

Impact of Security Measures on Safety Project

Webinar – 5th July 2023

Questions & Answers

Question	Answer
Who would be the main industry stakeholders you are planning to engage with? Mostly airlines?	<p>For the purpose of this project, an extensive array of stakeholders has been delineated and a comprehensive stakeholder engagement plan was developed. The identification of these stakeholders was contingent upon their perceived interest and engagement in aviation safety and security regulations, as well as the extent to which the outcomes of the project could impact or exert influence on the operational or regulatory obligations of each stakeholder. These stakeholders encompass a wide range of entities and organisations including National Aviation Authorities (NAAs), air carriers, airport operators, air traffic services providers, maintenance organisations, and aircraft manufacturers, just to mention a few. The full list of stakeholders is much wider. The research team is open to suggestions and welcomes contact from any entity that holds safety and security responsibilities, inviting them to participate in research surveys, interviews and provide feedback.</p>
What is the definition of security used here? Is this physical security only or does it include cyber security?	<p>The definitions of Aviation Security and Acts of Unlawful Interference provided in ICAO Annex 17 form the foundation for the research of this topic. ICAO defines Aviation Security as <i>“Safeguarding civil aviation against acts of unlawful interference. This objective is achieved by a combination of measures and human and material resources.”</i> Acts of unlawful interference are also defined in Annex 17 as <i>“acts or attempted acts such as to jeopardize the safety of civil aviation.”</i> Aviation security is therefore considered, an essential element of the overall safety system. In the context of this definition, the project</p>

	examines security requirements, processes and procedures and physical security measures as well as cyber security measures.
The discussion seems to only look at the impact of security measures on safety, not the other way around. Is it correct that this is outside your scope?	Through the review of safety and security standards and regulations the impact of safety measures on security is apparent in some situations. However, the full study of impact of safety measures on security would require a separate comprehensive study and different methodology and as such, this was considered to be out of scope of this research.
Today EASA AOC airlines are still regulated by local CAA in security part, any intention in the future to take over security part from local CAA to EASA regulatory side based on the results of the project?	There is no intention to take over security on the part by EASA. EASA oversight only covers compliance with requirements from Reg. 965/2012 in order to deliver and maintain an AOC. Verification of compliance with security requirements in Reg. 300/2008 is outside of the EASA competence.
In the slide dedicated to task 1 you mentioned that one of the objectives is to harmonize risk assessment methods. Can you please elaborate about it? Security already largely uses safety-driven risk matrices (that are far from being ideal), what kind of harmonization are you planning to introduce?	We don't know yet. The project will explore the methodologies currently being used and we agree with the assertion that security already uses safety-driven risk matrices, but we are looking to verify or challenge that assertion and look for best practice that might be useful to share.
Is the interaction between the different actors involved when security (usually specialized company) impact on safety (Airline company) considered in the project?	We are exploring the roles with both safety and security responsibilities and, where these are contractual, we will explore the risks/benefits this brings.
In task 1, do you consider SIMULATORS as area or subcategory to be part of this project?	The existing security regulatory framework does not encompass security provisions relating to simulators or simulator training. Task 2 of the project will focus on analysing threats to the aircraft, and if no significant threats are identified in this particular area, the simulators will not be included within the scope of this research project.
Assuming that safety requirements will derive from the severity of the effects analysed in safety, and knowing that in the future, aircraft sharing airspace will have very different safety objectives, how can security objectives that may affect aircraft with different safety objectives be harmonized?	The primary objective of this project is to foster closer cooperation between the domains of safety and security while mitigating the fragmented development that currently exists. By enhancing the awareness of aviation professionals in both safety and security functions, the project aims to facilitate long-term harmonisation between the two disciplines. In terms of safety objectives, the project specifically concentrates on enhancing overall commercial aviation safety through further integration of safety and security management and

	integrated approach to risk management. The project will focus on aviation safety as defined by the regulation and applicable to all civil aviation entities.
Are CAMO and maintenance organisations covered by the project?	While security regulations primarily focus on areas other than maintenance organisations, ICAO Annex 8, Chapter 6 requires maintaining adequate storage security for parts, equipment, tools, and materials within maintenance organisations. Additionally, maintenance organisation personnel may be involved in aircraft related security procedures like aircraft search and aircraft protection and as such, will be in scope of this research.
How can an operator carry out a security assessment if it does not know what the safety effects at aircraft level are?	The aim of this project is to investigate what is the impact of security measures on safety, including safety of the aircraft. Sub-task 3 of task 1 includes development of an Impact Assessment Framework for the regulators and regulated entities that will enable us to conduct an assessment of the impact of security measures on safety.
Will you also investigate cooperation between job roles / departments with separate safety / security functions? The objectives for departments can be very different.	The scope of this project is to look at the interdependencies between safety and security. We will therefore be investigating where there is an overlap between safety and security responsibilities.
Will the outcome of this project feed Part IS regulation? (AMC, Gm)?	The work on AMC/GM for Part-IS has been completed. Given the timeframe for the implementation / finalisation of the research project, there won't be a direct link between the research and Part-IS AMC/GM content. However, the overall outputs of the research will certainly support EASA future works in various fields, including cyber.
Regarding the field of security, is there any thought of making changes or inputs to the SMS criteria created by ICAO and adopted by EASA within the scope of this project? If so, the IC group would be a good address for coordination in this area.	At this stage of the project, we are not able to identify if deliverables could potentially be used to drive any incremental changes of SMS criteria. However, we believe that the project will contribute to any improvements needed in this field.

