

REVIEW OF THE 3 CONDUCTED SURVEYS



European  
UAS  
Operations



Operation  
Risk  
Assessment



Perception  
of  
U-Space

Surveys Set Out in English, French, German & Spanish

Peter van Blyenburgh - Blyenburgh & Co, France  
[pvb@rps-info.com](mailto:pvb@rps-info.com)



# Objective



UAS OPS	<b>Current Situation</b>	Identify the <b>market sectors</b> in which drone flight operations currently take place in compliance with the <b>currently applicable rules or regulations</b> .	<b>VLOS, EVLOS, BVLOS</b>  <b>Below 500 ft. (150 m) above ground level</b>  <b>Over densely or sparsely populated areas</b>
		Identify the <b>mission purposes</b> of the flight operations currently taking place in compliance with the <b>currently applicable rules or regulations</b> .	
	<b>Near Future</b> (1-2 years starting 210101)	Identify the <b>market sectors</b> in which drone flight operations will take place <b>starting 1 Jan 2021</b> in compliance with <b>new EU drone regulation</b> .	
		Identify the <b>mission purposes</b> of the flight operations that will take place <b>starting 1 Jan 2021</b> in compliance with <b>new EU Drone regulation</b> .	
Obtain <b>initial feedback</b> on the use of <b>SORA / Standard Scenarios / Predefined Risk Assessment &amp; qualification of respondents to participate in the OPS RISK Survey</b> .			
OPS RISK	Obtain <b>detailed feedback</b> on the use of <b>SORA / Standard Scenarios / Predefined Risk Assessment</b> .		





## Terms & Explanations

### Operator

Each respondent is a drone “Operator”:  
A company or organisation (non-governmental or governmental) conducting, or planning to conduct, commercial or non-commercial flight operations with drones.

**Note: Only Operators could participate**

### Types of Operation

#### **Commercial**

Flights carried out by companies for paying customers (incl. Flight Schools and Test & Demonstration Site Management organisations).

#### **Non Commercial**

Flights carried out by companies or organisations without external financial compensation from a customer.

Non-commercial operations include «**Corporate Operations**», which should be understood as: «Flights carried out by companies or organisations to meet their own internal requirements».

**Explanations of these terms were supplied (in EN, FR, DE, ES) as survey reference documents.**

# Terms & Explanations

## Types of Operator

- **Corporate Entity - Drone Manufacturer & Operator**
- **Corporate Entity - Drone Operator**
- **Corporate Entity - Flight School**
- **Corporate Entity - Research**
- **Corporate Entity - Test & Demonstration Site Management**
- **Corporate Entity - U-Space Service Provider**
- **Governmental Entity - Drone Operator**  
(non-military; including fire civil defence, coast guard, customs authorities, emergency services, police, environmental & infrastructure maintenance agencies, fire brigades)
- **Governmental Entity – Research**
- **Academia / University**
- **Non-governmental organisation (NGO)**  
(e.g. Red Cross, Doctors Without Borders, environmental protection groups)

- = Have contributed to survey
- = Have NOT contributed to survey

Explanations of these terms were supplied (in EN, FR, DE, ES) as survey reference documents.





