



EUROPEAN AVIATION SAFETY AGENCY  
AGENCE EUROPÉENNE DE LA SÉCURITÉ AÉRIENNE  
EUROPÄISCHE AGENTUR FÜR FLUGSICHERHEIT

# Helicopter CAT Operations

OPS Regional Workshop - POLAND  
15-16 May 2014  
Warsaw

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# Transposition of JAR-OPS 3

JAR-OPS 3	Part-CAT	Part-SPA	Part-ORO	Part-ARO	Annex 1	Others
SUBPART A — Applicability and definitions					DEF	CR OPS
SUBPART B — General	GEN	NVIS/HHO/HEMS	GEN/AOC/MLR		DEF	
SUBPART C — Operator certification and supervision			GEN/AOC	GEN/OPS		
SUBPART D — Operational procedures	OP	PBN	GEN/MLR	OPS	DEF	SERA AMC-20
SUBPART E — All weather operations	OP	LVO		OPS	DEF	SERA
SUBPART F — Performance general	POL.H				DEF	
SUBPART G — Performance Class 1	POL.H					
SUBPART H — Performance Class 2	POL.H					
SUBPART I — Performance Class 3	POL.H					
SUBPART J — Mass and balance	POL.MAB				DEF	



# Transposition of JAR-OPS 3

JAR-OPS 3	Part-CAT	Part-SPA	Part-ORO	Part-ARO	Annex 1	Others
SUBPART K — Instruments and equipment	IDE.H.					
SUBPART L — Communication and navigation equipment	IDE.H.					
SUBPART M — Helicopter maintenance						Part-M
SUBPART N — Flight crew			FC		DEF	Part-FCL
SUBPART O — Crew members other than flight crew			TC			
SUBPART P — Manuals, logs and records	OP		GEN/MLR			
SUBPART Q — Flight and duty time limitations and rest requirements			FTL		DEF	
SUBPART R — Transport of dangerous goods by air	GEN	DG		OPS	DEF	
SUBPART S — Security	GEN		SEC			



# Cover Regulation for Helicopters

- **Scope of Regulation (EU) 965/2012**
  - Derogations applicable to helicopter operations:
    - Additional conditions and approval for helicopter offshore operations as defined by the MS
    - Helicopter operations to public interest sites may continue outside performance class 1 and under conditions defined by the MS
  - On-going rulemaking tasks will gradually address these issues



