

HELICOPTER SAFETY RESEARCH MANAGEMENT COMMITTEE

Minutes of the 61st Meeting held on 26th November 2010
Aviation House, Gatwick

Present:

Capt. C. Armstrong	UK CAA, Head Flt Ops H (Chair)
Mr. D. Howson	UK CAA, Flt Ops 2
Mr. T. Eagles	UK CAA, Head Flt Ops Policy GA
Mr. V. Reed	UK CAA, Flt Ops H (Secretary)
Mr. K. Payne	UK CAA, Flt Ops H
Mr. K. Dodson	UK CAA, Strategy and Policy
Mr. W. Kleine-Beek	EASA
Mr. J. Lyons	EHA
Mr. B. Finlay	DSTL
Mr. P. Naylor	HSE, OSD
Mr. G. Hamre	N CAA
Ms M. Kirkesæther	N CAA
Mr. M. Stevens	Shell Aircraft
Mr. D. Trapp	CHC/BHA

Apologies:

Capt. G Porter	UK CAA, Hd Flt Ops Inspectorate (2)
Mr. E. Hamremoen	OLF/ Statoil
Mr. P Dawes	BP
Mr. A. Knight	HCA
Mr. R. Decoster	Belgian CAA
Mr. G. Robb	Danish CAA
Mr. P. Halldorsson	Iceland CAA
Mr. J. Steel	IAA.
Mr. O. Monson	N CAA

In attendance: Mr. A. Sayce UK CAA

1 Introduction

Capt. Armstrong welcomed everyone to the 61st meeting of the HSRMC and introduced himself as the chairman standing-in for Capt. Porter. Duncan Trapp from CHC was welcomed as the representative for BHA.

2 Review of Minutes of 60th Meeting (11 May 2010)

Accuracy:

The minutes of the previous meeting were agreed without correction.

Matters Arising:

- 2.1 Action 311 - Mr. Hamremoen to establish whether FMECAs would be included in the forthcoming SINTEF Helicopter Safety Study - 3.

Mr. Howson advised that the SINTEF Helicopter Safety Study 3 had been published in English and had been circulated to all members. He had tried, via CAA Norway, to get SINTEF to come and give a presentation but nobody was available at short notice. He suggested that discussion be deferred until the next meeting when it is hoped that a presentation can be provided. Action to remain open for next meeting.

ACTION 311: Open - OLF/Mr. Hamremoen

- 2.6 Action 316 – Mr. Lunt to have HSE consider funding new projects such as lightning strike forecasting.

Mr. Naylor reported that HSE funding for new research would only be authorised if it was considered to be operationally imperative; however, current funding commitments would be honoured.

ACTION 316: Closed – HSE/Mr. Naylor

- 2.7 Action 318 – CAA (Mr. Reed) to contact BHA to see how they wanted to arrange the increased representation from the North Sea operators.

Communications between the UK CAA, BHA and the offshore operators have opened with a view to encouraging attendance by the helicopter operators at the HSRMC meetings. This matter would be addressed at the next HMLC meeting.

ACTION 318: Ongoing - CAA/Mr. Howson

- 2.8 Action 319 – Mr. Howson to arrange a presentation from Transport Canada or a Canadian helicopter operator to give their views on offshore operations in Canada and the S-92 accident.

Mr. Howson had circulated the OHSI report and proposed to discuss the relevant recommendations under AOB. He would continue to try to arrange a presentation and discussion at a future HSRMC meeting.

ACTION 319: Ongoing – CAA/Mr. Howson

3 Review of Current Research Projects

- 3.1 Mr. Howson distributed copies of the Research Update (see Attachment 1) and reviewed the highlights. The following additional points were noted:

- (1) HUMS – All the work on transmission HUMS has now been completed and the CAA Paper version of the GE Aviation final project report was due to be published in late 2011.

A question was raised regarding the way forward with implementation of AAD. It was understood that CHC need to sign a contract with AgustaWestlands, but there have been reservations regarding the results of the 'try and buy' trial. Mr. Stevens noted that the limitations of the trial had not been fully understood and that there had been a degree of over expectation. Broader support from OGP would be beneficial as it would be impractical for helicopter operators to implement AAD for part of a fleet. Mr. Trapp asked about the back-to-back comparison with the Sikorsky version of AAD. Mr. Howson advised that this was not progressing, apparently due to an unwillingness to commit the necessary resources at Sikorsky.

- (2) Side-Floating Helicopters – EASA are to review the ditching regulations and advisory material in 2012; this is a long standing action item for them. Work on the EBS specification is progressing. The trials are complete and only reporting tasks now remain.

- (3) Operations to Moving Decks - At the time of the meeting, the Miros motion sensing equipment was to have been installed on the Global Pioneer III FPSO for trials. Bond was to be the primary user operating Super Pumas. The existing Super Puma MSI/WSI limits are advisory only, and are reasonable but somewhat conservative. The operational procedures form part of the trial but have not yet been published. Mr. Howson agreed to circulate the procedures.

