



Maritime Helicopters

CASS

Continued Airworthiness Surveillance System

Sept. 2018
Meeting minutes

CASS Meeting

09/18/18	10:00AM	MTF
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MEETING CALLED BY	Isaac Mackey - Fairbanks Lead
TYPE OF MEETING	CASS Meeting
FACILITATOR	Isaac Mackey - Fairbanks Lead
ATTENDEES	Dave Jones, Dennis Busch, Dave Buzga, Steve Slade, Brent Estep

Agenda Topics

1. Discuss old open action items
2. Review system reliability report trends
3. Review SDR,MIR,MDR reports
4. Review ASR,GOR reports
5. Review CAN's / CAS memos
6. Review tear down reports
7. Review Manufacture bulletins and AD's
8. Review notable items since last CASS meeting
9. Review AOG items
10. Discuss new open action items
11. Discuss recent audit findings
12. Review suggestions for next year's maintenance training
13. Safety Program Effectiveness
14. Other items
15. Schedule next meeting

OLD OPEN ACTION ITEMS	INITIATED BY	RESPONSIBLE PERSON	DEADLINE	CLOSED
The damaged compressor was sent into Airborne Engines for evaluation. The compressor had been removed for FOD damage from N407PA on 11/29/16. It was shipped to Airborne Engines and the impeller was subsequently sent to Cadorath for repair. The compressor had a total time of 2692.1 hrs. at this time. The impeller is original as well. The repaired compressor was reinstalled on N407PA on 12/28/16 at ACTT 7427.3 The impeller failed 232.7 hrs. after install. (2925.7 hrs. compressor total time) Nov 29th CASS Meeting, this will remain open until the RR investigation is complete. Jan 31st CASS Meeting still waiting for RR investigation report. Closed at April 26th CASS Meeting.	Isaac Mackey	Steve Slade	04/26/18	Closed

OLD OPEN ACTION ITEMS	INITIATED BY	RESPONSIBLE PERSON	DEADLINE	CLOSED
N319MH 10/02/17 ACTT 5643.0 During Inspection at Alpine Aerotech, the tail rotor trunnion was found to have excessive play. The trunnion was replaced by a serviceable unit, supplied by MHI. Upon review of the AAIP there are two inspections which require the area in question to be inspected. A0054 step 7.1 was complied with 7/29/2017 at 5545.6 ACTT (97.3 hrs ago) A0056 Step 4.10 was complied with 06/13/2017 at 5418.6 ACTT (224.4 hrs ago) Neither inspection directly addresses the trunnion however this is an area that would be inspected on the daily inspection if the aircraft were working out of a hangar. This is the second trunnion found to be out of limits. Recommend the inspection criteria in the AAIP be updated to include specifically inspecting the tail rotor trunnion. There is a second GOR for this. The oil cooler balance weight was not installed when the air conditioner was removed. Jan 31st CASS Meeting moved this to an open action item. Closed at April 26th CASS Meeting.	Isaac Mackey	Steve Slade	03/22/18	Closed

Notable A/C items since last CASS meeting		
Item	Notes or Preventable measures to prevent this from occurring again.	Move to open action items
Governor replacement	N316MH 04/27/18 ACTT 3457.0 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 P/N 2524692-12H S/N BR 42371. Ops Check Good 06/01/18 ACTT 3474.6 Pilot reported incr/decr governor range at top of range with no more adjustment. Readjusted N2 beep range to within limits IAW Bell 206L-4 function checked ok. All tools accounted for. 06/12/18 ACTT 3499.7 During ferry flight to Deadhorse, N2 Dropped to approx. 97% after 15 minutes in the air. The Incr/Decr switch was unresponsive to adjust RPM to the proper range. PIC elected to terminate the flight and return to base. Maintenance performed Rolls Royce troubleshooting and replaced Governor. Ops check good. Aircraft returned to service.	Closed

