



EASA
European Aviation Safety Agency

Die Gesetzgebungsvorschläge der EASA für Drohnen – aktuelle Entwicklungen

vorbereitet von EASA team

präsentiert von
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On the way to common EU rules for drones ...

- European Commission Aviation Strategy for Europe (December 2015)
 - Proposal for a revised aviation safety Regulation
 - Current Regulation: Regulation (EC) No 216/2008
 - proposal: COM(2015)613 final
 - On 10 Nov 2016 , the Transport Committee of the European Parliament voted in favour
 - Including EU regulatory competence for all unmanned aircraft
- EASA technical opinion (December 2015): operation centric concept
 - Performance based, risk based and proportionate
 - 3 categories (open, specific and certified)
- Roadmap developed in cooperation with the Commission and Member States (June 2016):
 - In addition to regulation, covers e.g. research and safety promotion
- Prototype rule for “open” and “specific” category (August 2016)
- Continuous Cooperation with ICAO and JARUS



The Concept



OPEN

- Low risk operation
- Compliance with product legislation (CE marking) and performance limitations
- No authorisation required



SPECIFIC

- Medium Risk operation
- Operational risk assessment required (standard scenarios provide a pre-defined risk assessment)
- Declaration or authorisation needed before starting the operation



CERTIFIED

- Operational risk similar to manned aviation (i.e. IFR international flights)
- Full certification required



First step of implementation ...

Delivering Effective Regulation



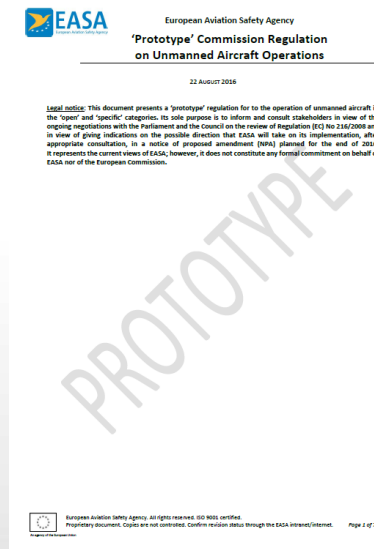
OPEN



SPECIFIC



CERTIFIED



not addressed by “prototype”
regulation (proposal will follow later)



“Prototype” Regulation: Objectives

CATEGORIES



- Provide a basis for further discussion and preparation of rulemaking
- Provide clarity on how the “open” and “specific” categories of the operation-centric risk-based concept could be implemented
- Integrate both Aviation legislation and Product legislation
- Will be followed by a formal rulemaking procedure
 - NPA planned to be published by March 2017



