FCC’s Ligado Decision Broadens, Deepens Opposition

Last week, 27 members of the U.S. House Agriculture Committee sent a letter to Federal Communications Commission (FCC) Chairman Ajit Pai. In it, they urged him to reconsider the FCC’s decision to allow Ligado Networks to operate a terrestrial nationwide network that the executive branch says will cause harmful interference to GPS signals for many users. This concern and opposition from a sector not traditionally engaged in GPS or positioning, navigation and timing (PNT) issues is just one example of how the FCC’s decision — rather than putting the issue to rest — has instead recruited a whole new set of actors from across multiple sectors for the opposition.

Many observers don’t see this as surprising. According to one observer, previously it was easy for many to assume the FCC would reject Ligado’s proposal. The entire executive branch had been vehemently opposed for years. So had aviation groups, the weather community, geospatial interests and some satellite communications concerns. With such opposition from so many important quarters, it was reasonable for many to assume they need not become involved. Now that the FCC has acted to the contrary, these interests have become well energised.

Read more in *GPS World* article. https://www.gpsworld.com/fccs-ligado-decision-broadens-deepens-opposition/

2020-07-21

UNSW Researchers Receive CRC-P Grant To Develop Space Traffic Management

The team from UNSW Canberra led by Dr Melrose Brown will work alongside Clearbox Systems, Capricorn Space and Bluerydge to develop a unique Australian radio frequency (RF) sensor for satellite identification, tracking and collision avoidance.

Dr Brown said that the space traffic management system is being developed at a time when the global space sector is undergoing unprecedented change.

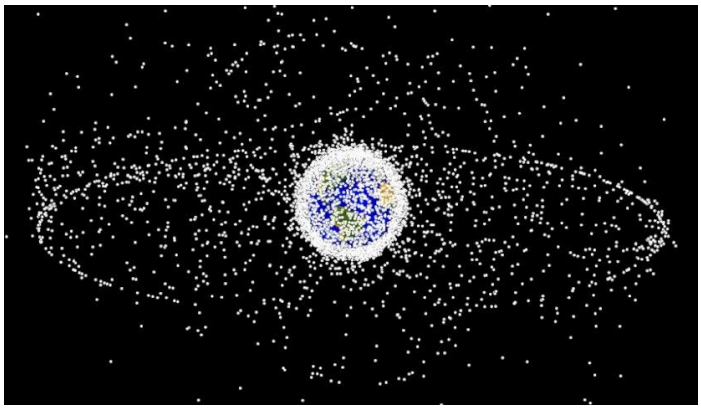
"There is a projected twenty-fold increase in the number of satellites in orbit by 2025. In addition, new technologies are enabling satellites to constantly change orbit, which poses a significant challenge to legacy space traffic management systems," Dr Brown explained.

The new system will identify satellites from their transmitted signal characteristics, offering high precision tracking that can operate day or night. The RF sensor network will integrate with optical telescopes and advanced artificial intelligence algorithms being developed by Australia's leading space mission team, UNSW Canberra Space.

Read more in *article*…

https://www.spaceconnectonline.com.au/operations/4442-unsw-researchers-receive-a-crc-p-grant-to-develop-space-traffic-management?utm_source=SpaceConnect&utm_campaign=20_07_20&utm_medium=email&utm_content=2&utm_emailID=7b4c7db616168fe865f3a2f96500fa1904548b5145c6ae1709d81f43459c19a2

2020-07-20



World Leading Experts to Spearhead $20m of Space Sector by SmartSat CRC

In a $20m investment, nine professorial Chairs have been established by SmartSat and its partner universities in artificial intelligence, optical communications and cybersecurity for the development of next generation space technologies to stimulate Australia's economic growth in space.

Adelaide University, Swinburne University and University of South Australia are the first universities to announce three professorial chairs today. These experts will drive new frontier research in artificial intelligence for satellite systems and new space cyber security technologies.

The trio, Professors Tat-Jun Chin, Christopher Fluke and Jill Slay, will form a Research and Development advisory group to refine the SmartSat research program in priority areas for space systems research and development, and boost the translation of research for industry application.

