Current registration tags?				
c. Insurance information?				
d. Accident information?				
e. Road hazard kit?				
f. Survival kit?				
2. Are Company vehicles clean and fluids at acceptable levels?				
3. Is the vehicle in good condition with no safety hazards?				
4. Are Forklifts/Skid loaders or other Powered Industrials Trucks Clean, well maintained (oil changes, battery, etc.)	29 CFR 1910.178			
5. Is all Safety equipment on Powered Industrial Trucks intact And functional (cages, seat belts, etc.)	29 CFR 1910.178			

The following are Discrepancies/Deficiencies that were discovered and corrected (if applicable)		
Item #	Discrepancy / Deficiency	Corrective Action

Ideas/Concerns/Need or Want List Items		
Item #	Concern	Corrective Action

FOR ON-SHIFT/ON-SITE PERSONNEL INSPECTIONS (ATTEMPT TO ALTERNATE PILOT AND MECHANIC)

This inspection was performed by:

Pilot (Printed Name) OR Mechanic (Printed Name)

Pilot (Signed) Mechanic (Signed)

Maritime Helicopters

June 2018/2nd Quarter Quality & Safety Notes

Spring Cleaning

The Safety Notes have been missing for a couple of months while I did a bit of extra flying, but now we've got all the summer season help here and I might have a moment or two to recap the last few months! There were a few items that got left behind over the course of a busy winter. Checking some aircraft logbooks in anticipation of some more external audits, we've found some errors, including the fact that we're getting lazy on engine power checks. (We'll cover that topic here in a bit). It seems like we have some work to do on our sling and bucket equipment before the busy summer season starts. And our own internal auditing needs some sprucing up. Valdez, Kodiak, & the Glenallen Response base crews are excelling at getting their monthly station audits back to me (Thank-You!) Some of the other sites, not so excellent!

Let's get started on some spring cleaning!

Engine Power Checks

Back in March, we discussed the general lack of consistency in performing engine power checks on the aircraft. We're improving, but 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!

A Family of Pigs

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 Talk

A certain paint booth was redone to fix some earlier, much more flammable issues! Nice heat lamps, nice METAL drying table. All in all a success. Thanks for making a safer work environment!

Incident Reporting for April-June

FIR: 201807, 5/5/2018/1330: Bell 206L4, (Customer Intoxicated-Unruly behavior)

This time we're not going to go into gory details, but suffice it to say that our unruly passenger is back and getting on the helicopter after drinking alcohol…probably LOTS of alcohol. We all have to be extremely vigilant to not let anyone intoxicated board our aircraft. This individual likes unbuckling his seatbelt and opening the cabin door in flight.

Careful, Fella!

FIR 201808, 4/26/2018/1400: Bell 206 L4 (Engine Torque Fluctuations/Governor Fail)

During pattern flight, at 70% Torque, there was a torque fluctuation of 5% without moving the collective. The TOT was oscillating along with the Torque approx. 20 Degrees. Removed Governor and Replaced with serviceable Governor and Ops checked normal.

Many times with a partial failure or erratic behavior of an engine proves the old adage that "These aircraft have never read the operators manual". Aircraft emergencies, very often do not follow the book! Surprise! If you have fluctuating engine power (Torque, Temp, AND NG), then you really have to perform maneuvers with less power (careful collective changes), watch for exceedances and return the horse back to the stable for repairs!

FIR 201809, 6/12/2018/1000: Bell 206 L4 (Truck blocking Taxiway)

When taking off along taxiway, a UPS Truck stopped on the taxiway block about 1/4 of the taxiway. Aircraft maneuvered around truck but pilot felt that this was an inappropriate place to park a truck. The individuals involved contacted the company and worked out how to "share the road".

This is Alaska so many time, on our small airfields, there are a lot of different entities sharing space. It's good when we can work out things on an individual basis when we can. A new FEDEX driver recently started here in Fairbanks and parked in front of the hangar on the airfield side of Metro Field. Most of the time, it is best to just educated the public.

