



# CAA Offshore Helicopter Review

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Group Director,  
Safety and Airspace Group

June 2014

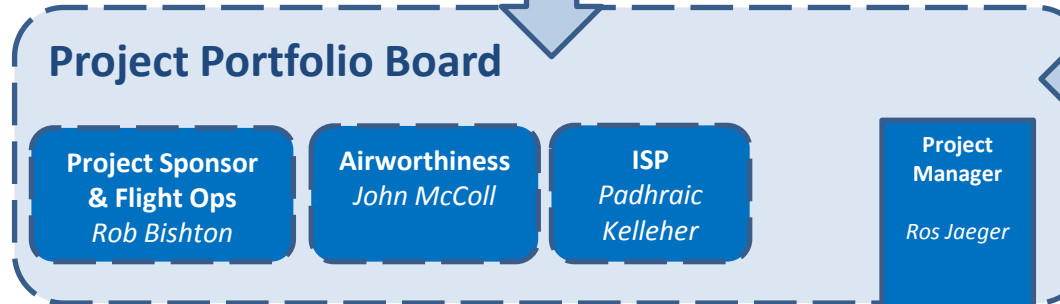
# Overview

- We are absolutely committed to ensuring that North Sea operations are as safe as possible.
- Recent accidents are a serious cause of concern, especially among offshore workers who rely so heavily on these helicopter flights
- In September 2013, the CAA initiated a review to examine the risks and hazards of helicopter operations in the UK offshore environment.
- The report of the review (CAP 1145) was published on 20 February 2014
- The report identified 32 actions for the CAA and 29 recommendations for the European Aviation Safety Agency (EASA) and industry.



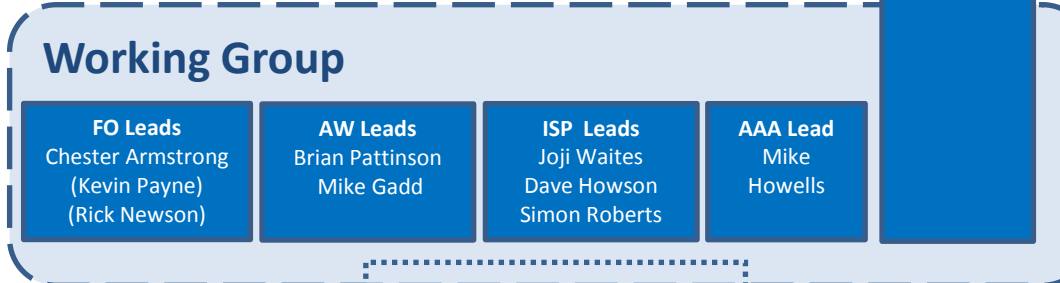
# Governance

**SARG Leadership Team (LT) – Mark Swan**  
Business Management PMO



**Offshore Helicopter Safety Action Group**

**Chair:** Mark Swan  
**Secretary:** Ros Jaeger  
**Membership:**  
 Rob Bishton, John McColl, Chester Armstrong, Corp Comms Operators AMs (Bond, Bristow, CHC) BALPA Rep, RMT/Unite Rep O&G UK, Step Change  
**Guests:**  
 EASA, NCAA , HCA, HSE, AAIB



**Delivery Teams**  
Workstream Leads, Workstream Team Members, Communications, Legal




















**Operations Sub-Group**

**Chair:** Rob Bishton  
**Members:**  
 Chester Armstrong  
 David McCorquodale  
 Airbus, AW, Sikorsky  
 Operator's Trng or Flight Ops POC  
 SMEs as appropriate

**Airworthiness Sub-Group**

**Chair:** John McColl  
**Members:**  
 Airbus, AW, Sikorsky  
 EASA  
 Operator's airworthiness and maintenance POC  
 SMEs as appropriate

# Milestones (1/2)

CAA Action Progress: 04 April 2014																			
	2014												2015						
	Q1 2014			Q2 2014			Q3 2014			Q4 2014			Q1 2015		Q2 2015		--> April 2016		
	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May		Jun	
<b>Governance</b>		A1 																	
		A1 First CAA Offshore Helicopter Safety Action Group (OHSAG) meeting					Quarterly review of progress of CAA, industry and EASA actions												
<b>Analysis, FDM, Research &amp; ATC</b>								A2 			A4 					A32 			
								A2 SPIs and safety performance dashboard developed and implemented			A4 Operational issues identified and quantified through FDM analysis					A32 Improved research programme funding mechanism in place			
								A3 			A15 								
								A3 Detailed MOR analysis (lower risk occurrences) complete			A15 Air Traffic Control report complete								
<b>Operational Issues</b>								A6 											
		A5,7,8 1st June Safety Directives published (sea state 6, emergency floatation, passenger seating)			A5,7,8 Initial survivability and operational measures are in place by operators			A6 Certified sea state restrictions in place							A9 Body Size compatability directive in place			A10 APRIL 2016: Category A Emergency Breathing Systems	
									A11 										
									A11 Safety Management Symposium with Operators										
									A25 										
									A25 Human Performance issues re fire warnings review complete										

- Key:**
-  Milestone is completed
  -  Milestone is off schedule or issues exist: Action plan in place to recover.
  -  Milestone is on schedule and no major issues.
  -  Milestone is off schedule or issues exist: No resolution plan in place.

