



EASA
European Aviation Safety Agency

Experience of Night Vision Operations is held by the operators rather than the regulator

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Background

- Recent article on a specialised magazine
 - “...while night vision goggles (NVGs) are being used more and more in Europe, the bulk of the experience of night vision operations is held by the operators rather than the regulator.”
 - “...the company is aiming to...increase the European Aviation Safety Administration (EASA)’s confidence in the use of the technology so that NVIS can be more widely adopted to improve safety.”



Summary

- Difference between operators and EASA
- Is EASA confident about NVIS?
- What is EASA doing?
- Certification Memo Issue 2





Difference between operators and EASA

- Operators always have the core knowledge and accumulate experience of the systems they use!
- EASA has the obligation to follow the operators' needs
 - Foster the implementation of new technology
 - Identify the potential safety issues of the system
- This role needs
 - Experience and training
 - Proper regulation and guidance material





Is EASA confident about NVIS?

- NVIS brings safety benefits during night operations
- Though mature, NVIS is a complex technology
 - And so is the certification and operation...
- Safety benefits comes with risks that need to be mitigated
 - **Appropriate involvement during certification**
 - **Standardisation**
 - **Proper regulation and guidance material**





What is EASA doing?

- Experience and training of EASA Rotorcraft flight test personnel involved in NVIS certification
 - solid background in military or civil certification/operation
 - Currency with NVIS certification projects or operational training
- Appropriate involvement during certification
 - Ground and flight test participation in full NVIS projects
 - Exposure to operations
 - Change in design, technologies, and certification approaches
 - Close cooperation with DOA TL for approval of NVIS capability
 - At least one project run with high involvement of the agency



What is EASA doing?

➤ Standardization

➤ NVIS Focal point within the Rotorcraft Department

➤ PCM coordination

➤ Policy definition

➤ Unique entry point for external queries

➤ share experiences and lessons learnt with stakeholders

➤ Regulation and guidance material

➤ Part-SPA.NVIS

➤ AC27/29 Chg 7 MG 16

➤ Certification Memo on NVIS CM-FT-001 Issue 2



Certification Memo Issue 2

- New regulations
 - PART-FCL, PART-SPA.NVIS, new Part 21 (Flight Test and OSD)
 - MG-16 as in AC-27/29 Chg 7 (not endorsed yet by EASA)
- Lessons learnt and experiences since Issue 1
- Clarification of EASA certification policies



Certification Memo Issue 2

- Clarification on classification of changes
- Eligibility for NVIS design changes
 - Policy specified
- Applicant personnel qualifications
- Compliance showing
- Operational Suitability Data
- Clarification on MG 16
- White Phosphor NVGs





Certification Memo Issue 2

➤ Eligibility

	New NVIS design and approval of Non-NVIS helicopters	NVIS approval of NVIS friendly helicopters	Major Changes to NVIS helicopters	Minor Changes to NVIS helicopters
DOA with NVIS capability	✓	✓	✓	✓
APDOA with NVIS capability	✗ (1)	✓	✓	✓
Any legal person	✗	✗	✗	✓ (2)

- 1) APDOA already holders of NVIS STC of Non-NVIS helicopters are expected to apply for a full DOA before application of further NVIS STC of the kind thereof.
- 2) NVIS impact assessment performed by DOA or APDOA with NVIS capabilities



Clarification on MG16

- AMC for NVIS certification is MG 16 as included in FAA AC 27-1B and AC29-2C change 4 (Book 2 of CS-27 and CS-29).
- FAA has recently published change 7 of both AC 27-1B and AC29-2C with a thorough revision of MG 16.
- Chg 7 represents the most advanced guidance for certification of helicopters for NVIS operations
- Applicants are encouraged to use FAA AC MG 16 Change 7 as an alternative AMC
- CM clarifies some differences with the MG 16



