SPACE CYBERSECURITY WEEKLY WATCH

Week 37

September 9 - 15, 2025

Timeframe: Weekly

of articles identified: 43

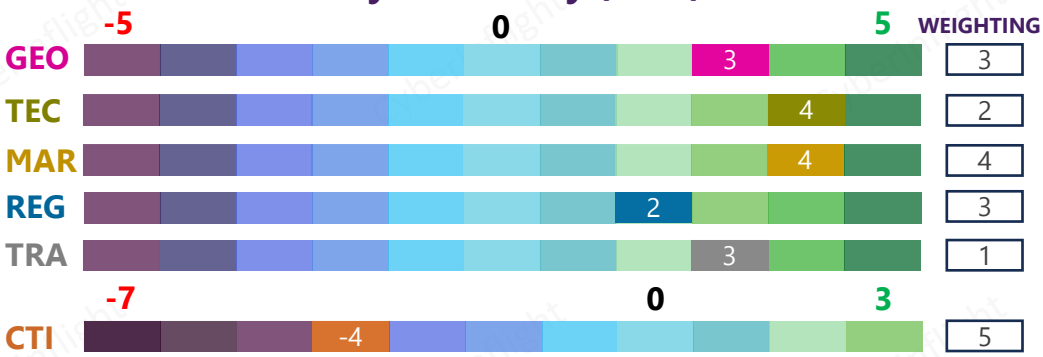
Est. time to read: 90 minutes

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 1.84. This increase from last week is attributed to a strong emphasis on technology and market developments.

This week, the General Assembly on Defense, Space and Cybersecurity event occurred in Esrin, the ESA's Earth Observation Center. On this occasion, Josef Aschbacher urgently called to strengthen Europe's space defense capabilities. He highlighted the alarming disparity between Europe and space powers such as the United States and China. On the regulation front, the Aerospace Corporation has released Space Attack Research and Tactic Analysis (SPARTA) v3.1, adding space segment guidance for NIST (National Institute of Standards and Technology) controls. On the technological front, the US Space Force contractors are building an AI-powered tool to detect cyberattacks on satellites by directly monitoring the behavior and telemetry outputs of satellite systems in orbit. Meanwhile, on the market front, Elon Musk's SpaceX is set to acquire wireless spectrum licenses from EchoStar for approximately $17bn. The companies have also agreed to a partnership that will allow EchoStar's Boost Mobile subscribers to access Starlink's direct-to-cell service, thereby extending satellite connectivity to areas without coverage. On the threat side, military leaders at DSEI 2025, a major international defense and security exhibition held in London from 9 to 12 September 2025, stressed the need for closer industry-defense collaboration to accelerate innovation and strengthen capabilities against hybrid space-cyber threats. The training and education section focuses on a paper discussing open-source satellite communication protocols and explores the security vulnerabilities within them. It highlights SpaceCAN, a modified version of the well-known CAN Bus protocol used in the automotive industry.

GEOPOLITICS

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ESA Director General's opening remarks at the General Assembly on Defense, Space & Cybersecurity

Josef Aschbacher made an urgent call to strengthen Europe's space defense capabilities during his opening speech at the General Assembly on Defense, Space and Cybersecurity event held at Esrin, the ESA's Earth Observation Center. Faced with the growing threat from international actors and recent incidents in space, he warned: "Europe is not just lagging behind; we are not even playing the same game." Aschbacher highlighted the alarming disparity between Europe and powers such as the United States and China. **#ESA #Resilience**

Sources: *ESA*, *InfoEspacial*, *Decode39*

REGULATION

SPARTA v3.1 expands space cybersecurity with updated controls, new techniques, and research contributions

The Aerospace Corporation has released Space Attack Research and Tactic Analysis (SPARTA) v3.1, adding space segment guidance for NIST (National Institute of Standards and Technology) controls, a new user guide, mappings to MITRE's EMB3D, and techniques contributed by researchers. The update also incorporates the DEF CON 33 presentation 'Hacking Space to Defend It: Generating IoBs with SPARTA,' along with some general bug fixes and aesthetic updates to the GUI to enhance usability. **#SPARTAv3.1 #Update**

Sources: *Medium Aerospace Corporation*, *Industrial Cyber*

TECHNOLOGY

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TECHNOLOGY

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Space Force building tools to detect cyberattacks on satellites

US Space Force contractors are building an AI-powered tool to detect cyberattacks on satellites by directly monitoring the behavior and telemetry outputs of satellite systems in orbit. The Cyber Resilience On-Orbit tool will be available as a software program but could be implemented in hardware and installed on satellites, said Dick Wilkinson, cofounder and chief technology officer of Proof Labs, an Albuquerque, N.M., start up. CROO should be available next year, he said at a gathering organized by the non-profit Aerospace Corp. and the Space ISAC. **#USSF #CROO**

Source: *Air & Space Forces*

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MARKET & COMPETITION

Advanced navigation expands across U.S. and Europe to meet surging demand for PNT technology

Advanced Navigation, a global leader in assured positioning navigation and timing (APNT) technologies and autonomous systems, has announced its expansion to establish PNT Centers of Excellence (COE) across the U.S. and Europe, beginning with the UK. #PNT #C2S

Read more

Thales Alenia Space leads 5G direct-to-device demonstration for CNES with Capgemini and Thales

Capgemini, Thales, Aerospace and Cyber & Digital sectors, and Thales Alenia Space, have been selected by the French Space Agency (CNES) as part of a government-backed call for projects under the France 2030 program to lead an innovative demonstration of 5G direct-to-device (D2D) connectivity, named C-[redacted] 5G.

