SPACE CYBERSECURITY WEEKLY WATCH

Week 30

July 22 - 28, 2025

Timeframe: Weekly

of articles identified: 23

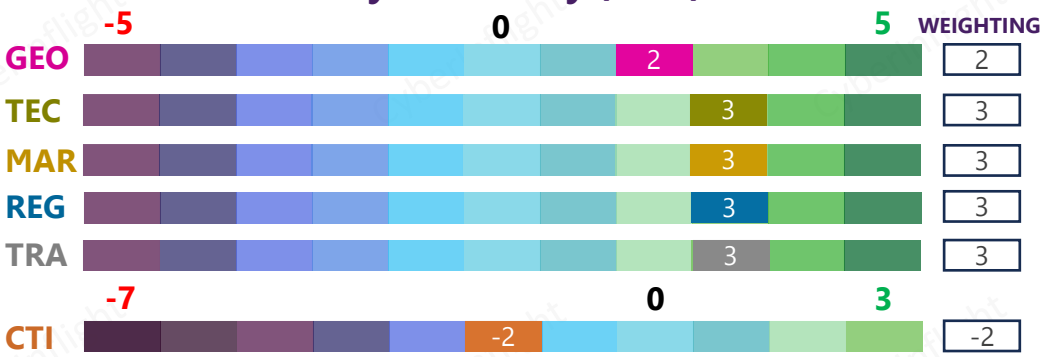
Est. time to read: 40 minutes

Articles, company's communications, whitepapers, academic works, podcast, and sources not to be missed on the topic of space cybersecurity over a specified timeframe.

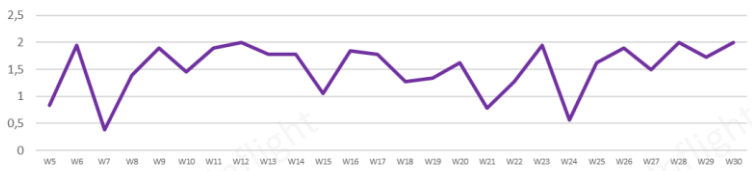
- GEOPOLITICS
- TECHNOLOGY
- MARKET & COMPETITION
- REGULATION
- TRAINING & EDUCATION
- THREAT INTELLIGENCE
- IMPORTANT NEWS

RISC Score Assessment

Overview & Resilience Index for Space Cybersecurity (RISC)



RISC Score evolution in 2025



The RISC score for this watch is 2. This increase from last week could be explained by security initiatives taken by major actors in space cybersecurity, counterbalancing the threats observed for the week.

This week, the German Space Agency and the German Armed Forces Space Command concluded a joint use agreement to exchange data at the Space Situational Awareness Center. This should contribute to better infrastructure protection. New Zealand's parliament also took a step forward by passing the Outer Space and High-altitude Activities Amendment Bill, establishing a new regulatory framework for ground-based space infrastructure, such as satellite tracking stations and telemetry systems, which support a wide array of orbital and space communication activities. On the technology front, Galileo introduced its Open Service Navigation Message Authentication (OSNMA), a data authentication function for the Galileo Open Service worldwide users, adding a critical layer of security to navigation processes. In parallel, the US Air Force asked RTX Raytheon for secure satellite navigation for positioning, navigation, and timing (PNT) to build and sustain secure, resilient military satellite navigation systems under terms of a $7.2m contract. Regarding the threats, Lithuania has accused Russia of escalating GPS jamming activities from its Kaliningrad enclave, with aviation safety increasingly at risk. While the deputy chairman of Lithuania's Communications Regulatory Authority said that over 10 sites in Kaliningrad had been identified as sources of interference, the Lithuanian Transport Minister called the situation "worrying," noting that similar disruptions have affected Latvia, Estonia, Poland, Sweden, and Finland. Lately, on the education front, a new paper was published analyzing the range of possible space cyberattack vectors, assessing the efficacy of mitigation measures linked with space infrastructures, and proposing a risk scoring framework.

