



# SPACE CYBERSECURITY WEEKLY WATCH

Week 2

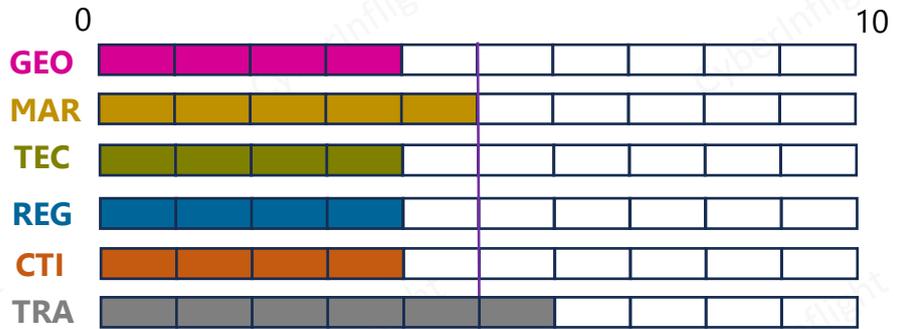
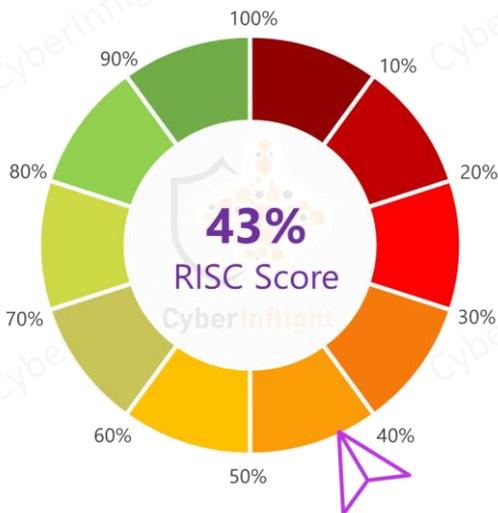
January 9 – 15, 2024

Timeframe: Weekly  
# of articles identified: 18  
Est. time to read: 30 minutes

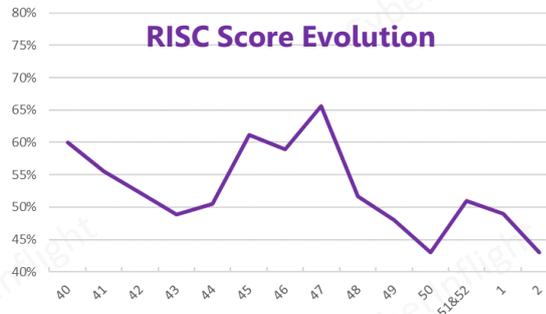
Articles, company's communications, whitepapers, academic works, podcast, and sources not to be missed on the topic of space cybersecurity over a specified timeframe.

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

## Overview & RISC Score



**↓ Decrease from last week (from 49% to 43%)**



*There has been a decrease since the beginning of 2024, after a peak in W51&52.*

This week's RISC Score is 43%. Fewer articles have been featured in this week's edition than in recent weeks. On the technology front, ISRO Chairman Dr. S. Somanath unveiled this week ISRO's work on Opto Quantum Communication Architecture, especially focusing on the development of Quantum Key Distribution. On the market front, Wiseband and Rivada announced their partnership to bring secure LEO connectivity to the Middle East. Also this week, at a conference, a representative of the USSF announced that collaboration between the USSF and the US Cyber Command would be further developed this year. The end of 2023 saw a wake-up call for the space industry regarding space cybersecurity. An article listing five best practices to consider to bolster satellite security and protect space IP was published. Finally, this week the DoD published its first National Defense Industrial Strategy (NDIS) which will guide the Department's engagement, policy development, and investment in the industrial base over the next three to five years.



## GEOPOLITIC



### How Space Force is raising its cyber defenses

Addressing cyber threats to critical U.S. space capabilities, including satellites and missile-warning systems, will require even closer collaboration with U.S. Cyber Command, a top Space Force official said Friday. **#USSF #CyberCommand**

**Link:** <https://dnyuz.com/2024/01/09/how-space-force-is-raising-its-cyber-defenses/>



### Swedish alarm after defense chief's war warning - BBC

Sweden's military and civil defense leaders have warned the public about the possibility of war. Russia has threatened to invade Poland and Sweden if they join NATO. Finland already has, and Sweden is on track to do so. Russia is already attacking Sweden and Finland through electronic warfare. **#Sweden #Sweden**

**Link:** <https://www.bbc.com/news/health-68111111>



## MARKET & COMPETITION



### Wiseband and Rivada aim to bring secure LEO connectivity to Middle East

Wiseband, an Emirati satellite services company, is partnering with Rivada Space Networks, a global network company launching a constellation of 600 low-earth-orbit (LEO) satellites to enable secure, global connectivity for governments and enterprises, to bring secure connectivity solutions to the Middle East region. **#Wiseband #Rivada**

**Link:** <https://developingtelecoms.com/telecom-technology/satellite-communications-networks/16028-wiseband-and-rivada-aim-to-bring-secure-leo-connectivity-to-middle-east.html>

### Virginia Tech and university partners aim to protect, toughen, and augment transportation navigation systems

The consortium of university partners aims to enhance the resilience of transportation infrastructure against cyber threats and develop advanced countermeasures for GPS jamming and spoofing. **#CyberInflight #Transportation**

**Link:** <https://www.vt.edu/news/2024/01/09/transportation-navigation-systems>



### Space Force to award multiple contracts for 'Digital Spaceport' up to \$1.8 billion each

Space Force is awarding up to \$1.8 billion in contracts to support the development of small business innovation research contracts worth up to \$1 million each for IT infrastructure upgrades at the Eastern and Western Spaceports. **#SpaceForce #USAF**

