



# Maritime Helicopters

## August/September 2017 Quality & Safety Notes



### No Freezing Weather in August/September

Not really...Of course Pump Station 4 and Pump Station 5 had their freezes. But in Fairbanks and south we've been living large with our Global Climate Change! Yeah! But now I'll be the downer and say that it is time once again to get ready for winter. The fireweed has almost run its course and the bears will be headed off to sleep very soon.

There were still quite a few Flight Irregularity Reports in August which we will get to later in the letter, but I do want to mention that the vehicle walkaround program definitely needs some renewed diligence. One of the pilots helped us out here in Fairbanks the other day and was checking the condition of the vehicles and found out that 3 for 3 needed to have engine oil added, and they were mostly down towards the EMPTY line on the gas gauge. Folks, that is ridiculous. We need to keep our vehicles ready to go at all times. The aircraft part being delivered might be for YOU! Please, let's keep the vehicle walkaround program going or the control measures could get ugly. For now I think we'll just settle for some "friendly" reminders from Becky and Jessica when you get the keys to a vehicle, to do a walkaround before you get it!

## FLIGHT IN ICING

We've had a couple of reports from August, where one Maritime Pilot (with customers) has seen another Maritime aircraft depart into known icing conditions. Let's just agree right here; that makes no sense. None of our missions are life and death except for and occasional impromptu medical transport on the pipeline or off a ship. We don't need to be flying in icing. On the 29<sup>th</sup> of August, I was flying Pipeline Security out of Fairbanks when I got a call, relayed through the Alyeska Radio Telephone System (ARTS) at Pump Station 5, that the Pump Station 4 aircraft had experienced unforecast icing around Atigun Pass. Mission curtailed...Period.

We have, in our Health, Safety, And Environmental Manual, a concept know to the industry as "Stop Work". In simplest terms, that means, if you are afraid that you are doing something unsafe (or outright prohibited by the Bell Operator's Manuals in this case, you can stop what you are doing, ask questions of management about other ways of accomplishing your tasks, or discussing the complete cessation of flying, working, driving, etc. until the situation can be made safe.

There is no expectation from Maritime Management that our pilots' are expected to conduct any operation that is in violation of the FAR's or the Rotorcraft Flight Manual. We must be successful in everything that we do. If there is any doubt about whether to continue or not, please give Management a call or don't continue.

(206 L4 Manual)

**Basic configured helicopter is approved for seven-place seating and is certified for land operation under day or night VFR **nonicing** conditions.**

## Aircraft Fuel Samples

Several reports lately of pilot not taking daily fuel samples. Obviously, not good from the whole "I really like working here and would like to continue" standpoint. But more importantly, from the "stay alive and not damage the engine" standpoint.

*Straight from the Fuel Quality Manual*

### 12.2 Aircraft Fuel Samples

The Pilot-in-Command will ensure the daily fuel system sumping procedure as outlined by the Aircraft/ Rotorcraft Flight Manual has been performed. A "Clear & Bright" fuel sample taken from the main fuel tank sump will be placed in a sample jar, marked with the aircraft tail number, and be retained until the aircraft has completed all daily flights. If the fuel does not pass the "Clear and Bright" test, it must be tested with the Velcon Water Detection kit or the Shell Water Detection capsule. If it does not pass these tests, the fuel must be rejected.

I hope that was short and to the point.



## SDS of the Month: Mastinox 6865K

The State Troopers stopped by to borrow a few ounces of Mastinox Sealant the other day. (yes, that's the yellow goop that you have to keep in the fridge to be used for bearings and such (dissimilar metals). I went on the 3E Company site to print out a secondary label for them and got reading the Safety Data Sheet. Yeeesh! Kinda nasty stuff! So even if this isn't the biggest *volume* product we use on the aircraft from day to day, I thought I'd include it as our SDS of the month. Here's the straight dope on this...

Mastinox 6856K Jaune BMS 3-27 / Cart. 160 ML

### Classification of the substance or mixture

FLAMMABLE LIQUIDS - Category 2

ACUTE TOXICITY (oral) - Category 4 ACUTE TOXICITY (inhalation) - Category

4 SKIN IRRITATION - Category 2 CARCINOGENICITY - Category 1A

TOXIC TO REPRODUCTION (Unborn child) - Category 2

SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) (central nervous system (CNS), hearing organs, kidneys, liver) - Category 2

**Signal word:** Danger

**Hazard statements:** Highly flammable liquid and vapor.

Harmful if swallowed or if inhaled.

