



SPACE CYBERSECURITY WEEKLY WATCH

Week 23

May 30 – June 5, 2023

Timeframe: Weekly
of articles identified: 35
Est. time to read: 1,5 hour

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**
- REGULATION**
- TECHNOLOGY**
- IMPORTANT NEWS**

Overview

This week has been marked by numerous contracts such as the final acquisition of Inmarsat by Viasat as well as the DoD's contract awarded to BANC3 within the STAMP program. On the regulation front, the new SPARTA version has been released, the US announced two new strategies: one regarding the space diplomacy and the other being the new cybersecurity strategy sent by the DoD to the Congress. New Zealand has released its national space policy. On the technology side, encryption and quantum are still important topics. Finally, Moonlighter, the world's first hacking sandbox in space is scheduled for launch on June 5th, 2023.

GEOPOLITIC

US 'ready to fight in space if we have to', says military official

The US is ready for conflict in outer space, according to a senior military official, after developing anti-satellite technologies to counter the threats posed by "provocative" countries such as Russia and China. **#US**

Link: <https://www.theguardian.com/science/2023/may/28/us-ready-to-fight-in-space-military-official>



Space-centered cyber company moves HQ to Reston Town Center

Space-oriented cybersecurity company SpiderOak has expanded its web of operations to Reston Town Center. **#SpiderOak**

Link: <https://www.fxnw.com/2023/05/30/space-centered-cyber-company-moves-hq-to-reston-town-center/>



Fake Signals and American Insurance: How a Dark Fleet Moves Russian Oil

For years, ships wanting to hide their whereabouts have resorted to turning off the transponders all large vessels use to signal their location. But the tankers tracked by The Times go beyond this, using cutting-edge spoofing technology to make it appear they're in one location when they're really somewhere else. **#Spoofing**

Link: <https://www.nytimes.com/interactive/2023/05/30/world/asia/russia-oil-ships-sanctions.html>



Diplomats stress cybersecurity for space

A new State Department strategy document stresses the role of cybersecurity in space diplomacy, a subject of burgeoning attention as the Biden administration seeks to shore up space equipment from cyberattacks. **#SpaceDiplomacy**

Link: <https://www.washingtonpost.com/politics/2023/05/31/diplomats-stress-cybersecurity-space/>



Canadian CubeSats and the World's First Hacking-Challenge Satellite to Fly on SpaceX 28

Nanoracks is gearing up for SpaceX's 28th commercial resupply mission to the International Space Station, currently scheduled for June 3rd. There will be flying five satellites as part of the Canadian CubeSat Project in collaboration with the Canadian Space Agency and Moonlighter. **#Canada**

Link: <https://nanoracks.com/canadian-cubesats-and-the-worlds-first-hacking-challenge-satellite-to-fly-on-spacex-28/>





Cyber Launchpad - Unveiling the Future of Space, Cybersecurity, Satellites, SpaceX, and Private Space Companies

Cyber Launchpad newsletter about the crucial role of satellite security and the emergence of private companies in this rapidly growing market. **#Satellite**

Link: <https://www.linkedin.com/pulse/cyber-launchpad-unveiling-future-space-satellites-karol-sarneki/?trackingId=WPL6oNtWTAm7FJxYgTXeUQ%3D%3D>

★ DISA lays out 'Workforce 2025' plan to increase worker skills

A new framework unveiled today by the Defense Information Systems Agency aims to upskill the agency's workforce in order to meet challenges faced by foreign adversaries like China. **#DISA #Workforce**

Link: <https://breakingdefense.com/2023/06/disa-lays-out-workforce-2025-plan-to-increase-worker-skills/>



★ Seoul imposes sanctions on North Korean hacking group for role in space launch

South Korea says threat group has stolen weapon and space tech, issues advisory with US on its spear-phishing attacks. **#SouthKorea #NorthKorea**

Link: https://www.koreatimes.co.kr/www/nation/2023/06/103_352230.html

Pentagon confirms SpaceX deal for Ukraine Starlink services

The Pentagon confirmed it has hired SpaceX to provide communications services to Ukraine through the company's constellation of more than 4,000 Starlink satellites. **#US #Ukraine**

Link: <https://www.defensenews.com/battlefield-tech/space/2023/06/01/pentagon-confirms-spacex-deal-for-ukraine-starlink-services/>



MARKET & COMPETITION

Viasat Completes Acquisition of Inmarsat

Viasat Inc., a global communications company, announced the completion of its acquisition of Inmarsat. Under the terms of the purchase agreement, at the closing of the transaction, Inmarsat's shareholders received an aggregate of \$551 million in cash, subject to adjustments, and approximately 46.36 million shares of common stock. **#Viasat #Inmarsat**