GOR 201806, 4/17/2018/2000: (Bell 407 Main XMSN Lower Chip Detector Inoperative)

During scheduled maintenance, AAIP-A-0052, Airframe insp. Mechanic found main XMSN lower chip detector inop (during function check). The Upper Chip Detector was operative using both upper and lower electrical connectors, and the Lower Chip Detector failed using either electrical connectors.

Aircraft was grounded for about 24 hours while parts were delivered. New Chip detector was installed and passed function check.

It's good that we check these chip detectors on the ground, eh?

GOR 201809, 5/19/2018/1300: Bell 206 L4 Cracked Flight Control Components

While inspecting the heater system under the pilot's seat, the mechanic found the Pilot's Cyclic Pivot Assembly to be cracked. Pilot and Fairbanks base were notified

Aircraft was grounded & Parts ordered. Replaced pilot's Cyclic Control Stick Lower Pivot assembly. Negligible down time as substitute aircraft was flown to location. The cracks were found to be in the portion where the cyclic stick inserts into the lower mount.

This was a great catch by the mechanic! Sometimes when performing an unrelated inspection in an area that isn't opened up that often, it is good to take a look around.

SDS of the Month: Jet A-1 Made of Petroleum (Kerosene) and other additives

We'd better talk about this one since you can't buy Jet B in Alaska anymore!

Flammable Liquid – Category 3 (actually less flammable than Jet B. NFPA Says that Jet A-1 is Cat 2
Aspiration Hazard – Category 1
Skin Irritation – Category 2
Specific Target Organ Toxicity (Single Exposure) – Category 3
Chronic Aquatic Toxicity – Category 2

Signal Word: Danger

Flammable liquid and vapor.
May be fatal if swallowed and enters airways – do not siphon by mouth.
Causes skin irritation. Repeated or prolonged skin contact can cause skin irritation and dermatitis.
May cause drowsiness or dizziness by inhalation.
May cause irritation of respiratory system.
Toxic to aquatic life with long lasting effects.

SECTION 4. FIRST AID MEASURES

Inhalation: If inhaled, remove to fresh air. If not breathing, give artificial respiration. If necessary, provide additional oxygen once breathing is restored if trained to do so. Seek medical attention immediately.
Skin contact: Take off all contaminated clothing immediately. Wash off immediately with soap and plenty of water. Wash contaminated clothing before re-use. If skin irritation persists, seek medical attention.
Eye contact: In case of eye contact, remove contact lens and rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Seek medical attention immediately.
Ingestion: Do NOT induce vomiting. Do not give liquids. Seek medical attention immediately. If vomiting does occur naturally, keep head below the hips to reduce the risks of aspiration. Monitor for breathing difficulties. Small amounts of material which enter the mouth should be rinsed out until the taste is dissipated.
Notes to physician: Symptoms: Aspiration may cause pulmonary edema and pneumonitis. Treatment: Do not induce vomiting, use gastric lavage only. Remove from further exposure and treat symptomatically.

SECTION 5. FIRE-FIGHTING MEASURES

Suitable extinguishing media: Carbon dioxide (CO2), Water spray, Dry chemical, Foam, Keep containers and surroundings cool with water spray. Do not use a solid water stream as it may scatter and spread fire., Water may be ineffective for fighting the fire, but may be used to cool fire-exposed containers.
Specific hazards during fire fighting
: Fire Hazard. Do not use a solid water stream as it may scatter and spread fire. Cool closed containers exposed to fire with water spray. Sealed containers may rupture when heated. Above the flash point, explosive vapor-air mixtures may be formed. Vapors can flow along surfaces to distant ignition source and flash back.
Special protective equipment for fire-fighters
: Firefighting activities that may result in potential exposure to high heat, smoke or

toxic by-products of combustion should require NIOSH/MSHA- approved pressure demand self-contained breathing apparatus with full facepiece and full protective clothing.
Further information: Exposure to decomposition products may be a hazard to health. Standard procedure for chemical fires.

