

## **ESA Seeks New PNT Ideas for Annual NAVISP Workplan**

The European Space Agency is looking for navigation and positioning ideas, with its Navigation Innovation and Support Programme (NAVISP) seeking input by March 31.

NAVISP is divided into a trio of elements. Element 1's scope of activities ranges from initial feasibility studies and viability analyses all the way to full proof of concept for promising positioning, navigation and timing (PNT) systems and services.

To compile its annual Element 1 workplan, NAVISP invites innovative PNT concepts from companies or academic entities across NAVISP participating states. Those interested can submit a 1-page description, along with notifying their national ESA delegation of their application. [See details here.](#)

Read more in *GPS World* article. [https://www.gpsworld.com/esa-seeks-new-pnt-ideas-for-annual-navisp-workplan/?utm\\_source=Navigate%21+Weekly+GNSS+News&utm\\_medium=Newsletter&utm\\_campaign=NCMCD220216002&oly\\_enc\\_id=1784A2382467C6V](https://www.gpsworld.com/esa-seeks-new-pnt-ideas-for-annual-navisp-workplan/?utm_source=Navigate%21+Weekly+GNSS+News&utm_medium=Newsletter&utm_campaign=NCMCD220216002&oly_enc_id=1784A2382467C6V)

2022-02-17



## **Google Maps Live Traffic Showed the Russian Invasion of Ukraine**

At 3:15 AM local time, Jeffrey Lewis, an open source intelligence (OSINT) expert and professor at Middlebury Institute, saw a traffic jam in Belgorod, Russia, using the traffic layer of Google Maps. "Someone's on the move," he tweeted.

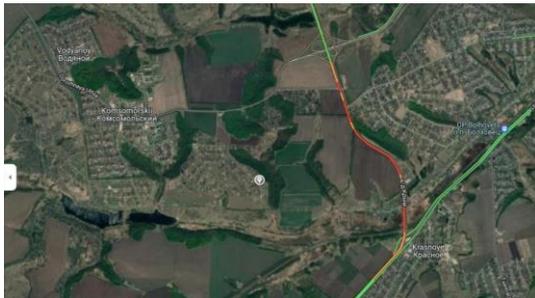
"I think we were the first people to see the invasion," Lewis told Motherboard. "And we saw it in a traffic app."

Hours before, Vladimir Putin had announced a “special military operation” in Donbas, a region in Eastern Ukraine he had declared independent earlier in the week, foreshadowing a potential invasion. But the traffic buildup Lewis was seeing on Google Maps was across the border from a different region of Ukraine, north of Kharkiv. The traffic jam slowly extended to the border, where it then disappeared.

Read more in *article...*

<https://www.vice.com/en/article/xgd7dd/google-maps-live-traffic-showed-the-russian-invasion-of-ukraine>

2022-02-25



## **DOD Tasks Orbital Insight to Help Identify Intentional GNSS Disruptions**

Geospatial intelligence company [Orbital Insight](#) has been awarded a contract from the U.S. Department of Defense (DoD) to deliver a technology platform for identifying intentional GNSS interference and manipulation operations across the world.

The platform will leverage commercially available data to detect GNSS spoofing, where falsified or manipulated GNSS signals are used to confuse adversaries or obscure illicit activities, presenting risk to both government and commercial operations. Orbital Insight was selected through DoD’s Defense Innovation Unit (DIU) solicitation process seeking commercial solutions to counter the growing threat of GNSS disruptions to national security.

The new technology will significantly improve situational awareness for warfighters, intelligence analysts and safety-of-life applications. Orbital Insight’s platform will leverage its multisensor data stack, artificial intelligence and machine-learning capabilities to alert analysts and operators to potential jamming and spoofing events, techniques commonly used by adversarial actors to cover up activities or sabotage operations.

Read more in *GPS World* article. [https://www.gpsworld.com/dod-tasks-orbital-insight-to-help-identify-intentional-gnss-disruptions/?utm\\_source=Navigate%21+Weekly+GNSS+News&utm\\_medium=Newsletter&utm\\_campaign=NCMCD220209003&oly\\_enc\\_id=1784A2382467C6V](https://www.gpsworld.com/dod-tasks-orbital-insight-to-help-identify-intentional-gnss-disruptions/?utm_source=Navigate%21+Weekly+GNSS+News&utm_medium=Newsletter&utm_campaign=NCMCD220209003&oly_enc_id=1784A2382467C6V)

2022-02-10



## **Russia Expected to Ditch GLONASS for Loran in Ukraine Invasion**

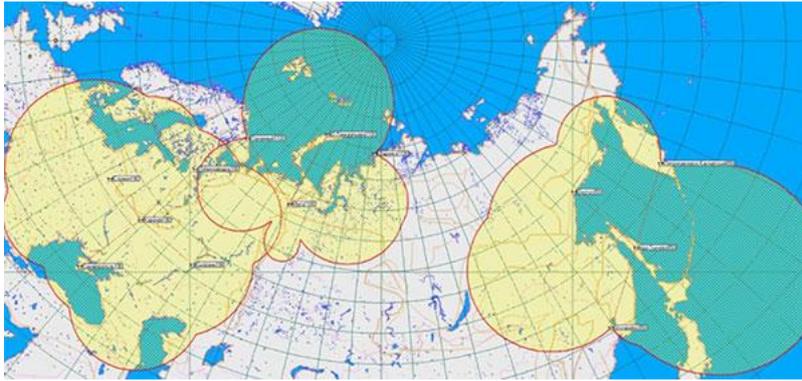
Russian forces are expert at jamming and spoofing GNSS. As a result, military analysts say, Russian military doctrine assumes that signals from space, including it's own GLONASS and other GNSS, will not be available once a battle begins.