# Terms & Explanations

## Drone Market Sectors

**Each Market Sector contributed to the survey**

- |  |   |
|--|---|
| <ul style="list-style-type: none"><li>1 <b>Aerial Photography, Audio-Visual Production, Advertising</b></li><li>2 <b>Agriculture, Fishery, Fish Farming, Forestry</b></li><li>3 <b>Aircraft System or Sub-system Production</b></li><li>4 <b>Cinema &amp; TV Industry</b></li><li>5 <b>Construction &amp; Real Estate</b></li><li>6 <b>Entertainment, Artistic Expression &amp; Sport</b></li><li>7 <b>Environmental Protection &amp; Wildlife Conservation</b></li><li>8 <b>Flight Training / Instruction</b></li><li>9 <b>Heritage Site &amp; Historical Monument Management</b></li><li>10 <b>Humanitarian Aid</b></li><li>11 <b>Insurance (Accident &amp; Claim Investigation)</b></li><li>12 <b>Maintenance</b></li></ul> | <ul style="list-style-type: none"><li>13 <b>Mining &amp; Exploration</b></li><li>14 <b>Miscellaneous - Air Show</b></li><li>15 <b>Miscellaneous – Demonstration</b></li><li>16 <b>Miscellaneous – Ferry / Positioning</b></li><li>17 <b>News Gathering &amp; Broadcasting</b></li><li>18 <b>Policy Compliance &amp; Obtaining Legal Proof</b></li><li>19 <b>Public Services &amp; Safety</b></li><li>20 <b>Security &amp; Law Enforcement</b></li><li>21 <b>Remote Operations - Non-Sensing</b></li><li>22 <b>Remote Operations – Sensing</b></li><li>23 <b>Research &amp; Science</b></li><li>24 <b>Transport</b></li><li>25 <b>Utility Companies (Public &amp; Private)</b></li></ul> |
|--|---|

Explanations of these terms were supplied (in EN, FR, DE, ES) as survey reference documents.



# Terms & Explanations

## Flight Mission Purposes

**Each flight mission purpose was selected by at least one survey respondent**

1 Advertising	12 Mapping	23 Special Purpose
2 Aerobatics, Special Effects & Sport	13 Measuring	24 Spotting
3 Aerial Photography & Film/Video Footage	14 Monitoring	25 Spraying
4 Broadcasting	15 Observation	26 Surveillance
5 Deterring	16 Patrolling	27 Surveying
6 Dispensing	17 Relief Flight	28 Testing
7 Exploration	18 Search & Rescue	29 Tracking
8 Identification	19 Security	30 Transport - Goods
9 Inspection	20 Sensing	31 Transport - Persons
10 Localisation	21 Sky Painting	32 Validation
11 Manipulation	22 Sky Writing	33 Water Bombing

Explanations of these terms were supplied (in EN, FR, DE, ES) as survey reference documents.



# Survey Methodology

## Survey Forms, User Instructions & Reference Documents in EN, FR, DE, ES

UAS OPS Survey (1) – RESPONDENT DECLARATIONS
<ul style="list-style-type: none"> <li>● Respondent is a <b>Drone Operator</b></li> <li>● Respondent conducts “<b>Commercial</b>” or “<b>Non-Commercial</b>” operations</li> <li>● The applicable <b>Type of Operator</b> (10 choices – See slide 4)</li> </ul>

**Survey software:**  
SoGoSurvey  
(GDPR compliant)

UAS OPS Survey (2) – <b>CURRENT</b> SITUATION	UAS OPS Survey (3) – <b>NEAR-FUTURE</b> SITUATION
<p>The respondent selected:</p> <ul style="list-style-type: none"> <li>● Up to <b>4 Market Sectors</b> in which he/she is currently active;</li> <li>● Up to <b>5 Mission Purposes</b> (currently being flown) in each selected Market Sector, indicating if the flights are: <ul style="list-style-type: none"> <li>◆ <b>VLOS, EVLOS, or BVLOS</b></li> <li>◆ Over <b>densely or sparsely populated areas</b></li> </ul> </li> </ul>	<p>The respondent selected:</p> <ul style="list-style-type: none"> <li>● Up to <b>4 Market Sectors</b> in which he/she plans to be active;</li> <li>● Up to <b>5 Mission Purposes</b> that he/she anticipates to fly in each selected Market Sector, indicating if the flights are: <ul style="list-style-type: none"> <li>◆ <b>VLOS, EVLOS, or BVLOS</b></li> <li>◆ Over <b>densely or sparsely populated areas</b></li> </ul> </li> </ul>
UAS OPS Survey (4) – <b>Initial</b> Feedback SORA Use	OPS RISK Survey – <b>Detailed</b> Feedback SORA Use
<p>Questions with 2 types of answers: Yes/No &amp; multiple choice. Objective: Identify the respondents with the <b>experience</b> to be invited to contribute to the “OPS RISK” survey.</p>	<p>Questions with 2 types of answers: Yes/No &amp; multiple choice. Objective: Obtain feedback on the <b>use of SORA, Standard Scenarios, and Predefined Risk Assessment.</b></p>





