



EASA

European Aviation Safety Agency

Panel 7: Welcoming a new member to the GA Community- Unmanned Aircraft

EASA Safety Conference, 16 October 2014

Moderated by: Mr Filippo Tomasello, EASA, Regulations Officer

Speakers:

Mr Eric Sivel, EASA, Innovation and Research Programme Manager

Mr Koen de Vos, European Commission, Policy Officer

Mr Mike Lissone, JARUS, Secretary General

Mr Peter van Blyenburgh, UVS International, President

Mr Bruno Moitre, ENAC, Program Manager GA

Mr Andre Clot, EUROCAE, WG93 Light RPAS, Vice Chair

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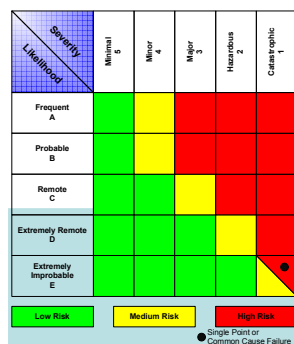
Panel 7 (UAS)

- **André CLOT** (EuroUSC-International™)
- **Koen DE VOS** (EC – DG-MOVE – E3)
- **Mike LISSONE** (JARUS & EUROCONTROL)
- **Bruno MOITRE** (ENAC)
- **Eric SIVEL** (JARUS & EASA)
- **Filippo TOMASELLO** (EASA & University « Parthenope »)
- **Peter Van BLYENBURGH** (UVS International)



Safety hazards for RPAS

- Any event which could potentially cause:
 - **Injuries to people on the ground** including indirect injuries (e.g. explosion of chemical plant)
 - **Collisions or danger to other aircraft**
 - Injuries to passengers (if any)
- **Hull loss is not a hazard** if no passengers on board (e.g. a crash on the planet's surface is not a safety hazard in itself, unless humans nearby can be injured)
- Damage to property on ground is not a safety risk liability and insurance can mitigate this hazard



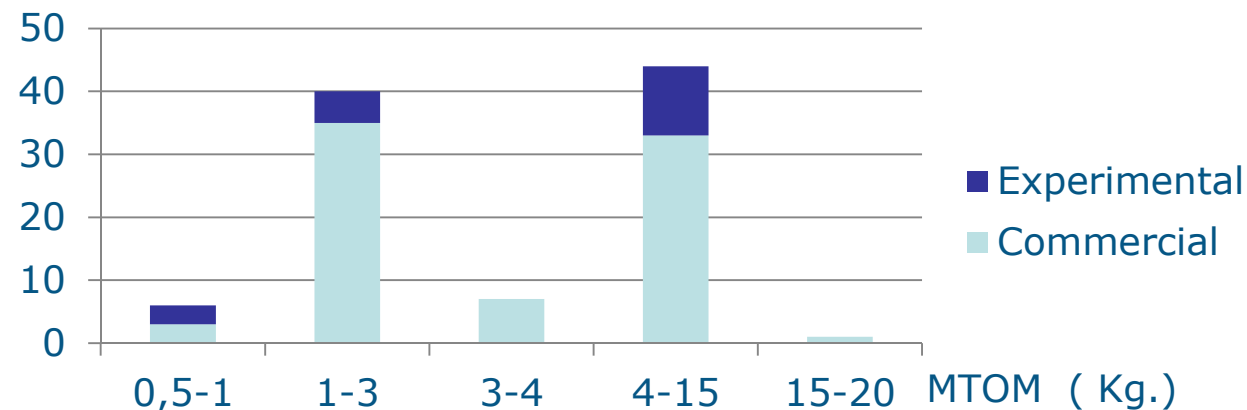
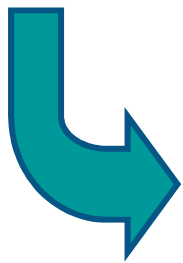
RPAS Operation Categorisation

	OPEN (‘buy and fly’)	SPECIFIC	REGULATED
Airworthiness	Nothing	Risk mitigation	Certificates (TC, CofA)
Licensing	Nothing	Specific Training	Licence
Organisations	None	Industry attestation	Approval (ROC, etc.)
C2	Nothing	Specific Demonstrations	Certified (ETSO?)
D&A	Nothing	Industry attestation	Certified (ETSO?)



Bruno Moitre : ENAC RPAS Regulation - The Italian experience with the “self declaration”

- **Self Declarations** : non critical ops (non-controlled airspace, VLOS, H < 70 m.)
- **136** “ Self Declarations ” (non critical operations) from 87 Operators
- **112** for Experimental/Initial Test Flights ; **24** for Commercial Operations
- **54** RPAS’s Developers/Manufacturers at differentiating MTOM
- **98** combinations of RPAS’s and MTOM (range: 0,55 to 20,0 kg)



- 5 Design/Manufacturers **authorised** as Operators for their RPAS’s (R&D)
- Permits to Fly issued for R & D
- MTOM range : 7,5 – 1.200,00 Kg
- **Issues** : **Infrastructural needs for R&D**, Aeronautical background/experience, ENAC Monitoring, Adaptation of Administrative laws (legal system of manned aviation apply), Data gathering & statistics