**Link:** <https://www.spaceforce.mil/News/Space-Force-to-award-multiple-contracts-for-digital-spaceport-up-to-1.8-billion-each>



### Orbital ATK raises \$110 million to expand space logistics services

Orbital ATK, an Italian company that provides space transportation services, has raised 100 million euros (\$110 million) to expand its satellite servicing and other applications. **#OrbitalATK #Space**

**Link:** <https://www.orbitalatk.com/en/press-releases/2024/01/09/orbital-atk-raises-110-million-to-expand-space-logistics-services>



## TECHNOLOGY

### Quantum Certified IoT Chip for Space's Satellite Networks

IoT solutions provider Quantum Wireless Solutions has certified its satellite-compatible module, the QW400-10, for use on Space's network. The certification establishes end-to-end satellite connectivity for any standard device that incorporates the module. **#Quantum #IoT**

**Link:** <https://www.quantumwireless.com/en/press-releases/2024/01/09/quantum-certified-iot-chip-for-space-satellite-networks>



### ISRO Exploring Opto Quantum Communication for Secure Satellite Networks

ISRO Chairman Dr S. Somanath unveiled India's ambitious journey into the realm of quantum communication. He revealed ISRO's work on Opto Quantum Communication Architecture, especially focusing on the development of Quantum Key Distribution (QKD) using a protocol known as Decoy BB84. This marks a significant step towards building secure and unbreakable communication networks for satellites and beyond. **#ISRO #Quantum**

**Link:** <https://idrw.org/isro-exploring-opto-quantum-communication-for-secure-satellite-networks/>





# THREAT INTELLIGENCE

## Opinion | Threats to Flight Operation Due to GNSS Jamming and Spoofing

Over recent years, there has been a continuing effort to understand, monitor, and counter jamming and spoofing of GNSS systems. These capabilities highlight the vulnerability of our GNSS systems to which the state's global positioning system (GPS) is at the center stage. #Jamming #Spoofing

**Link:** <https://www.techradar.com/pro/space-cybersecurity-threats-to-flight-operation-due-to-gps-jamming-and-spoofing>

## ★ Space cybersecurity: a blueprint for success in uncharted territory

We've seen space and satellite-related attacks escalate – so much so, in fact, that in August of 2023, several federal agencies issued a warning about increased attempts to attack both satellites in orbit and the intellectual property (IP) of companies developing space technologies. #Cybersecurity #Attacks

**Link:** <https://www.techradar.com/pro/space-cybersecurity-a-blueprint-for-success-in-unchartered-territory>

## From Russia with love for Christmas: jamming Baltic GPS – GPS World

Analysis from the state of Israel's Public Navigation and Standard of Global Jamming in the Baltic. #Jamming #Satellite

**Link:** <https://www.techradar.com/pro/space-cybersecurity-from-russia-with-love-for-christmas-jamming-baltic-gps-gps-world>



## Russian Hackers Had Backdoor Access to Ukraine's Largest Telecom Provider for Over Half of 2023

The head of cybersecurity for the Security Service of Ukraine (SSU) has told the media that Russian hackers had access to Ukraine's biggest telecoms provider for most of 2023, and they had "full access" for at least the months of November and December. #Satellite #Ukraine

**Link:** <https://www.techradar.com/pro/space-cybersecurity-russian-hackers-had-backdoor-access-to-ukraine-largest-telecom-provider-for-over-half-of-2023>



## Interference on Landfall satellite

Major interference at 112 GHz on 24.7 GHz of the Landfall 6-12 satellite. #Jamming #Satellite

**Link:** <https://www.techradar.com/pro/space-cybersecurity-major-interference-on-landfall-satellite>



# REGULATION

## ★ Department of Defense releases their first-ever National Defense Industrial Strategy

The Department of Defense has released the organization's inaugural National Defense Industrial Strategy (NDIS) which will guide the Department's engagement, policy development, and investment in the industrial base over the next three to five years. #DoD #NDIS

**Link:** <https://news.satnews.com/2024/01/15/department-of-defense-releases-their-first-ever-national-defense-industrial-strategy/>



# TRAINING & EDUCATION

## A Decade of Cybersecurity Challenges and Solutions for Satellite Systems

This article examines the existing and emerging cybersecurity threats to satellites over the past decade. #Cybersecurity #Satellite

**Link:** <https://www.techradar.com/pro/space-cybersecurity-a-decade-of-cybersecurity-challenges-satellite-systems>

## How can Space Cyber Range help your organization?

The Gap and Market Analysis questionnaire for the Space Cyber Range aims to collect information about the knowledge gaps between the space and the cybersecurity sectors. In other words, it seeks to understand the security needs of space technology organizations to develop a solution to defend their systems against cyber threats. #Space #CyberRange #ISG

**Link:** <https://www.techradar.com/pro/space-cybersecurity-how-can-space-cyber-range-help-your-organization>

## Anomaly Detection for Space Information Networks: A Survey of Challenges, Techniques, and Future Directions

As space threats continue evolving in both number and sophistication, this survey timely provides insights, recommendations, and a clear roadmap for researchers, engineers, and practitioners to fortify space anomaly detection mechanisms. #Space #Cybersecurity

**Link:** <https://www.techradar.com/pro/space-cybersecurity-anomaly-detection-for-space-information-networks>

## A Novel Deep-Learning Cyber Attack Against Satellites

This approach offers a comprehensive demonstration of the GPS L1C/A receiver's vulnerability to cyber threats, providing insights into how to enhance future cybersecurity strategies for advanced GNSS satellite receivers. #Space #Threats

**Link:** <https://www.techradar.com/pro/space-cybersecurity-a-novel-deep-learning-cyber-attack-against-satellites>