# Respondents - Basic Numbers

Respondents	UAS OPS	247
	OPS RISK	20

22 Countries – In **Alphabetical** Order

Austria	2
Belgium	34
Bulgaria	1
Denmark	1
Estonia	1
Finland	3
France	64

Germany	34
Greece	1
Ireland	7
Italy	13
Lithuania	1
Netherlands	30
Poland	5
Portugal	1

Romania	1
Serbia	1
Slovakia	2
Spain	23
Switzerland	10
Ukraine	2
UK	10

22 Countries – In Order of **Respondents/Country**

France	64
Belgium	34
Germany	34
Netherlands	30
Spain	23
Italy	13
Switzerland	10

UK	10
Ireland	7
Poland	5
Finland	3
Austria	2
Slovakia	2
Ukraine	2
Bulgaria	1

Denmark	1
Estonia	1
Greece	1
Lithuania	1
Portugal	1
Romania	1
Serbia	1

Operator Categories

Commercial Operators	76%
Non Commercial Operators	24%

Operator Types

Corporate Entity (5 categories)	88%
Governmental Entity	5%
Research Organisation (non-commercial)	2%
Association, Federation, Union, TechCluster	2%
Academia / University	3%

SORA – Comprehension & Use

Understand SORA methodology	155
Use SORA	86
Have submitted SORA to their NAA	47





# Survey Results Report Layout

<b>Index</b>	1		
<b>Introduction &amp; Objective</b>	3		
<b>Terms &amp; Explanations:</b>			
- Operators & Operations	4		
- Drone Market Sectors	5		
- Flight Mission Purposes	7		
<b>Survey Methodology</b>	9		
RESULTS	10		
<b>Survey Respondents</b>			
- Nominal Listing	11		
- Basic Numbers	13		
<b>UAS OPS SURVEY</b>			
Section 1 - Current Situation			
● <b>Market Sectors</b>			
- Flight Envelopes – VLOS, EVLOS, BVLOS	14		
- Flight Zones – Sparsely/Densely Populated	16		
● <b>Flight Missions</b>			
- Flight Envelopes – VLOS, EVLOS, BVLOS	18		
- Flight Zones – Sparsely/Densely Populated	20		
Section 2 - Near-Future (1-2 years)			
● <b>Market Sectors</b>			
- Flight Envelopes – VLOS, EVLOS, BVLOS	22		
- Flight Zones – Sparsely/Densely Populated	24		
		● <b>Flight Missions</b>	
		- Flight Envelopes – VLOS, EVLOS, BVLOS	26
		- Flight Zones – Sparsely/Densely Populated	28
		Section 3 – Comparisons Between Current & Near-Future	
		- Market Sectors – Flight Envelopes	30
		- Market Sectors – Flight Zones	31
		- Flight Missions – Flight Envelopes	32
		- Flight Missions – Flight Zones	33
		Section 4 - SORA Access & Use	34
		<b>OPS RISK SURVEY</b>	
		SORA, Standard Scenarios, Predefined Risk Assessment	
		- Respondents	35
		- Questions & Responses	36
		<b>ANNEX - PART 1 – UAS OPS SURVEY</b>	
		Section 1 UAS OPS Survey – Current Operations	39
		Section 2 UAS OPS Survey - Future Operations	130
		Section 3 Risk Analysis Methods – SORA Access & Use	221
		<b>ANNEX - PART 2 – OPS RISK SURVEY</b>	
		Perception of SORA, Standard Scenarios, Predefined Risk Assessment	
			227



