UK Set to Demand EU Repayment in Brexit Satellite Row

Britain ramped up a Brexit space row with the EU on Thursday 24 May, saying it will demand repayment if it is excluded from the Galileo satellite navigation project. Newspaper reports suggested London could seek 1 billion pounds ($1.34 billion, 1.14 billion euros) in compensation for its investment in the programme.

Brussels has said it will deny London access to Galileo's encrypted signals after Brexit, citing legal issues about sharing sensitive security information with a non-member state. A report issued by Britain's Department for Exiting the European Union said it had "strong objections" to being frozen out of the 10-billion-euro programme and called for an "urgent resolution to the exclusion".

"Should the UK's future access be restricted, the UK's past contribution to the financing of space assets should be discussed," the report said.

Read more in *GPS Daily* article.
http://www.gpsdaily.com/reports/UK_set_to_demand_EU_repayment_in_Brexit_satellite_row_reports_999.html
2018-05-24

China to Launch Another 11 BeiDou-3 Satellites in 2018

China will launch another 11 BeiDou-3 satellites by the end of 2018, adding to its domestic BeiDou Navigation Satellite System (BDS), said an official at an academic conference on Wednesday 23 May.

China has already launched eight BeiDou-3 satellites. The satellites will provide initial services for countries and regions along the Belt and Road by the end of the year, said Wang Li, chairman of China Satellite Navigation System Committee.

Addressing the Ninth China Satellite Navigation Conference in Harbin, capital of northeast China's Heilongjiang Province, Wang said the BeiDou system is moving to

become a global service provider after offering stable and reliable time and space information for clients in the Asia-Pacific region.

China launched the first two BeiDou-3 satellites into space via a single carrier rocket in November 2017, as its self-developed BeiDou system officially began to expand into a global network.

Read more in *GPS Daily* article. http://igsworkshop2018.gnsswhu.cn/index
2018-05-25

Uber's Autonomous Car had Six Seconds to Prevent Fatal Crash but Failed to Act

The self-driving car owned by Uber that fatally struck a woman in March detected her in the road about six seconds before the crash, according to a preliminary report from the National Transportation Safety Board, which also acknowledged delayed responses from the vehicle's automatic emergency braking system.

The report confirms what Uber had previously acknowledged internally—that its software failed to properly classify the pedestrian, 49-year-old Elaine Herzberg, before she was fatally struck. The March 18 crash is the first known to involve an autonomous car fatally striking a pedestrian.

The NTSB said it has not yet concluded the "probable cause" of the incident and is subject to change as the agency's investigation progress continues, but the report offers more insight into what transpired that night in Tempe, Arizona.

Read more in…
https://jalopnik.com/ubers-autonomous-car-had-six-seconds-to-prevent-fatal-c-1826290552
2018-05-25

Galileo Reference Centre Inaugurated in the Netherlands

The Galileo Reference Centre (GRC), the new state-of-the-art performance monitoring hub for the European Union's global satellite navigation system, was officially inaugurated May 16 in Noordwijk, the Netherlands.

The ceremony was presided by Dutch Minister of Infrastructure and Water Management Cora van Nieuwenhuizen and European GNSS Agency (GSA) Executive Director Carlo des Dorides, among others.

"The Galileo Reference Centre is a state of the art facility that underpins Galileo service provision," des Dorides said. "The GRC will be instrumental in monitoring the performance of the system and of the service operator, ensuring that users benefit from the most reliable satellite data and, at the same time, disclosing new service potential."

Read more in *GPS World* article. http://gpsworld.com/galileo-reference-centre-inaugurated-in-the-netherlands/?utm_source=gps_navigate&utm_medium=email&utm_campaign=gps_navigate_05222018&eid=376813635&bid=2113487

2018-05-21

Sydney Motorways Automated Car Trial Nudges Road Users Closer to Driverless Vehicles

The state's largest on-road automated vehicle trial is happening on Sydney's motorways. Experts predict driverless cars will be on the roads in five to 10 years. Transurban is doing everything it can to ensure its road infrastructure is ready for it.

Partnering up with Transport for NSW and Roads and Maritime Services, they began the state's largest on-road automated vehicle technology trial this year. A range of manufacturers have offered their vehicles to Transurban to put them through their

paces. Everything from automatic steering, cruise control, adaptive cruise control and automatic acceleration and deceleration are analysed for what is classed as SAE level two which is three steps from full automation.

In level two, vehicles take over steering and acceleration and deceleration in fixed scenarios. The driver is still in control but the features can help a driver stay in their lane and slow down to avoid cars in traffic.

It is thought this level will help with traffic congestion and reduce accidents on Sydney's roads.