<p>Will the project findings be used to ensure that conflicting and overlapping regulations will be tidied up and harmonised?</p>	<p>As a part of this research, the tasks undertaken aim to identify regulatory overlaps and conflicting regulations. It is important to emphasise that the primary objective of this project is to establish a comprehensive knowledge base regarding the interdependency between safety and security. The outcomes of this project may therefore be limited to providing recommendations rather than enforcing specific actions or changes.</p>
<p>Will task 4 propose how the different organizations could exchange security-related information? E.g. OEM sharing information with operators.</p>	<p>In the pursuit of enhancing the integration between safety and security, communication and cooperation between entities in these two domains emerge as a critical component of a more integrated system. Whilst the outcome of Task 4 of this research may not directly enforce exchange of security related information, it may provide recommendations to improve cooperation between different entities.</p>
<p>Are you recommending that the operations/safety functions and security functions should be organisationally integrated to facilitate integrated risk management.?</p>	<p>Civil aviation comprises organisations and entities of varying sizes and levels of complexity. Consequently, the tools that will be developed and provided as a result of this project must consider the diverse nature, size and complexity of these organisations. The project is in its initial stage and therefore it is premature to formulate specific recommendations at this time. It may be more feasible to promote better communication and cooperation between different departments and entities within the aviation industry.</p>
<p>Regarding the SMS implementation, do you have any suggestions for the safety objectives in a design organisation (DOAs) environment? And what should be measured?</p>	<p>Implementation of SMS is not in scope of this project. Further investigation of SMS in context of SeMs may be further investigated in task 4.</p>

<p>Integrated risk management seems to imply that both safety and security aspects are being weighted. However, this project in its scope only looks at the impact on the safety side. That to me does not seem to be really integrated. Example: The reinforced cockpit door would have a very negative safety impact for different reasons (the evacuation of the pilots after a crash is negatively impacted, communication between flightdeck and cabin crew in case of unruly passengers etc.). However, there is a huge security improvement there. Would that not be missed in the integrated risk management this project would promote?</p>	<p>The security benefits of any security measure will be a factor in the overall assessment methodology.</p>
<p>What kind of deliverable we can expect at the end of this project? Will this be an update of EASA OPS or any other regulation? Stand-alone document? A paper?</p>	<p>Some reports from various tasks will be publicly available but not all given the sensitivity of some aspects. The final report summarising the outcomes and recommendations will also be public.</p>
<p>A relevant aspect that I believe is not clearly defined today in the management system & security is that for mandatory safety report program of EASA some aspects are related with security, i.e.. unruly pax. Is this database then related in the back office with security organizations? Because at the moment it seems that the 2 areas have to report the same information, one for security purposes and other for safety purposes.</p>	<p>This is a good example of the area that the project will explore.</p>
<p>Is the research limited to the impact of security measures on safety, or is the impact of potential security threats also included? Reason I ask is that a security measure may have a negative impact on safety but mitigates a security risk that is more significant than the safety threat introduced.</p>	<p>The first task of this study is to identify the areas of safety affected by security measures. There are another two specific tasks, identification of job roles with safety and security functions and development of the Impact Assessment Framework. The first sub-task of Task 2 is to identify the major threats to the aircraft safety and subsequently to analyse the impact security measures may have on safety in context of most significant threats. The overall aim of this research is not to dispute the necessity for those security measures that may introduce safety risks but to comprehensively analyse what those additional safety risks are and provide tools to reduce that additional risk.</p>