White Phosphor Night Vision Goggles

- Some M...
tube w...
- First in...
Major a...
- Referen...
NVG
- All crew



white

ways

thorised

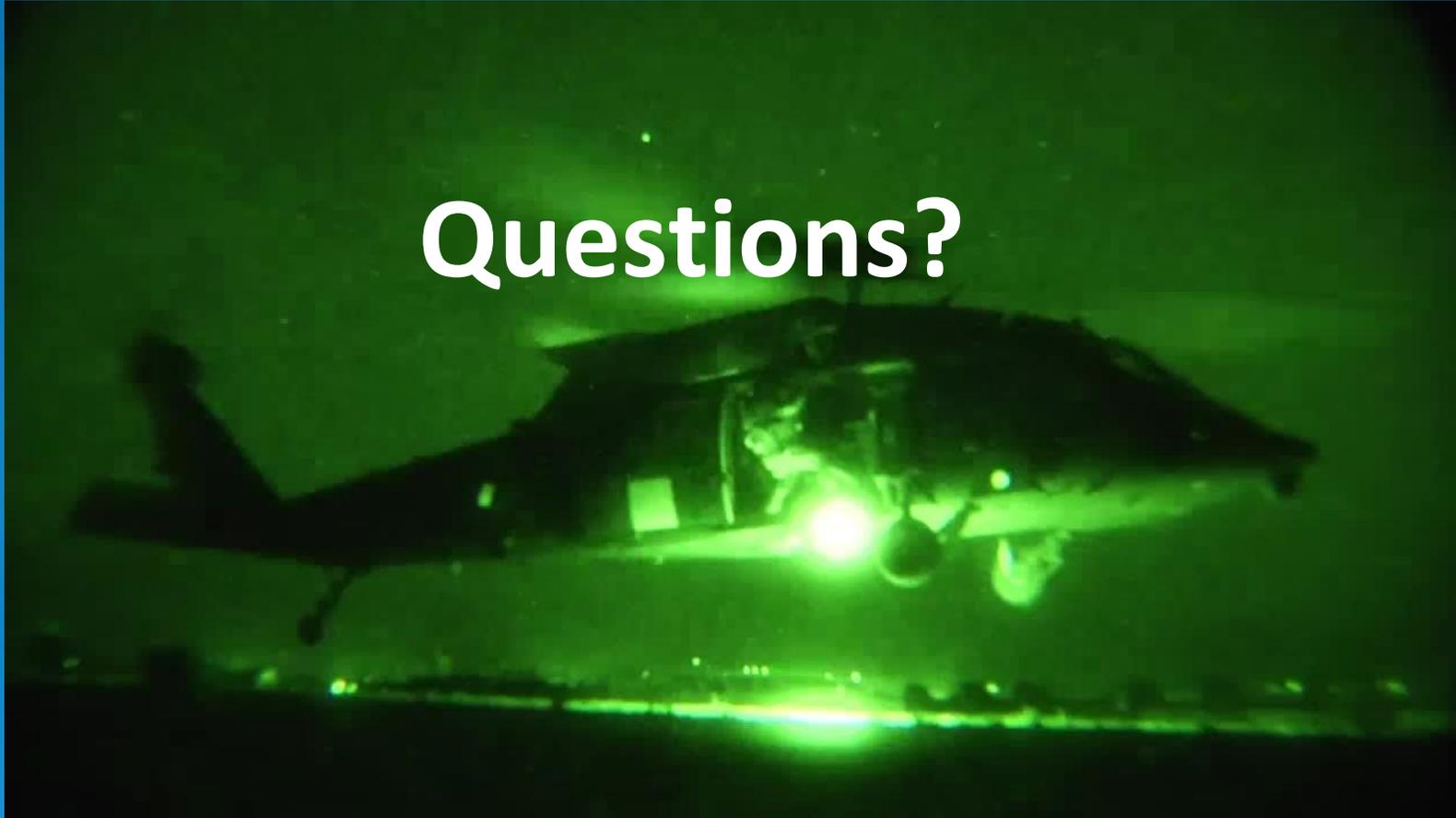


Conclusions

- EASA is confident about safety benefit of NVIS
- EASA and Operators have different roles
 - Different training and experience
- EASA is putting great effort in NVIS certification and rulemaking
- Go and read the Issue 2 of the NVIS Cert Memo!



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