



# SPACE CYBERSECURITY WEEKLY WATCH

Week 47

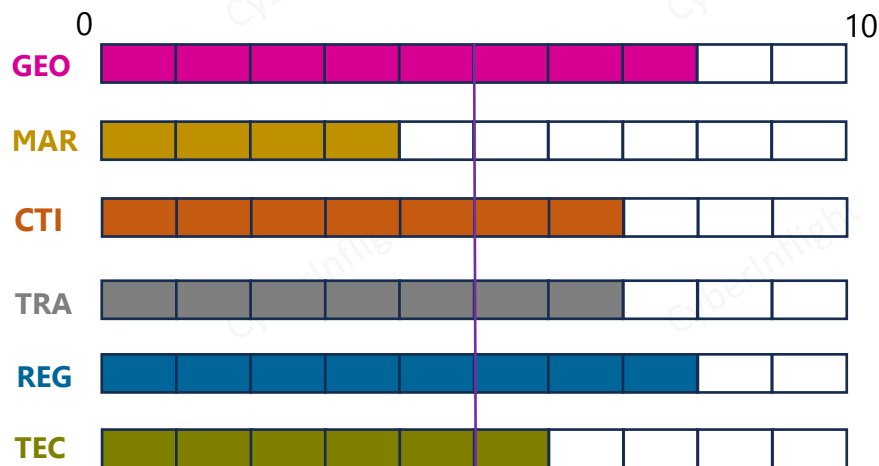
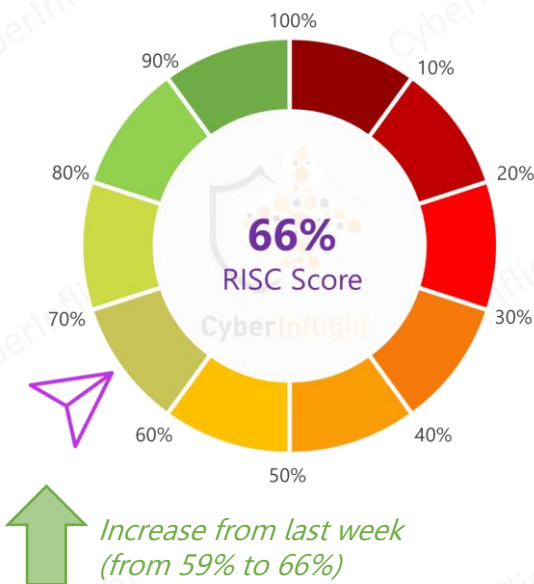
November 14 – 20, 2023

Timeframe : Weekly  
# of articles identified : 34  
Est. time to read : 1h15min

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

- **GEOPOLITIC**
- **MARKET & COMPETITION**
- **THREAT INTELLIGENCE**
- **TRAINING & EDUCATION**
- **REGULATION**
- **TECHNOLOGY**
- ★ **IMPORTANT NEWS**

## Overview & RISC Score



This week's RISC Score is 66%. This is due in particular to Europe's recognition of the strategic value of the domain, by endorsing a common strategy for defense of space assets. This boost in regulation of the space domain continues this week with the publication by US STARCOM of its latest Space Doctrine Publication SDP 3-100, Space Domain Awareness which is the first operational level doctrine publication developed by STARCOM for the U.S. Space Force. On the market front, Airbus and TNO join the consortium formed by SES for the EAGLE-1 mission to develop a quantum secure space-based system. No attacks were listed this week, but several interesting articles on jamming and how it's being used by Russia and the US are available in this watch. The call for paper is open for the 2024 Security for Space Systems (3S) conference organized by ESA. Prospective authors are invited to submit high-quality papers reporting original results under the broad theme of security space systems. Finally, on the technology front, this week Quantum Space unveiled the company's Sentry mission, the first in a series of milestone demonstrations to prove out end-to-end communications and data generation capabilities.

# GEOPOLITIC



## Spazio, ok del Consiglio Ue alla strategia Security & Defence (Trad.:Space, EU Council OKs Security & Defence strategy)

Strategic value of the sector recognized. "Europe must know how to meet current and future challenges." Here's what's new. The goal is to improve the use of Space for security and Defense purposes by better integrating the space dimension into the planning and conduct of Common Security and Defense Policy missions and operations, strengthening the EU Satellite Center (Eu SatCen), and developing space services for government use at the EU level, including on the basis of a pilot project proposed by the Commission on a new European governmental Earth observation service. #EU #SpacePolicy  
**Link:** <https://www.spaceeconomy360.it/politiche-spazio/spazio-ok-del-consiglio-ue-alla-strategia-security-defence/>



