Risk Assessment for Unmanned Aircraft Systems

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after title text like dedication

Abstract—**This paper describes a risk assessment study of Unmanned Aircraft Systems that aims to understand the risks, underlying causes, consequences and mitigations associated with their operation.**

Risk Categorisation; Simulations (maybe in a subsequent study);

Index Terms—**simplicity, beauty, elegance**

I. INTRODUCTION

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A. Scope

TBD

II. PREVIOUS WORK

Joint Authorities on Rulemaking for Unmanned Systems (JARUS) Specific Operations Risk Assessment (SORA) [1] is a detailed study on the Operational Risks associated with UA operations. It has been endorsed by the European Aviation Safety Agency (EASA). Other risk assessment methodologies include . . .

A. JARUS SORA

The SORA methodology categorises any UAS operation from ground (Ground Risk Category - GRC) and air risk (Air Risk Category - ARC) perspectives. These also determine a Specific Assurance and Integrity Levels (SAIL) for ground and air, which represent the confidence that the operations will stay under control within the intended operation. Based on the assigned risk categories, mitigations are suggested to reduce SAIL. The ultimate step of risk assessment is recommendation of Operational Safety Objectives (OSO) to be met in accordance to SAIL. The SORA process also details several operational scenarios that are intended as a template for competent authorities and operators.

Ultimately, however, the SORA process remains a qualitative assessment strategy, and is does not contain prescriptive requirements, and aims only to guide reduction of risk to acceptable levels.

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B. another subsection

III. METHODOLOGY

Theorem 1 (Theorem name)**.** *For a named theorem or theorem-like environment you need to insert the name through* Insert ▷ Short Title, *as done here.*

Lemma 2. *If you don't want a theorem or lemma name don't add one.*

Proof: And here's the proof! ■

IV. RESULTS

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Fig. 1. Captions go *under* the figure

TABLE I
TABLE CAPTIONS GO *above* THE TABLE

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example	table

V. CONCLUSIONS

bla bla

APPENDIX A
FIRST APPENDIX

Citation: [2], [3], [4]

APPENDIX B
SECOND APPENDIX

ACKNOWLEDGMENT

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REFERENCES

[1] JARUS Working Group 6, "JARUS guidelines on Specific Operations Risk Assessment (SORA)," Joint Authorities on Rulemaking for Unmanned Systems, Tech. Rep., 2019. [Online]. Available: http://jarus-rpas.org/content/jar-doc-06-sora-package

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[3] N. N. Taleb, *Antifragile: Things That Gain from Disorder (Incerto Book 3)*. New York, NY, USA: Random House, 2012.

[4] R. Bringhurst, *The Elements of Typographic Style*, ser. Version 4.0: 20th Anniversary Edition. Point Roberts, WA, USA: Hartley & Marks Publishers, 2013.

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Coauthor Same again for the co-author, but without photo