ACTION 320: New – Mr. Howson to circulate the operational procedures developed for the operations to moving decks trials.

- (4) Helideck Lighting – Bond Helicopters have recently taken over the contact for the CPC-1 and feedback will need to be obtained prior to the end of the night flying season at end March 2011. An update to CAP 437 can be expected later in 2011. Mr. Trapp asked about support in the new scheme from OGP. Mr. Stevens said that they were supportive but had some concerns over the durability and reliability of the system. It was suggested that perhaps another trial could be funded but this time in the Norwegian sector. IMT were known to be developing a new system to compete with the Orga/AGI system currently under trial.
- (5) HOMP – Mr. Finlay advised that the MAA (Military Airworthiness Authority) were investigating manoeuvre recognition in connection with usage monitoring. As part of this, it is important to be able to identify the hover and he wondered whether there was any common ground with the low airspeed work. Bell were known to have a usage monitoring system on the 407 and Eurocopter also have some aircraft equipped. Mr. Finlay would keep the HSRMC informed on progress with the MAA work. Mr. Howson undertook to forward a copy of the GE Aviation report to Mr. Finlay.

ACTION 321: New – Mr. Howson to forward a copy of the GE Aviation low airspeed report to Mr. Finlay.

- (6) Offshore Approaches – Mr. Howson advised that the CAA would be investigating the integration of the GPS-guided offshore approach with the new deck lighting system. Captain Armstrong added that the helicopter operators were considering an increase to ARA level-off height.
- (7) Helideck Friction – The final report had been completed and accepted but was yet to be circulated to industry as there were still one or two issues to be addressed. Mr. Payne will be circulating the report to industry for consultation in due course.

ACTION 322: New – Mr. Payne to circulate the helideck friction measurement report.

The issue of nets on moving decks remains to be reviewed, more work and analysis is required.

- (8) Helideck Environmental Research – Captain Armstrong confirmed that turbulence reports were being filed. Mr. Naylor said that he would be raising the profile of the matter in an Offshore Information Sheet.
- (9) Extension of HUMS to Rotors – In response to the AAIB recommendation EASA had been given the related task and NPA 2010/12 would close on 15 January 2011 to comments.
- (10) Tail Rotor Strike Warning – Mr. Stevens suggested that the last sentence in the progress report be deleted.
- (11) TCAS II – Mr. Trapp advised that CHC were looking at retrofitting TCAS II. Installation of this equipment will be on a voluntary basis as there is no requirement for it to be fitted.
- (12) EGPWS Warning Envelopes – The ‘pilot’ study of around 20 flights had been completed and work on the full year’s worth of Bristows EC225 data was in progress. A progress meeting would be arranged as soon as this work had been completed. Mr. Howson noted the need to identify autorotation and modify or inhibit EGPWS warnings.
- (13) Triggered Lighting Strike Forecasting – The launch meeting was to be held on 1 December 2010. The project will commence with a literature review followed six months later by a demonstration of a prototype forecasting scheme. Mr. Hamre suggested that CHC Norway could be invited to be involved; Mr. Howson agreed to invite CHC Norway to the meeting.

ACTION 323: New - Mr. Howson to invite CHC Norway to participate in the monitoring of the Lightning strike forecasting research.

3.2 Mr. Kleine-Beek provided an update on EASA helicopter research:

- The work on FDM for small helicopters was complete but not yet published. This project comprised a feasibility study only.
- The HOMP trial work was complete and the report was due to be published December 2010. It was suggested that a presentation on this subject be given to a wider forum to attract more buy-in. The system does have benefits but cost and effort of analysing the data is a real problem. A specialist company offering a third party data analysis service could be the answer.

ACTION 324: New - Capt. Armstrong and Mr. Eagles to investigate the possibility of feeding the output of the EASA HOMP research into SHSG and EHEST.

- No new projects had been established yet. De-icing of small helicopters and power reserve concept have been considered and presented to the European Commission for funding.

4 Research Programme Funding Update

4.1 Funding Status of Current Programme

Mr. Howson presented the project funding table (see Attachment 2), highlighting the following points:

- Operations to moving decks - more work to do following completion of sea trials on Maersk GP III, but hope that most of this will be provided through collaboration with the Marin-led HELIOS JIP.
- GPS approaches - will likely need additional £45k (+£40k for flight demonstration) funding to cover the work on interfacing inter-rig shuttling operations with the approach procedure.
- Helideck friction - additional £18,700 (Eur 22,000) required to investigate effect of deck hole size/shape.
- HUMS extension to rotors - funding input to the AgustaWestland-led RTVP JIP may be needed/desirable.

