China to Lose Access to Australian Space Tracking Station

China will lose access to a strategic space tracking station in Western Australia when its contract expires, the facility's owners said, a decision that cuts into Beijing's expanding space exploration and navigational capabilities in the Pacific region.

The Swedish Space Corporation (SSC) has had a contract allowing Beijing access to the satellite antenna at the ground station since at least 2011. It is located next to an SSC satellite station primarily used by the United States and its agencies, including NASA.

The Swedish state-owned company told Reuters it would not enter into any new contracts at the Australian site to support Chinese customers after its current contract expires. However, it did not disclose when the lease runs out.

"Given the complexity of the Chinese market, brought about by the overall geopolitical situation, SSC has decided to focus mainly on other markets for the coming years," the SSC said in an emailed response to questions.

The site is owned by SSC subsidiary, SSC Space Australia.

The Australian government did not immediately respond to questions on Monday.

The Chinese foreign ministry did not immediately respond to a Reuters request for comment.

Read more in *article*…

https://wtvbam.com/2020/09/21/exclusive-china-to-lose-access-to-australian-space-tracking-station/

2020-09-21

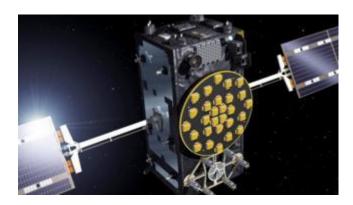**Ministers 'Seek Alternatives' for UK Sat-nav**

Ministers had asked industry to spec what amounted to a copy of the EU's Galileo network, now that Britain is no longer a member of the European bloc. Industry's report - which includes costings - is about to be delivered.

But the government says it wants also to consider other solutions than just a "me too" system. The satellites that Galileo uses to transmit precise positioning, navigation and timing (PNT) signals are in a Medium-Earth Orbit (MEO), 23,000km above the Earth. The alternatives the government says it will now investigate could use spacecraft that are much lower in the sky, just a few hundred km up, or indeed much higher, in the geostationary (GEO) arc some 36,000km in altitude.

Sat-nav systems have become fundamental to the functioning of society in the last few decades.
Read more in *article*…

https://www.bbc.com/news/science-environment-54283493

2020-09-24

New Autonomous Mayflower Launches From Plymouth To Gather Ocean Data

An autonomous ship launched Sept. 16 on a mission to traverse oceans and gather vital environmental data, guided by GNSS and inertial measurement units (IMUs). Ocean research non-profit ProMare joined with IBM on the Mayflower Autonomous Ship (MAS) — an artificial intelligence (AI) and solar-powered marine research vessel. Following two years of design, construction and training of its AI models, the fully-autonomous trimaran was launched from Plymouth, England.

The ship is guided by both GNSS and IMU technology. It uses two Hexagon | Veripos LD8 receivers, each with two V560 marine antennas. The onboard IMUs include an iXBlue Octans and two Silicon Sensing AMU30s. Designed to provide a

safe, flexible and cost-effective way of gathering data about the ocean, the new-generation Mayflower promises to transform oceanography by working in tandem with scientists and other autonomous vessels to help understand critical issues such as global warming, micro-plastic pollution and marine mammal conservation.

Read more in *GPS World* article. https://www.gpsworld.com/new-autonomous-mayflower-launches-from-plymouth-to-gather-ocean-data/
2020-09-17

Using GPS as a Weapon Against Coronavirus

GPS technology is doing far more than helping us navigate or receive accurate time. It is now being used to fight the spread of the global COVID-19 pandemic.

Global navigation satellite systems are being used to collect big data on travel and contact, but they are also being used in more unconventional ways: for example, quarantine enforcement and sanitation technology.

Read on to learn about a few recent developments in the world of GNSS/GPS that are bolstering the battle against the novel coronavirus.

Read more in *GPS World* article. https://www.gpsworld.com/using-gps-as-a-weapon-against-coronavirus/?utm_source=Navigate%21+Weekly+GNSS+News&utm_medium=Newsletter&utm_campaign=NCMCD200916003&oly_enc_id=1784A2382467C6V
2020-09-21

MyGalileoSolution Contest Challenges European Innovators and Entrepreneurs

The #MyGalileoSolution contest for European innovators and entrepreneurs ready to develop location-based solutions has gotten underway. The European GNSS Agency (GSA) launched the competition to develop new mobile applications, wearable-based solutions, asset management and tracking solutions or robotics, leveraging Galileo as a PNT source.

With a prize pool of almost € 1.5 million, MyGalileoSolution is the largest competition ever organised by the GSA. It consists of two independent parallel tracks, each with its list of goals and deliverables. The deadline for submission for both categories is September 30. Projects will be evaluated in terms of their innovative nature, market potential, feasibility and Galileo relevance by a panel of GSA experts.

Read more in *Inside GNSS* article. https://insidegnss.com/mygalileosolution-contest-challenges-european-innovators-and-entrepreneurs/
2020-09-08

NASA Search And Rescue Partners With Australian Space Research Centre

NASA's Search and Rescue office has entered into a collaboration with the SmartSat Cooperative Research Centre (CRC), a consortium of universities and other research organizations, partnered with industry and funded by the Australian government.

The Search and Rescue office - based at NASA's Goddard Space Flight Center in Greenbelt, Maryland - will provide SmartSat CRC with NASA expertise to advance distress-related communications and navigation technology benefitting the U.S. and Australia.

"We're proud to lend the engineering expertise of our Search and Rescue office as SmartSat CRC works on next-generation rescue technologies," said Goddard Deputy Director for Research and Technology Investments Christyl Johnson. "Goddard is excited about this new partnership and the new capabilities that it will foster."

Read more in *Terra Daily* article.
https://www.terradaily.com/reports/NASA_Search_and_Rescue_partners_with_Australian_Space_Research_Center_999.html
2020-09-09

Russia Announces GPS-Like System for the Moon

Russia announced the creation of the moon GPS system. The General Director of the ISS, named after Reshetnev Nikolay Testoedov, stated that the Russian specialists are ready to create satellites for navigation on the moon. With the help of satellites created in ISS JSC, a wide range of services is provided both in Russia and far beyond its borders.

Furthermore, the moon GPS will be an integral tool and the solution that will be needed as part of the moon colony success. The moon has been an interest by both Russia and NASA.

In April, NASA published a Space Exploration Agenda that included moon colony project as well.

Read more in *article*…

How Google Maps Uses DeepMind's AI Tools To Predict Your Arrival Time

Google Maps is one of the company's most widely-used products, and its ability to predict upcoming traffic jams makes it indispensable for many drivers. Each day, says Google, more than 1 billion kilometres of road are driven with the app's help. But, as the search giant explains in a blog post today, its features have got more accurate thanks to machine learning tools from DeepMind, the London-based AI lab owned by Google's parent company Alphabet.

In the blog post, Google and DeepMind researchers explain how they take data from various sources and feed it into machine learning models to predict traffic flows. This data includes live traffic information collected anonymously from Android devices, historical traffic data, information like speed limits and construction sites from local governments, and also factors like the quality, size, and direction of any given road. So, in Google's estimates, paved roads beat unpaved ones, while the algorithm will decide it's sometimes faster to take a longer stretch of motorway than navigate multiple winding streets.

Read more in *article*…

https://www.theverge.com/2020/9/3/21419632/how-google-maps-predicts-traffic-eta-ai-machine-learning-deepmind
2020-09-03