Read more in *Space Daily* article.
https://www.spacedaily.com/reports/World_leading_experts_to_spearhead_20m_of_space_sector_by_SmartSat_CRC_999.html
2020-07-21

UK Acquires OneWeb LEO Constellation, But Won't Work for SatNav — Or Maybe It Will

Britain has signed a £900 million (US$1.135 billion) deal to buy a part share of satellite operator OneWeb, a low-Earth orbit constellation in-the-making, designed to provide global high-speed broadband services. There had been speculation that the government intended thereby to generate its own satellite-based navigation signals, as it has been shut out of Galileo security signals by its Brexit move. Some satnav experts quickly dashed that notion, but others demonstrated that it just may be possible.

The government consortium, headed by the UK Secretary of State for Business, Energy and Industrial Strategy, teamed with Indian firm Bharti Global Limited to acquire OneWeb, which earlier this year declared bankruptcy, and fund the full restart of its business operations. Prior to its bankruptcy filing, OneWeb had submitted a modification request to the U.S. Federal Communications Commission (FCC) to increase the number of satellites in its constellation up to 48,000.

In a statement, the parties said, "OneWeb will look to resume operations as soon as possible and continue with progress towards providing global high-speed, low latency connectivity via its state-of-the-art satellite constellation."

Read more in *Inside GNSS* article. https://insidegnss.com/uk-acquires-oneweb-leo-constellation-but-wont-work-for-satnav/

2020-07-14

Aussie Scientists Develop Next-gen Gyroscopic Navigation Technology

Australian researchers and industry partners are joining forces to develop, design and manufacture the next-generation of optical gyroscopes for high-precision autonomous navigation in a new $8.7 million project – with applications for space sciences, agriculture and defence.

The rapid and transformative development of autonomous vehicles in recent years has seen numerous technological breakthroughs. The deployment of ultra high-performance gyroscopes can enhance their performance in terms of safety and guidance.

The use of ultra high-performance gyroscopes can already be found in a wide range of industries including infrastructure management, mining, space sciences, agriculture, and defence.

The new project is led by navigation systems manufacturer Advanced Navigation, with research partners the Australian National University (ANU), RMIT University, and commercial partner Corridor Insights. It will develop a new standard for optical gyroscopes, improving precision while reducing cost and size.

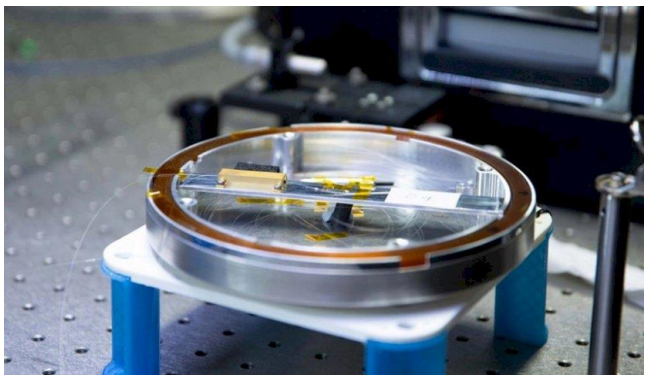
Associate professor Jong Chow from the ANU Centre for Gravitational Astrophysics, and a member of the Australian Research Council Centre of Excellence for Gravitational Wave Discovery (OzGrav), said the collaboration is a chance to bring together expertise from around the country.

"We have such a broad range of photonics expertise in Australia. This project brings it together, creating a nexus between universities, research and education, industry and government," Chow said.

Read more in *article*…

https://www.spaceconnectonline.com.au/r-d/4440-aussie-scientists-develop-next-gen-navigation-technology?utm_source=SpaceConnect&utm_campaign=17_07_20&utm_medium=email&utm_content=1&utm_emailID=7b4c7db616168fe865f3a2f96500fa1904548b5145c6ae1709d81f43459c19a2

2020-07-17



PNT Board Against Ligado Decision

Not surprisingly, the primary topic at the July 1 meeting of the National Space-based Positioning, Navigation and Timing Advisory Board was the Federal Communications Commission (FCC) decision on Ligado Networks.