The idea behind the six-month trial of level two cars is to find the problems in roads and the vehicle systems before these vehicles become "the norm". Line markings, LED signage, off ramps, speed signs on the back of buses, shadows on the road and glare have already been flagged as issues during the trial.

Read more in…

https://www.dailytelegraph.com.au/newslocal/parramatta/sydney-motorways-automated-car-trial-nudges-road-users-closer-to-driverless-vehicles/news-story/32aa75229c2961559ef53271e84d949e?csp=bf6c7516733b442626ad81f592f6eaab

2018-05-24

$260 Million for GNSS and Imagery

Under the federal government's 2018 budget, Geoscience Australia will receive a whopping $260 million to overhaul satellite-based positioning and data provision services for Australian GNSS and spatial data users. The investment will task Geoscience Australia (GA) with overhauling our space-based positioning infrastructure, which has indicated that it will allocate $224.9 million to the task. Of this figure, GA will use $160.9 million to develop a dedicated Australian SBAS (Satellite Based Augmentation System) to improve the accuracy of GPS coverage,

which will deliver a claimed 10 centimetre accuracy across Australia and its maritime zone.

The remaining $64 million will be directed towards developing National Positioning Infrastructure Capability (NPIC) to deliver a claimed 3 centimetre precision in areas with mobile coverage. Geoscience Australia said this will comprise of a ground station system and positioning software for industry, with some of this funding to go towards initiatives to boost coordination between business and government.

In announcing the investment, minister for Resources and Northern Australia Matt Canavan said that the improved positioning will improve productivity and facilitate the creation and uptake of new technology.

Read more in *Spatial Source* article. https://www.spatialsource.com.au/government-policy/precision-for-all-260-million-for-gnss-in-2018-budget

2018-05-09

Norway Opens E8 Borealis C-ITS Testbed with Truck Platooning Demonstration

The Norwegian Public Roads Administration (NPRA) has officially opened its Borealis Intelligent Transport Systems (ITS) testbed on the European route E8 highway with a demonstration of truck platooning involving its Swedish and Finnish partners.

The three-year Aurora Borealis international cooperation project was launched by the Finnish and Norwegian road authorities in 2016. The Norwegian Borealis pilot covers a 25 mile-long (40km) section of the E8 highway that runs from Skibotn to Kilpisjärvi. Finland has the corresponding Aurora project that continues along the E8 on the section running from Kilpisjärvi to Kolari.

On both sides of the border, the public highway has been equipped with Connected-ITS (C-ITS) technologies to allow wireless communications from vehicle-to-vehicle (V2V), vehicle-to-roadside infrastructure (V2I), and infrastructure-to-vehicle (I2V), to create an overall vehicle-to-everything (V2X) network.

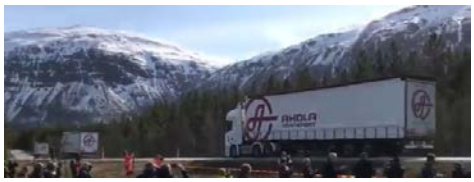
The road was selected for its socio-economic significance to both partners, as it is a route with demanding winter conditions and a large share of heavy vehicles, which covers 26% of

all traffic, and the quantity of freight traffic increasing by more than 70% since 2010. The partners will be trialling several interoperable examples of C-ITS technology, including real-time data exchange of information about the weather, road surface conditions, traffic accidents, automatic scanning of the vehicle's braking systems, and warnings of wildlife or other obstacles on the roadway.

Read more…

http://www.traffictechnologytoday.com/news.php?NewsID=91057

2018-05-14



Apple has Permits to Test 55 Self-driving Cars

After CEO Tim Cook admitted last summer that Apple was indeed working on self-driving car technology, the company largely has remained mum on details. But with state permits to operate 55 autonomous cars in California, it seems the iPhone maker could be ready to try out some of its autonomous car tech on Golden State roads.

In the latest tally of permits issued as of May 10 for both self-driving cars and drivers approved to monitor such vehicles, the California Department of Motor Vehicles says Apple ranks second only to General Motors' Cruise Automotive, which has permits for 104 vehicles.

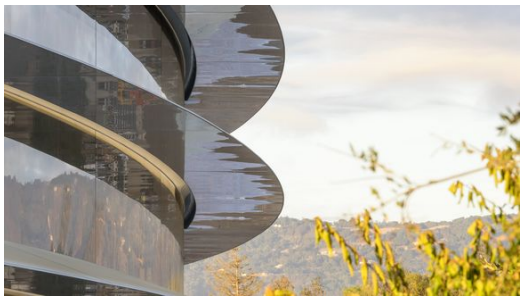
Waymo — the name of Alphabet's self-driving car company — arguably has spent the most time working on self-driving tech: nine years. It has permits for 51 vehicles.

