UK MOD investigating deployable eLoran

The United Kingdom's Ministry of Defence (MOD) is focusing its alternative positioning, navigation and timing (Alt PNT) project on deployable eLoran. This comes after industry days for Alt PNT in March and June 2024.

The announcement came in a Request for Information (RFI) on Sept. 20. It specifies that a contract will be let for the development of a deployable eLoran network. As part of that contract, the MOD also wants to develop:

- A modelling capability, which will allow for theoretical analysis of capabilities and informing the concept of employment.
- An assured capability within the Loran Data Channel
- Information and demonstration of the resulting capability to stakeholders

Last year, the UK government announced a ten-point "policy framework" for advancing the nation's PNT resilience. One of the ten points is:

"Develop a proposal for a resilient, terrestrial, and sovereign Enhanced Long-Range Navigation (eLORAN) system to provide backup position and navigation."

Read more in *GPS World* article. https://www.gpsworld.com/uk-mod-investigating-in-deployable-eloran/?utm_source=Navigate%21+Weekly+News&utm_medium=Newsletter&utm_campaign=NCMCD240925002
2024-09-30

Applicants wanted for Geospatial Trainee Program

The Australian Geospatial-Intelligence Organisation (AGO) is seeking applicants for its Foundation Geospatial Trainee Program.

The Program is a 12-month competency-based training course in which participants undertake workplace experience and obtain a tertiary qualification at the AGO's Bendigo training facility.

Trainees will be in full-time paid employment as an APS level 3 Geospatial Analyst during training and will be guaranteed employment as an APS level 4 Geospatial Analyst on successful completion of the program.

The work of the AGO Foundation Geospatial Branch in Bendigo entails the collection, production, management and dissemination of imagery and geospatial information to describe, assess and visually depict physical features and geographically referenced activities in the air and land domains.

Read more in *Spatial Source* article. https://www.spatialsource.com.au/applicants-wanted-for-geospatial-trainee-program/?utm_campaign=SS%20-%20Overall%20Publication%20-%20Master&utm_medium=email&_hsmi=327229954&utm_content=327229954&utm_source=hs_email
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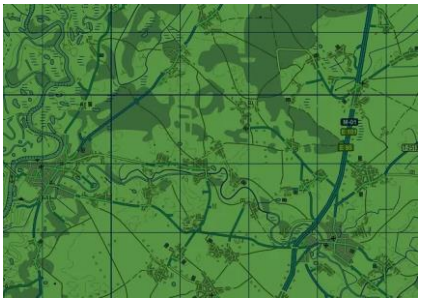


NZ navy hydrographic ship capsizes and sinks

The Royal New Zealand Navy's hydrographic survey ship, HMNZS *Manawanui*, has capsized and sunk after running aground on a reef off the coast of Samoa.

Fortunately, all crew members and passengers were rescued and are safe.

"We are very grateful for the assistance of everyone involved, from RCCNZ who coordinated rescue efforts, to the vessels which responded and took our crew and passengers from *Manawanui* to safety," Maritime Component Commander Commodore Shane Arndell said.

The accident happened on Saturday evening, 5 October, while the vessel was conducting a hydrographic survey just one nautical mile from shore.

According to the Royal New Zealand Navy (RNZN), at 6.40am on Sunday the ship was listing heavily and smoke was visible. By 9.00am it was known to have capsized and was below the surface.

Read more in *Spatial Source* article. https://www.spatialsource.com.au/nz-navy-hydrographic-ship-capsizes-and-sinks/?utm_campaign=SS%20-%20Overall%20Publication%20-%20Master&utm_medium=email&_hsmi=328263962&utm_content=328263962&utm_source=hs_email

2024-10-09

Korea Augmentation Satellite System (KASS): System Performance Qualification Result Overview

The Korea Augmentation Satellite System (KASS) is the satellite-based augmentation system (SBAS) of the Republic of Korea, currently developed by the Korea Aerospace Research Institute (KARI). Its mission is to provide SBAS services compliant with the International Civil Aviation Organization (ICAO) SARPS Annex 10 over the South Korea area with service level up to APV I.