4.2 Status of Funding Contributions

Mr. Howson thanked Members for their funding contributions to date as follows:

- N CAA:
£30k received in 2010 for lightning strike forecasting.
- Shell A/C:
Possible contribution £20k in 2010.
- Oil & Gas UK:
£40k contribution received in 2010 (for lightning strike forecasting).
- HSE:
£28k agreed and invoiced for 2010 for helideck friction and helideck lighting.
- OLF/Statoil:
No funding so far but are funding work in Norway, hopefully including the MARIN-led HELIOS project on operations to moving decks.

- EASA:
Funded the side-floating helicopter study (approx. £250k).
- MoD:
Mr Finlay advised that the MoD had established a military programme in parallel with ALICIA and was hoping to secure the funding needed to support it.
- BHA:
Bristows contributed £10k in 2010 for work on EGPWS warning envelopes.
- FAA:
Contribution of \$160,000 (approx. £80k) to HUMS work received. Don't expect any more funding in the near future due to staff changes and consequent loss of contact.
- OGP:
Contribution of £15k + £2k received in 2010 for work on EGPWS warning envelopes.

4.3 Status of UK CAA/EASA MoU

Mr. Kleine-Beek advised that EASA have a legal issue with setting up the MoU in that it would have to offer such an agreement to all NAAs. He added that he was looking at an existing MoC with the FAA which he thought could be used as a model. However, EASA's 200k Euro budget was already committed to existing projects.

5 AOB

5.1 EHEST/IHST Update

Mr Eagles provided a brief update on progress, noting the 2010 IHSS that had been hosted in Estoril in September. Analysis of the core data set covering the period 2000 to 2005 had been completed by EHSAT and work on progressing the Intervention Recommendations (IRs) was under way with EHSIT. Several EHSIT Specialist Teams (STs) had been established: Ops & SMS, Training, and Regulatory. Mr. Eagles is a member of the Regulatory ST and Mr. Howson chairs it. It was agreed that the EHEST 2010 Final Report be circulated to all.

ACTION 325: New - Mr. Howson to circulate the EHEST 2010 Final Report.

5.2 Report on Offshore Helicopter Safety Inquiry (OHSI)

Mr. Howson noted that the link for the report had been circulated with the agenda. The original purpose of raising this had been to identify any potential safety research issues but review of the recommendations had identified a further aspect. Recommendation 27 relates directly to establishing studies and research and collaborating with other programmes. This reinforced the need to complete Action 319 and try to get the Canadians to attend the next meeting in order to establish a dialogue. In the meantime, all Members were invited to provide comments on the report to Mr. Howson.

5.3 European Aviation Safety Plan

A presentation on the EASA European Aviation Safety Plan was given to the committee by Mr. Kleine-Beek (see Attachment 3). Mr. Kleine-Beek invited input from HSRMC into the rotorcraft section of the Safety Plan and the EASA Research Plan. As regards suggestions for new work, all that was needed was a title and a short description. The first draft was needed by mid-December; a formal review was to take place in February 2011. The plans were to be discussed at the EHEST meetings during 6/7 December.

5.4 UK State Safety Plan

Mr. Sayce presented details of the UK's State Safety Programme (SSP) which is required of all States under ICAO. The ICAO focus is on safety performance which it is looking for States to monitor on a continuous basis. The intention was to align the UK Plan with the European Plan rather than duplicate it. The focus was to be on action items and mainly relating to significant CAT aeroplane issues. The helicopter 'model' is highly regarded so the corresponding entry will simply reflect what is already happening. Mr. Sayce expressed his desire to work with HSRMC in formulating the helicopter input to the Plan, and invited members to comment on the SSP.

5.5 Committee Terms of Reference

Following recent discussions regarding representation at the committee it was decided to review the committee's Terms of Reference (ToR) which were quite old. It was agreed that the ToRs be circulated with the minutes of the meeting and discussed as an agenda item at the next meeting (see Attachment 4).

ACTION 326: New - Mr. Reed to circulate the existing HSRMC terms of reference with the meeting Minutes.

5.6 Mr. Hamre asked what information relating to the activities of the HSRMC (if any) could be published on the Norwegian offshore helicopter safety committee website. Mr. Howson said that the research progress reports were already in the public domain and so could be published. Capt. Armstrong undertook to discuss the matter with the HSRMC chairman (Capt. Porter) in respect of the minutes and other material and advise.

ACTION 327: New - Capt. Armstrong to discuss the publication of HSRMC documentation with Capt. Porter.

6 Date of Next Meeting

The 62nd meeting of the HSRMC will be held on Wednesday 25th May 2011 commencing at 10:00, Aviation House, Gatwick.

7 Attachments to e-mail

- 1) Research Update
- 2) Research Programme Funding Update
- 3) EASA European Aviation Safety Plan Presentation
- 4) HSRMC existing Terms of Reference
- 5) List of Actions

Vince Reed
Secretary, HSRMC
Fight Operations Inspectorate (Helicopters)
Tel. +44 (0) 1293 573671
E-mail: vince.reed@caa.co.uk