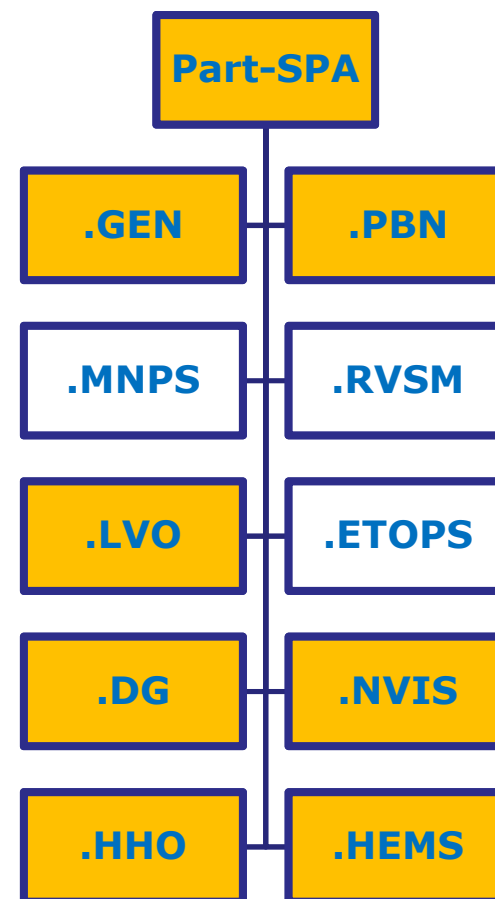
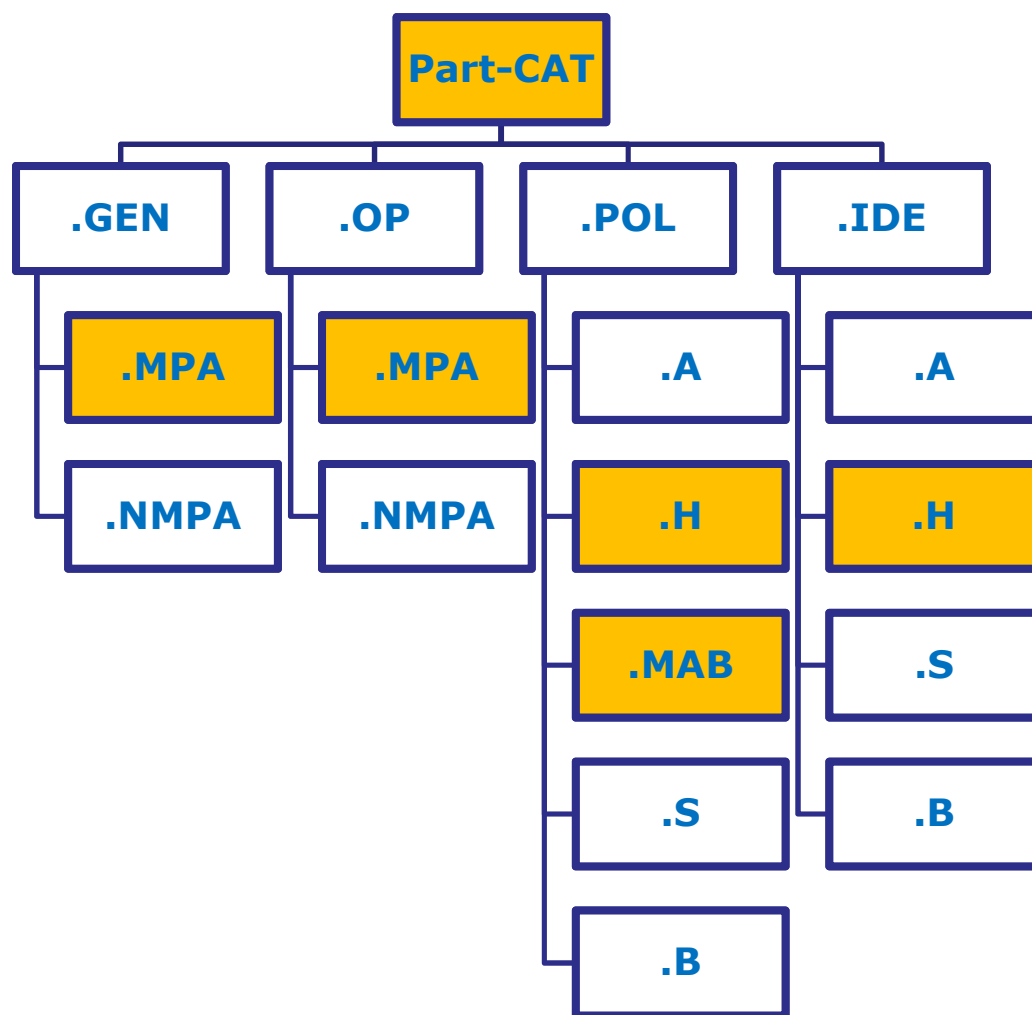
# Cover Regulation for Helicopters

## ➤ **Conversion of JAR-OPS 3 AOCs**

- MS have to establish a conversion report describing:
  - the national requirements on the basis of which the AOCs were issued;
  - the scope of privileges that were given to the operators;
  - the differences between the national requirements on the basis of which the AOCs were issued and the requirements of Part-ORO/CAT/SPA, together with an indication of how and when the operators will be required to ensure full compliance with those Annexes
- New AOC to be issued when full compliance is shown

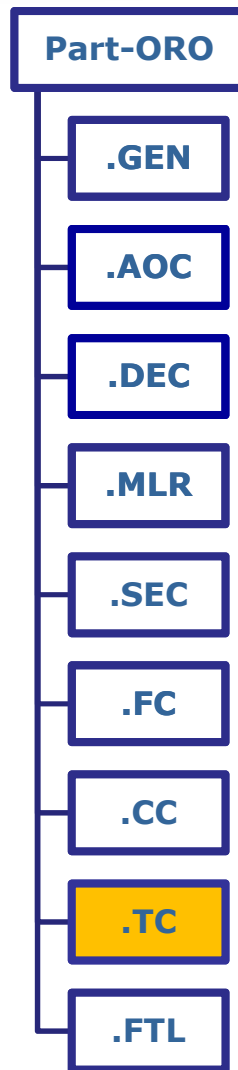


# Part-CAT & SPA for Helicopters





## Annex III: Part-ORO



### **APPLICABILITY of ORO.TC (Technical Crew) for Helicopters**

- » technical crew members in commercial air transport HEMS, HHO, NVIS operations
- » further experience and training requirements for HEMS, HHO and NVIS operations are contained in the specific Part-SPA subparts
- » aerial work task specialists are included in Part-SPO