According to the Russia and CIS Radionavigation Plan, the terrestrial Chayka system, a version of Loran-C, is maintained to protect their homeland with navigation and timing services when signals from space are not available. The portable Skorpion system is designed for military use during expeditions to areas where Chayka or Loran is not available, according to western military analysts.

“Fixed Chayka transmission sites operate between 90 Khz and 110 Khz. Power output is typically between 200 and 800 kW with effective ranges over land of about 800 miles and over water of 1,000 miles,” explained Dana Goward, president of the Resilient Navigation and Timing Foundation. He noted that little information is publicly available about the military Skorpion system.

Read more in *GPS World* article. <https://www.gpsworld.com/russia-expected-to-ditch-glonass-for-lozan-in-ukraine-invasion/>

2022-02-17



## **Enhanced NAVCEN Website Coming, New URLs Provided**

The U.S. Coast Guard Navigation Center (NAVCEN) will transition to a new and enhanced website in the first quarter of this year. The actual transition date has yet to be determined.

As part of the transition, the URLs will be updated across the site, including URLs linked to PDFs. URLs from the legacy site will no longer work. Any bookmarked URLs or URLs used in automatic downloading of data or products will need to be updated.

Read more in *GPS World* article. [https://www.gpsworld.com/enhanced-navcen-website-coming-new-urls-provided/?utm\\_source=Navigate%21+Weekly+GNSS+News&utm\\_medium=Newsletter&utm\\_campaign=NCMCD220202002&oly\\_enc\\_id=1784A2382467C6V](https://www.gpsworld.com/enhanced-navcen-website-coming-new-urls-provided/?utm_source=Navigate%21+Weekly+GNSS+News&utm_medium=Newsletter&utm_campaign=NCMCD220202002&oly_enc_id=1784A2382467C6V)

2022-02-04



**Civil GPS Service  
Interface Committee**



## **EUSPA Publishes EO and GNSS Market Report**

The European Union Agency for the Space Program (EUSPA) has published “EUSPA EO and GNSS Market Report,” a guide to reaping the benefits of space technology.

The 216-page report is designed to help anyone who seeks to make EU space technologies part of their business plan, develop new space downstream applications, and see a tangible return on investment.

More than ever society relies on innovative solutions to deal with the big data paradigm, respond to and mitigate climate change, natural and man-made disasters, curb the spread of diseases and strengthen a global supply chain that underpins our daily lives.

Earth observation and GNSS data is becoming increasingly important to innovative solutions for climate change, disaster and disease response, and global supply chain management. Dozens of applications are emerging or already in use by citizens, businesses, governments, industry, international organisations, NGOs, and researchers around the world.

Read more in *GPS World* article. [https://www.gpsworld.com/euspa-publishes-eo-and-gnss-market-report/?utm\\_source=Navigate%21+Weekly+GNSS+News&utm\\_medium=Newsletter&utm\\_campaign=NCMCD220202002&oly\\_enc\\_id=1784A2382467C6V](https://www.gpsworld.com/euspa-publishes-eo-and-gnss-market-report/?utm_source=Navigate%21+Weekly+GNSS+News&utm_medium=Newsletter&utm_campaign=NCMCD220202002&oly_enc_id=1784A2382467C6V)

2022-02-04



## The Stars Return: Draper Patents Celestial Navigation System

Scientists at Draper Laboratory have patented a celestial navigation system called a sliced-lens star tracker, which in its early form can achieve 50-metre accuracy in GNSS-denied environments. Improvements are expected as the technology evolves. Vehicles of all kinds may be able to benefit when using this system for navigating by the stars.

Draper continues to develop advanced star-tracker technology, including novel hardware architectures and computational techniques, to improve performance and reduce size and cost. According to the U.S. General Accounting Office (GAO), the Department of Defense (DOD) is actively investigating automated celestial positioning technology.

Celestial navigation has of course existed for centuries in the maritime realm. Originally, celestial objects were used simply to help determine direction of travel. In the modern age dedicated tools such as sextants enabled observers to calculate their position based on measuring angles to celestial objects.

Read more in *Inside GNSS* article. <https://insidegnss.com/the-stars-return-draper-patents-celestial-navigation-system/>

2022-01-27



## ION 2022 Fellow Memberships Announced

The Institute of Navigation (ION) announced the recipients of the 2022 Fellow membership during the ION International Technical Meeting (ITM) and Precise Time and Time Interval Systems and Applications (PTTI) meeting held January 25- 27, 2022 at the Hyatt Regency Long Beach in Long Beach, California.

Election to Fellow membership recognises sustained professional accomplishments that have significantly contributed to the advancement of the arts and sciences of Positioning, Navigation and/or Timing (PNT) in the areas of technology, management, practice or teaching and a demonstrated and sustained impact on the PNT community. The Fellows are:

- Dr. Dennis M. Akos
- Charles A. Schue, III
- Dr. Charles K. Toth

Read more in *Inside GNSS* article. <https://insidegnss.com/ion-2022-fellow-membership-announced/>

2022-01-28

