EVSLG

Meeting of the eVTOL Safety Leadership Group (eVSLG)
27 April 2022 14:45-16:45 GMT
MINUTES

In attendance:

Matt Rhodes (MR)	Bristow Helicopters
Rick Newson FRAeS (RN)	Civil Aviation Authority
Julian Firth (JF)	Air Accidents Investigation Branch
Ollie Dismore (OD)	British Helicopter Association
Steve Standing (SS)	Civil Aviation Authority
Max Fenkell (MF)	Joby
Colin Russell (CR)	Lilium
Wg Cdr Ian Fortune (IF)	Military Aviation Authority (Rapid Capabilities Office)
Paul Harper (PH)	Vertical Aerospace
Andrew Sage (AS)	NATS
Sam Wright (SW)	NATS
Rob Weaver (RW)	Eve Air Mobility
Angela Lynch (AL)	Civil Aviation Authority (Secretariat)

Introduction and Actions Update

It was confirmed that the ToRs are now online on the group's webpage.
A brief update was given on a new Expression of Interest, added to the existing list.

eVSLG Incident Response Process

Members considered the incident response model that had been circulated in advance as an example of the way that other Safety Leadership Groups work together to respond to incidents in the marketplace. Experiences of this response as best practice under the Offshore Helicopter Safety Leadership Group were shared and discussed.

Wider advantages of this type of integrated approach include sharing resources, clear and consistent messaging, and avoiding the pointing of blame onto a single entity (which would be detrimental to all). The latter is particularly important for novel areas as misinformation or misunderstanding can easily spread, and there tends to be a significant amount of media interest generated by new technologies.

It was clarified that incident response discussions do not pre-empt any specific outcomes to an event. Attention needs to be given throughout the process also to the language used. It was agreed that this is key for the eVTOL sector where there are already a lot of new terms and definitions circulating.

Members agreed an incident response approach should be confirmed for the eVSLG. It will be important that this does not just address aircraft level incidents, but also helps to develop best practice for the group; to share with each other information on lower-level incidents, occurrences or events. This approach also reflects the current stage of development in eVTOL operations, recognising that whilst members of the group do not currently have commercial operations, they do already have several years' experience in flight testing their prototype and certifiable aircraft.

This response from the group will also underpin the importance of creating a strong sense of safety accountability across the eVTOL sector: for wider participants and to help develop confidence from the public.

It was noted that whilst previous Safety Leadership Group models have focused on UK-based events, given the global nature of the eVSLG – and the burgeoning eVTOL sector – the response from this group would take in non-UK based events as well. This is consistent with the group's feed into the Vertical Aviation Safety Team initiative (which in turn feeds into the CAA and other regulators' national commitments under ICAO's Global Aviation Safety Plan.)

As part of the incident response approach and more broadly, members discussed how they could help to support other conversations across the aviation community to share more data and extend reporting beyond current mandatory data. Members shared an exchange on the scope and range of data being collected. HeliOffshore's 'InfoShare' and 'InfoRate' information exchanges were mentioned as good examples under current operations to learn from. It was added that its input may also be helpful under eVTOL specific considerations, such as potential integration of existing offshore infrastructure into a future vertiport network. RN welcomed this, confirming that the integration of current offshore infrastructure was already a topic of interest to the CAA internally. It was highlighted that this topic was not just in terms of existing offshore/ helicopter infrastructure, but also aerodromes in general.

A high-level discussion was held on Joby's (as reported in the media) remotely piloted test crash event. In accordance, at the appropriate time - and once the current investigation under the National Transportation Safety Board (NTSB) has been fully completed - further discussion would be had within the group.

Members welcomed first discussion of this topic. It was suggested that it may also be useful at the later session to hear about lessons learnt and how all OEMs could best prepare or seek to mitigate incidents and events that could occur during the testing and development stages for eVTOL aircraft. It was noted that there was also interest from safety authorities and regulators globally in gaining understanding from the industry on these matters.

Safety Risks Reporting

Members exchanged thoughts on recent MORs performance data and the main causes and topics covered by it. This included increasing instances of RPAS related occurrences such as C2 link losses and visual losses of sight (e.g. from observers). It was recognised that learnings on these topics may also support greater eVTOL understanding, during testing and potentially longer-term future operations.

Initial key safety risks for the eVSLG to look at were presented, based on members' written inputs since the last meeting. Members responded with amended language and additional inputs to confirm the safety risk descriptions and current barriers and mitigations.

Members spoke about whether eVSLG risks should also consider semi-autonomous and autonomous operations. In line with the group's scope, it was agreed this would not be a key focus, but references should be noted and shared where appropriate. RN confirmed that comments on this topic would also be fed into other relevant Safety Leadership conversations that may cover RPAS operations.

STPA Methodology

Following on from the last meeting, RN gave an update on the first CAA training session and continuing internal work consideration STPA and CAST risk methodologies to enhance existing safety risk management practices within the organisation and across the aviation sector.

Whilst members' experiences working with these methods varied, there was interest expressed in hearing more about them in due course. RN informed others that CAA training would be continuing in the near term and suggested that where capacity allowed representatives of the eVSLG might be able to join some of this.

Pilot training

The topic of eVTOL pilot training has been discussed in a number of recent expert fora internationally and is recognised as an important stage of development for the eVTOL market. Members noted that experiences in dealing with pilot shortages was not new to aviation and that there could be lessons learnt from how existing operators had addressed (and in many cases continue to address) this issue.

Members confirmed that eVTOL OEMs and related stakeholders have already given significant effort to thinking about individual approaches to this issue, as well as longer-term sustainability

needs for the eVTOL sector. The potential introduction of new or different technologies as part of pilot training was touched upon, as well as pathways into piloting and career longevity opportunities.

AOB

A request was made for the eVSLG meeting schedule to include in-person options and opportunities.

Next meeting: 27 July 2022