

Helicopter Safety Research Management Committee

Subject Minutes of 71st HSRMC
Date Wednesday 24th February 2016
Location Aviation House, Gatwick
Organised by Kevin Payne/David Howson, UK CAA

List of Participants

| | |
|-----------|---|
| Attendees | <p>Captain Rick Newson, UK CAA (Chairman)</p> <p>Mr David Howson, UK CAA</p> <p>Mr Kevin Payne, UK CAA (Secretary)</p> <p>Captain Andrew Spencer, UK CAA</p> <p>Mr Tony Eagles, UK CAA</p> <p>Ms Claire Muir, UK CAA</p> <p>Mr Ed Lambert, Bell Helicopters (BHTC)</p> <p>Mr Lionel Tauszig, EASA</p> <p>Mr Alan Wilson, AgustaWestland</p> <p>Mr Alex Knight, HCA</p> <p>Mr Jim Lyons, EHA</p> <p>Mr Alan Ward, Shell Aircraft</p> <p>Mr Simon Brailsford, BP</p> <p>Mr Andrew Dettl, Airbus Helicopters</p> <p>Mr Ornulf Lien, CAA-Norway</p> |
| Apologies | <p>Mr Pete McKeage, C-NLOPB</p> <p>Mrs Gretchen Haskins, HeliOffshore</p> <p>Mr Neil Taylor, DSTL</p> <p>Captain Steve O'Collard, BHA</p> <p>Ms Esaula Armstrong, HSE</p> <p>Captain Simon Harlow, Babcock</p> |

| | |
|--|--|
| | Mr Michael Cerneck, Sikorsky |
| | Mr Dujon Goncalves-Collins, RenewableUK |
| | Mr Brian Pattinson, UK CAA |
| | Mr Charlie Rathbone, (Guest Speaker) Optima Aviation |
| | Mr Jeff Houghton, UK CAA |

AGENDA

1. Introduction
2. Review of Minutes of 70th meeting (13 July 2015)
 - 2.1 Accuracy
 - 2.2 Actions/matters arising
3. Review of Current Research Projects
 - UK CAA managed projects
 - EASA managed projects
 - C-NLOPB initiatives
4. Research Programme Funding
 - Funding status of current programme
5. Presentations
 - Tail Rotor Strike Warning Systems
 - Implementation of Turbine Exhaust Plume Visualisation System on Ninian Central
 - EASA RMT.0120 Helicopter Ditching/Water Impact & Survivability NPA
6. AOB
7. Date of Next Meeting
8. Close

Minutes of meeting

1. Welcome & Introduction

Captain Newson welcomed all participants to the 71st meeting of the HSRMC, and in particular Mr Ed Lambert of Bell Helicopters who was attending his first meeting. All participants introduced themselves for the benefit of new members.

2. Minutes of 27 January 2016 Meeting

2.1 Accuracy:

The minutes from the 70th meeting of 13th July 2015 were approved without any comments or corrections.

2.2 Actions:

- a) **Action 345:** All members to gather and feedback data for discussion and collation at the 71st meeting for Tail Rotor Strike Warnings. No further progress. Held over for the 72nd meeting. **Action OPEN**
- b) **Action 348:** Mr Ward to liaise with Duncan Trapp (at JOR) to discuss appropriate support for helicopter operator FDM programmes. Update is provided in a separate statement with these minutes. **Action COMPLETED.**
- c) **New Action 350:** Captain Newson to speak with Mr Mark Swan (OHSAG Chairman) about the importance of duty holders drawing up detailed plans to ensure fitment of circle and H lighting by 31st March 2018.

Mr Swan had pointed out that this should more appropriately be referred to the next technical OHSAG in April. Mr. Howson advised that Step Change had established a working group to support implementation but neither CAA nor HCA had so far been invited to attend any meetings. Consequently there was a degree of confusion regarding equipment approvals. **Action COMPLETED.**

- d) **New Action 351:** Captain Newson to discuss with Mr Swan the interface between the oil and gas industry and the renewable energy industry, and to suggest inclusion of the latter at OHSAG.

Mr Swan's view had been that OHSAG should remain a forum for the oil and gas industry to address the actions and recommendations from CAP 1145. **Action COMPLETED.**

3. Review of Current Research Projects

UK CAA Managed Projects (Mr Howson, UK CAA)

In addition to the Research Update Briefing for 24 February 2016 circulated to members on 25th February 2016, the following was also noted/agreed:

2) Helicopter Ditching and Water Impact – EBS specification ASD-STAN D1S9 - There is presently no 'wet training' for passengers with the new EBS due to the logistics associated with the additional medical screening required by HSE; a Cat A EBS Technical Group has been established by OGUK to identify a way forward. Captain Newson asked about training for flight crew. Mr Howson responded CAA had already approved the Viking flight crew EBS for implementation on 1 April 2016; it was understood that flight crews will receive 'wet training' as their medicals already include the screening required by HSE.

6) GPS Guided Offshore Approaches – Mr Howson remarked that CAA was unaware of the system architectures and operational procedures associated with the various OEM systems that are emerging and thought that a structured workshop and/or desktop exercise would represent a good way forward. This would enable the OEM systems to be compared against SOAP (see CAA Paper 2010/01) with a view to selecting a candidate vehicle for in-service trials. A particular concern is whether and how the OEM systems are addressing the aspect of obstacle detection.