Perception of U-Space

**Survey conducted in English, French, German & Spanish**



# Basic Numbers

**Survey Respondents: 120**

## 28 Contributing Countries – In Alphabetical Order – Contributions in %

1	Albania	0,83	8	Denmark	2,48	15	Jamaica	0,83	22	Portugal	0,83
2	Australia	1,65	9	Estonia	0,83	16	Kenya	0,83	23	<b>Spain</b>	<b>9,92</b>
3	Austria	2,48	10	<b>Finland</b>	<b>4,96</b>	17	Lithuania	0,83	24	Sweden	1,65
4	<b>Belgium</b>	<b>13,22</b>	11	<b>France</b>	<b>11,57</b>	18	<b>Netherlands</b>	<b>7,44</b>	25	Switzerland	2,48
5	Bulgaria	2,48	12	<b>Germany</b>	<b>13,22</b>	19	New Zealand	0,83	26	Ukraine	0,83
6	China	0,83	13	Ireland	0,83	20	Norway	0,83	27	United Kingdom	2,48
7	Czech Rep.	0,83	14	<b>Italy</b>	<b>6,61</b>	21	Poland	2,48	28	<b>U.S.A.</b>	<b>4,96</b>

<b>Principal Contributing Countries</b> <b>71,9% of All Contributions Received</b>	<b>1</b>	<b>Germany</b>	<b>13,22</b>	<b>5</b>	<b>Netherlands</b>	<b>7,44</b>
	<b>2</b>	<b>Belgium</b>	<b>13,22</b>	<b>6</b>	<b>Italy</b>	<b>6,61</b>
	<b>3</b>	<b>France</b>	<b>11,57</b>	<b>7</b>	<b>Finland</b>	<b>4,96</b>
	<b>4</b>	<b>Spain</b>	<b>9,92</b>	<b>8</b>	<b>U.S.A.</b>	<b>4,96</b>

# Targeted Participant Categories



<b>Top 3 Respondent Categories</b>	<b>UAS Operators</b>	<b>35%</b>
	<b>Consultancy Specialized in Safety Risk Assessment</b>	<b>22%</b>
	<b>UAS Manufacturer/Integrator &amp; Operator</b>	<b>19%</b>

1	Aeronautical Information Service Provider	5%	6%
2	Air Navigation Service Provider	7%	7%
3	ATM / UTM / U-space software dvpt comp.	13%	15%
4	Common Information Service Provider	5%	9%
5	Communication Service Provider	1%	2%
6	Conformity Assessment Body	7%	10%
7	Consultancy specialized in safety risk	22%	28%
8	UAS Manufacturer / Integrator	17%	18%
9	UAS Manufacturer / Integrator & Operator	19%	24%
10	UAS Operator - All flight missions (except transport of cargo & persons)	35%	33%
		<b>Current Activities</b>	
		<b>Possible Future Activities</b>	

11	UAS Operator - Transport of cargo & persons]	13%	19%
12	General Aviation	10%	9%
13	Commercial Manned Aviation	2%	5%
14	National Aviation Authority	7%	9%
15	Local Authority	2%	2%
16	Notified Body	1%	4%
17	Qualified Entity	3%	7%
18	Standard Development Organisation	2%	5%
19	Urban Air Mobility (UAM)	12%	21%
20	U-space Service Provider	12%	24%
		<b>Current Activities</b>	
		<b>Possible Future Activities</b>	

**Principal Expected Growth**



# Respondent Qualification & Sector Involvement



Qualification & Competence	Quantity of Years				
	< 1	1-2	3-5	5-10	> 10
Respondent <b>organisation's</b> involvement with <b>drones</b>	4%	12%	30%	34%	20%
Respondent's <b>personal</b> involvement with <b>drones</b>	5%	10%	26%	27%	33%
Respondent's <b>personal</b> involvement with <b>aviation</b>	3%	3%	11%	17%	66%

Respondent involvement

ASD-STAN	17%
<b>ASTM</b>	<b>37%</b>
CEN/CENELEC	7%
ETSI	0%
<b>EUROCAE</b>	<b>49%</b>
ICAO RPAS Panel	22%
ISO	22%
JARUS	22%
JARUS SCB	17%
RTCA	10%
National Standards Orgs	<b>29%</b>