# Milestones (2/2)



	Q1 2014		Q2 2014			Q3 2014		Q4 2014			Q1 2015			Q2 2015		---> April 2016	
	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
<b>Helidecks</b>							A13 Helideck Certification option released for consultation			A13 Action plan and solution for helidecks agreed with Industry			A13 New licensing/certification or equivalent system in place for helidecks				
				A22 Night Ops to Bow decks safety case decisions made			A12 Review of dimension/loads on helidecks complete										
							A14 Exposure approvals review complete										
<b>Pilot Performance and Training</b>								A21 Recency requirements for helideck operations implementation schedule published		A16 Review of Instrument training on EFIS Helis complete							
				A17 Recurrent Training review complete						A18 Review of instructor tutor training complete							
										A19 Review of CAA CAT Safety initiatives for relevance to OS Helis complete							
										A20 Examiner protocols amended for candidate performance indicators							
<b>Airworthiness</b>																	
	A31 Initial meeting re Safety Maintenance standards																
				A26 MORs trend comparisons completed with operators.													
				A27 Changes made to our monitoring of Vibration Health Monitoring (VHM) procedures.													
				A29 Review processes that define when strip reports are required and propose improvements													
							A24 Helicopter Tail Rotor Failures recommendation effectiveness review complete										
										A28 Alert generation thresholds (CAP753) updated							
										A30 Human Factors maintenance error data review complete							
													A31 Report completed on Safety Maintenance standards				

# Safety Directives

- A Safety Directive has been published stating that from:
  - 1 June 2014
    - No operations if the significant wave height is greater than 6 m.
    - Emergency floatation system arming /disarming procedures in place
  - 1 September 2014
    - All passengers seated next to an exit unless
      - Cat A Emergency Breathing System (EBS) is in use or
      - Side floating helicopter scheme is fitted
  - 1 January 2015
    - All occupants to have Cat A EBS
- A further SD will be issued in 2015 requiring passenger size to be compatible with emergency exits

# Certification of Cat A EBS

- Survitec Group has submitted Declaration of Design and Performance to the CAA and EASA for new lifejacket and P-STASS (EBS).
- EASA has approved the new lifejacket as compatible with existing equipment.
- The CAA has certified the P-STASS against CAP 1034 so that it is now classed as a Category A EBS.
- The Oil & Gas UK EBS Working Group expects deployment of the new lifejacket and EBS from July 2014 onwards.



# Passenger Size

- Passenger size metric to be established – current evidence suggests shoulder width to be the most appropriate measure.
- Minimum exit size as a function of passenger size to be determined based on existing experimental data.
- Method of implementation for industry to decide – the CAA's objective is that passenger size and exit size are compatible.
- CAA ready to advise/assist:
  - Simplest solution to limit passenger size by smallest exit in fleet – maximum impact on workforce.
  - Most complex solution to match passengers to individual seat rows on individual helicopter types – minimum impact on workforce.
  - Optimum solution likely to lie somewhere between these two extremes.



# Safety Management System Symposium



- CAA / helicopter operators meeting planned for 2 July 2014
- Successful pre-meet held with operators on 17 April
  - Long list of ~80 safety issues identified. To be shortlisted to 20.
- Aim:
  - Agree on the top 20 issues (hazards) related to the activity
  - Agree on the most appropriate mitigations and
  - Agree on the Safety Performance Indicators for the top 10 mitigations.
- All operators are sharing data, ASRs etc. to support this symposium.

# Helidecks

- We will:
  - Assume responsibility for the certification of UK helidecks and will consult with industry on this soon;
  - Assess whether flights to helidecks that do not meet some helicopter size requirements should be allowed to continue;
  - Review whether night operations to bow-mounted helidecks should be allowed to continue;
  - Limit flights to normally unattended installations that do not have sufficient fire fighting capabilities.



# Pilot performance and training

- How pilots interact with sophisticated automated systems and their individual performance have proved major factors in recent offshore helicopter accidents.

- We have:

- met with senior examiners and senior fleet training captains to take forward actions and recommendations from the report;
- reviewed the requirements for Instructor Tutor Training and will be proposing improvements to this training standard;
- worked with manufacturers for the provision of training material for input into Standard Operating Procedures.

- We are:

- launching a Crew Supply Chain Programme (CSC Programme – provision & maintenance) which will focus on the environmental drivers within the end-to-end pilot training pipeline – Measure being Crew Quality.
- supporting the RAeS Conference “Technology: Friend or Foe?”
- reviewing pilot instrument flying training requirements / basic skills and the use of modern cockpit electronic display systems.



# Airworthiness

- The CAA is conducting additional audits of the operators focusing on Vibration Health Monitoring (VHM) and is making amendments to the CAA publication on VHM.
- A “Maintenance Standards Team” has been established with representatives from the CAA and offshore operators. This team has recently met with British Airways to learn and share best practice.
- Meetings held with helicopter operator engineering managers and continuing airworthiness managers to:
  - discuss and identify how airworthiness information and issues will be shared with EASA.
  - scope out the MOR analysis action plan.
  - scope out the strip report improvement action plan.

# Airworthiness

- Recommendations have been made to the European agency responsible for airworthiness (EASA) and manufacturers to:
  - stop spurious warnings that instruct pilots to land immediately that have led to recent unnecessary ditchings;
  - improve design requirements of helicopter rotor and transmission systems;
  - promote improvements in helicopter Vibration Health Monitoring systems that provide alerts of potential technical failures; and
  - improve the exchange of information between industry, manufacturers, EASA and national regulators to help ensure on-going safety.



# Questions?