Causes skin irritation.

May cause cancer.

Suspected of damaging the unborn child.

May cause damage to organs through prolonged or repeated exposure. (central nervous system (CNS), hearing organs, kidneys, liver)

If ingestion, irritation, any type of overexposure or symptoms of overexposure occur during or persists after use of this product, contact a POISON CONTROL CENTER, EMERGENCY ROOM OR PHYSICIAN immediately; have Safety Data Sheet information available. Never give anything by mouth to an unconscious or convulsing person.

### Description of necessary first aid measures

**Inhalation:** Remove to fresh air. Keep person warm and at rest. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel.

**Ingestion:** If ingestion, irritation, any type of overexposure or symptoms of overexposure occur during or persists after use of this product, contact a POISON CONTROL CENTER, EMERGENCY ROOM OR PHYSICIAN immediately; have Safety Data Sheet information available. Never give anything by mouth to an unconscious or convulsing person.

**Skin contact:** Remove contaminated clothing and shoes. Wash skin thoroughly with soap and water or use recognized skin cleanser. Do NOT use solvents or thinners.

**Eye contact:** Remove contact lenses, irrigate copiously with clean, fresh water, holding the eyelids apart for at least 10 minutes and seek immediate medical advice.

### Over-exposure signs/symptoms

**Eye contact:** Adverse symptoms may include the following:  
pain or irritation watering, redness

### Potential acute health effects

Harmful if inhaled.

Harmful if swallowed.

Causes skin irritation. Defatting to the skin.

**Section 8. Exposure controls/personal protection**

**Hand protection** Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.

**Gloves** For prolonged or repeated handling, use the following type of gloves:  
Recommended: polyvinyl alcohol (PVA), Viton®  
Not recommended: nitrile rubber

**Eye/face protection:** Chemical splash goggles.

**Respiratory protection:** Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator. If workers are exposed to concentrations above the exposure limit, they must use appropriate, certified respirators. Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary.

**Body protection** Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. When there is a risk of ignition from static electricity, wear antistatic protective clothing. For the greatest protection from static discharges, clothing should include anti-static overalls, boots and gloves.

**Hygiene measures :** Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

**Skin protection:** Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

**Target organs :** Contains material which causes damage to the following organs: brain. Contains material which may cause damage to the following organs: blood, kidneys, lungs, the nervous system, the reproductive system, liver, heart, gastrointestinal tract, upper respiratory tract, skin, central nervous system (CNS), ears, eye, lens or cornea.



## OLD BUSINESS

### Vehicle Walk Arouns

Have you done your vehicle walk-around??? It might be time to get your wish lists in for winter improvements!



### Not new, but still relevant! Station Audit Checklists

The “new” station audit checklists are still working great for most stations. Please remember that each time you come on shift to take the time to go through the station checklist, see if you need any assistance and then send the checklist to me. Continue sending them to me at...

[safety@maritimehelicopters.com](mailto:safety@maritimehelicopters.com) or fax them to Fairbanks office at 907-452-4539

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## Incident Reporting Late July/August

### FIR: 7/20/2017: Bell 206L3, N307MH (Battery)

Aircraft was on a Ferry Flight and stopped for fuel (first start at home base was with a battery cart). The pilot turned the battery on and prepared to start aircraft. Prestart checks were normal, but the instant the start switch was engaged, the battery power to the aircraft was lost. No warnings were illuminated at all. Having assistance from the Pump Station Mechanic, a low battery condition was diagnosed. The spare battery from the Pump Station aircraft was installed. The aircraft was started normally with the “new” battery and the flight was continued.

**CAS MEMORANDUM M-17-03 was issued regarding battery maintenance and records.** Please read that memo on the Company Portal if you haven't already.

### FIR: 7/21/2017: Bell 407, N309MH (Engine Chip)

The Aircraft was performing flights from the Maritime Maid. The engine Chip light illuminated shortly after lift-off. The pilot immediately turned back to the ship and landed. Mechanic noted a single flake less than 1/32". The 30 minute ground run (penalty run) was performed without additional faults. Aircraft was returned to service. One note on this incident. Make sure ALL the paperwork is completed from the Engine Chip light & Maintenance procedures before departing on the next mission flight!