SECTION 8. EXPOSURE CONTROLS / PERSONAL PROTECTION
Exposure Guidelines
List Components CAS-No. Type: Value
OSHA Z1 Naphthalene 91-20-3 PEL 10 ppm 50 mg/m3
Ethyl Benzene 100-41-4 PEL 100 ppm 435 mg/m3
ACGIH Naphthalene 91-20-3 TWA 10 ppm
91-20-3 STEL 15 ppm
Kerosene (petroleum) 8008-20-6 TWA 200 mg/m3
Ethyl Benzene 100-41-4 TWA 100 ppm 434 mg/m3
STEL 125 ppm 543 mg/m3
Protective measures: Keep out of reach of children.
Engineering measures: Use only intrinsically safe electrical equipment approved for use in classified areas. Emergency eye wash capability should be available in the vicinity of any potential
SAFETY DATA SHEET Jet Fuel Page 5 of 8
5 / 8
splash exposure.
Eye protection: Goggles and face shield as needed to prevent eye and face contact.
Hand protection: Gloves constructed of nitrile, neoprene, or PVC are recommended.
Skin and body protection: Chemical protective clothing such as DuPont TyChem ®, Barricade or equivalent, recommended based on degree of exposure. Consult manufacturer specifications for further information.
Respiratory protection: NIOSH/MSHA approved positive-pressure self-contained breathing apparatus (SCBA) or Type C positive-pressure supplied air with escape bottle must be used for gas concentrations above occupational exposure limits, for potential of uncontrolled release, if exposure levels are not known, or in an oxygen-deficient atmosphere.
Work / Hygiene practices: Emergency eye wash capability should be available in the near proximity to operations presenting a potential splash exposure. Use good personal hygiene practices. Avoid repeated and/or prolonged skin exposure. Wash hands before eating, drinking, smoking, or using toilet facilities. Do not use as a cleaning solvent on the skin. Do not use solvents or harsh abrasive skin cleaners for washing this product from exposed skin areas. Waterless hand cleaners are effective. Promptly remove contaminated clothing and launder before reuse. Use care when laundering to prevent the formation of flammable vapors which could ignite via washer or dryer. Consider the need to discard contaminated leather shoes and gloves.

You can see that this is not every section of an actual Safety Data Sheet According to OSHA and the new Globally Harmonized System of Hazardous Communication. Please see our 3E Verisk website for more information.

https://www.3eonline.com/EeeOnlinePortal/DesktopDefault.aspx
If you've forgotten the User Name and Password, give me a call.

ERP Checklist Version 19 (It's here! It's here!) Calm down everyone.

MH Emergency Pocket Checklist v.19

•**Start Log (Incident Log from ERP manual or substitute)**
•**Initial Report-Contact Manager on Duty**
Director of Operations: Bob Fell, 907-227-7602
Chief Pilot: Dave Jones, 907-388-8390
•**Alert-Senior Management**
Director of Operations: Bob Fell, 907-227-7602
Chief Pilot: Dave Jones, 907-388-8390
•**Subsequent Alerts if Event is Significant**
Director of Maintenance: Steve Slade, 720-413-9835
Assistant Chief Pilot: Dave Buzga, 208-596-9076
Quality & Safety Mgr. Dennis Busch 907-750-9548
•**Notification of Client-Director of Operations shall notify**
Identity and notify client representative (see page 2)
•**Notification of Authorities-Director of Operations shall notify**
FAA Comm. Center Duty Officer: 907-271-2000
FAA POI Mathew Dahl: 907-209-0833
FAA PMI David Fredrick: 907-790-7305
NTSB: 907-271-5001
•**Post Alert Duties and Responsibilities-Manager on Duty**
Keep Flight Operations running with continuous contact with accident scene.
•**Emergency Response Center Procedures**
Members will assemble at MH principal base
•**GO TEAM Established**
•First Person Procedures at Accident Scene
Action Priorities: care of injured, preserve wreckage & cargo
Secure flight and maintenance records
Establish contact with Manager on Duty-BobFell/Dave Jones
•**Communications**
All communication will be through
Bob Fell/Dave Jones
Note: All statements to the press will only be through the President or Senior Representative of the GO Team
•**Required Reports filed by Director of Operations**
DOD - Immediate if on DOD contract, next business day otherwise
U.S. Department of State - Passenger Report (within 3 hours)
FAA - Mechanical Reliability Report (within 3 days)
NTSB Form 6120.1 or 7120.2 (within 10 days)
NTSB - submit to Director, Family Support Services (upon request)
Obtain Pilot and Witness Statements