Participating Countries	
<b>European Union</b>	<b>17</b>
<b>EU-associated</b>	<b>4</b>
Other	7
<b>Total</b>	<b>28</b>

<b>Micro &amp; SMEs</b>	<b>70%</b>
<b>Industry</b>	<b>30%</b>

Quantity of Employees	
1 Employee	7%
2 to 5 Employees	16%
6 to 10	15%
11 to 25	14%
26 to 100	11%
101 to 250	6%
251 & more	<b>30%</b>

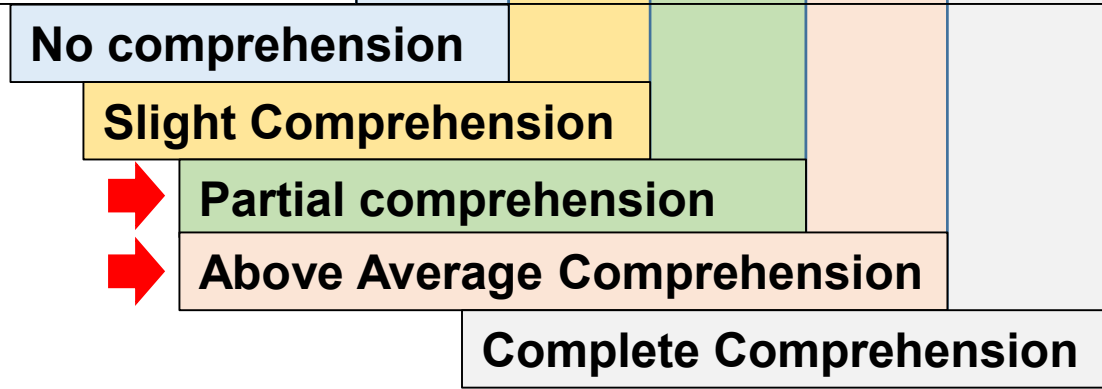
Language Used	
<b>English</b>	<b>67%</b>
German	13%
French	12%
Spanish	8%

Activity sector segmentation & competence has permitted to **benchmark the drone operations community** and obtain a **representative & qualified insight**

# General Comprehension of U-Space



Is the general concept of U-space clear to you?	1%	3%	22%	46%	28%
Are the relations between the service suppliers clear to you?	4%	12%	27%	45%	11%
Is it clear what data is supplied by each service provider?	7%	10%	41%	34%	7%
Is it clear in what format the data is supplied?	21%	16%	46%	16%	2%
Is it clear to whom the data is supplied?	11%	12%	40%	30%	7%
Is it clear how the data is supplied?	18%	11%	48%	20%	2%
Are the legal responsibilities & liabilities of the service providers clear to you?	15%	13%	43%	23%	6%
Is 5G coverage in your country sufficient to supply the data?	27%	25%	30%	15%	2%



## Services Currently Available in Respondent's Country (> 40% of positive replies)



<b>Common Information Service (CIS)</b>	<b>ATM Data Service</b> <b>Flight planning</b> <b>Geo-Awareness Data Service</b>	<b>55%</b> <b>53%</b> <b>47%</b>
<b>UAS Flight Authorisation Service</b>	<b>Flight plan/authorisation validation</b>	<b>47%</b>
<b>Geo-awareness Service</b>	<b>Applicable operational conditions</b> <b>Airspace constraints in designated U-space airspace</b> <b>Geographical zones in the designated U-space airspace</b>	<b>46%</b> <b>42%</b> <b>41%</b>
<b>Network Identification Service</b>	<b>Data for authorized users</b>	<b>69%</b>
<b>Traffic Information Services</b>		<b>40%</b>
<b>Weather Information Services</b>		<b>61%</b>