## U.S. advisory commission intenses U.S. China rivalry in 'the new normal'

As nations like space and cybersecurity, the commission said, China seeks to shape international law to its favor by securing established norms, inserting authoritarian elements of its legal system, and influencing laws and norms development. #China #US



**Link:** <https://www.comsec.gov/press-releases/2023/11/14/2023-11-14-01>

## CISA's Goldstein: Ukrainian response to Vasnet hack proves need for redundancy, resilience

The Ukrainian military's ability to recover from the Russian attack on satellite company Vasnet is an example of the need for redundant systems and resilient organizations, according to a top U.S. government cybersecurity official. #CISA #Ukraine



**Link:** <https://www.fredgoldstein.com/2023/11/14/ukrainian-response-to-vasnet-hack-proves-need-for-redundancy/>

## First European Union space defense strategy calls for better threat response abilities

European union leaders for the first time have endorsed a common strategy for defense of space assets, calling on the 27 member nations to beef up both awareness of space threats and their capabilities to respond if necessary. #EU #SpaceStrategy



**Link:** <https://www.cyberinflight.com/2023/11/14/first-european-union-space-defense-strategy-calls-for-better-threat-response-abilities/>

## Securing Taiwan's Satellite Infrastructure Against China's Reach

As Taiwan faces the looming threat of a cyber attack, the need to fortify its satellite infrastructure from cyberattacks has become ever more urgent. #Taiwan #China



**Link:** <https://www.cyberinflight.com/2023/11/14/securing-taiwan-s-satellite-infrastructure-against-china-s-reach/>

## Cyber and Space Priorities and Opportunities: The Role of the Italian Space Agency

Key to bolstering the space sector against cyber threats by developing robust cybersecurity strategies and establishing a Space Cyber Security Operations Center, recognizing the vital intersection of cybersecurity and space activities in the evolving global landscape. #Italy #SpaceAgency



**Link:** <https://www.spaceinflight.com/2023/11/14/cyber-and-space-priorities-and-opportunities-the-role-of-the-italian-space-agency/>

## US to Enhance Cyber, Space Collaboration With Indonesia

The US Department of Defense aims to enhance Indonesia's cyber and space capabilities as part of a bilateral defense agreement with the Asia Pacific country. #US #Indonesia



**Link:** <https://www.defense.gov/Newsroom/2023/11/14/2023-11-14-01>

## Generative AI, Edge Computing & Modernization: Homeland Security Leaders Share Top Priorities

The United States' homeland security efforts are harnessing the power of technologies like artificial intelligence, satellite communications and edge computing as the threat landscape continues to evolve. #US #Homeland



**Link:** <https://www.pcmag.com/news/2023/11/14/generative-ai-edge-computing-and-modernization-homeland-security-leaders-share-top-priorities/>



# MARKET & COMPETITION

## SES-led consortium for EAGLE-1 system welcomes TNO and Airbus to deliver optical ground station

The SES-led consortium of European companies, responsible for development of the quantum secure space-based EAGLE-1 system and working in close collaboration with the European Space Agency (ESA), is joined by TNO and Airbus Netherlands B.V., to design and build an optical ground station for the mission. #Quantum #EAGLE-1

11/15/2023

Link

<https://news.satnews.com/2023/11/15/ses-led-consortium-for-eagle-1-system-welcomes-tno-and-airbus-to-deliver-optical-ground-station/>



## Germany to build major MEO constellation

The German Bundestag has approved a new medium Earth orbit (MEO) constellation consisting of up to 24 satellites, expected at ESA's 2023 Global Navigation Conference held between 6 and 8 November in London.

11/08/2023

Link

<https://www.spacemagazine.com/news/germany-to-build-major-meo-constellation>



# THREAT INTELLIGENCE

## Deterring a looming Space Force cyber threat through better public discourse

The White House is calling for the Pentagon to improve its current public discourse for deterring the strategic MEO MEO cyber threat.

Link

<https://www.spacemagazine.com/news/deterring-a-looming-space-force-cyber-threat-through-better-public-discourse>



## Opportunities and Challenges in the Cyber Space Nexus

As modern society becomes increasingly dependent on cyber and space domains, the development of linkages between them has the potential to foster global cooperation or cause societal disruption.

Link

<https://www.spacemagazine.com/news/opportunities-and-challenges-in-the-cyber-space-nexus>

## The Invisible War in Ukraine Being Fought Over Radio Waves

For months, the aerial warfare supported by satellite systems, a common technology that has worked amazingly for Ukraine's military, sweeping through the air to spot enemy tanks and troops in the country's war-torn lands. There isn't just war, the machines already exist falling from the sky as they intercept the messages.