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Read more

Leonardo accelerates Nordic cybersecurity acquisitions to strengthen Europe's defenses

Italy's Leonardo is on a shopping spree to beef up Europe's cyber defense capability and is targeting Nordic firms to get the job done. CEO Roberto Cingolani has told Defense News, he said out the Italian defense giant's strategy after announcing a series of new investments during the summer. #Acquisitions #Resilience

Read more

Finnish startup ReOrbit raises €40m to rival Starlink with sovereign satellites

Finnish startup ReOrbit has raised a record €40m in Series A funding to develop sovereign, software-defined satellites, challenging Elon Musk's Starlink dominance. The European initiative emphasizes data sovereignty for governments amid geopolitical tensions, with plans for secure LEO systems by 2026. It signals a push for orbital independence in space tech.

#ReOrbit #Funding

Read more

Expedition Technology gets investment from Razor's Edge and Enlightenment Capital

Expedition Technology, a developer of artificial intelligence (AI) and machine learning (ML)-powered Command, Control, Communications, Computers, Cyber, Intelligence, Surveillance, and Reconnaissance (C5ISR) solutions for the intelligence community (IC) and Department of Defense (DoD), announced a strategic investment from both Razor's Edge, a national security-focused technology investment firm, and Enlightenment Capital, an Aerospace, Defense, Government & Technology investment firm, to accelerate the company's growth across the signals and geospatial intelligence domains.

#C5ISR #Investment

Read more

Yamaha Aerospace and BAE Systems to enhance Deep Strike Capability with anti-jamming GPS

Yamaha Aerospace has signed a contract with BAE Systems to integrate next-generation anti-jamming Global Positioning System (GPS) technology into its Deep Strike capability precision guided weapon system. The agreement brings together the companies' expertise to counter sophisticated electronic warfare threats and ensure superior accuracy in contested environments. #GSE #Contract

Read more

Sotlink partners with Rivada for next-generation defense connectivity

Sotlink, a Spanish technology company specializing in satellite telecommunications, is partnering with Rivada Space Networks to provide a unique next-generation connectivity network with the necessary security and performance to support Spanish enterprises and Defense Forces. Rivada has now lined up over $17bn of business globally for its unique LEO network. #DefenseConnectivity #Partnership

Read more

Mega-fusion dans le spatial : Airbus, Leonardo et Thales entrent dans la « money time » (Thread: Mega-merger in the space industry: Airbus, Leonardo, and Thales enter the 'money time')

Airbus, Leonardo, and Thales, which are aligned on the principle of a three-way consolidation in the space sector (excluding launchers), will meet next week to begin negotiations on the valuation of their space activities. Specifically, the three major European groups, which wish to merge these activities into a single entity owned equally, will have to agree on the valuation of five companies: Thales Alenia Space, Telespazio, Airbus Space Systems, Airbus Intelligence and, finally, Leonardo's space activities. #SpaceIndustry #MegaAcquisitions

Read more

MARKET & COMPETITION

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SpaceX buys wireless spectrum from EchoStar in $17bn deal

Elon Musk's SpaceX said it will buy wireless spectrum licenses from EchoStar (SATS.O), opens new tab for its Starlink satellite network for about $17bn, a major deal crucial to expanding Starlink's nascent 5G connectivity business. The companies also agreed to a deal that will enable EchoStar's Boost Mobile subscribers to access Starlink direct-to-cell service to extend satellite service to areas without service. **#Starlink #Contract**

Source: *CNBC*

THREAT INTELLIGENCE

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DSEI Takeaways: Space and cyber and the invisible front line

The advance of space and cyber technologies is creating “an invisible front line” in the warfighting domain. Military leaders at DSEI stressed the need for agility, favoring faster 80% solutions over lengthy, rigid programs. The piece also underscores closer industry-defense collaboration to accelerate innovation and strengthen capabilities against hybrid space-cyber threats. **#DSEI #FrontLine**

Source: *Via Satellite*

THREAT INTELLIGENCE

TRAINING & EDUCATION

TRAINING & EDUCATION

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Unveiling security vulnerabilities in open-source satellite communication protocols

Security researcher Vic Huang shares his research on satellite communication protocols that are open source and discovers security vulnerabilities in them. Among protocols that are in focus - CubeSat Space Protocol (CSP) and Space Controller Area Network (SpaceCAN). SpaceCAN is a fork of the famous CAN Bus protocol used in the automotive industry. It has been used in satellites since at least 2003, which means that a large number of satellites orbiting our planet may have CAN Bus in them. **#SpaceCAN #Paper**

Source: *Eerie Glow*