KASS will offer safety-critical services for civil aviation as well as an open service, usable by other forms of transportation and possibly other position, navigation and timing (PNT) applications. To provide improved GNSS navigation services for suitably equipped users in the agreed service areas, KASS will broadcast an augmentation signal of the U.S. Global Positioning System (GPS) Standard Positioning Service (SPS). The augmentation signal will provide corrections of GPS satellites, orbits and clocks and integrity bounds of orbit/clock residual errors, as well as corrections and integrity bounds for ionosphere delays. The augmentation signal will be broadcast by two Geostationary Earth Orbiting (GEO) satellites and leveraged by GPS/SBAS user equipment to compute a navigation solution.

Read more in *Inside GNSS* article. https://insidegnss.com/korea-augmentation-satellite-system-kass-system-performance-qualification-result-overview/

2024-10-07

International GNSS meeting in New Zealand

Experts from around the world have gathered in Wellington, New Zealand, to attend a United Nations-backed meeting to discuss satellite-based positioning and navigation matters.

Toitū Te Whenua Land Information New Zealand (LINZ) and Geoscience Australia are jointly hosting the International Committee on Global Navigation Satellite Systems (ICG) meeting, which started on Sunday, 6 October and runs until Friday, 11 October.

The meeting is an annual event held by the United Nations Office of Outer Space Affairs.

Around 250 delegates from over 20 countries are attending, with 177 joining in-person at the Tākina Convention Centre.

Read more in *Spatial Source* article. https://www.spatialsource.com.au/international-gnss-meeting-in-new-zealand/?utm_campaign=SS%20-%20Overall%20Publication%20-%20Master&utm_medium=email&_hsmi=328263962&utm_content=328263962&utm_source=hs_email

2024-10-09

Hanwha partners with Advanced Navigation for GNSS-denied navigation

Advanced Navigation has finalised a $6 million deal with Hanwha Defence Australia (HDA). Under the agreement, Advanced Navigation will supply HDA with 138 Boreas

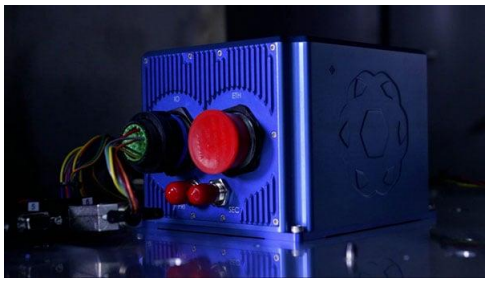
D70 units, a strategic-grade digital fibre-optic gyroscope (DFOG) inertial navigation system (INS), as part of the LAND 400 Phase 3 program.

This dual-use technology is optimized for contested environments where GNSS accuracy and availability can be compromised.

The LAND 400 Phase 3 program aims to enhance the capabilities of the Australian Defence Force's (ADF) armoured vehicles.

Read more in *GPS World* article. https://www.gpsworld.com/hanwha-partners-with-advanced-navigation-for-gnss-denied-navigation/?utm_source=Navigate%21+Weekly+News&utm_medium=Newsletter&utm_campaign=NCMCD241009002&oly_enc_id=1784A2382467C6V

2024-10-09



ESA launches Moonlight program to build lunar Comms and GPS constellation

The European Space Agency (ESA) has officially launched its Moonlight programme, aimed at creating a satellite constellation around the Moon to provide vital communications and navigation services. With over 400 lunar missions expected from both space agencies and private companies in the next two decades, Moonlight represents a major step towards sustainable lunar exploration and the broader development of a lunar economy.

The Moonlight Lunar Communications and Navigation Services (LCNS) programme will support precise landings, surface operations, and seamless communication between Earth and the Moon. This infrastructure is key to ensuring a lasting human presence on the Moon while optimising costs and increasing operational efficiency.