Link: <https://spacewatchafrica.com/viasat-completes-acquisition-of-inmarsat/>



ID Quantique joins EAGLE-1, Europe's pioneering quantum key distribution initiative

ID Quantique (IDQ), is proud to announce its participation in the EAGLE-1 initiative. EAGLE-1 is a QKD (Quantum Key Distribution) system integrating both space and ground segments. **#EAGLE-1 #QKD**

Link: <https://www.idquantique.com/id-quantique-joins-eagle-1-europes-pioneering-quantum-key-distribution-initiative/>



★ Opportunity: Cybersecurity as Enabler for Secure Satellite Communications and Resilient Applications

This new Space Systems for Safety and Security (4S) Call for Proposals aims to foster the development of innovative satellite communications technologies, products, systems and downstream applications which address these challenges. **#ESA**

Link: <https://artes.esa.int/opportunity-cybersecurity-enabler-secure-satellite-communications-and-resilient-applications>



★ SES and TESAT to develop payload for Europe's first Quantum cryptography LEO satellite system Eagle-1

EAGLE-1 consortium lead SES announces a new key partner, TESAT, responsible for developing and integrating the Quantum Key Distribution (QKD) payload for the EAGLE-1 satellite. **#EAGLE-1 #QKD**

Link: <https://spacewatchafrica.com/ses-and-tesat-to-develop-payload-for-europes-first-quantum-cryptography-leo-satellite-system-eagle-1-2/>



Space-based edge computing market for defense expected to see huge demand, study reveals

The global space-based edge computing market is expected to see huge revenue increases from the defense segment, followed by the commercial segment, according to a new study from BIS Research. **#Cybersecurity**

Link: <https://militaryembedded.com/cyber/cybersecurity/space-based-edge-computing-market-for-defense-expected-to-see-huge-demand-study-reveals>

DoD awards multiyear digital modernization contract segment

RF spectrum specialists BANC3 won a multiyear contract with the U.S Department of Defense (DoD) -- under the auspices of the Pentagon's Stimulating Transition for Advanced Microelectronics Packaging (STAMP) program -- to provide its software defined receiver (SDRX) products on Intel's latest multichip packages, as part of the DoD's broader digital-modernization efforts. **#DoD**

Link: <https://militaryembedded.com/cyber/cybersecurity/dod-awards-multiyear-digital-modernization-contract-segment>





THREAT INTELLIGENCE

Hacking an On-Orbit Satellite: An Analysis of the CYSAT 2023 Demo

The SPARTA team analyzed Thales Group's CYSAT '23 presentation material along with reporting from The Record, to deconstruct the experiment, extract lessons learned, and document potential countermeasures. **#CYSAT #SPARTA**

Link: <https://medium.com/the-aerospace-corporation/hacking-an-on-orbit-satellite-an-analysis-of-the-cysat-2023-demo-ae241e5b8ee5>



Evolving Threat Landscape of Hacktivism in Colombia

In the aftermath of the arrest of hacker "Org0n" by Colombian Authorities, various hacktivists showed their resentment by actively participating in #OpColombia and #FreeOrg0n propaganda campaigns. **#Colombia #GhostSec**

Link: <https://blog.cyble.com/2023/05/31/evolving-threat-landscape-of-hacktivism-in-colombia/>

Cybersecurity in Orbit: The Growing Vulnerability of Space-based Systems

Article about the different vulnerabilities a satellite can have to bring awareness about the need for it to be protected from cyberattacks, which could do enormous damage by disrupting critical infrastructure. **#Cybersecurity #Satellite**

Link: <https://www.apnnews.com/cybersecurity-in-orbit-the-growing-vulnerability-of-space-based-systems/>

Cyber Concerns For The Satellite Sector

Article about cybersecurity and how cybercrime for satellites has become a major concern. **#Cybersecurity #Satellite**

Link: <https://www.archonsecure.com/blog/satellite-cybersecurity>

US Space Force's DARC programme passes CDR

Northrop Grumman has completed the Critical Design Review (CDR) and software demonstration for the US Space Force's Deep-Space Advanced Radar Capability Program (DARC). **#USSF #NorthropGrumman**

Link: <https://www.airforce-technology.com/news/us-space-forces-darc-programme-passes-cdr/>



Growing hacking threat to satellite systems compels global push to secure outer space

The Space System Cybersecurity Standard Working Group is working to build the next generation of secure-by-design space systems. **#IEEE #Cybersecurity**

Link: <https://cyberscoop.com/space-secure-by-design/>

Houston: We may have a cybersecurity problem

New bulletin about cybersecurity and how as we enter a new age of space exploration powered by futuristic tech, the "security by obscurity" approach of the 1960s doesn't work anymore. **#Cybersecurity**

Link: <https://medium.com/technicity/houston-we-may-have-a-cybersecurity-problem-3682527315d9>