DOD Contract Reporting: HQ AMC Command Center @ Scott AFB Illinois 618-229-0360
DOD Next Business Day Reporting: Duty Officer, USTRANSCOM, Scott AFB Illinois (616-402-2369) and to HQ AMC/A3B (618-229-4801 or 4343)
NTSB National Transportation Safety Board Office (7-5) 907-271-5001
FAA Regional Operations Center (24 hrs.) 907-271- 5936
USCG Rescue Coordination Center 907-463-2000
ANG Air National Guard Alaska Rescue Coordination Center: 907-428-7230
Natl' Parks in AK Dispatch 907-683-9555
KNP - King Salmon Natl' Park Office (8-5) 907-246- 3305
LCNP ANC Lake Clark Natl' Park Office (8-5) 907-644- 3626, Chief Ranger Carin Farley 907-644-3647
Alaska Fish & Wildlife Protection Division (Kodiak) 907-486-4761
State Troopers: Anchor Pt/Homer 235-8239; Kodiak 486-4121; King Salmon 246-3464; Anchorage 269-5511; Fairbanks 451-5100; Valdez 835-4307; Glennallen 822- 3263; Coldfoot 678-5211
Homer Police Dept. 235-3150
Fairbanks Police Dept.: 450-6500
Homer Airport Airport Mgr. (Kevin Jones) 235-5217office, 399-4069c
ARFF/Maint. Crew 235-4394, 399-7886
Homer Flight Service 235-8550

MHI HELICOPTER SAT PHONE NUMBERS	
N193AL	011-8816-2347-5252
N304MH	011-8816-5147-4518
N305MH	011-8816-5147-3084
N306MH	011-8816-5147-6601
N307MH	011-8816-2347-5428
N308MH	011-8816-5147-3007
N309MH	011-8816-5147-2999
N312MH	011-8816-2249-4799
N314MH	011-8816-2347-5344
N316MH	011-8816-2346-6521
N319MH	011-8816-2346-6275
N326MH	011-8816-2244-6282
N327MH	011-8816-2244-6323
N328MH	011-8816-5148-4760
N330MH	011-8816-2343-7779
N405LP	011-8816-5146-7719
N407PA	011-8816-2249-4876
N407RH	011-8816-2249-9809

Just remember that: In any emergency, contact the right people and documenting all events on a log are the two primary considerations after taking care of life and limb!

Quality Department Note: I'd just like to mention that since we've been getting busier and busier lately, that the chances for regular audits have been dwindling…but that is going to change very soon. I'm going to have to hit the trail and start performing some base station and remote station audits more opportunistically in the next few months. I'll be down in Homer next week, checklist in hand and will be looking at Operations, Facilities, and the Emergency Response Plan. So this won't be a surprise audit!

Internal Evaluation Program

Revision: 15-02

11th November 2015

Assigned to: Dennis Busch	Position: Quality& Safety Manager
AIRCRAFT N_____(if applicable)	Date of Assignment:

If found, please return this program to:

Maritime Helicopters
3520 FAA Road
Homer, AK 99603
USA
Tel. 907-235-7771

Dennis S. Busch
Quality and Safety Manager
safety@maritimehelicopters.com
Maritime Helicopters
1915 Donald Ave
Fairbanks, AK 99701
Tel 907.452-1197
Cell 907.750-9548
Fax 907.452-4539