Comments and Observations	Response
<p>I believe that at some point in this project, it might be included the rapidly increasing drone traffic that has established a certain position in the airspace. Because significant progress has been made in the area of safety with SORA and EU 947 regulations. However, the security aspect still appears to be a gap.</p>	<p>One of the areas we are investigating is Unmanned Aircraft Systems, which includes Drones. This will be investigated further as part of the project.</p>
<p>Today we have one kitchen, different restaurants on the regulatory level. Having an integrated approach would mean to also start with the dimension of organisation. Having Security as a standalone while safety and compliance are within a clearly defined Accountable structure is of no benefit. As I understand, Cyber Security will in near future be part of the Accountable Structure according to EASA. What are the plans therefore in terms of AVSEC.</p>	<p>This is an important first step of investigating ways of integrating and harmonising safety and security and making any improvements. Findings and recommendations will be shared as part of the project.</p>
<p>Next to drone traffic, also think about Business Aviation, especially related to new aircraft designed for electric flying. So think outside of the current regulatory framework.</p>	<p>Thank you for your comments. Task 3 looks into aircraft design and certification and should electric flying create any security-safety impacts these will be reviewed.</p>
<p>The explanation of Task 1 appears to be focused on the 'aviation bubble' it is suggested that ICAO Annexes and Docs be included in the analysis of interdependencies, and that the project includes the total system, for example to include the entire cargo supply chain. I have many thoughts on the opportunities so will reach out directly to Mr Sawyer.</p>	<p>Thank you for your comments. Contact details are published on the EASA project website and we look forward to hearing from you further.</p>
<p>To avoid working on topics already researched, I would suggest having a look at the main results of OPTICS2 project: https://www.easa.europa.eu/en/research-projects/optics2</p>	<p>Thank you for your comments. We will review the document suggested.</p>
<p>I'm Asst Prof Dr Leyla Adiloglu Yalcinkaya, Safety & Compliance Monitoring Manager in ATO in Istanbul, Turkey. I have experience in this department more than 10years. Let me know if you are looking for academic perspective. I would be happy to contribute as a researcher to publish a paper if possible. leyla.adiloglu@ozyegin.edu.tr . Also as a safety & compliance monitoring manager, I only work for theoretical phase of an approved training organization, let me know if you need something.</p>	<p>Thank you for your comments. We will contact you further when further engagement or feedback is required.</p>

<p>I recommend involving the JARUS group, which works in the drone field, to evaluate the impacts of security measures on safety.</p>	<p>Thank you for your comments. We will certainly consider including the JARUS group moving forwards.</p>
<p>Just to confirm here that ACI EUROPE is willing to support the project at all the steps where input from stakeholders is required.</p>	<p>Thank you for your comments. An airport's perspective will be essential for the implementation of this project. We will contact you further when further engagement or feedback is required.</p>
<p>We are an aviation security threat and risk intelligence and risk management provider (we deliver the EASA CZ Platform for EASA). I'd be delighted to support in any research activities where we might be able to provide a slightly different perspective.</p>	<p>Thank you for your comments. Exploring benefits of a data driven approach is one our priorities. We will contact you further when further engagement or feedback is required.</p>
<p>When preparing an education program in the field of security, the parameters between manned and unmanned aviation are different. Even though many individuals with a background in piloting are now engaged in the drone world, many drone operators believe that the education in this field should be designed according to drone specifications. Therefore, I think this difference should be taken into account in developments in the field of education.</p>	<p>One of the one areas we are investigating is Unmanned Aircraft Systems, which includes Drones. This will be investigated further as part of the project.</p>
<p>CAMO and 145 will be subject to Part IS.</p>	<p>Yes, we can confirm that CAMO and Part 145 organisation will be subjected to Part-IS.</p>
<p>I'm writing on behalf of RMIT, an Australian University with a research team in Barcelona. We are a public University associated also with the University of Bologna (we deliver University courses, but we have strong research capabilities and professional expertise). Part of our team as myself have a professional background in Aviation as pilots, Quality Manager, Trainers. I'd be delighted to support in any research activities where we might be able to provide our expertise</p>	<p>Thank you for your comments. We will contact you further when further engagement or feedback is required.</p>
<p>I appreciate this discussion and whole project between these two critical areas in aviation. As I did a thesis paper on drones in AVSEC , I discovered the overlap between security and safety. I look forward to the task four outcomes. However, I am in Africa but such applications are universal.</p>	<p>Thank you for your comments. Contact details are published on the EASA project website and we look forward to hearing from you further.</p>

<p>Thank you all for your time today, it has been very insightful and I look forward to how this project develops and the outputs of which can support the industry in the following years.</p>	<p>Thank you for your comments and for attending the Webinar.</p>
<p>Thanks, and just a note regarding the DOA, later please check the EASA Part-21.</p>	<p>Thank you for your comments. This will be reviewed during Task 3 which looks into aircraft design and certification.</p>
<p>We didn't create a SEM but we are implementing an integrated safety compliance and security management system using common tools, risk matrix, integrated committees etc... we remain at dispo to share our experience up to now.</p>	<p>Thank you for your comments. Contact details are published on the EASA project website and we invite you to contact us further. Building up on operational examples which have proved to be successful will definitely help the project.</p>
<p>Once you review your approach to risk management take a look outside aviation industry, potentially turn to academia to check new approaches.</p>	<p>Thank you for your comments. Several approaches will be considered for Task 4 and your suggestion will be taken into account.</p>