Link

<https://www.spacemagazine.com/news/the-invisible-war-in-ukraine-being-fought-over-radio-waves>



## Not Just Coders: Why USDF's In-House Software Developers Are Key to a Digital Service

Space Coders are military or civilian counterparts with a background in coding who went through an extensive training process to become a digital software developer. But their value goes beyond simply knowing how to write code. There are currently 12 members in training with an estimated completion date of March 2024, according to the network.

Link

<https://www.spacemagazine.com/news/not-just-coders-why-usdf-s-in-house-software-developers-are-key-to-a-digital-service>



## How American Electronics Wound Russian Military

The United States has made significant advancements in electronic technologies, revolutionizing the way military operations are conducted. Their cutting-edge developments have had a profound impact on the capabilities and effectiveness of the Russian military.

Link

<https://citizenside.com/technology/how-american-electronics-wound-russian-military/>



## Space Force taking 'cautious approach' to AI, cyber officer says

In September, senior leaders testified a series of questions that put a temporary hold on using generative artificial intelligence that leverage web-based datasets — such as ChatGPT. One concern that lawmakers said could be improved with AI and ML in space domain operations better controlled and controlled could also be enabled by AI.

Link

<https://www.spacemagazine.com/news/space-force-taking-cautious-approach-to-ai-cyber-officer-says>



# TRAINING & EDUCATION

## Reliability Analysis and Redundancy Design of Satellite Communication System based on a Novel Bayesian Environmental Importance

Abstract paper on how satellite communication system holds a crucial role in modern society, so it is of significance to improve its reliability and stability. #Paper #Reliability

Link: <https://www.sciencedirect.com/science/article/pii/S0167636923001212>

## ISS2023 Lunar Landings, Cybersecurity, and Repurposing Satellites

In the Astronomy Daily podcast episode, we meet The White House's chief by trying to discuss the latest news in space exploration and how NASA has successfully demonstrated its ability to protect demonstration satellite from adversaries, highlighting the need for advanced cybersecurity measures in space. #Podcast #Cybersecurity

Link: <https://www.astronomy.com/2023/11/20/23112023/>

## What is space resilience and how can we achieve it in the current fiscal climate?

This week, Program Director for ISS2023 at Lockheed Martin believes resilience is based on operating levels – some of which are counterintuitive. Ahead of the ISS2023 Space Summit, he shares his views with Informa Connect on what space resilience means. #Resilience #ISS2023summit

Link: <https://www.informa.com/cyberinflight/what-is-space-resilience-and-how-can-we-achieve-it-in-the-current-fiscal-climate/>

## Unlocking the Future: Secure SATCOM in the EU – A Comprehensive Overview

Secure is organizing a dedicated webinar focusing on Secure SATCOM on December 12, 2023 from 10:00 to 12:00.

#Webinar #SATCOM

Link: <https://www.secure.com/en/secure/satcom/secure-satcom-what-is-comprehensive-overview>

## ISRO Launches No-Cost Cybersecurity Program for Government Professionals

The Indian Space Research Organisation (ISRO) is solidifying its stance on cyber protection by offering a pioneering free online course aimed at enhancing the digital defense mechanisms of India's working professionals. This exclusive educational initiative is tailored for individuals employed within Central and State Governments, reflecting ISRO's commitment to national cybersecurity enhancement. #ISRO #Training

Link: <https://www.isro.gov.in/press-releases/2023/11/16/16112023-11>

## Security challenges when space merges with cyberspace

This article specifically considers the interplay of space and cyberspace, highlighting security challenges that warrant dedicated attention in securing these complex infrastructures. #Paper #Space #Cyber

Link: <https://www.sciencedirect.com/science/article/pii/S0167636923001212>



## Call for papers for 2024 Security for Space Systems (3S)

The call for papers for 2024 Security for Space Systems (3S), organised by ESA is now open. Prospective authors are invited to submit high-quality papers reporting original results under the broad theme of security space systems, and in all areas identified by ESA. #ESA #CallforPapers

Link: <https://atpi.eventsair.com/24a06---3s2024/call-for-papers>

## ISRO in Orbit: Securing the space frontier with AI cybersecurity solutions

ISRO in Orbit is a podcast collaboration between ISRO and ISIRI to offer listeners an in-depth look at the transformative intersection of cloud computing, space technologies, and generative AI. Fully dependent on the global leader for space solutions architecture at ISRO Aerospace and Satellite, in this extended conversation, we also take time to explore ISRO's supporting cybersecurity in the space domain. #Podcast #ISRO

Link: <https://www.astronomy.com/2023/11/20/23112023/>

## The Sky is Not the Limit: Competition and Economics of the New Space Race

The new report of the ISIRI about Competition and Economics of the New Space Race will be published on January 10<sup>th</sup>.

