



EASA
European Aviation Safety Agency

EASA Status of Activities on UAS

Presentation to Missing Link Conference
11 October 2017

The EASA drone team

Your safety is our mission.

An agency of the European Union 

TE.GEN.00409-001



Draft revised Basic Regulation envisages that all UAS are under EU competence

- Regulatory concept: Operation centric; proportionate; performance and risk based



OPEN:

Low risk

Competent

Authority notified

by member



SPECIFIC

Increased risk

Authorisation by

NAA based on

Specific

Operation Risk



CERTIFIED

Regulatory

regime similar to

manned aviation

Certified

operations to be



Comments received on NPA

- More than 3600 comments from 206 users of the CRT
- Main comments are affecting:
 - General comments, introduction and explanatory note: 17%
 - Cover regulation and AMC: 23%
 - Open category (Rules, Appendices relative to CE marking and AMC): 40%
 - Specific category (rules plus AMC): 11%
 - Light Unmanned operator Certificate (rules plus AMC): 5%
 - Part CE marking: 4%
- First preliminary review seems to indicate that the fundamental elements are not disputed.



Review of comments

- Review of comments internal to the Agency:
 - Work sharing organised in EASA team
- Continued close cooperation with DG-GROW and DG-MOVE:
 - 1st meeting October 10
- Continued close cooperation with SJU on the link with U-Space:
 - meeting envisaged in October
- Possible organisation of workshops on specific topics with the previous EASA Expert Group
- **Opinion:** planned for January 2018;
 - Adoption of regulation depending on adoption of the Draft Basic Regulation



- **Standards** are key for the success of Open and Specific Categories:
 - Priorities are registration, e-identification and geo-fencing.
- **Standard scenarios** for specific category
 - Planned for Q2 2018

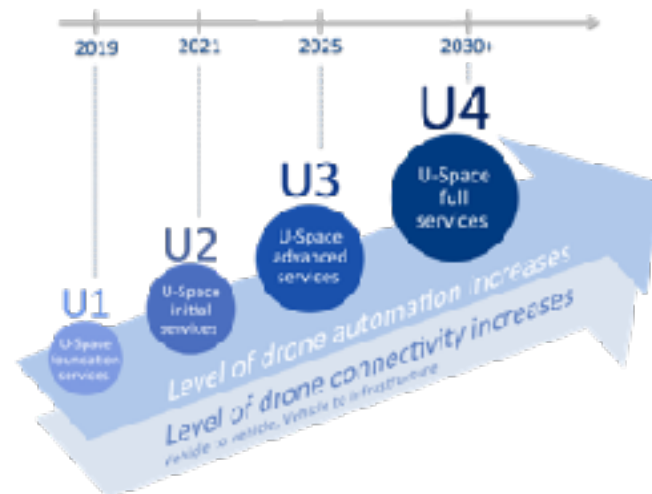


Planned regulatory work: Certified category

- EASA will issue in 2018 one NPA to cover amendments to all implementing Rules of EASA competence (including modifying procedural requirements for certification -Part 21)
 - The NPA will include separate parts for ROC (Remote Operator Certificate) and RPL (Remote Pilot License) only
 - The NPA should be phased with ongoing work for manned aircraft aspects
 - A performance based Certification Specification for UAS planned for 2018



- U-space and ATM master plan
 - Cooperation with EC, EDA, EUROCONTROL and SJU
 - Set of services, high level of digitalisation and Automation;
 - Adoption end of the year of an addendum to the ATM master plan
 - U-Space a reality by 2019 with a step by step approach:
 - Registration, E-identification, Geo-fencing are the 3 pillars in 2019
- In addition EASA encourages the development of local experiments





Other activities

- On-going certification of 4 projects



- ICAO, JARU, ...
- Safety Promotion:
 - Planning a European wide campaign
- Dual-Use UAS:
 - cooperation with EDA and several military airworthiness authorities
- Research:
 - Cooperation with EDA and SJU (e.g. support to their projects)
 - Definition of a research programme for the UAS-manned aircraft collisions



Urban mobility : EASA-NAA cooperation needed



- Performance based; risk based holistic approach
- How to proceed when rules are not available?
- Technical challenges:
 - Batteries: Power to weight/ volume ratio, endurance; availability of necessary metals, fire, charge, replacement; disposal.
 - Role of the human : competencies; autonomy; artificial intelligence; ethics:
 - Integration of mobility projects in the airspace and platform in cities
 - Cybersecurity
 - Noise physically less but issue of perception



- The main European annual UAS event will be held this year in Helsinki, Finland, on 21th and 22th of November 2017 at The Finlandia Hall
- The Conference will include presentations and panel discussions by leading experts, policy makers and companies in the unmanned aviation community.
- More information at the dedicated Website:
 - <https://www.trafi.fi/en/drones2017>
- To participate please send a mail to:
jukka.hannola@trafi.fi



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All information regarding EASA Activity in the UAS domain can be found at <https://www.easa.europa.eu/easa-and-you/civil-drones-rpas>

Thank you for your attention!

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List of Acronyms (I)

- ASD: Organization representing European Aeronautics, Space and Defence Industry
- ATM: Air Traffic Management
- BVLOS: Beyond Visual Line of Sight
- ASTM: American Society for Testing and Materials (US Standardization Organization)
- CE: Conformité Européenne
- CS-UAS: Certification Specification-Unmanned Aircraft Systems
- C2: Command and Control
- D&A: Detect and Avoid
- ECAC: European Civil Aviation Conference
- EDA: Europe Defence Agency
- EMSA: European Maritime Safety Agency
- EUROCONTROL: European Organisation for the Safety of Air Navigation
- FAA: Federal Aviation Administration
- FCL: Flight Crew License
- ICAO: International Civil Aviation Organization
- JARUS: Joint Authorities for the Regulation of Unmanned Systems
- KE: Kinetic Energy



List of Acronyms (II)

- MP: MegaPixels
- MS: Member States
- NAA: National Aviation Authority
- NPA: Notice of Proposed Amendment
- RIA: Regulatory Impact Assessment
- SAE: Society of Automotive Engineers
- SJU: SESAR Joint Undertaking
- UA: Unmanned Aircraft
- UAS: Unmanned Air System
- VLOS: Visual Line of Sight