

JARUS WG SRM Update EASA GRC Workshop

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Joint Authorities for
Rulemaking on Unmanned
Systems

WG SRM structure

Current roster

About 100 members from Aviation Authorities

About 50 subject matter experts from industry

Task Forces

- Main Body and Annexes B,E,I
- Pre-Defined Risk Assessments
- Quantitative Methods for Ground and Air Risk
- Training & Usability
- UTM and external services
- Cyber Safety



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SORA use across the world

SORA 2.0 was released in 2019:

Adopted as Means of Compliance
by many aviation authorities including:

- EASA-countries
- Canada
- Australia
- Indonesia
- Malaysia
- New Zealand
- Israel
- Ghana

In the adaptation/implementation
process:

- Brasil
- Thailand
- South Africa
- China
- United Kingdom
- Cameroon
- Singapore
- and many more...



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SORA 2.5 iGRC Table

Intrinsic UAS Ground Risk Class						
Max UA characteristics dimension		1 m	3 m	8 m	20 m	40 m
Max cruise speed		25 m/s	35 m/s	75 m/s	150 m/s	200 m/s
Maximum iGRC population density (ppl/km ²)	Controlled ground area	1	1	2	3	3
	< 2.5	2	3	4	5	6
	< 25	3	4	5	6	7
	< 250	4	5	6	7	8
	< 2,500	5	6	7	8	9
	< 25,000	6	7	8	9	10
	> 25,000	7	8	Category C operations (not part of the SORA)		

- This is the current table we will move forward with (changes still to be reviewed)
- Sheltering not included, will be a mitigation
- Boundaries might be updated

Map / Grid Definitions

- A table of suggested maximum population density map resolution will be added to the Main Body along with text about the use of the table.

$z(\text{ft})$	$z(\text{m})$	Max. Resolution ($\text{m} \times \text{m}$)
200	61.0	$\geq 200 \times 200^*$
400	121.9	$\geq 200 \times 200$
1000	304.8	$\geq 500 \times 500$
3000	914.4	$\geq 1000 \times 1000$
5000	1524	$\geq 1000 \times 1000$
10000	3048	$\geq 10000 \times 10000$
20000	6096	$\geq 10000 \times 10000$
60000	18288	$\geq 10000 \times 10000$

SORA 2.5 Working Schedule

- By end of 2023: Finish comment resolution process
- February 2024 : Complete final drafts and hand over to JARUS secretariat
- Mai 2024: Release vote by JARUS members at Plenary meeting in Astana
- Block Release:
 - SORA Main Body 2.5
 - Annex A, B, E, F, I, H for version 2.5

Task Force UTM - Annex H

- Internal consultation comments resolved
- Work in progress on adaptation to SORA 2.5
- Expected Public Consultation in November/December '23
- Expected Public comments resolution in February/March '24
- Expected to release Annex H with SORA 2.5 documents



Joint Authorities for Rulemaking of Unmanned Systems

JARUS guidelines on SORA

Annex H

UAS Safety Services Considerations

DOCUMENT IDENTIFIER : JAR-DEL-WG6-D.04

Edition Number	:	1.0
Edition Date	:	25.08.2021
Status	:	Draft
Intended for	:	JARUS Internal Consultation
Category	:	Guidelines
WG	:	SRM

Annex H

Edition: 1.0

DRAFT / JARUS Internal Consultation

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Annex H – GRC Operations Planning Service

- Services for SORA Step 2 & 3
- Complementing service levels for M1 Low, Medium and High