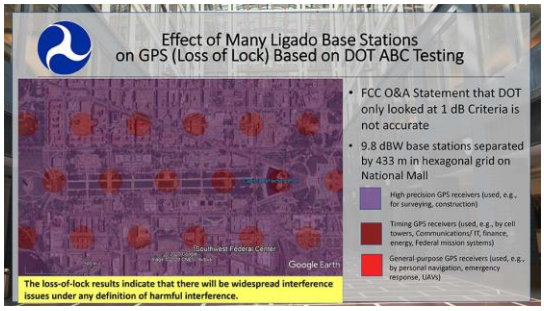
The meeting, virtually hosted by NASA, began with board chair retired Admiral Thad Allen reading a statement for the board's record from Captain Chesley "Sully" Sullenberger condemning the FCC's action.

In it Captain Sullenberger cited many of the issues the board's vice chair, Brad Parkinson, discussed later in the meeting. Sullenberger's statement is available here.

In his presentation, Parkinson called the FCC decision "a grave error." He outlined his rationale in 21 information-packed slides.

Read more in *GPS World* article. https://www.gpsworld.com/capt-sullenberger-pnt-board-against-ligado-decision/?utm_source=Navigate%21+Weekly+GNSS+News&utm_medium=Newsletter&utm_campaign=NCMCD200701003&oly_enc_id=1784A2382467C6V

2020-06-19



China's Last BDS Satellite Enters Long-term Operation Mode

The newly-launched last satellite of China's BeiDou Navigation Satellite System (BDS) successfully entered the long-term operation mode on July 1, announced the Xi'an Satellite Control Center.

It marked that all 30 satellites of the BDS-3 system have been operating in the long-term mode, a major step forward for BDS to provide full services to the world, said the center.

The last satellite of the BDS was launched on June 23. After flying for nearly eight days, it successfully entered the final orbit, which is 36,000 km above Earth, on June 30.

Read more in *GPS Daily* article.
https://www.gpsdaily.com/reports/Chinas_last_BDS_satellite_enters_long_term_operation_mode_999.html
2020-07-02

UNSW Space Research Receives Government Funding

UNSW Engineering researchers have been awarded almost $700k in the first round of federal government International Space Investment – Expand Capability grants.

The grants are designed to build the capacity and capability of Australia's space sector and support Australian businesses and research organisations to collaborate with international space agencies or established international space programs. Only 10 grants were awarded in this round from more than 100 applications.

Professor Andrew Dempster, Director of the Australian Centre for Space Engineering Research (ACSER), will manage the grant for the project 'Advanced Global Navigation Satellite System (GNSS) Receiver for CubeSats, Rockets and Remote Sensing' announced yesterday by the Minister for Industry, Science and Technology, Karen Andrews.

Prof. Dempster is a leading Australian space expert, specialising in satellite systems and communications, including global navigation satellite systems (GNSS), remote sensing and signal processing. He said his senior research associate Dr Eamonn Glennon will use the grant to upgrade their single frequency global positioning system (GPS) receiver, called *Kea,* to be capable of use with multiple frequencies, antennas and systems.

Read more in *article*…

https://www.inside.unsw.edu.au/academic-excellence/unsw-space-research-receives-government-funding?utm_source=All+Staff+-+June+2020&utm_campaign=20b592b693-EMAIL_CAMPAIGN_2020_06_01_06_16_COPY_01&utm_medium=email&utm_term=0_9f7c0c63a7-20b592b693-84147955

2020-06-28

Industry Stalwarts Remember Change Agent Javad Ashjaee

The GNSS community was deeply saddened by the loss of Dr. Javad Ashjaee — Javad, as he liked to be called — on May 30. Following are excerpts of comments by *GPS World* Editorial Advisory Board members and others, all of whom also expressed their heartfelt sorrow.

Read more in *GPS World* article. https://www.gpsworld.com/industry-stalwarts-remember-change-agent-javad-ashjaee/?utm_source=Navigate%21+Weekly+GNSS+News&utm_medium=Newsletter&utm_campaign=NCMCD200624003&oly_enc_id=1784A2382467C6V

2020-06-26