Moonlight addresses essential needs for both human and robotic exploration and is set to create new commercial opportunities for European industries in the growing lunar economy. It will also play a crucial role in supporting future deep space missions.

Read more in *article*…

https://www.spacedaily.com/reports/ESA_launches_Moonlight_programme_to_build_lunar_communications_and_navigation_network_999.html

2024-10-15

Seabed mapping of vital global importance

The importance of global seabed mapping has been highlighted with the release of a study that outlines 12 major use cases for the endeavour.

The newly published compendium — prepared by the Nippon Foundation-GEBCO Seabed 2030 Project in partnership with NLA International (NLAI) — identifies the role of seabed mapping in addressing some of the world's most pressing marine and maritime challenges.

Those challenges include climate change mitigation, marine biodiversity protection, Blue Economy development, ocean sustainability, policy development and economic growth.

The use cases were compiled to provide critical empirical data to inform the development of a prioritised, targeted mapping strategy.

The study also seeks to bring together the global hydrographic community and stakeholders in the marine and maritime sectors, to establish a unified global mapping priority list.

Read more in *Spatial Source* article. https://www.spatialsource.com.au/seabed-mapping-of-vital-global-importance/?utm_campaign=SS%20-%20Overall%20Publication%20-%20Master&utm_medium=email&_hsenc=p2ANqtz-8FA1xsHyxvuHUz4lfV98VcvSbfDX5a9IAFtmnqZaXyxFg2HF525CGvJnvrpPEjdj-pXYf9oKmUZHVgxAW_uvFqtJQdNg&_hsmi=329979325&utm_content=329979325&utm_source=hs_email

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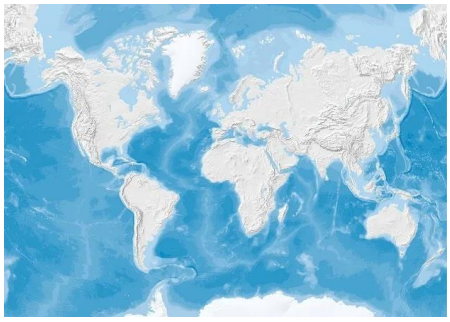

GPS Jamming in Myanmar

Myanmar is the epicentre of GPS jamming in Asia.

A map from Flightradar24, the aircraft tracking website, shows a cluster of red hexagons blanketing the country's southern region. The pixelated dots represent areas experiencing high levels of interference with satellite-guided navigation systems and serve as a warning to aircraft in the region.

"GPS jamming involves saturating GPS receivers with unknown signals. . . essentially degrading everyone's ability to effectively use GPS for navigational purposes," explained a post on Flightradar24. The crowdsourced service, startedby "two Swedish aviation geeks" in 2006, now operates the largest aviation surveillance network using ADS-B receivers.

Scrambled signals, the website warned, can result in "flight deviations, missed approaches, or potential collisions, especially in critical phases such as takeoff, landing, or during instrument approaches in low visibility conditions."

Read more in *article*…

https://thediplomat.com/2024/10/gps-jamming-in-myanmar/

2024-10-18

Startup Skyline Nav AI Leveraging Computer Vision for CPNT

About four years ago, Kanwar Singh, a U.S. Army Officer, began working with the Army Research Lab to advance and commercialise a new technology designed to both complement and augment GPS in degraded or denied environments.

The technology, with about 10 years of research and investment behind it now, leverages computer vision algorithms and reference datasets to navigate and position effectively—without relying on GPS, cellular or Wi-Fi.

Skyline Match AI can find initial positions by scanning the terrain and identifying discernible skylines, and has uses in both military and civilian applications where relying on GPS alone may be an issue.

The technology can get users within 5 metres in urban areas with unobstructed view 95% of the time. It also can be combined with inertial, GNSS and SLAM for more precise results.

Read more in *Inside GNSS* article. https://insidegnss.com/startup-skyline-nav-ai-leveraging-computer-vision-for-cpnt/

2024-10-16