Airbus Achieves Key Milestone on EGNOS European SBAS

Airbus has successfully achieved the System Critical Design Review (CDR) on the EGNOS V3 satellite-based augmentation system. The EGNOS V3 (European Geostationary Navigation Overlay Service) is designed to add key security features for the most safety-critical applications such as aircraft navigation and landing, and will provide entirely new services for maritime and land users. EGNOS V3 is the second generation of the overlay system and will improve the performance of GPS and Galileo.

The new V3 generation of EGNOS being developed by Airbus will introduce new services based on multiple frequencies of multiple constellations (GPS, Galileo), and will embed sophisticated security protection against cyber-attacks. The System CDR covers the functional design, external interfaces, operations, security, integration verification, qualification and deployment.

Read more in *GPS Daily* article.
https://www.gpsdaily.com/reports/Airbus_achieves_key_milestone_on_EGNOS_European_satellite_based_navigation_augmentation_system_999.html
2022-12-18

ESA Funding Expanded to Help Boost Leading Role in Satellite Navigation

The Ministerial Council of the member states of the European Space Agency (ESA) has pledged 351 million euros to ESA's board of directors for navigation to aid in multiple satellite navigation endeavours.

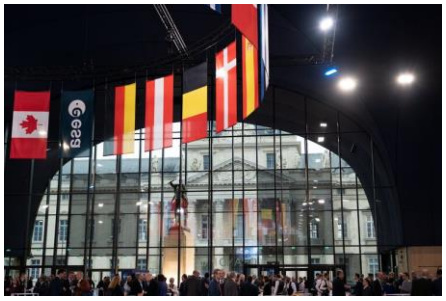
This funding helps support ESA's FutureNAV program, the Navigation Innovation and Support Program (NAVISP), and the Moonlight Initiative, developed for lunar telecommunications and navigation coverage and innovation.

The FutureNAV program is aimed at addressing the rapidly growing need for more ubiquitous, resilient and reliable positioning, navigation and timing (PNT). Its first mission consists of an initial in-orbit demonstration, small constellation of low-Earth-orbit (LEO) navigation satellites. The LEO-PNT satellites will test a multi-layer approach to deliver more accurate and robust PNT services, supplementing Galileo.

The second FutureNAV mission, GENESIS, will map the moving contours of Earth, while enhancing the accuracy of Galileo.

The expanded funding will also be invested in NAVISP. The program has already began working on over 200 projects relating to satellite navigation, PNT research, and backing Member States in research priorities.

Read more in *GPS World* article. https://www.gpsworld.com/esa-funding-expanded-to-help-boost-leading-role-in-satellite-navigation/?utm_source=Navigate%21+Weekly+GNSS+News&utm_medium=Newsletter&utm_campaign=NCMCD221214002&oly_enc_id=1784A2382467C6V
2022-12-08



GPS Signals Are Being Disrupted in Russian Cities

New data analysis reveals that multiple major Russian cities appear to have faced widespread GPS disruption during the past week. The signal interference follows Ukraine launching long-range drone attacks deep into Russian territory, and it may act as a way to potentially stop drones that rely upon GPS for navigation, experts say.

The GPS interference has “expanded on a scale that hasn't been seen before,” says Erik Kannike, a program manager at Estonian defense intelligence firm SensusQ who has been monitoring the situation. “What we're seeing now, since about a week ago, is GPS jamming bubbles covering hundreds if not thousands of kilometres around tactical cities.”

The GPS issues were first spotted by the monitoring system GPSJam, which uses data from planes to track problems with the satellite navigation system. The website has logged an increasing number of GPS disturbances in the Russian cities of Saratov, Volgograd,

and Penza since the start of December. All of the cities are in western Russia and within hundreds of kilometres of the border with Ukraine.

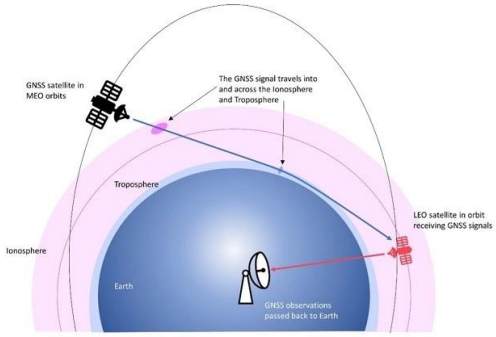
Read more in *article*…
https://www.wired.com/story/gps-jamming-interference-russia-ukraine/
2022-12-15

FrontierSI Signs Agreement for Ginan Enhancement

FrontierSI has signed an agreement with Geoscience Australia, Curtin University and the University of Newcastle to collaborate on enhancing the Ginan system with features specifically aimed at supporting low-Earth orbit (LEO) satellites.
Ginan, Geoscience Australia's GNSS analysis centre software, provides a real-time positioning correction service through open-source software, as well as additional positioning products to enable precise point positioning for Australian users.

The agreement, which complements ongoing Ginan Precise Orbit Determination (POD) development activities, will focus on the implementation of LEO satellite modelling and the orbit integrator/propagator capabilities needed to enable LEO GNSS data to be processed and high-precision LEO satellite trajectories estimated and predicted.

