

# Stellungnahme zur UAV-Opinion der EASA

Luftrechtsworkshop

Linz, 07.11.2016

# →→ Opinion →→

- Annex II BR: 150kg -Limit
- A-NPA 2015-10
  - Juli 2015
- Technical Opinion:  
*"Introduction of a regulatory framework for the operation of unmanned aircraft"*
  - 18.12.2015
  - centric – risk-based - proportionate
- "Prototype Regulation"
  - 22.08.2016
- Research for TRAN-Committee:  
*"Safe Integration of Drones into Airspace"*

# Risks

- gegenüber bemannter Luftfahrt
- gegenüber Menschen am Boden
- gegenüber *kritischer* und *sensibler* Infrastruktur
  
- nicht kritische oder sensible Infrastruktur?
- Privatsphäre und Datenschutz?

# Proposal 1

- Proposal 1:** Establish three categories for the operation of unmanned aircraft taking into account the nature and risk of the particular activity.
- ‘Open’ category (low risk): Safety is ensured through compliance with operational limitations, mass limitations as a proxy of energy, product safety requirements<sup>7</sup> and a minimum set of operational rules.
  - ‘Specific’ category (medium risk): Authorisation by an NAA, possibly assisted by a QE, following a risk assessment performed by the operator. A manual of operations lists the risk mitigation measures.
  - ‘Certified’ category (higher risk): Requirements comparable to those for manned aviation. Oversight by NAA (issue of licences and approval of maintenance, operations, training, ATM/ANS and aerodromes organisations) and by the Agency (design and approval of foreign organisations).

# Proposal 1

- Keine Definition "unmanned aircraft"
  - Spielzeugluftfahrzeug (Art. 2 Z 129a 923/2012)
- keine Abgrenzung zum Flugmodellssport
  - nur grundsätzliche Bekenntnis, dass dieser nicht oder möglichst wenig berührt werden soll
  - Art 2 Z 95a 923/2012
- Kategorisierung grundsätzlich ok

# Proposal 5

**Proposal 5:** EASA MS have to designate the responsible authorities for the enforcement of the regulations, in particular in the 'open' category where the recommendation is to rely on law enforcement agencies.

# Proposal 5

- Kompetenz zum Vollzug der Vorschriften
  - Entscheidung liegt bei MS
  - Sinne einer Empfehlung der EASA?
    - open category -> law enforcement agencies
  - Warum nicht NAAs?
  - Luftfahrt-Kompetenz der Polizeibehörden?
    - Aufsicht durch EASA über Polizeibehörden?

# Proposal 8

**Proposal 8:** To ensure safety, environmental protection, as well as security and privacy, the Agency will define limitation zones and criteria and guidance for the usage of such zones cooperatively with the MS and in conformity with Articles 1 and 9 of the Chicago Convention.

The NAAs may define 'zones' where no operation is allowed without authority approval or with additional limitations (e.g. additional functions like geographical limitation). The Agency will determine interfaces and acceptable data format standards (e.g. for map data) that should be used to provide the information on no-fly or restricted zones in an open web interface. This information could be made available through service providers, presented through a smartphone app, or directly uploaded to the unmanned aircraft.



# Proposal 12

- Proposal 12:** All unmanned aircraft operations in the 'open' category must be conducted within the zones defined by the competent authority, and respect the defined limitations such as:
- zones where active geographical limitation system is required;
  - zones where a MTOM is defined;
  - zones where identification and registration is required;
  - zones with additional environmental protection requirements; and
  - no fly zones.

# Proposal 8 und 12

- Definition von Zonen durch EASA
  - Empfehlung, die gewohnten Bahnen nicht zu verlassen
    - Luftraumbeschränkungsgebiete
      - Luftsperrgebiete
      - Flugbeschränkungsgebiete
  - "*to ensure [...] privacy*"(?)
    - nur in definierten Zonen?