# H Performance

- **Scope of CAT.POL.H**

- Performance and operating limitations (POL) for CAT operations with helicopters (H)
- Containing all performance requirements, including specific approvals (except HEMS and HHO)

- **4 Chapters following JAR-OPS 3 structure**

- Chapter 1 – General requirements
- Chapter 2 – Performance class 1
  - Appendix 1 to JAR-OPS 3.005(i) – Public Interest Site
- Chapter 3 – Performance class 2
  - Appendix 1 to JAR-OPS 3.517(a) – Operations without an assured safe forced landing capability
- Chapter 4 – Performance class 3
  - Appendix 1 to JAR-OPS 3.005(e) – Mountain and remote areas in Performance class 3





# Performance classes

- **'Operation in performance class 1'**

means an operation that, in the event of failure of the critical engine the helicopter is able to land within the rejected take-off distance available or safely continue the flight to an appropriate landing area, depending on when the failure occurs.

- **'Operation in performance class 2'**

means an operation that, in the event of failure of the critical engine, performance is available to enable the helicopter to safely continue the flight, except when the failure occurs early during the take-off manoeuvre or late in the landing manoeuvre, in which cases a forced landing may be required.

- **'Operation in performance class 3'**

means an operation that, in the event of an engine failure at any time during the flight, a forced landing may be required in a multi-engined helicopter and will be required in a single-engined helicopter.



# Performance classes

## ➤ Chapter 2 – Performance class 1

- Small changes, to delete duplications

## ➤ Chapter 3 – Performance class 2

- the 'set of conditions' to be implemented to operate without an assured safe forced landing capability is spelled out and no longer explained in an AMC
- New GM explaining when the FADEC may be used for the purpose of recording the required engine parameters



# Performance classes

## ➤ Chapter 4 – Performance class 3

### ➤ CAT.POL.H.420

- Operations over a non-congested hostile environment without a safe forced landing capability with turbine-powered helicopters with an MOPSC of six or less shall only be conducted if the operator has been granted an approval by the competent authority
- Redrafted following the outcome of discussions in the EASA committee
  - Approval can only be given following a safety risk assessment by the operator
  - Elements to be considered in this safety risk assessment are now included in a new AMC
  - An example of a safety risk assessment is provided in new GM



# Performance classes

## ➤ Chapter 4 – Performance class 3

### ➤ **AMC 1 CAT.POL.H.420** SAFETY RISK ASSESSMENT

- Historically two cases were considered by the JAA
  - Remote areas
  - Mountainous areas
- “Other areas of operations” were added to be considered for operational approval after a risk assessment



# Hostile environment/congested hostile

## ► Annex 1 Definitions

'Hostile environment' means:

- (a) an environment in which:
  - (i) a safe forced landing cannot be accomplished because the surface is inadequate;
  - (ii) the helicopter occupants cannot be adequately protected from the elements;
  - (iii) search and rescue response/capability is not provided consistent with anticipated exposure; or
  - (iv) there is an unacceptable risk of endangering persons or property on the ground.
- (b) in any case, the following areas:
  - (i) for overwater operations, the open sea areas North of 45N and South of 45S designated by the authority of the State concerned;
  - (ii) those parts of a congested area without adequate safe forced landing areas.

'Non-hostile environment' means an environment in which:

- (a) a safe forced landing can be accomplished;
- (b) the helicopter occupants can be protected from the elements; and
- (c) search and rescue response/capability is provided consistent with the anticipated exposure.

In any case, those parts of a congested area with adequate safe forced landing areas shall be considered non-hostile.