## Preference & Expression of Needs ( > 50% of respondents)

● Prefer <b>Integration</b> to Segregation	<b>76%</b>
● Need for <b>further specifications</b> of rules & guidelines in the U-space regulation (e.g. de-conflicting processes)	<b>83%</b>
● Need for <b>clarification</b> of the roles & responsibilities of Air Navigation Service Providers, Common Information Service Providers, U-space Service Providers	<b>64%</b>
● <b>Business &amp; financial aspects</b> of U-space should be referred to in the regulation	<b>53%</b>
● <b>Business &amp; financial aspects</b> of U-space should be a <b>national implementation matter</b>	<b>50%</b>





## Maturity & Information Sufficiency

The majority of respondents indicate that the **U-space is not mature** and that the **available information/documentation** is **insufficient**.

## Above Average & Total Comprehension

- The U-space concept **74%**
- Relations between service suppliers **56%**
- Data supplied by each service provider 41%
- To whom the data is supplied 37%
- Legal responsibilities & liabilities of service providers 29%
- How the data is supplied 22%
- Format of the supplied data 18%

## The 10 Most Urgently Required Services

- Flight Authorisation Request Processing **56%**
- Geographical Zones in the Designated U-space Airspace 48%
- Geo-Awareness Data Service 47%
- Authorization Request Service 45%
- Applicable Operational Conditions 45%
- Supply of Flight Authorisation 44%
- Flight Plan/Authorisation Validation 42%
- Airspace Constraints in the Designated U-space Airspace 42%
- Weather Information Service 42%
- Dynamic Airspace Restrictions 40%

Majority of respondents (>50%) **do not know when the required services will be available** in their countries.

# Principal Currently Missing Information



**> 50%** of respondents

- Required technical standards	<b>73%</b>
- Required operational standards	<b>69%</b>
- Detailed additional information on U-space	<b>62%</b>
- Detailed additional regulatory information	<b>57%</b>
- Costing aspect of U-space services	<b>56%</b>
- Responsibilities & liabilities relative to U-space services	<b>55%</b>

**< 50%** of respondents

- Definition of «dynamic reconfiguration of the airspace» concept	<b>48%</b>
- Defined communication interface between ANSP & USSP	<b>38%</b>
- Defined communication interface between CSP & USSP	<b>37%</b>
- Defined communication interface between CSP & ANSP	<b>35%</b>
- Definition of «Notified Body» & applicable criteria/standards	<b>28%</b>

# Immature or Non-Exist Technology & Principal Required Standards



Concepts considered to be based on immature or non-existent technologies	
- Detect & Avoid	80%
- Collaborative interface with ATC	51%
- Surveillance & communication technology for manned aviation VLL flights	51%
- Dynamic geo-fencing	47%
- Tactical de-confliction	47%
- Communication methods – 5G	41%
- Procedural interface with ATC	40%
- Strategic de-confliction	40%

Principal required European-wide standards	
- Pilot Training & Qualification: Theoretical	85%
- Detect & Avoid	84%
- Electronic conspicuity methods (UAS position transmission)	82%
- Pilot Training & Qualification: Practical	81%
- Command & Control integrity	78%
- Cybersecurity	78%
- Drones for Transport - Cargo/Goods	77%
- Drones for Transport – Persons	76%
- Population density definition/calculation	67%
- UAS «black box» recorder (on aircraft)	60%
- Person-identifiable imagery	55%

## Opinions Expressed on the Current Situation



	No
Is the currently available <b>U-space information</b> (Reg. Draft) sufficient to <b>evaluate the impact on your future activities</b> ?	59%
Is the currently available <b>regulatory information</b> sufficient to evaluate the <b>impact on your future activities</b> ?	66%
Is the currently available <b>U-space information</b> (Reg. Draft) sufficient to draw up a <b>business plan/commercial strategy</b> ?	58%
Is the currently available <b>regulatory information</b> sufficient to draw up a <b>business plan/commercial strategy</b> ?	57%
Is the <b>information on U-space</b> currently available (Reg. Draft) sufficient to <b>implement U-space</b> ?	59%
Is the <b>information on U-space</b> currently available (Reg. Draft) a <b>solution for your future activities</b> ?	49%



