

# CV: Tim Rolfe

## Current role:

- Director, Aviation Safety, Bristow Group
- Chair of Helicopter EBT sub-WG (RMT 0599)

## Total helicopter hours:

- 8,500 hours in mixed operations; offshore, SAR, military support and VIP

## Current licence qualifications:

- TRI/TRE S92A

## Types flown:

- Bell 47, R22, B206, B407, S61N, AS332L, S92A, EC225, AW139, S76C++

## Other responsibilities include:

- Member of HeliOffshore Safety Steering Committee
- Lead on HeliOffshore Operational Effectiveness workstream





# HeliOffshore

*Safety Through Collaboration*

**Developing EBT for Helicopters (2)**

**Tim Rolfe**

Wednesday 1<sup>st</sup> February 2017

“One size cannot fit all.....”



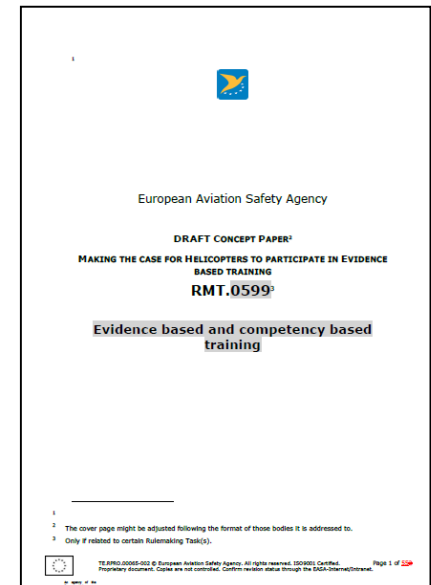
# Key principles for helicopter EBT development

- Defining the scope for Helicopter EBT
- Parity with IATA EBT methodology
- Utilise similar data sources for Data Report
- Ensure validity through comparable Data Analysis
  - Compare and contrast helicopter vs aeroplane data
- Publish Helicopter Data Report through agreed
- Develop and publish ICAO Doc 9995 Appendix 2 equivalent



# Concept Paper – Making the case for helicopters to participate in EBT

- Concept Paper in publication
- Makes case for helicopters to have access to EBT in regulation
- Proposes 3 Options:
  - Option 1 - Do nothing
  - Option 2 - Apply EBT Data Report and FW regulation
  - Option 3 - Publish Data Report and regulatory pathway for helicopters
- Contains Impact Assessment for each option
- **Option 3 - Recommended option**



# Impact Assessment summary

Consideration	1	2	3
Safety Impact	-/+	-	+
Environmental impact	-/+	-/+	-/+
Social impact		-	+
Economic impact		-	-/+
Proportionality issues			
Impact on regulatory co-ordination and harmonisation		-/+	+

Option 1 – results in no change

Options 2 and 3 – improves existing regulation and encourages adoption in other jurisdictions

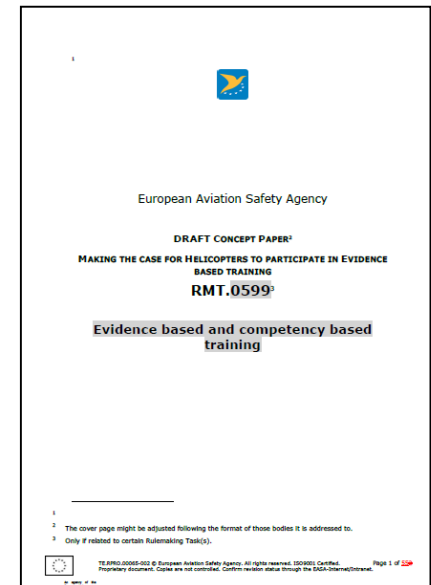
Option 3 – most likely to be adopted as based on relevant evidence





# Concept Paper – Making the case for helicopters to participate in EBT (2)

- Outlines roadmap for Data Report and Regulatory development
  - Data Report to be published by EASA (c. end 2017)
  - Regulatory pathway to follow FW development
- Indicates requirement for development of ICAO Doc 9995 Appendix 2 equivalent
- Defines Helicopter ‘generations’
- Defines Accident Analysis methodology
- Outlines initial analysis of selected data sources



# Regulatory development required

The following regulation requires review and possible amendment:

- Appendix 9 to Annex I (Part-FCL) to Regulation (EU) No 1178/2011,
- ORO.FC.230 and ORO.FC.145 of Subpart FC
- Annex V (Part-SPA — Specific Approvals) to Regulation (EU) No 965/2012,
- Subpart E — LOW VISIBILITY OPERATIONS (LVO) (SPA.LVO.120 — Flight crew training and qualifications),
- ORO.FC.235 — Pilot qualification to operate in either pilot's seat
- ORO.FC.220 — Operator conversion and checking of Subpart FC
- ORO.FC.205 — Command course of Subpart FC
- ORO.FC.240 — Operation on more than one type or variant of Subpart FC
- FCL.725 — Requirements for the issue of class and type ratings of Subpart H
- Subpart J — INSTRUCTORS
- Subpart K — EXAMINERS
- Annex III (Part-ORO) to Regulation (EU) No 965/2012
- Annex VI (Part ARA) to Regulation (EU) No 1178/2011





# Use of ICAO Doc 9995 competencies



# Proposed Key Data Sources for Helicopter DR

- Accident/Incident Analysis
  - Line Oriented Safety Audit (LOSA)
  - Flight Data Monitoring (FDM)
  - Training Criticality Study (TCS)
  - Pilot Survey
  - Existing research analysis
- 
- Demonstrates parity with IATA methodology
  - Use of IATA team to validate helicopter data analysis



Data Report for  
Evidence-Based Training  
August 2014

1<sup>st</sup> Edition

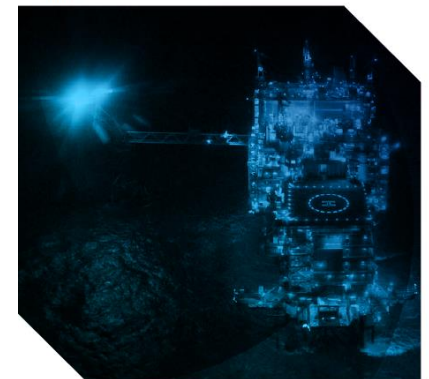


# Proposed Key Data Sources for Helicopter DR

- **Accident/Incident Analysis**
- Source: EASA Offshore Helicopter Safety Portfolio
  - 216 Accidents in EASA database 1995-2014
- Source: CAP1145 / CAP780 / CAP763
- Source: EASA Accident and Incident database
- Formal analysis team
- Applying IATA analysis criteria
- Multiple analysts per accident/incident



Civil Aviation Authority – Safety review of offshore public transport helicopter operations in support of the exploitation of oil and gas  
CAP 1145



# Proposed Key Data Sources for Helicopter DR

- **Line Oriented Safety Audit (LOSA)**
- Two LOSA studies in existence for helicopters
  - AirMethods – onshore HEMS – 2 studies
  - HNZ New Zealand – offshore operations – 1 study
- Proposed LOSA studies (using LC) in 2016/7
  - North Sea study including Babcock/Bristow/CHC
  - South East Asia study including Weststar, THS, Shell Brunei
- Observation numbers will be fewer than in FW study
- Developing TEM criteria with LC in line with FW EBT group
- Allows analysis and comparison with full LC database



# Proposed Key Data Sources for Helicopter DR

- **Flight Data Monitoring (FDM)**
- Considered least effective data source for helicopters
- Data comparability issues across operators
- Number of industry data-share initiatives in progress
  - HeliOffshore FDM Infoshare WG
  - Seek EOFDM membership
- Planned to be used as secondary data
  - Support LOSA and Accident analysis



# Proposed Key Data Sources for Helicopter DR

- **Training Criticality Study (TCS)**
  - Align with FW EBT group for development in 2017
- **Pilot Survey**
  - Align with FW EBT survey – available now  
<https://ec.europa.eu/eusurvey/runner/Helicopterpilottraining>
- **Existing accident analysis or research**
  - CAST Automation paper 2015
  - Regulator Helicopter Safety Studies
    - CAP 780 / CAP 1145
    - SINTEF Safety Study – HSS3
  - EHEST Accident Analysis
  - HeliOffshore ‘monitoring’ research





# Thanks.....

Name	Role	Contribution/Specialisation
F Arenas Alvarino	RMO	Pilot and Regulatory SME
E Bennett	RMO	Pilot and Regulatory SME
R Canis	EASA Safety Specialist	Accident Analysis SME
N Ilieva	EASA Safety Information Specialist	Survey and Data Analysis SME
T Rolfe	Helicopter Sub-WG Chair	Pilot training SME
B Baldwin	Helicopter Sub-WG vice-chair	Pilot training and regulatory SME
O Lien	Helicopter Sub-WG member	Pilot training and regulatory SME
O Rodriguez	Helicopter Sub-WG member	Regulatory SME
D Abad Alarcon	Helicopter Sub-WG member	Pilot training SME
P Bakke	Helicopter Sub-WG member	Pilot training SME
R Carvell-Shepherd	Helicopter Sub-WG member	Pilot training SME
D Groeneweld	Helicopter Sub-WG member	Pilot training SME



# Questions



# HeliOffshore

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