- **Operations without an assured safe forced landing capability**
  - Operations without an assured safe forced landing capability during the take-off and landing phases shall only be conducted if the operator has been granted an approval by the competent authority
  - Risk assessment of type of helicopter/type of operations
  - Implement a 'set of conditions'
    - » For legal clarity reason, the 'set of conditions' to be implemented is spelled out in the rule and no longer explained in an AMC
  - Implement a usage monitoring system (UMS)



- **Engine reliability**

- **AMC1 CAT.POL.H.305 (b)**

- ENGINE RELIABILITY STATISTICS

- **AMC2 CAT.POL.H.305 (b)**

- IMPLEMENTATION OF THE SET OF CONDITIONS

- **GM1 CAT.POL.H.305 (b)**

- USE OF FULL AUTHORITY DIGITAL ENGINE CONTROL (FADEC)

- A new GM explains under which circumstances FADEC can be considered as a recording device for the purpose of recording the required engine parameters*



# CAT.POL.H.225/.420

## ➤ **Specific approvals**

- CAT.POL.H.225 – Helicopter operations to/from a Public Interest Site
- CAT.POL.H.420 – Helicopter operations over a hostile environment located outside a congested area
  
- **The obligation for obtaining a prior approval of the authority of the State in which it is intended to conduct these operations has been changed into the obligation to obtain an endorsement.**
  - In cases where that authority is not the same as the authority issuing the AOC.





# HHO vs HEC

- **SPA.HHO is the transposition of:**
  - JAR-OPS 3.005 (h)
  - Appendix 1 to JAR-OPS 3.005(h)
  - All related AMC, ACJ and IEM
- **With the inclusion of:**
  - JAA NPA-OPS 69, as AMC
- **Changes:**
  - Communication requirements
  - Training objectives, versus methods of compliance with respect to detailed items to be included in the training programme
- **HEC is a specialised operation regulated under Part-SPO (Subpart E - Section 2 – SPO.SPEC.HEC)**



## ➤ **Transposition of:**

- JAR-OPS 3.005 (d)
- Appendix 1 to JAR-OPS 3.005(d)
- All related AMC, ACJ and IEM

## ➤ **Inclusion of:**

- JAA HSST Working Paper HSST-WP-07-03.4
- New rule on fuel policy
- New/amended AMC and GM material to better explain the rule, based on comments received, e.g.:
  - Explain 'to afford every assistance' in training ground emergency service personnel
  - Possibility to train a Medical Passenger, rather than briefing before every flight
  - Provide guidance in determining when 2 pilots should be required



## ➤ **Changes:**

- To better differentiate between the objective and method of compliance:
  - Training objectives, versus methods of compliance with respect to detailed items to be included in the training programme
  - Primary and secondary task of a HERMS technical crew member
- To address the remit of EASA
  - Reference to SAR deleted

## ➤ **Public Interest Site** means a site used exclusively for operations in the public interest.

- The Regulation on Air Operations (art 6.6) allows Member States to derogate from the requirements for HERMS Operational base



## ➤ **Further developments in RMT.0325 & .0326**

- HEMS performances and public interest site
- Revision of the draft IR for Air Operations, Annexes I-V, and AMC/GM related to performance requirements for HEMS operations in general and to performance requirements for operations to and from a public interest site(s) (PIS)
- HEMS – high altitude performance, mountainous area
- PIS – climb gradient 8%, derogation within Cover Regulation to Air Operations related to PIS



# SPA.HEMS - Questions

## ➤ Performance requirements for HEMS operations

### ➤ SPA.HEMS.125

No PC3 over hostile environment.  
Conditions for take-off and landing.

### ➤ GM1 SPA.HEMS.125 (b)(3)

PERFORMANCE CLASS 2 OPERATIONS AT A HEMS OPERATING SITE



- Definition of aerodrome
- Location of an HEMS operating base
- Where can HEMS crew members can be on stand-by
- Way forward at EU level



# Future developments

## ➤ Events

- First EASA Air Operations standardisation meeting for **Helicopter Inspectors** - **1 July 2014**

## ➤ On-going rulemaking tasks

No	Title	end
132/515	Helicopter H-V limitation	2016
325/326	HEMS performance and public interest site	2016
409/410	Helicopter offshore operations	2014

## ➤ Future rulemaking tasks

No	Title	start	end
350/351	Helicopter vibration health monitoring	2013	2014
430/494	FTL requirements for CAT operations of helicopters	2014	2017
318/319	Single engine helicopter operations over hostile environment	2016	2019



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**Thank you for your attention**

**QUESTIONS ?**