“Prototype” Regulation: Some features

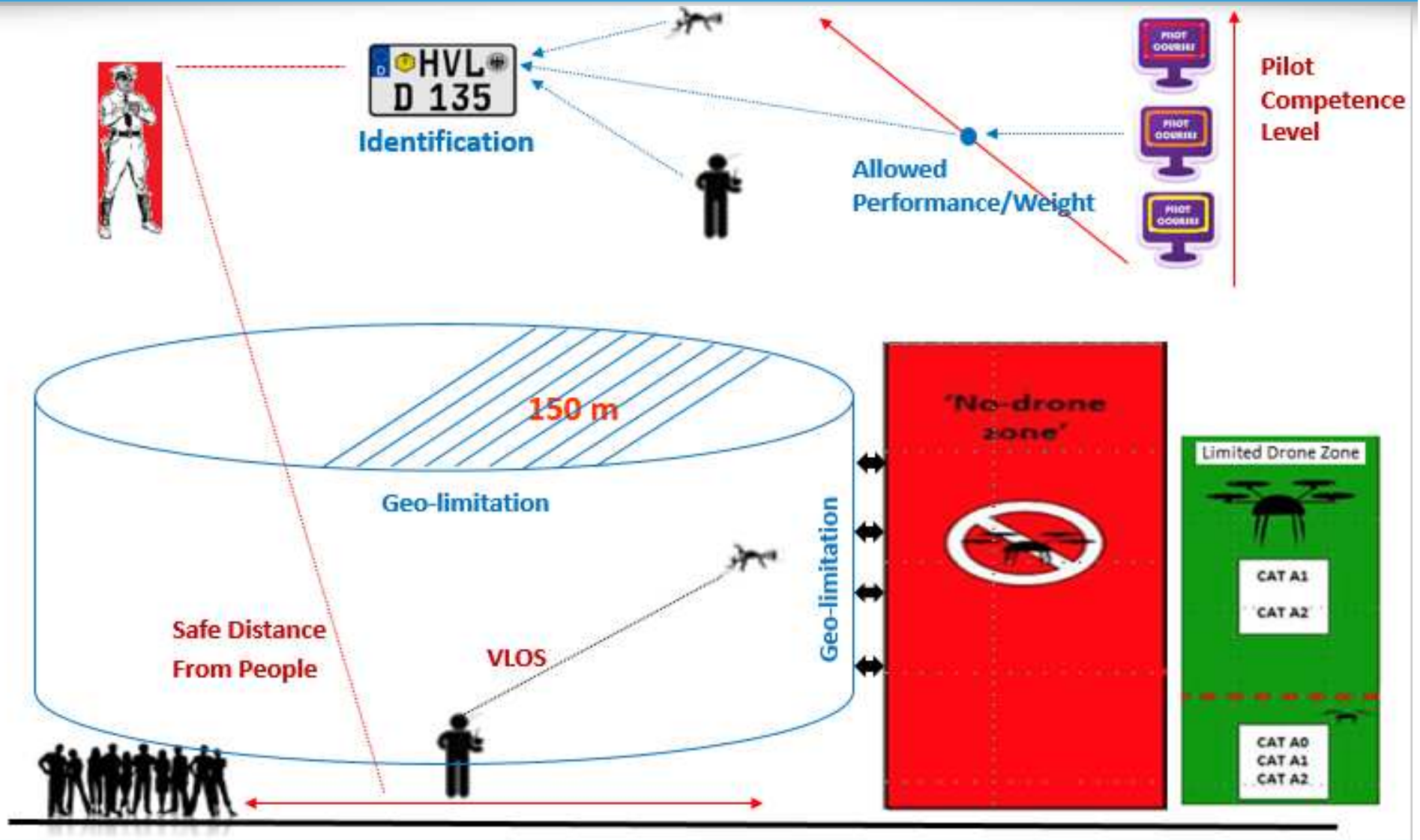
CATEGORIES



- Commercial and non commercial activities are included:
 - Flexibility to Member State to issue an authorisation without risk assessment for model aircraft in associations/clubs
- Security, privacy, data protection, insurance indirectly addressed
- Operators’ requirement for registration; geo-fencing and electronic identification:
 - Interoperable registers set up by Member States
 - EASA ready to consider EU register
- Member States may define special areas or zones for Unmanned Aircraft
- Designation and role of Competent Authorities



Open Category: how the risk is contained





Open Category (1/2)

OPEN



	A0	A1	A2	A3
Security & Data Protection				
Registration of operator	-	X	X	X
Geofencing	-	-	X	X
E-Identification	-	-	X	X
Pilot competence				
Minimum age	-	14 years old	14 years old	14 years old
Self training	-	-	X	X
Training service providers	-	-	-	X
Operational Limitations				
Max. horizontal distance	VLOS 100m	VLOS	VLOS	VLOS
Max. altitude	50m (150 ft)	50m (150 ft)	50m (150 ft)	150m (500 ft)
Min. distance from people	safe	safe	50m	50m; 20m (r/c)
...				
...



Open Category (2/2)

OPEN



...				
...
Technical requirements				
Class of drone	CE Class 0 (toys) /homebuilt	CE Class 1	CE Class 2	CE Class 3
Max mass	250 g	25 Kg	25 Kg	25 Kg
Injury Criteria		AIS ≤ 2	AIS ≤ 4	
Max speed	54 Km/h (15 m/s)			
Altitude Limitation	50 m	50 m	50 m	150 m
Horizontal distance limit	100 m	-	-	-
Lost link method	-	-	X	X
Minimum noise	-	-	X	X
Auto return home	-	-	X	X
No single failures	-	-		X
Occurrence reporting				
Serious injuries, fatalities, manned A/C involved	X	X	X	X
	A0	A1	A2	A3



Specific Category (1/2)

SPECIFIC



- Introducing the concept of standard scenarios covering certain types of operations or flights
 - Low risk ones may be self-authorized by operator through a declaration
 - High risk one authorised by the competent authority based on a risk assessment
- Introduces the concept of Declarations, Authorisations and Light Unmanned Aircraft Operator Certificate (LUC)
- An operator may choose to apply for a LUC:
 - More flexibility to operators with privileges to authorise operations



Specific Category (2/2)

SPECIFIC



Operator



Competent authority



OPERATIONS

Specific Operation Safety Risk Assessment (SORA)



Operation
Authorisation (OA)



Certified Category

CERTIFIED



Implementing Rules to be incorporated in existing manned a/c rules

Drones/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 Specs.