New Action 352: Mr Howson to contact Tim Rolfe with a view to organising a one-day GPS offshore approach workshop and/or desktop exercise.

7) Helideck Friction – Mr Howson confirmed that where circle-H lighting was not fitted helideck markings would have to meet a minimum μ value. Where a net is fitted the minimum μ for the surface beneath the net should be 0.5 (where previously no minimum value had been specified). Mr Lyons queried whether it has been established that in every case all parts of a wheeled-undercarriage will sit over the net when the helicopter is correctly positioned over the TD/PM circle.

New Action 353: Mr Payne/Mr Howson to investigate North Sea helicopter types to establish whether all parts of the undercarriage are always positioned within the perimeter of the landing net.

9) H-TAWS Warning Envelopes – Mr Howson reported that Simon Harlow (of Babcock) was working on implementing the warning envelopes in their FDM analysis software to enable nuisance alert rates on the S92 and AW139 to be checked. The new envelopes had been developed using EC225 and S76 data.

13) Triggered Lightning Strike Forecasting – Mr Howson confirmed that it had been a quiet winter so far in the North Sea according to the three Aberdeen operators in-as-

much as there had been little or no triggered lighting activity.

EASA Managed Projects (Lionel Tauszig)

Lionel Tauszig presented EASA Managed Projects consisting of a briefing on Main Gearbox Health (MGH), Review of Practices for North Sea Operations and the EASA Research Plan. The detail is contained in a presentation circulated on 25th February 2016 and attached to these minutes.

C-NLOPB initiatives

C-NLOPB had been unable to attend and no briefing had been provided.

4. Research Programme Funding

Mr Tauszig confirmed that EASA has a research budget of 500,000 Euros but this has to cover all research including Fixed Wing projects. Mr Howson confirmed a similar situation whereby £250,000 is allocated to all CAA research projects, fixed wing as well as rotary wing. Sufficient funding was nevertheless available for the current 'live' projects.

5. Presentations

Tail Rotor Strike Warning Systems (Ed Lambert, Bell Helicopters)

Mr Lambert's presentation was circulated to members on 25th February and is attached with these minutes.

Implementation of Turbine Exhaust Plume Visualisation System on the Ninian C (Charlie Rathbone, Optima Aviation)

As Mr Rathbone was unable to attend the meeting his presentation was deferred.

1. *Post meeting note: Canadian Natural Resources (CNR) has since cancelled the project.*

EASA RMT.0120 Helicopter Ditching/Water Impact & Survivability NPA

Mr Tauszig's presentation circulated to members on 25th February 2016 is reattached with these minutes.

6. AOB

In the absence of Mrs Haskins, Mr Howson delivered the HeliOffshore brief as follows:

HeliOffshore Update

- Automation – flight simulator trails of eye tracking completed by Steve Jarvis (ex Cranfield University) and data being analysed. Results to be presented at conference in May. This work is attempting to establish what pilots are monitoring and when.
- Wrong deck landings – research results regarding the HF aspects have been submitted to IOGP. Meeting scheduled for 27 Feb to review the conclusions and produce/agree a set of recommendations. Gretchen Haskins believes that relying on the pilot is flawed; something is needed to break into the confirmation bias. This might be addressed via planning, procedures, radio calls, and/or platform signage and lighting.
- High Level Strategy – data for 25 years of offshore helicopter accidents reviewed to produce sector risk profile and hence priorities for the EASA offshore helicopter safety plan and SPIs/leading indicators. The accidents broadly fall into the categories of: system failure; LOC; CFIT. All parties are supportive and it is hoped that this will help to secure any funding required for implementation of the measures identified.
- Information/data exchange – objective is to facilitate sharing of incident/FDM/HUMS data. A RFP has been issued for the production of a common database.

Mr Wilson advised that AgustaWestland is no longer pursuing their HUMS for rotors programme.

Mr Lien explained that the Norwegian Helicopter Safety Study is going through the process of a mid-life update and will now incorporate risk reduction measures and a summary of UK accident data including AAIB recommendations. The report is due to be published in October.

7. Date of Next meeting

Mr Payne confirmed that the 72nd meeting of the HSRMC will take place on Thursday 29th September 2016 at CAA, Aviation House, Gatwick between 1230 and 1700 hrs.

8. Attachments with the meeting notes

1. Action 348: An update on the helicopter operators FDM programmes
2. Research Update Briefing for 24th February 2016 HSRMC
3. EASA Managed Projects HSRMC 24 February 2016
4. Rotor Strikes Protection – Assistance
5. Helicopter Ditching Occupant Survivability – NPA (Notice of Proposed Amendment)

Table 1: List of actions:

| Item | Action | Person Responsible | Deadline | Status |
|------|--|--------------------|----------|--------|
| 2-2 | Action 345: All members to gather and feedback data for discussion and collation at the 71st meeting for Tail Rotor Strike Warnings. No further progress. Held over for the 72nd meeting. | All members | 29.09.16 | OPEN |
| 3-6 | New Action 352: Mr Howson to contact Tim Rolfe with a view to organising a one-day GPS offshore approach workshop and/or desktop exercise. | Mr. Howson | 29.09.16 | OPEN |
| 3-7 | New Action 353: Mr Payne/Mr Howson to investigate North Sea helicopter types to establish whether all parts of the undercarriage are always positioned within the perimeter of the landing net. | Mr Payne/Mr Howson | 29.09.16 | OPEN |