Notable A/C items since last CASS meeting		
Item	Notes or Preventable measures to prevent this from occurring again.	Move to open action items
Torque fluctuates 81.5 to 83%	N312MH 05/01/18 ACTT 5333.8 In flight, at cruise power torque fluctuates 81.5 to 83%, NG. The check instrument light will flash. Replaced NG sensor P/N 23054163 IAW Rolls Royce 250C47OMM. Performed ops flight. No defects noted. Aircraft returned to service.	Closed
	N304MH 05/12/18 KODIAK Pilot unknowingly overflowed daily flight time limitations. While tracking time by "number of fuel loads" rather than clock or hobbs time, when pilot added in the ground idle times (much lower fuel burn), the revenue Hobbs showed 9.5 hours. (Maintenance Hobbs was 7.1 hours)	Closed
Airspeed reads high	N312MH 05/15/18 ACTT 3555.3 Suspect ASI reads high. Tested ASI and found reading 10kts higher than actual airspeed above 100kts. Removed indicator PN 8000 SN 194397 and installed PN same SN 163088 indicator, IAW B407MM Ch. 95. Tested pitot/static system using Barfield test box SN1742. Found system satisfactory. Aircraft returned to service.	Closed
Cracked Cyclic assembly	N314MH 05/19/18 ACTT 10,075.4 PS5 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 and the aircraft was grounded. Maintenance inspected the pivot assembly and cracks were found to be in the portion where the cyclic stick inserts into the lower mount. Replaced pilot's Cyclic Control Stick Lower Pivot assembly. Function check ok. Aircraft returned to service. The contract was supported during the AOG by a substitute aircraft.	Closed
#1 engine CB pops on start	N326MH 06/06/18 ACTT 9481.0 #1 engine continuous ignition switch pops starter circuit breaker on engine start attempt. Replaced noise filter P/N 81F09GX10-30 with new unit. Function check ok. Aircraft returned to service.	Closed

Notable A/C items since last CASS meeting		
Item	Notes or Preventable measures to prevent this from occurring again.	Move to open action items
	N306MH 06/12/18 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 truck. No further action	Closed
RIN Overflight	N407PA 06/22/18 ACTT 8017.3 Tonsina AT&T Contract aircraft. The communication of the RINs remaining on the Left and Right Hand Pylon Side Beams lapsed between the pilot/mechanic/CALM records. The exceedance for these beams ended up being 24 RINs. Crew attributes the failure to the inability to keep the CALM program sheets current during field operations and non-business hours at the home station. Left and Right Pylon beams were replaced. The aircraft was returning to Fairbanks for the completion of the AT&T fuel haul, maintenance found out that the RINs had been exceeded by 24. Mechanic had been called two days prior to this and informed that there were 90 RINs remaining. The crew was unaware when actual RINS were exceed. Faibanks maintenance Lead discussed the issue with the field mechanic. Sept 18th CASS meeting moved this item to an open action item. Training and standardization required.	Open
Main rotor blade strike	N316MH 07/20/18 ACTT 3354.6 Ignek Valley Inspected the aircraft IAW Bell 206L4 MM Ch. 5-51 Sudden stoppage/acceleration inspection. Replaced the following components with serviceable components: Both main rotor blades, the main rotor hub, the mast assembly, the transmission assembly, the input driveshaft, the freewheeling unit, and the engine gearbox. The following parts were removed, NDT inspected, and reinstalled: Engine mounts, all tail rotor driveshaft segments, hangers and disk packs. The aircraft was reassembled and all ground runs, leak checks, and torque checks were complied with. The aircraft was returned to service. Sept 18th CASS meeting moved this item to an open action item.	Open

Notable A/C items since last CASS meeting		
Item	Notes or Preventable measures to prevent this from occurring again.	Move to open action items
Transmission oil pressure	N312MH 08/02/18 ACTT 3673.7 Kimble Repeater 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 and as the caution light was an MEL item, the pilot elected to return aircraft to the GRB. During that subsequent runup, the caution light extinguished normally with no further indications.	Closed
Main rotor head bearing failure	N328MH 08/08/18 ACTT 6719.9 During post flight inspection two spindle bearings were found out of limits. The aircraft was ferried to Fairbanks and the spindles were replaced. No defects noted. The aircraft was returned to service. The contract was supported during the AOG by a substitute aircraft. Sept 18th CASS meeting moved this item to an open action item. Revision to ferry permit needed	Open
Chip light	N308MH 08/16/18 ACTT 5421.3 (NEAR SALCHA) 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 FWU chip detector. There were small pieces of shiny material on the lower detector. Cleaned Chip detector and reinstalled. Performed leak check ground run. Then performed 20 minute ground run. No faults noted. Aircraft returned to service.	Closed
Compressor Damage	N326MH 09/10/18 ACTT 9544.9 During post flight the number one compressor was found to have FOD damage. The engine was removed and a serviceable engine installed. Aircraft returned to service.	Closed