# Proposal 8 und 12

- Festlegung von Zonen durch MS
  - einfach(!!!)
    - mil vs zivil
    - Überlappung (CTR, SiZo, R)
    - Karten
  - Was interessiert Betreiber?
    - Veranstaltungen
    - dicht besiedelte Gebiete
    - Notfall-Einsätze

# Proposal 9

**Proposal 9:** To prevent unintended flight outside safe areas and to increase compliance with applicable regulations, a functionality that automatically generates geographical limitations and identification of the unmanned aircraft for certain unmanned aircraft and operation areas should be mandated. The IRs will define the scope of such mandate based on a thorough RIA.

# Proposal 9

- "geofencing"
  - "Science Fiction"
  - Database-Aktualität - Kosten
  - Umgehung
- "identification"
  - Keine verpflichtende Bestimmung über Registrierung und Kennzeichnung
    - Chance auf öffentliches EU-Register
    - über alle Kategorien (evtl. mit Ausnahme <250g)

# Proposal 10

**Proposal 10:** Standards for geographical limitation and identification systems will be endorsed by the Agency and could be referenced in the market regulations system in order to ensure that consumer products comply with these standards, and to ensure harmonisation at technical level. This will enable manufacturers to develop adequate equipment and to declare compliance with these standards. Detailed functionalities and related requirements will be defined during development of IRs and standards including definitions for operation where such limitations and systems are not appropriate to be mandated.

# Proposal 10

- klares Bekenntnis zur Rechtssetzung durch EASA(?)
- nicht bloß "endorsement"

# Proposal 11

**Proposal 11:** A 'harmless' subcategory of unmanned aircraft only subject to market regulations and local restrictions should be established. They should not be operated in a careless or reckless manner. Operating instructions will come with do's and don'ts on leaflets in the box. Exact criteria need to be defined through the rulemaking process.



# Proposal 11

- open category – harmless
  - bis 250g grundsätzlich in Ordnung
  - strikte Höhenbeschränkung: zB 30m
  - Info-Blatt: sehr gute Idee – Vorarbeiten notwendig (zB Project Open Flight Maps)
  - Schutz der Privatsphäre(?)

# Proposal 14

**Proposal 14:** To separate unmanned aircraft from other airspace users for all unmanned aircraft in the 'open' category, except for the 'harmless' subcategory:

- only flights in direct VLOS of the pilot are allowed;
- an unmanned aircraft in the 'open' category shall have a system ensuring that it limits its performances to acceptable values, in particular that it cannot operate at a height exceeding 150 m above the ground or water. The pilot is responsible for the safe separation from any other airspace user(s) and shall give right of way to any other airspace user(s); and
- the pilot needs to have adequate pilot competence according to the performance of the unmanned aircraft.

# Proposal 16

- Proposal 16:** An MTOM of 25 kg for unmanned aircraft is proposed for the 'open' category based on current thresholds used by EASA MS and internationally (e.g. USA, Canada, Brazil) for the regulation of small unmanned aircraft or models:
- Only unmanned aircraft with an MTOM below 25 kg are allowed in the 'open' category.

# Proposal 16

- 25kg-Limit für 'open' category
  - wesentlich zu hoch
  - vor allem in Kombination mit 150m Flughöhe (s. Opinion-Proposal 14)
    - AGL?
    - $150\text{m} * 9.81\text{m/s}^2 * 25\text{kg} = 37\text{kJ}$   
(potentielle Energie – ohne LWS)
  - 250g akzeptabel

# Was fehlt?

- bislang "nur" Grundsätze
- keine Unterscheidung gewerblich vs. nicht gewerblich
- Datenschutz/Schutz der Privatsphäre(?)
- Security
- Meldewesen (→ Prototype)
- Sicherheitsuntersuchung
- Haftung und Versicherung
  - Gefährdungshaftung
  - Pflicht-Haftpflichtversicherung? (785/2004)

# DANKE FÜR IHRE AUFMERKSAMKEIT!

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