### FIR: 7/29/2017: Bell 407, N407RH (Stuck Mike)

After a 7.9 hour flight day, coming back into home station, the cyclic transmit switch stuck in the transmit position. There was no previous indication of switch failure. The switch was changed out with a new/operational cyclic switch.

We always have to remember that things as innocuous as a stuck mike switch can add stressor to our single pilot crew resource management. If radios/comms/Interphone Communication Systems fail, we can get our heads inside the cockpit too much which can lead to mishaps. It was good that in this instance, the switch failed at the end of the day, and the pilot

was curtailing operations anyway. But put yourself in the same situation at the start of a busy mission! Your **Stop-Work** decision might be more complex than you think. At what point do you stop living with “annoying situations” in the cockpit? Well obviously, when they become dangerous situations. Something to think about.

**FIR: 8/05/17 Bell 206L3 N307MH (TOT Gauge)**

During first start of the day, with the aircraft battery having been on a trickle charger the previous evening, After introducing fuel, the Turbine Outlet Temperature maxed at 830C. After dropping to 760C, the second spike rose to 810C and then down to 790C. The TOT dropped below 768 at the pilot’s count of 7 but the TOT light illuminated.

*(Maintenance Comments)* The TOT indicated over 768C for greater than 10 seconds. Overtemp was verified by the Bell Manual table. The TOT had not exceeded 826C but exceeded 768 for 10 seconds. Mechanic found that the incorrect TOT gauge was installed per the aircraft serial number. The correct gauge was installed and the aircraft returned to service.

*(Chief Pilot Comments)* Please ensure that anytime that the TOT goes over 768C that the throttle is reduced and begin counting.

**FIR: 8/10/2017 Bell407 N309MH (Overspeed Event)**

After performing engine Inspection AA0056 (300 hour), the pilot was performing the FADEC Overspeed check, and activated the Overspeed switch while at 100% rotor. Power Turbine Over sped to 118.2%. Aircraft was grounded and company investigation was opened.

*(Maintenance Comments)* Engine was removed and disassembled. Turbine and gearbox sent to repair facility. Serviceable engine was installed along with gearbox. Original compressor was reinstalled as no compressor overspeed was noted. Aircraft was returned to service.

Plain and simple, if you aren’t sure on a maintenance operational check. Don’t do it.

**FIR: 8/26/2017: Bell 407, N407RH (Lost Window)**

While flying with regular customers on a surveillance job, the front left passenger opened the sliding window of the 407 and the window fell out and exited the aircraft. A quick visual while backtracking of the flight path did not find the window. The pilot proceeded to the next regular stop and had maintenance bring him a new window which was installed. An inspection was performed to see if any damage to the aircraft was done by the free-flying window! No damage was found.

We all know that new customers don’t want to touch anything in the aircraft and experienced customers don’t mind touching everything. I have added to my passenger briefing, to have customers let me know when they are changing the configuration of the aircraft. Also, you might want to have customers use two hands on the sliding windows. It’s really not a “robust” piece of equipment.



## Last Words

Please do take a moment and look at your Alaska survival equipment with respect to your job in your environment. Even when I have an office day planned, I make sure that I have a good coat in the car with some basic survival items. I don't smoke, but I generally ALWAYS carry a few cigarette lighters with me just in case. We'll get to the real winter survival items in the next few months.

We are in the middle of the fall audit season! If you haven't been a part of any auditing thus far, you certainly will be. If you receive a copy of audit results or specific audit items from me, then you are probably integral in the corrective action to those audit items. Let's fix what we can fix, so we can fix it soon! Or else we'll have those items on next fall's audits also!



Have a Great Autumn!

Dennis

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Dennis S. Busch  
Quality and Safety Manager  
[safety@maritimehelicopters.com](mailto:safety@maritimehelicopters.com)



1915 Donald Ave  
Fairbanks, AK 99701  
Tel 907.452-1197  
Cell 907.750-9548  
Fax 907.452-4539

MARITIME HELICOPTERS  
PUBLICATIONS  
ROUTING MEMORANDUM

**DATE: 09/18/17**

**TO: Ak All**

**FROM: Quality/Safety Department**

**SUBJECT: August/September Safety Memo**

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

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

**EMPLOYEE SIGNATURE**

**DATE**