# Opinions Expressed on Standards



**Respondents** desiring to be involved in ongoing standards work

<b>Data Exchange Standards</b>	<b>55%</b>
<b>Remote Identification Standards</b>	<b>60%</b>
<b>Electronic Registration Standards</b>	<b>56%</b>

## GENERAL COMMENTS

	Yes	No	?
● <b>Is your national standards organisation involved in the drone standards producing activity (for the «open» category) by ASDSTAN?</b>	21%	23%	56%
● <b>Is your national standards organisation involved in the drone standards producing activity by ISO?</b>	31%	19%	50%
● <b>Are the standards that your company/organisation requires available?</b>	31%	39%	31%
● <b>Are the standards that your company/organisation requires easily identifiable/findable?</b>	28%	44%	28%
● <b>Are the standards that your company/organisation requires available in your local language?</b>	20%	43%	37%



DO THE STANDARDS FOR THESE SERVICES **EXIST** IN YOUR COUNTRY?

## Common Information Service (CIS)

- ATM Data Service
- Geo-Awareness Data Service
- Authorization Request Service
- Communication Service (infrastructure)
- Conformance Monitoring Service

## UAS Flight Authorisation Service

- Flight authorisation request processing
- Flight plan assistance
- Flight plan processing
- Flight plan/authorisation validation
- Priority management
- Strategic de-confliction
- Supply of flight authorisation

## Geo-awareness Service

- Applicable operational conditions
- Airspace constraints in designated U-space airspace
- Geo-graphical zones in designated U-space airspace
- Dynamic airspace restrictions temporarily limiting the area in the designated U-space airspace

## Network Identification Service

- Continuous processing of the remote identification of the UAS throughout the whole duration of the flight
- Remote identification of the UAS (Open category) to authorised users
- Data for authorized users

## Traffic Information Service

## Weather Information Service

# Opinions Expressed on Standards



STANDARDS ON FOLLOWING TOPICS ARE **SUGGESTED** BY RESPONDENTS

- **Pilot Training & Qualification: Theoretical**
- **Pilot Training & Qualification: Practical**
- **Person-identifiable imagery**
- **Population density definition/calculation**
- **UAS «black box» recorder (on aircraft)**
- **Electronic conspicuity methods (UAS position transmission)**
- **Detect & Avoid**
- **Command & Control integrity**
- **Cybersecurity**
- **Drones for Transport - Cargo/Goods**
- **Drones for Transport - Persons**



## ADDITIONAL STANDARDS SUGGESTED BY RESPONDENTS

- **Accident/incident reporting**
- **All 30 UTM services in ISO 23629-12**
- **Area of Buffer dynamic calculation**
- **ATS/ATC service provided by ANSP to UAS/U-space entities**
- **ATM/UTM communications**
- **ATM/UTM contingency management**
- **Cross-border Interoperability (avoiding national implementations)**
- **Data exchange from different sources**
- **Drone-to-Drone communication**
- **Drone-to-Infrastructure Communication**

- **E-Insurance Card**
- **E-Pilot Licence**
- **GNSS use for drones (in particular EGNOS)**
- **Human-Autonomy Teaming & Human-Machine Interactions**
- **Night operations ie. Lights**
- **Radio emission power**
- **SMS communications**
- **Surveillance observation**
- **System design**
- **UTM integration**



# Opinions Expressed on Standards

IS THERE A REQUIREMENT FOR THE FOLLOWING STANDARDS  
CURRENTLY UNDER CONSIDERATION BY **ISO 23629-12**  
(Yes / No / No Opinion)

- Collaborative Interface with ATC (CIA)
- Dynamic (airspace) Capacity Mgt (DCM) Service
- Tactical Conflict Management Service (TCM)
- Communication Coverage Information Service (CCI)
- Electro-Magnetic Interference Inform. Service (EMS)
- Geospatial Information Service (GIS)
- UTM Communication Service (LCS)
- UTM Route Design Service (URD)

