
CAS MEMORANDUM O-19-3

DATE: 11-13-19
TO: ALL PILOT'S AND MECHANICS
FROM: DIRECTOR OF OPERATIONS
RE: ENGINE DAMAGED BY OIL LEAK

This memo recaps the events that led to the engine damage and highlight MHI policies that were not followed.

On 10/12/19, N319MH, a B407 on the Alyeska Security contract made a precautionary landing 12 miles south east of Fairbanks because the pilot noticed his engine oil pressure and torque went to zero. The cause of this loss of oil pressure was a result of improper maintenance, failure to follow published company polices and poor judgement of the maintenance and flight crew.

Two days prior the aft engine mount was replaced for worn bearings. In order to remove the upper engine mount bolt the aft bearing oil return line b-nut must be disconnected. Upon reassembly this oil return line was left loose at the turbine causing the engine to lose all of its oil.

Several human factors contributed to the event. It is never one event that causes an accident it is always a series of mistakes or misses that causes the accident.

Several policy directives were not followed in this event by the mechanics and pilot involved:

- No leak check was performed after the maintenance was complete as outlined in the GMM Section 2.7 Leak Check Requirements. Both mechanics and the pilot were aware of these requirements at the time.
- Green/Red Sock procedures were not completed as outlined in the GMM Section 2.1.
- Mechanics preformed maintenance after the pilot's preflight which is not IAW the GMM Section 2.1.
- The other significant contributing factor to this incident was the fact that the pilot performed the FOD check for the maintenance while the maintenance was still in progress.
- The pilot performed his daily inspection while the maintenance was ongoing two days before he flew.

In order to prevent this occurrence in the future, the following procedures will be implemented immediately:

- Red/Green sock procedures will be followed IAW the GMM Section 2.1. – (Although this procedure is in effect, this may not have mattered. Once completed, maintenance would have removed the red sock and placed a green sock)
- No maintenance will be performed after the pilot has completed his preflight inspection IAW the GMM Section 2.1. If maintenance must be performed, the preflight inspection is no longer valid and another preflight inspection must be completed with emphases on the areas accessed during the maintenance event.
- Leak checks will be completed IAW the GMM Section 2.7.
- Pilot's preflight will be conducted the day of the flight and not the day or days prior.
- Mechanics performing maintenance on critical aircraft components will have an additional mechanic validate that the maintenance was performed correctly. In the absence of an additional mechanic, the pilot at remote locations will perform this validation.

**MARITIME HELICOPTERS
PUBLICATIONS
ROUTING MEMORANDUM**

DATE: 11/13/19

TO: All Pilots and Mechanics

FROM: Operations

SUBJECT: O-19-03

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