Link: <https://www.isiri.gov.it/it/competition-and-economics-of-the-new-space-race>

Link: <https://www.isiri.gov.it/it/competition-and-economics-of-the-new-space-race>

## SpaceSec, the Working on the Security of Space and Satellite Systems

The online of the 2023 edition of the SpaceSec working have recently been updated, and you can view them for free and get an overview of current space security research topics. #Conference #SpaceSec

Link: <https://www.spacesec.org/2023/11/16/16112023-11>





## ★ REGULATION

### Space: Council approves conclusions on the EU space strategy for security and defence

The Council approved conclusions on the first EU Space Strategy for Security and Defence. The Council will follow the implementation of this new strategy by the High Representative and the Commission. #EU #SpaceStrategy

**Link:** <https://www.consilium.europa.eu/en/press/press-releases/2023/11/14/space-council-approves-conclusions-on-the-eu-space-strategy-for-security-and-defence/>



### STARCOM Releases Space Domain Awareness Doctrine Publication

Space Training and Readiness Command (STARCOM) recently released its latest Space Doctrine Publication (SDP), SDP 3-100, Space Domain Awareness – the first operational level doctrine publication developed by STARCOM for the U.S. Space Force. #STARCOM #Doctrine

**Link:** <https://www.starcom.spaceforce.mil/News/Article-Display/Article/3589828/starcom-releases-space-domain-awareness-doctrine-publication/>



## TECHNOLOGY

### ★ Quantum Space readies Scout-1 for launch on SpaceX's Transporter-10 mission

Quantum Space has unveiled the company's Sentry mission, the first in a series of milestone demonstrations to prove out end-to-end communications and data generation capabilities — the company is creating a modern, high-speed connectivity network, dubbed QuantumNet, that will deliver always-on, fast connectivity everywhere in deep space, from GEO and cislunar space and well beyond the isolated far side of the moon. #Quantum #Encryption

**Link:** <https://news.satnews.com/2023/11/14/quantum-space-readies-scout-1-for-launch-on-spacexs-transporter-10-mission/>

#### Europe's quantum decade extends into space

Europe's quantum decade — the next of the "quantum decade" a period in which the scientific properties of matter that are at the very heart of nature are transformed from mere scientific curiosities into the basis of practical technologies and products. #Quantum #ESA

**Link:** [https://www.esa.int/Enabling\\_Support/Space\\_Engineering\\_Technology/ESA\\_quantum\\_decade\\_extends\\_into\\_space](https://www.esa.int/Enabling_Support/Space_Engineering_Technology/ESA_quantum_decade_extends_into_space)

#### Using SD-WAN to Optimize Security and Connectivity of Satellite Networks

Satellite networking is an important alternative for connectivity in many critical use cases. This article examines some of the important capabilities that network administrators should consider when evaluating an SD-WAN network for use with satellite links. #Satellite #SD-WAN

**Link:** <https://www.cisco.com/c/en/us/solutions/collateral/177777/using-sd-wan-to-optimize-security-and-connectivity-of-satellite-networks.pdf>

#### Revolutionizing Satellite Security: NSA's Groundbreaking Project To Integrate AI, Blockchain, & Quantum

The project will document operational use cases, which can be used to demonstrate a proof of concept that can inform operational use for the satellite environment as well as be an important indicator for potential operational satellite systems. #NSA #Cybersecurity

**Link:** <https://www.intel.com/content/dam/www/USDA/en/insights/articles-trends/2023/11/14/revolutionizing-satellite-security-with-ai-blockchain-quantum-to-integrate-a-blockchain-ecosystem>

#### Controversial Quantum Space Drive in Orbital Test, Others To Follow

The Sentinel-1 satellite, made by Northrop Grumman's Orbital Sciences, was one of 30 large satellites lifted into orbit by SpaceX's Falcon 9 on November 14. For the first time, in an of operations it will be testing the drive on its most vital satellite system — suspending from components and other effects can cause minute vibrations. #Quantum #Satellite

**Link:** <https://www.intel.com/content/dam/www/USDA/en/insights/articles-trends/2023/11/14/controversial-quantum-space-drive-in-orbit-100-days-to-follow>



CyberInflight is a Market Intelligence company dedicated to the topic of Space Cybersecurity. The company provides strategic market and research reports, bespoke consulting, market watch & OSINT researches and cybersecurity awareness training.

Contact us at: [research@cyberinflight.com](mailto:research@cyberinflight.com)