- Navigation Coverage Information Service (NCI)
- Population Density Information Service (PDI)
- Procedural Interface with ATC (PIA)
- Accident and Incident Reporting Service (ARS)
- Digital Logbook Service (DLB)
- Maintenance Management (MMN)
- Operational Plan Preparation (OPP)
- Risk Analysis Assistance (RAA)

**NOTE: All respondents also indicated, standard-by-standard, if they were interested to be involved in the relevant standards creating work.**





# Opinions Expressed on Geo-Zones & E-Registration

Have geo-zones been established in your country?	<b>Yes: 65%</b> No: 14% Do not know: 21%
Do you know where to find the existing geo-zones?	<b>Yes: 62%</b> No: 18% Do not know: 19%
Are all geo-zones in your country managed by the same entity?	<b>Yes: 39%</b> No: 32% Do not know: 29%

**80%** of the respondents indicate that **E-registration is available in their country.**

**61%** indicate that **E-registration is free-of-charge.**

The **minimum age** is principally 16 or 18 years.

**France, Italy & Spain have 3 classes:** 14, 16 & 18 yrs  
**Denmark has 2 classes:** 15 & 16 years  
**Germany has 2 classes:** 16 & 18 years

The responsibility for **management of the Geo-zones and Geo-awareness Service Provision** belongs to:

- National aviation authority 76%
- Governmental agency 38%
- Regional authority 25%
- Municipal authority 14%
- Independent company 14%

The majority of the respondents indicate that a **Geo-awareness Service Provider** should have a **designated accountable geo-awareness manager.**

# Survey Results Report Layout



**INTRODUCTION** Survey Scope, Objective & Conditions  
 Terms & Explanations  
 Targeted Participant Categories

**CONCLUSIONS** **Summary of the Principal Results & Conclusions**

**Respondents** Sector Involvement  
 Size  
 Participating Countries  
 Language Used to Complete Survey  
 Current & Possible Future Respondent Activities  
 General Comprehension  
 Participation in Standard Producing Organisations.  
 Responding Companies & Orgs - Names & Countries  
 Respondant Organisations & Respondents - Review

**Services** Current Availability in the Respondant's Country  
 Services Currently Supplied by Respondents  
 Services Most Urgently Required  
 When will the Following Services be Available in your Country

**U-space** Desired Urgency to Make Services Available  
 Preferred Airspace Reconfiguration Concepts

Rules & Regulations - Need for Specifications  
 Roles & Responsibilities - Need for Clarification  
 Business & Financial Aspects  
 The U-space Concept - Degree of Maturity  
 The U-space Concept - What is Currently Missing  
 Concepts Based on Immature/Non-Existant Technologies

**Standards** Standards - Possible Participation  
 General Standard-related Matters  
 Do the Standards for the Following Services Exist  
 Standards - Requirements  
 Suggested Additional European-wide Standards  
 Requirement for standards currently under consideration by ISO & interest to contribute to this producing effort

**E-Registration** Availability & Cost  
 Annual Cost in €  
 Minimum Age.

**UAS Geo-zones** Existing Geo-Zones  
 Responsibility - Management of Geo-zones & Geo-Awareness Service Provision  
 Accountable Geo-Awareness Manager  
 Is There a Charge for the Geo-Awareness Service?



Conclusions available online since 24/10/2020

<https://rps-info.com/uas-ops-and-ops-risk-surveys-results-and-conclusions/>

Current quantity of downloads: 651

View in Flipbook:

<https://rps-info.com/publications/uas-ops-ops-risk-conclusions-flipbook/>

Conclusions available online since 29/09/2021

[https://rps-info.com/u-space\\_insight\\_survey/conclusions/](https://rps-info.com/u-space_insight_survey/conclusions/)

Current quantity of downloads: 282

View in Flipbook:

<https://rps-info.com/publications/u-space-insight-survey-conclusions-flipbook/>