MARITIME HELICOPTERS
PUBLICATIONS
ROUTING MEMORANDUM

DATE: 06/29/18

TO: All Employees

FROM: Quality and safety memo

SUBJECT: June Safety memo

Please complete the verification of receipt below and return this form to the Records Department in Fairbanks via email to faiadmin@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**

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)*

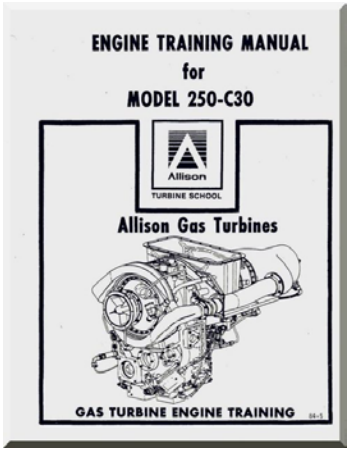
Finding: Maritime Helicopters does not provide dedicated SMS training to all individuals in the organization. An SMS "indoctrination" is accomplished but does not meet the intent of SMS training per the AOG.

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 gulley. 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 gulley 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.

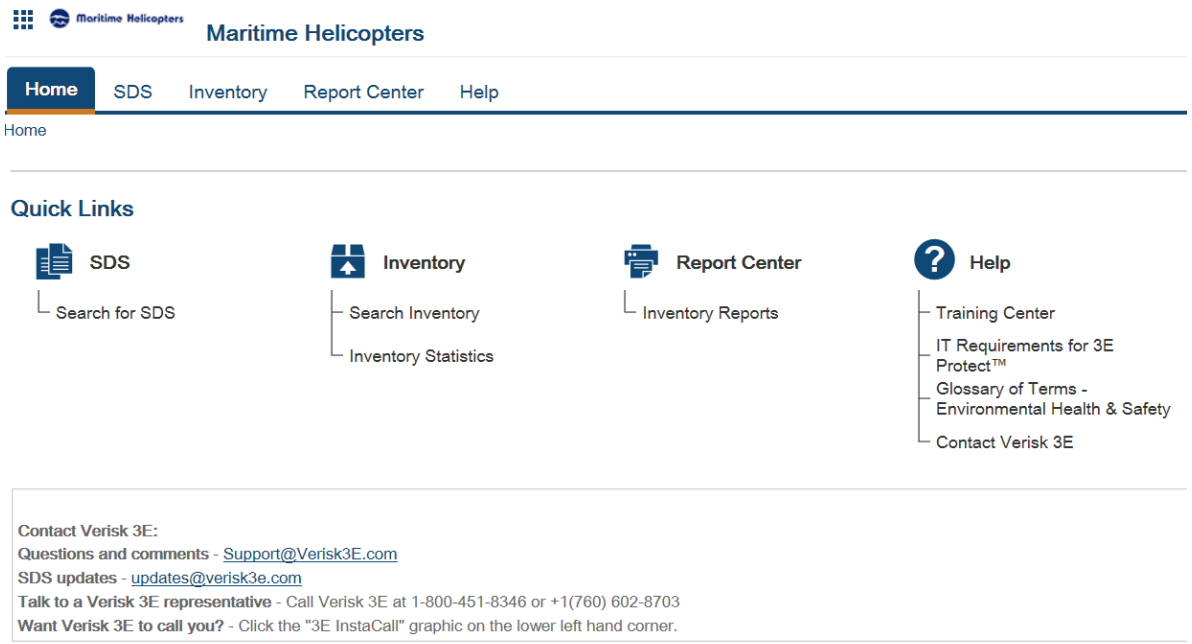
Mechanic removed and replaced engine exciter box. Also removed and cleaned igniter and reinstalled. Ops Check was okay with no faults.

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



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

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.

Dennis S. Busch
Quality and Safety Manager
safety@maritimehelicopters.com
Maritime Helicopters
1915 Donald Ave
Fairbanks, AK 99701
Tel 907.452-1197
Cell 907.750-9548
Fax 907.452-4539

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 faiadmin@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**