- Safety Objectives
- Technical Standards
- Standards for Operational aspects
- Standards for Licensing aspects



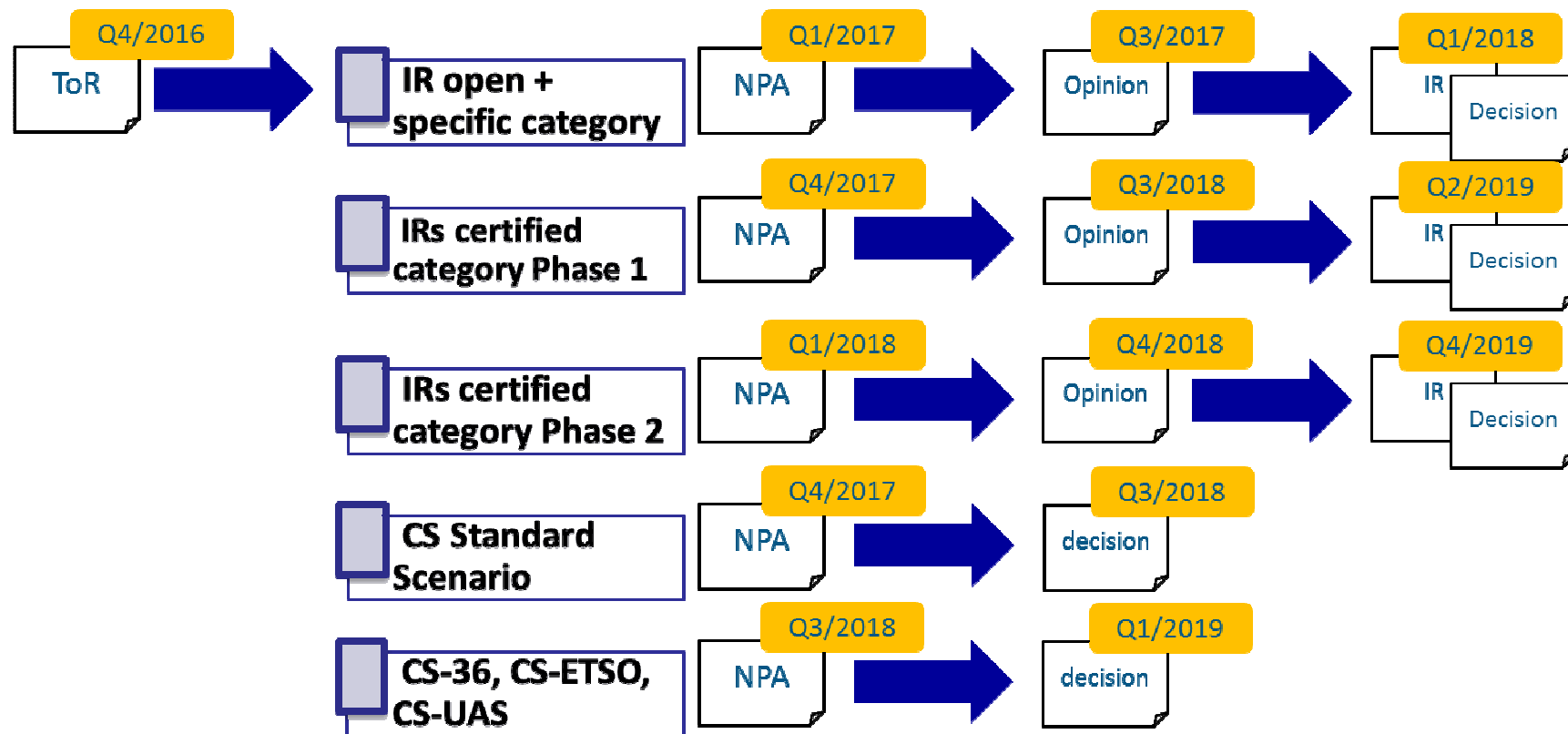
Workshop 24 October 2016

- Participation of the European Commission, Member States, unmanned aircraft and aviation community and model associations
- Main results of discussion:
 - An Expert Group, made of representatives of Member States, unmanned aircraft community and the aviation community and model associations, will support EASA to develop changes to the final UAS regulation. The initial topics the group will focus with priority are:
 - scope of open and specific categories;
 - minimum age and pilot competency assessment, exploring the need for a certificate;
 - model Aircraft and homebuilt;
 - review of open sub-categorisation.
 - Consistency needs to be ensured with AVIA and Parliament discussion



Planned Timeline

Rulemaking Task: Introduction of a regulatory framework for the operations of drones (RMT.0230)





EASA

European Aviation Safety Agency

**Questions and comments are
welcome**

Prototype regulations available at
<http://www.easa.europa.eu/easa-and-you/civil-drones-rpas>

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