Rounding out the top five are Tesla (39) and Drive.ai (14), a new start-up that recently announced it would be testing its technology in the Dallas area. The list, first reported by macReports, was provided to USA TODAY by the DMV. Dozens of companies have received permits from the DMV to test in California's 58 counties, many of them for just a few vehicles.

Read more…

https://www.usatoday.com/story/tech/talkingtech/2018/05/15/apple-has-permits-test-55-self-driving-cars-calif-roads/612534002/

2018-05-16



Ditching the Satnav: the Lost Secrets of Natural Navigation

Tristan Gooley has got me lost in the middle of London – which, I'll admit, isn't a terribly huge achievement. I'm routinely lost in the middle of London. My journeys tend to consist of a hard stare at a map app, 50 paces in the wrong direction and then a kind of abject sustained fumble until I arrive at wherever I'm supposed to be 10 minutes after I'm supposed to be there. And that's me with Google Maps. Without Google Maps, I'm 80% sure I would have given up and moved into a ditch some years ago.

However, this time is different. Gooley, often known as the Natural Navigator, has got me lost on purpose. He's covered my eyes and led me by the arm through the backstreets of central London, taking time to spin me around every now and again for maximum disorientation. And now, right in the middle of nowhere, he's asked me to take him to one specific Oxford Street branch of Wasabi.

Read more…

https://www.theguardian.com/lifeandstyle/2018/may/06/ditching-the-satnav-the-lost-secrets-of-natural-navigation

2018-05-06

Google Maps is Getting Augmented Reality Directions

Google showed off new features for Google Maps at I/O today, including an augmented reality Street View mode to help you follow directions in real time.

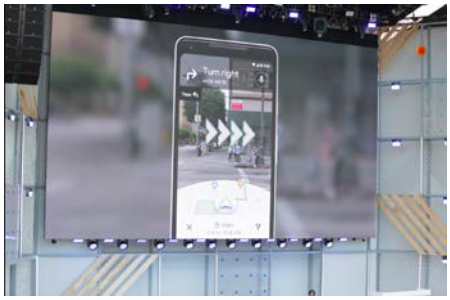
The new AR features combine Google's existing Street View and Maps data with a live feed from your phone's camera to overlay walking directions on top of the real world and help you figure out which way you need to go. It's a lot like the promises Google had made with the original version of Google Glass, except without the need for wearing an additional AR headset.

In addition to directions, the new AR mode can help identify nearby places, too, and Google is even testing adding a helpful augmented reality animal guide to lead you along the way. It's not entirely clear yet whether or not this is a tech demo or a product that will end up on our devices in the near future, but it certainly seems like the natural place for Google's machine vision tech to go.

Read more…

https://www.theverge.com/2018/5/8/17332480/google-maps-augmented-reality-directions-walking-ar-street-view-personalized-recommendations-voting

2018-05-08



Satellite Pair Arrive for Galileo's Next Rumble in the Jungle

The next two satellites in Europe's Galileo satellite navigation system have arrived at Europe's Spaceport in Kourou, French Guiana, ahead of their planned launch from the jungle space base in July.

Galileo satellites 23 and 24 left Luxembourg Airport on a Boeing 747 cargo jet on the morning of 4 May, arriving at Cayenne - Felix Eboue Airport in French Guiana that evening. They were then unloaded, still in their protective air-conditioned containers, and transported by truck to the cleanroom environment of the preparation building within Europe's Spaceport.

This pair will be launched along with another two Galileo satellites, which are due to be transported to French Guiana later this month.

Read more in *GPS Daily*.
http://www.gpsdaily.com/reports/Satellite_pair_arrive_for_Galileos_next_rumble_in_the_jungle_999.html

2018-05-10

MIT is Teaching Self-driving Cars to Deal with the Unknown

There are degrees of challenge for self-driving cars. Grid-based cities are the lowest of low-hanging fruits, and that's one reason why early tests took place in California, where not only are the roads straight, but there's little rainfall and conditions are generally favourable. The problem, of course, is that the majority of the world isn't made up of these dream circumstances – how does a driverless car cope when there's no 3D-map to guide it?

Country roads are the best example of this: they have very few markings, and are often completely unmapped because so few people use any given one that there's no real incentive to map them. But if driverless cars can't cope, then does that mean future generations will have to learn to drive just for these scenarios?

Not if MIT can help it. Researchers are currently working on a new framework called Maplite which they hope will allow driverless cars to figure out roads they've never driven on before, without the need for 3D maps. Combining Google Maps GPS data with the car's own LIDAR and IMU sensors, the idea is that the car can figure out the way the road is twisting and turning without needing to know exactly what lies ahead.