GEOPOLITICS

U.S. Senators urge Pentagon to review GPS risks to national security and infrastructure

DLR and Bundeswehr to exchange almost all space data in future

The German Space Agency at the German Aerospace Center (DLR) and the German Armed Forces Space Command have been operating the Space Situational Awareness Center in Uedem together since 2011. However, although both institutions work closely together to identify potential threats in and from space, there have been legal hurdles to joint information processing to date. To overcome these, both parties concluded a joint use agreement on July 22. On this basis, the mutual, almost complete exchange of data should be possible from now on. **#Cooperation #SpaceData**

Link: https://www.heise.de/en/news/DLR-and-Bundeswehr-to-exchange-almost-all-space-data-in-future-10496308.html

Signals, noise, and narratives: Cyber operations against the space sector amid the Israel-Iran war

Ukraine's 'Starlink internet outage' leaves its military in dark zone – cyber warfare or coincidence?

REGULATION

New Zealand enacts ground-based space infrastructure law to safeguard security

In a swift and decisive move to enhance national security and assert regulatory authority over a critical aspect of modern space operations, the New Zealand Parliament has passed the Outer Space and High-altitude Activities Amendment Bill under urgency. This landmark legislation establishes a new regulatory framework for ground-based space infrastructure, such as satellite tracking stations and telemetry systems, which support a wide array of orbital and space communication activities. **#Law #Sovereinty**

Link: https://www.devdiscourse.com/article/law-order/3513967-new-zealand-enacts-ground-based-space-infrastructure-law-to-safeguard-security

TECHNOLOGY

Galileo launches OSNMA to combat satellite spoofing threats

In light of the escalating threat landscape, Galileo is set to introduce a groundbreaking protection measure: Open Service Navigation Message Authentication (OSNMA). Scheduled to become fully operational on July 24, 2025, this feature adds a critical layer of security to navigation processes. **#GNSSSpoofing #Galileo**

Link: https://defence-industry-space.ec.europa.eu/galileo-leads-way-gnss-spoofing-protection-osnma-2025-07-22_en

Spire launches new space-based radio frequency intelligence capabilities for defense and security

TECHNOLOGY

MARKET & COMPETITION

MARKET & COMPETITION

Air Force asks RTX Raytheon for secure satellite navigation for positioning, navigation, and timing (PNT)

RTX Corp. will build and sustain secure resilient military satellite navigation systems under terms of a $7.2m U.S. Air Force contract. Officials of the Air Force Life Cycle Management Center at Robins Air Force Base, Ga., is asking the RTX Raytheon segment in El Segundo, Calif., for Miniaturized Airborne Global Positioning System Receiver (MAGR) production and sustainment. The contract involves MAGR-2K and MAGR-2K-M GPS receivers. **#PNT #Contract**

Link: https://www.militaryaerospace.com/sensors/article/55305622/raytheon-technologies-corp-satellite-navigation-with-cyber-security-for-positioning-navigation-and-timing-pnt

THREAT INTELLIGENCE

Lithuania accuses Russia of intensifying GPS jamming operations

Lithuania has accused Russia of escalating GPS jamming activities from its Kaliningrad enclave, with aviation safety increasingly at risk. According to Lithuania's air traffic control company, Oro Navigacija, pilots reported 1,022 cases of GPS interference in June — a dramatic rise from just 46 incidents in the same month last year. **#GPSJamming #Lituania**

Link: https://news.az/news/lithuania-accuses-russia-of-intensifying-gps-jamming-operations

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TRAINING & EDUCATION

[redacted]

TRAINING & EDUCATION

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SoK: securing the final frontier for cybersecurity in space-based infrastructure

This study analyzes the range of possible space cyber-attack vectors, which include ground, space, satellite, and satellite constellations. In order to address the particular threats, the study also assesses the efficacy of mitigation measures that are linked with space infrastructures and proposes a Risk Scoring Framework. Based on the analysis, this paper identifies potential research challenges for developing and testing cutting-edge technology solutions, encouraging robust cybersecurity measures needed in space. **#Paper #Security**

Link: https://arxiv.org/abs/2507.17064

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