Safeguarding the final frontier: Space-age cybersecurity

Unveiling the vital role of cybersecurity in space exploration and the protection of assets as the space age launches in earnest. **#Cybersecurity**

Link: <https://cybermagazine.com/articles/safeguarding-the-final-frontier-space-age-cybersecurity>



REGULATION

DOD sends new cyber strategy to Congress, releases unclassified fact sheet

The classified 2023 DoD Cyber Strategy provides direction to the Department to operationalize the concepts and defense objectives for cyberspace outlined in the 2022 National Defense Strategy. **#DoD #CyberStrategy**

Link: <https://defensescoop.com/2023/05/26/dod-sends-new-cyber-strategy-to-congress-releases-unclassified-fact-sheet/>



Spain signs Artemis Accords

Spain is the latest European nation to sign the Artemis Accords, a central element of a new American strategic framework for space diplomacy. **#Spain #Artemis**

Link: <https://spacenews.com/spain-signs-artemis-accords/>



New Zealand Launches National Space Policy

New Zealand has launched its national space policy, outlining the increasing geopolitical risks associated with space and the urgency to work with like-minded partners to protect the country's national security. The Policy also set out New Zealand's values and high-level objectives for space activities. **#NewZealand**

Link: <https://spacewatch.global/2023/05/new-zealand-launches-national-space-policy/>



US 'Space Diplomacy' strategy seeks to counter 'competitors' soft-power plays

The State Department today published a first-of-its-kind strategy for using diplomatic tools to maintain US leadership in space, including efforts to woo emerging space players away from "strategic competitors". **#US**

Link: <https://breakingdefense.com/2023/05/us-space-diplomacy-strategy-seeks-to-counter-competitors-soft-power-plays/>



SPARTA team has deployed the v1.3 release for SPARTA

New significant updates, such as expanded Traditional Counterspace TTPs, enhanced Cyber-Specific TTPs, a SPARTA Navigator and a SPARTA Countermeasure Mapper has been introduced. **#SPARTA #TheAerospaceCorporation**

Link: <https://www.linkedin.com/feed/update/urn:li:activity:7069340381930295296/>



TECHNOLOGY

Xona Space Systems Certifies Spirent's Low Earth Orbit SatNav Constellation Simulator

Spirent, the leading global provider of test and assurance solutions, is pleased to announce SimXona, an industry-first Xona satellite constellation simulator, has been fully certified by Xona Space Systems. **#XonaSpaceSystem #PNT**

Link: <https://finance.yahoo.com/news/xona-space-systems-certifies-spirent-151500821.html>



Moonlighter, the World's First Hacking Test Bed in Space, to Launch with Five Other Small Satellites on SpaceX CRS-28

Six CubeSats are set to launch on SpaceX's 28th Commercial Resupply Services mission to the ISS, where they will be deployed. Among them, the Aerospace Corporation will launch Moonlighter, the world's first and only hacking sandbox in space. **#Moonlighter #Hack-A-Sat4**

Link: <https://www.issnationallab.org/spx28-moonlighter-cubesat-afrl/>



A look at Space Operations Command's 'needs list' for AI, machine learning

Space Operations Command has created a list of its top 10 priorities for how artificial intelligence and machine learning technologies can aid the Space Force in its missions — including autonomous space-based capabilities, better operationalizing data and more. **#SpaceOperationsCommand #AI**

Link: <https://defensescoop.com/2023/05/30/top-10-ai-ml-priorities-space-forc/>



Adtran's aPNT Platform's Expanded Features Protect Against GNSS Disruptions

Adtran recently added new features to its Oscilloquartz aPNT+ technology suite to better protect critical timing networks. **#PNT**

Link: <https://insidengss.com/adtrons-apnt-platforms-expanded-features-protect-against-gnss-disruptions/>

Researchers devise a low-cost method to secure long-distance communication by overcoming distortions

Scientists have devised a method to overcome distortion due to photon-polarization posed by the constant movement of satellites as well as scrambling of polarization in optical fibres and achieve secure long-distance communication without use of conventional active-polarization tracking devices which are costly. **#Quantum #QKD**

Link: <https://dst.gov.in/researchers-devise-low-cost-method-secure-long-distance-communication-overcoming-distortions>

China making the quantum future in space

China plans to launch a medium-to-high Earth orbit quantum satellite soon, extending its claimed lead to a decade **#Quantum #China**

Link: <https://asiatimes.com/2023/06/china-to-boost-quantum-research-in-space/>



Location-independent GNSS Relay Attacks

This article is a demonstration of the possibility of spoofing a GNSS receiver to arbitrary locations without modifying the navigation messages. Due to increasing spoofing threats, Galileo and GPS are evaluating broadcast authentication techniques to validate the integrity of navigation messages. **#GNSS**

Link: <https://www.gnssrelayattack.com/>

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.

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