Read more…

http://www.alphr.com/cars/1009281/mit-driverless-cars-country-roads

2018-05-07

Stanford Aero/Astro Professor Per Enge, Expert in GPS, Dies at 64

Per K. Enge, the Vance D. and Arlene C. Coffman Professor in the School of Engineering and one of the world's foremost experts in GPS technologies, died April 22 at his home in Mountain View, California. He was 64.

Enge, a professor of aeronautics and astronautics, was best known for his work on GPS. He led deployment of two navigation systems in use today. The first began operation in 1995 and had over 1.5 million marine and land users as of 2014. The second system launched in 2003 and was, at last count, in use in over 100,000 aircraft and by more than 1 million land users. In another notable example, Enge led the team that designed a system that allowed planes to land themselves entirely unaided by human hands, even on the pitching decks of aircraft carriers at sea – in the dark.

"Anyone who works in GPS is aware of Per and his influence. He was just an intellectually talented person who could understand many scientific nuances and integrate them in ways others could not," says Brad Parkinson, widely considered to be the "father of GPS" and the man who recruited Enge to Stanford.

Read more…

https://news.stanford.edu/2018/04/26/aero-astro-professor-per-enge-expert-in-gps-dies-at-64/

2018-04-26

US Judge Orders GPS Monitoring for House-bound Cosby

Convicted sex offender Bill Cosby was ordered Friday 27 April to be fitted with a GPS monitor and undergo a violent sexual predators' assessment, allowed to leave home only for medical treatment or to meet his lawyers. Judge Steven O'Neill signed the order, clarifying the terms of the disgraced icon's $1 million bail, one day after a Pennsylvania jury found Cosby guilty on three counts of sexual assault.

The frail, 80-year-old Cosby -- once beloved as "America's Dad" -- faces a sentence of up to 30 years for drugging and molesting Andrea Constand at his Philadelphia mansion in

January 2004. Prosecutors on Thursday 26 April demanded his bail be revoked, arguing he was a flight risk -- but an irritated O'Neill refused to "simply lock him up right now."

The judge confined Cosby to his palatial residence in Cheltenham, the same home where the actor assaulted Constand 14 years ago, and instructed probation officers to fit him with a GPS monitor. Cosby can travel only within the greater Philadelphia area, and solely for medical treatment or to meet his legal team upon written request, O'Neill said.

Read more in *GPS Daily* article.
http://www.gpsdaily.com/reports/US_judge_orders_GPS_monitoring_for_house-bound_Cosby_999.html
2018-04-27

Mining Giants Speeding into Driverless Future

The trucks aren't getting any smaller but the number of drivers is shrinking as Australia's big iron ore producers lead the way in adopting autonomous technology. The giants of iron ore are rumbling into a future dominated by autonomous trucks, which have increased efficiency and cut down injuries on mine sites.

There are already no jobs for drivers at Fortescue Metals Group's Solomon mine in the Pilbara where more than 50 autonomous trucks are controlled from behind computer screens. The next big change in haul trucks similar to the one pictured looming over Gina Rinehart as she celebrated the ramp up of her Roy Hill mine to 55 million tonnes per annum could see the driver cabin disappear, leaving just a giant tray on wheels.
Leading manufacturers are working on new designs and it is almost two years since Komatsu showed off its cabless prototype at the MINExpo in Las Vegas. Rio Tinto's fleet of autonomous haul trucks in the Pilbara have already moved more than 1 billion tonnes of ore and waste material since trials started in 2008.

Rio has had no injuries attributed to the trucks since they were deployed and estimates that last year each autonomous truck operated about 700 hours more than conventional haul trucks.

Read more…

http://www.afr.com/business/mining-giants-speeding-into-driverless-future-20180503-h0zlvg
2018-05-03

La Trobe University's Autonobus Now Open for the Public to Try

La Trobe University's autonobus has been undergoing closed testing around the

Bundoora campus for four months, and from today it will be open to the public to

'Experience the future of transport in Victoria'.

The autonobus driverless shuttle is a collaboration between VicRoads, La Trobe University, RACV, ARRB (all iMOVE partners), RACV, Keolis Downer, and HMI, and is partially funded by the Victorian Government Smarter Journeys Program.
"We are excited to be offering Victorians a unique opportunity to step into the future and experience first-hand world-leading driverless technology," said Professor Ani Desai, the Director of La Trobe's Centre for Technology Infusion.

"The public's participation is essential. The success of all new technologies stands or falls with the end user adoption. That is why we are inviting anyone, not only the technology enthusiasts, to come and give us feedback. This feedback will help shape the future of transport in Victoria."

Read more….

https://imovecrc.com/news-articles/personal-public-mobility/la-trobe-university-driverless-shuttle-public-trial/

2018-04-23