SDR,MIR,MDR, not listed on the notable A/C items list

GOR, FIR, HAZARD REPORTS not listed on the notable A/C items list

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CANS, CAS MEMOS not listed on the notable A/C items list
18-03 AD2018-10-06 – 407 tail rotor driveshaft torque check
18-04 AD2018-13-01 – 206 governor
18-05 ASB 412-09-137 RA – expandable blade bolts
18-06 AD2018-17-01 – 412 Oil check valve
18-07 AD2018-16-14 – 412 Emergency float line replace

Tear down reports		
Aircraft and item name	Reason removed	Tear down report finding
None		

Recent AD's and manufactures bulletins not listed above		
Number	Aircraft	Description
None		

Other Notable Non A/C items since last CASS meeting		
Item	Notes	Move to open action items

AOG's for 2018	
1.	N305MH - 02/05/18 - Akutan - N1 indicator failed
2.	N314MH - 03/07/18 - PS5 - Hyd. servo leaking
3.	N319MH - 04/18/18 - PS4 - Lower chip detector failed
4.	N316MH – 04/27/18 – MTF – Torque fluctuates
5.	N312MH – 05/01/18 – GRB – Engine torque
6.	N407PA – 06/22/18 – MTF – R/H restraint spring
7.	N319MH – 06/30/18 – PS4 – FADEC Degrade light
8.	N314MH – 05/19/18 – PS5 – Cracked cyclic assembly
9.	N326MH – 06/06/18 – MTF – Engine start
10.	N407PA – 07/17/18 – Tonsina – Broken thermocouple terminal
11.	N316MH – 07/20/18 – Deadhorse – Blade strike
12.	N328MH – 07/20/18 – Deadhorse - #2 fire detection system test fail
13.	N328MH – 08/03/18 – Deadhorse - #2 engine torque transducer
14.	N328MH – 08/08/18 – Deadhorse – Debonding damper bearing

AOG's for 2018 by Location	
PS4	2
PS5	2
MTF	3
GRB	1
Tonsina	1

AOG's for 2018 by Location	
VDZ	
HOM	
Kodiak	
Akutan	1
Coldfoot	
Deadhorse	4

NEW OPEN ACTION ITEMS	INITIATED BY	RESPONSIBLE PERSON	DEADLINE	CLOSED
Power checks required company wide	Isaac Mackey	Dave Jones	12/15/18	
RIN training and tracking.	Isaac Mackey	Dennis Busch	12/15/18	
Revision to Ferry Permit needed	Isaac Mackey	Steve Slade	12/15/18	

Recent audit maintenance findings	
Finding	Corrective action
Pending	

Suggested maintenance training for next year
RR FADEC Training – MTF – September 27 th
Bell 412 airframe and engine training – MTF – December 3 rd -19 th

Safety Management System	Evidence	Effectiveness
Emergency Response Plan	FIR 8/16/18 for XMSN CHIP FIR 7/20/2018 for blade strike	FIR 201816: Precautionary Landing was within Cell Phone coverage. No issues FIR 201815:
Station Checklists-Audit Program	Discussed Audit checklist and The CASS meeting notes as a way to close out monthly station audit findings	Continue program and add notes to as yet, unscheduled Fall 2018 Audits
Management of Change	AW119	On the web portal, kept by S. Slade. Seems to be an apparent was to keep MoC notes

Safety Management System	Evidence	Effectiveness
Overall Safety Effectiveness	This will be the space to summarize all elements of the SMS to Include: Risk Management, Incident/Accident Reporting, HSE Elements, Quality Compliance(e.g. ISNetworld, Fuel Quality Management, ERP or other SMS Elements.	

Next CASS meeting scheduled for	10/25/18
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