The way ahead on Unmanned aircraft

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Your safety is our mission.
Brief Introduction to EASA (I)

Established 2002

10 years+
in operation

750 aviation experts & administrators

Headquarters in Cologne
Office in Brussels

32 EASA member states

= 28 + 4

EU + Switzerland, Norway, Iceland, Liechtenstein
Pillars of proposed approach

**Operation centric**
- Consequences of loss of control highly dependent on operating environment

**Risk based**
- 3 categories: open, specific, certified
- Commercial as well as non commercial

**Smooth**
- No undue burden on the aviation system

11/05/2016
Categories of Operation

**OPEN:**
- Low risk
- Competent Authority notified by Member States; no-pre approval envisaged
- Limitations (Visual line of sight (VLOS), Maximum Altitude, no drone zones, limited drone zones)
- Rules: no flight over crowds, pilot competence
- Use of technology
- Sub-categories including harmless

**SPECIFIC**
- Increased risk
- Approval based on Specific Operation Risk assessment (SORA)
- Approved by NAA possibly supported by accredited QE unless approved operator with privilege
- Manual of Operations mandatory to obtain approval

**CERTIFIED**
- Regulatory regime similar to manned aviation
- Certified operations to be defined by implementing rules
- Pending criteria definition, EASA accepts application in its present remit
- Some systems (Datalink, Detect and Avoid, ...) may receive an independent approval
Open Category: how the risk is contained

- Identification
- Geo-limitation
- Safe Distance From People
- 150 m
- Pilot Competence Level
- Allowed Performance
- VLOS

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Specific category – SORA Elements

- Area of Operation
- Airspace
- UA Design
- Operational Procedure
- Pilot Competence
- Organizational Factors
- Effect on Environment

Risk Assessment → Operation Authorisation (OA)

Limitations:
- Speed
- MTBM

Improvements Needed
Industry and Standardisation bodies are expected to provide standard solutions to address the risks associated with the use of UA in standard scenarios.

These solutions can be envisaged as pre-defined templates / forms of simplified risk assessments.

If the operation “fits” the form (all the fields can satisfactorily be compiled and/or criteria positively matched) the approval should be granted.

In this case the operation approval process would be very simple and would not require the know-how of traditional aviation organizations.
“Certified” category

Implementing rules included in existing rules for manned aviation

Drone and components
- Type Certificates (Full / Restricted)
- Certificates of Airworthiness
- European Technical Standard Order Approvals (ETSO) (option)

Organisations
- Design Organisation Approval
- Production Organisation Approval
- Maintenance Organisation Approval
- Training Organisation Approval

Personnel
- Licensed pilot
- Remote Operator Certificate (ROC)

Certification Specifications
- Safety Objectives
- Complemented by Technical Standards
- Standard for Operational aspects
- Standard for Licencing aspects
International Harmonization and cooperation with State Aircraft

- International Harmonisation: Continue participation into JARUS and ICAO panel; cooperation with FAA
- State aircraft activities are for example military, police, custom, fire-fighting, civil protection, border patrol, maritime surveillance, search and rescue
- Excluded from the draft basic regulation but opt-in provision
- Dual use
Summary - Conclusion

Technical opinion:
- Foundation for future work
- Illustrate articles and essential requirements of the proposed Basic Regulation
- Guidance for Authorities for further development of their rules
- Provides roadmap

Important step for safe, secure, environmentally friendly Unmanned Aircraft Operations respecting privacy of the citizens however significant work ahead of us

Roadmap further developed in cooperation with EC and NL presidency

EASA is committed to work in cooperation with all stakeholders
Thank you for your attention!

Comments and reactions welcome