Read more in *Spatial Source* article. https://www.spatialsource.com.au/frontiersi-signs-agreement-for-ginan-enhancement/?utm_campaign=SS%20-%20Overall%20Publication%20-%20Master&utm_medium=email&_hsmi=236761966&_hsenc=p2ANqtz--0rm5keOLDCBsDk4PAyGJ5vQvT4wIkMj6gC0iSB4agZDRv75sCj_BM9VT603yzsfRwW_Pz2PXT7coA4WST45oQaK4pUw&utm_content=236761966&utm_source=hs_email
2022-12-02



Space Force Orders 3 More GPS IIIF Satellites From Lockheed

Space Systems Command (SSC), a division of the U.S. Space Force, has exercised its third production option valued at $744 million for the procurement of three additional GPS III Follow-On satellites from Lockheed Martin. The contract option covers GPS IIIF Space Vehicles (SVs) 18, 19 and 20.

GPS IIIF will provide several next-generation capabilities to meet increased demands of both military and civilian users. Building on the technical baseline of satellites 01 to 10, the newer satellites will provide increased anti-jam capabilities for the military with the addition of a Regional Military Protection capability.

Precision ranging measurements will be enabled by a laser retro-reflector array and will address the consolidation of telemetry, tracking and commanding frequencies. Additionally, GPS IIIF leverages major international collaboration with the Canadian Department of National Defense and other U.S. government organisations such as the National Oceanic and Atmospheric Administration, the Air Force Rescue Coordination Center, and the U.S. Coast Guard Office of Search and Rescue (SAR) by hosting a new SAR payload.

Read more in *GPS World* article. https://www.gpsworld.com/space-force-orders-3-more-gps-iiif-satellites-from-lockheed/?utm_source=Navigate%21+Weekly+GNSS+News&utm_medium=Newsletter&utm_campaign=NCMCD221130002&oly_enc_id=1784A2382467C6V

2022-12-05

GMV Joins Lockheed in SouthPAN Development

Multinational technology firm GMV has signed an agreement with Lockheed Martin Corporation to develop the processing and control centres for the Southern Positioning Augmentation Network system (SouthPAN). Lockheed is contracted to establish SouthPAN.

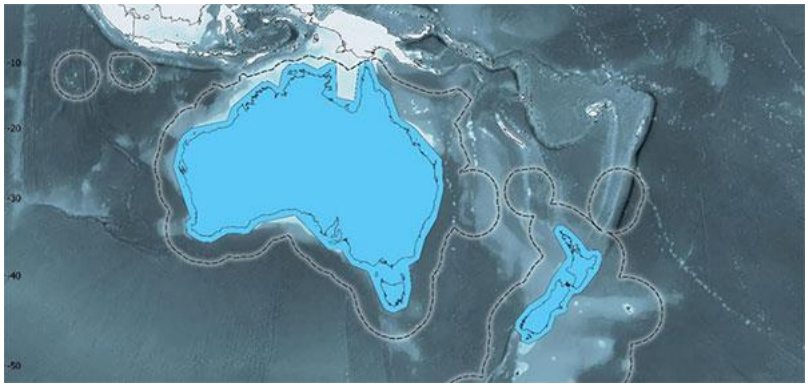
The project is a joint initiative of the Australian and New Zealand governments to provide a satellite-based augmentation system (SBAS) for navigation and precise point positioning (PPP) services. GMV will also be responsible for monitoring both of these services in the region and for ensuring compliance with the committed performance levels.

SBAS and PPP systems have applications in industries as diverse as agriculture and road, air, maritime and rail transportation, as well as in the field of geomatics. SouthPAN is expected to accelerate development of applications in these areas.

SouthPAN is also the first system with these characteristics available in the Southern Hemisphere. With this new program, Australia and New Zealand will be contributing to improved global coverage and interoperability for services of this type, joining the list of countries and regions that already have their own SBAS system: the United States (WAAS), Europe (EGNOS), India (GAGAN) and Japan (MSAS).

Read more in *GPS World* article. https://www.gpsworld.com/gmv-joins-lockheed-in-southpan-development/?utm_source=Navigate%21+Weekly+GNSS+News&utm_medium=Newsletter&utm_campaign=NCMCD221130002&oly_enc_id=1784A2382467C6V

2022-12-02



Russia Launches Final GLONASS-M Navigation Satellite Into Orbit

Russia added another piece to its GLONASS satellite-navigation network on Monday (Nov. 28). A Soyuz rocket rocket topped with a GLONASS-M satellite lifted off from Plesetsk Cosmodrome in northwestern Russia Monday at 10:17 a.m. EST (1517 GMT; 6:17 p.m. Moscow time).

The spacecraft was successfully delivered to its target orbit and has received the designation Cosmos 2564, Roscosmos, Russia's federal space agency, announced via Telegram(opens in new tab) shortly after the launch.
GLONASS-M is a venerable line; the first spacecraft in the series launched in 2003. Russia is transitioning to newer variants such as the GLONASS-K, which debuted in 2011.

Read more in *article*…

https://www.space.com/russia-launches-final-glonass-m-navigation-satellite

2022-12-01