➤ Qualified Entities

- Comply with EU 216/2008, Annex V, independent, costs borne by RPAS industry

➤ Provide NAAs with Independent assessment including:

- Airworthiness assessments
- Flight Schools and Pilot Qualification
- Design and Production Organisation assessment
- Investigations, Information and Safety Notices

➤ Transnational support

- Can support more than one NAA hence greater visibility of practical issues than a single NAA

➤ International operation

- Assessments recognised by other NAAs
- Transnational safety database



Peter van Blyenburgh

Current Civil RPAS Market Development in EU

EU States with promulgated RPAS regulation			Total 11
MTOM < 150 kg	VLOS	AT, CZ, DK, PL, SE	5
MTOM < 25 kg	VLOS	FR, DE, IT, LT	4
MTOM < 25 kg	BVLOS	FR	1
MTOM < 20 kg	VLOS	IE, UK	2
EU States with RPAS regulation in preparation			Total 7
MTOM < 150 kg		BE, FI, HU, LV, MT, NL	6
MTOM < 25 kg		ES	1
Authorised civil RPAS Operators			Total 2008
Authorised civil drone systems	103 in FR alone		103-200
States with authorised RPAS ops > 500 ft	Exemptions case-to-case		0
States with authorized civil RPAS ops < 500 ft			11
States with authorised pre-operational CAT	GE		1



- See & Avoid in VLOS below 500 ft
 - Who operates below 500ft?
 - What responsibilities for the ANSP?
 - Detect ability?
 - How good is the human in S&A?
 - Flight planning a must?
 - Use of Airspace – segregation the answer?
 - Equipage for all airspace users?
 - Rules of the Air? Rules of the past?



Commission has initiated concrete action:

- COM 2014 (final) 207 of 8 April 2014
- Transport Ministers discuss on 8 Oct 2014
- Preparation and consultation ongoing
- Towards a coherent RPAS policy, including a legislative proposal

➤ **The principles:**

- **Proportionality (risk categorisation)**
- **Proximity**



EASA Short term action plan

Define a concept of operation and RPAS principles

- Proper RPAS regulatory segmentation
- Establish a corresponding regulatory structure

Review the flows and rationalise to accelerate implementation of the RPAS strategy.

Continue to update detailed planning to take into account streamlining of flows.

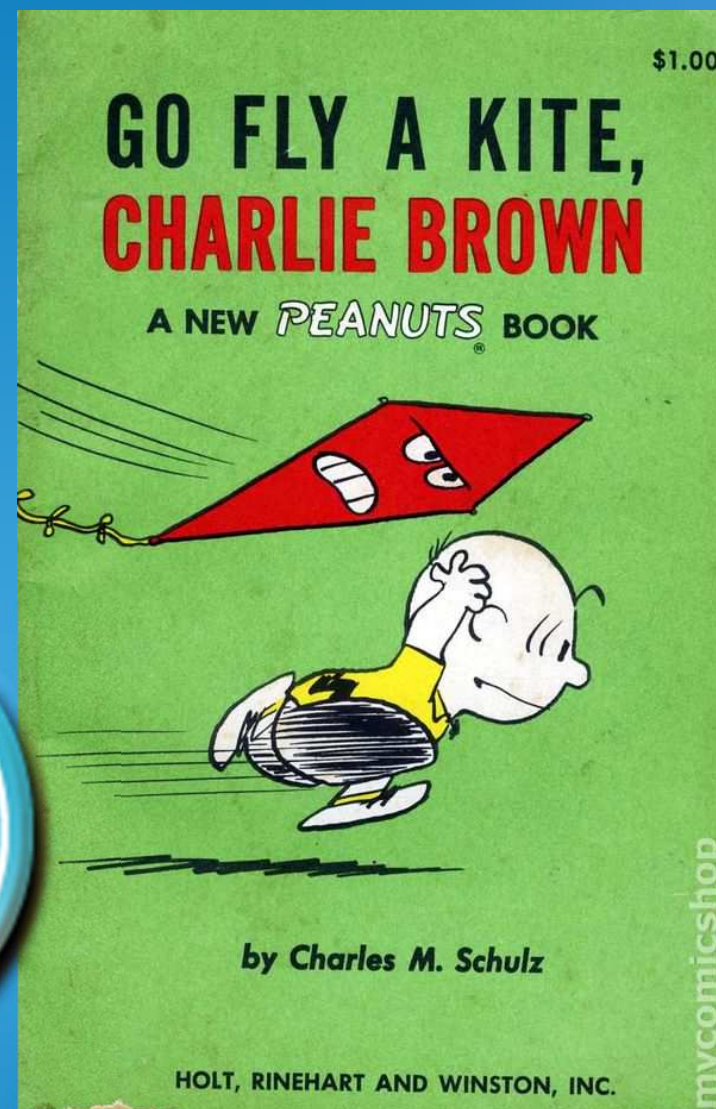
JARUS proposals for classification of RPAS by Q1 or Q2/15

Issue NPA on the smallest RPAS by the end of Q1 or Q2 or Q2/15



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Any questions?



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