1st Workshop on
Secure and Reliable Communication and Navigation in the Aerospace Domain (SRCNAS)

6th IEEE European Symposium on Security and Privacy
http://www.ieee-security.org/TC/EuroSP2021/
September 6-10, 2021, Vienna, Austria – remote event

The digital revolution is here, transforming the way we live as it finds its way into a wide variety of domains including transportation, smart home, eHealth and knowledge transfer, but it also affects the way the airspace operates. New data-hungry applications, and increasing degrees of automation beg the question whether the available resources, like bandwidth, data formats, and radio standards are still adequate. This is particularly questionable in aviation, where data is produced, evaluated and distributed with ever decreasing latency, and these data is usually very sensitive, sometimes even safety-critical, but the underlying technical systems are often a half-century old. For these data, protection from unauthorized access, misuse, and manipulation is absolutely essential. Various statistics show that the communication backbone in aviation has proved a coveted target for cyber-attacks, particularly as the security infrastructure is largely outdated and data poorly secured, especially during exchange or update processes. Manifold investigations showed that also signaling used for navigation purposes became a target of attackers by tampering the signals (e.g., using radio interference or spoofing of navigation receivers), as it depends on satellite navigation, particularly GPS, as a low-cost, widely available source of reliable positioning. These examples call for a variety of solutions and technologies increasing safety & sustainability of the involved industry.

Therefore, this workshop deals with the topic of secure and trustworthy communication and navigation in aviation. Here, not only current vulnerabilities will be identified, but also concrete research results will be presented and discussed. While a few years ago, the airspace could only be accessed for commercial purposes by incumbent operators and the scope of communication was limited, it has already changed due to digitalization. It will change even more significantly with the arrival of new entrants in the air space, such as unmanned aerial vehicles. This means that in the near future a high number of aircraft will have to share common resources of space and data volume in unprecedented ways. Further convoluted by a lag in the development of international technical standards, as unmanned aerial vehicles will enter the system, these data will have to be analyzed or exchanged even faster between even more operators in order to sustain the safety and economic viability of aviation. We invite experts and researchers from various areas of aeronautics and telecommunications to discuss the topic and specify any challenges and frameworks for the future. Selected papers will be presented at the workshop and included in the EuroS&P 2021 proceedings.

For further details check out the workshop's homepage under https://concordia-h2020.eu/workshop-SRCNAS-2021.

Topics of interest among others in the investigates area are:

- Threat propagation in safety-critical networks
- Security risk assessment, mitigation, assurance and testing
- Model-based security engineering
- Security strategies & solutions (e.g., secure communication, navigation protocols, secure networking & hardware security)
- Application of artificial intelligence (e.g., neural networks, threat detection and prevention)
- Use-cases in commercial and private sector
- Link-Layer Security
- Quantum/Post-Quantum Security and applications

Important Dates: Submission Link https://easychair.org/conferences/?conf=eurosp2021

Deadline for paper submission:	Acceptance notification:	Camera ready submission:	Workshop event:
~~May 21, 2021 (firm)~~ **June 6, 2021 (firm)**	July 2, 2021 (firm)	July 16, 2021 (firm)	September 6, 2021 (afternoon)

Technical Program Committee:

Cora Perner, Airbus Cybersecurity GmbH, Germany
Frank Schubert, Airbus Cybersecurity GmbH, Germany
Hannes Bartz, German Aerospace Center (DLR), Germany
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Nader S. Labib, University of Luxembourg, Luxembourg
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Okuary Osechas, German Aerospace Center (DLR), Germany
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Paper Submission Guidelines:

All submissions must be original work. Plagiarism (whether of others or self) will be grounds for rejection. The submitter must clearly document any overlap with previously published or simultaneously submitted papers from any of the authors. Failure to point out and explain overlap will be grounds for rejection. Simultaneous submission of the same paper to another venue with proceedings or a journal is not allowed and will be grounds for automatic rejection. Submitting multiple distinct papers is of course allowed. EuroS&P 2021 includes an author response period, which gives authors the chance to comment on reviews their papers received. Papers may not be withdrawn between the start of the author response period and acceptance notification. Contact the program committee chairs if there are questions about this policy. Papers must be submitted in a form suitable for anonymous review: no author names or affiliations may appear on the title page, and papers should avoid revealing their identity in the text. When referring to your previous work, do so in the third person, as though it were written by someone else. Only blind the reference itself in the (unusual) case that a third-person reference is infeasible. Contact the program chairs if you have any questions. Papers that are not properly anonymized may be rejected without review. Papers must not exceed 10 pages total (including the references and appendices). Papers must be typeset in LaTeX in A4 format (not "US Letter") using the IEEE conference proceeding template with the appropriate options from Euro S&P 2021. Failure to adhere to the page limit and formatting requirements can be grounds for rejection. Submissions must be in Portable Document Format (.pdf). Authors should pay special attention to unusual fonts, images, and figures that might create problems for reviewers. Your document should render correctly in Adobe Reader XI and when printed in black and white. For submission use the following link: https://easychair.org/conferences/?conf=eurosp2021.

Organizers: corinna.schmitt@unibw.de and thomas.graeupl@dlr.de