How the EU Member States accreditors are addressing the EU Space Programme

08 October 2024 Philippe Bertrand, EU Space Security Accreditation Board Chair
Strengthening Security in the EU Space Programme: The Pivotal Role of the EU Space Security Accreditation Board

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The EU Space SAB

Considering the critical role of security in the EU Space Programme, EU legislators established the EU Space Security Accreditation Board (EU Space SAB) in 2010.

Since its inception, the EU Space SAB has played a pivotal role in the security of the EU Space Programme components and the services delivered to users. Originally focused on Galileo, the SAB is now the security accreditation

authority for all the EU Space Programme's components (GALILEO, EGNOS, COPERNICUS, SSA, GOVSATCOM) and the new EU space flagship programme Union Secure Connectivity, IRIS2.

SAB decisions, around 200 annually, are made by Member States professionals independently from the European Commission, EUSPA or ESA. During this year, the SAB authorized the major and successful upgrade of the Galileo Ground segment, two launches of Galileo satellites from Cape Canaveral and clarified the Security Accreditation Strategy applicable to GOVSATCOM and IRIS2.

The SAB long-term vision and standards

The SAB prepares its major decisions well in advance to support the Programme's activities optimization. SAB service accreditation conditions have been standardized, including typically risk assurance levels, operation validation, security checks such as system, operation, or cyber audits, and maintenance conditions. Those maintenance conditions are crucial, especially since users may rely on services for decades while threat capabilities evolve.

Consequently, the SAB not only focuses on the accreditation of Galileo's first generation but also on the second generation, to ensure continued operation of the first generation legacy system. Similarly, the SAB dedicates efforts to both EGNOS Version 2 and its future Version 3, for the long-term security and reliability of the component in the face of evolving threats.

GOVSATCOM and Union Secure Connectivity

All SAB feedback has been integrated into the GOVSATCOM and IRIS2 applicable Security Accreditation Strategy. It defines how the SAB will advise and assist the Programme, approve documentation, perform security checks, issue accreditation conditions and finally make decisions at component, site, system, service level, and on the launches and the Satellite communication service providers.

The SAB has also advised the European Commission on the IRIS2 security requirements, to support a new space-based pillar for a digital, resilient, and

safer Europe. This Programme presents a new challenge for the European Union and the SAB.

Conclusion

During the last 15 years, the SAB has had major impacts on the EU Space Programme ensuring to make it more secure, for example by supporting the reshaping of the Galileo ground segment within European territories or by promoting more extensive use of cryptography. As space infrastructure is vulnerable to cyberattacks, the SAB increasingly dedicates efforts into performing cyber audits or penetration tests to effectively evaluate the Programme's cybersecurity robustness. The current year, this led to specific cybersecurity improvement plans agreed upon with the European Commission.

Addressing all EU Space Programme components, the SAB standardization approach supports the resilience of EU space operations and services and the European capability to react when related EU security interests are jeopardised. Establishing such standards fosters a security culture in the industrial and research sectors.

The SAB decision-making process, providing transparency and independent security assessments, has become a cornerstone of confidence in the EU Space Programme Services for the benefit of the EU and both governmental and non-governmental users.