

# Astronautical News

28 April 2017

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space  
cooperation**



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**Cassini radio signal from Saturn picked up after dive** The Cassini spacecraft is sending data back to Earth after diving in between Saturn's rings and cloudbtops. The probe executed the daredevil manoeuvre on Wednesday - the first of 22 plunges planned over the next five months - while out of radio contact.



**Houston Spaceport Breaks Ground On New Control Tower** A new, state-of-the-art air traffic control tower for the city of Houston's Ellington Airport and Spaceport is expected to be operational by the end of next year.



**ISRO aims at increasing satellite launches to 12 per year** The Indian Space Research Organisation is trying to increase its capacity to deliver by scaling up the frequency of launches to 12 per year from the seven at present by building more satellites and lowering the cost of access to space.



**US President signs Commercial Satellite Weather Bill** President Trump signed into law this week a weather bill that includes provisions formally authorizing ongoing commercial satellite weather data projects and a study of future weather satellite needs.



**We still haven't heard from aliens - here's why we might never** The most ambitious SETI project yet found nothing in its first data release, and a new approach suggests we might never make contact even if alien life is common.



**Innovation drives China's space exploration** China has always understood that only innovation can drive the country along the trajectory to becoming a space power. In the past year, scientists and engineers have made major breakthroughs in the technology needed for space exploration. Tianzhou-1, China's first cargo spacecraft, was launched into space and docked with the orbiting Tiangong-2 space lab last week.



**NASA spacesuits over budget, tight on timeline: audit** The United States is in a hurry to send people to Mars by the 2030s, but a key question remains for these deep space explorers: what will they wear? An audit report by the NASA Office of the Inspector General found that the US space agency has spent lots of money and time on developing new spacesuits, but has little to show for it.



**New Russian Medium-Class Carrier Rocket Could Compete With SpaceX's Falcon** A new medium-class carrier rocket to be developed in Russia will be able to compete with the Falcon rocket manufactured by the US-based SpaceX company, Russia's RSC Energia space corporation said.



**RSC Energia, Boeing Hammer Out a Deal on Sea Launch Project** Rocket and Space Corporation Energia (RSC Energia) and Boeing have finally managed to reach a settlement over a sizeable \$330 million debt incurred by the Russian company over the Sea Launch project. Russia's RSC Energia and US' Boeing have finally managed to hammer out a settlement following a lengthy litigation which began almost four years ago.



**China courts international coalition set up to promote space cooperation** A coalition was established Sunday in northwest China's Shaanxi Province to promote innovation and cooperation on space exploration under the the Belt and Road Initiative. The coalition, set up in the provincial capital of Xi'an, encompasses 48 universities, research institutes and academic organisations at home and abroad.



**NASA and ESA join forces to build life-seeking Europa lander** The space agencies just announced a bold plan to search for aliens on Jupiter's icy moon through a joint American-European mission



**NASA's Cassini, Voyager missions suggest new picture of Sun's interaction with galaxy** New data from NASA's Cassini mission, combined with measurements from the two Voyager spacecraft and NASA's Interstellar Boundary Explorer, or IBEX, suggests that our sun and planets are surrounded by a giant, rounded system of magnetic field from the sun - calling into question the alternate view of the solar magnetic fields trailing behind the sun in the shape of a long comet tail.



**Chinese space scientists study human organs in space** Scientists around the world are looking for the "keys" to enable humans to regrow tissues or organs lost due to illness or injury, just like gecko can regrow a tail. Their quest now extends into space. Stem cell research on Tianzhou-1, China's first cargo spacecraft, is far from realizing this dream, but it's the first step to explore the possibility.

## Recent Launch Activities

**China launches first cargo spacecraft Tianzhou-1** A Chinese rocket successfully sent the country's first cargo spacecraft, Tianzhou-1, into space from the southern island province of Hainan. Fuelled by liquid oxygen and kerosene, the Long March-7 Y2 carrier rocket blasted off from Hainan's Wenchang Space Launch Centre.  
(21 April 2017)

**Orbital cargo mission lifts off to ISS** Orbital ATK's seventh NASA-contracted International Space Station resupply mission lifted off from Cape Canaveral on April 18.  
(19 April 2017)

**Long March 3B launches experimental ChinaSat-16 satellite** The Chinese returned to launch action with the lofting of a new experimental communications satellite from the Xichang Satellite Launch Centre. The launch was conducted by the Long March 3B G2 'Chang Zheng-3B/G2' (Y43) from the LC2 Launch Complex in Sichuan province.  
(12 April 2017)

**Success for SpaceX 're-usable rocket'** SpaceX has successfully re-flown a segment from one of its Falcon 9 rockets. The first-stage booster, which was previously used on a mission 11 months ago, helped send a telecommunications satellite into orbit from Florida's Kennedy Space Center. It marks an important milestone for SpaceX in its quest for re-usability.  
(31 March 2017)

## Development Activities

**New Russian Medium-Class Carrier Rocket Could Compete With SpaceX's Falcon** A new medium-class carrier rocket to be developed in Russia will be able to compete with the Falcon rocket manufactured by the US-based SpaceX company, Russia's RSC Energia space corporation said.  
(28 April 2017)

**NASA could use a miniaturised satellite to test Europa moon's dust and radiation** Studying the dust particles around Jupiter's famous icy moon would indirectly reveal details about its surface, and its habitability prospects.  
(15 April 2017)

**France, Japan aim to land probe on Mars moon** France and Japan want to recover pieces of a Martian Moon and bring them back to Earth, the head of France's National Centre for Space Studies (CNES) said. The Martian Moons Exploration project would launch a probe in 2024 destined for Phobos, the largest and closest of two moons circling the Red Planet.  
(15 April 2017)

**China's lunar sample return mission will pave way for future ambitions** Later this year, China is launching the Change'5 spacecraft to return a sample from the Moon. The mission will pave the way for future ambitions, including crewed trips to the lunar surface.  
(7 April 2017)

**China planning long-term deep-space robotic missions** China's space organizations are beginning to plan science missions beyond Mars, even as its engineers prepare to return samples from the Moon to Earth this year, and from Mars by 2030.  
(6 April 2017)

**Russia to build first new-generation 'Federation' spacecraft by 2021** The first Russian next-generation manned spacecraft called the Federation, which is 80 percent built of composite materials, will be manufactured by 2021, Russia's Energia space corporation said.  
(22 March 2017)

**ESA's Jupiter mission moves off the drawing board** Demanding electric, magnetic and power requirements, harsh radiation, and strict planetary protection rules are some of the critical issues that had to be tackled in order to move ESA's Jupiter Icy Moons Explorer - Juice - from the drawing board and into construction.  
(17 March 2017)

**Blue Origin developing 10,000-lb. lunar polar lander** A robotic lunar lander capable of delivering as much as 10,000 lb. of cargo to a permanent outpost on the rim of the Moon's polar Shackleton Crater could make its first flight by July 2020, with a little help from NASA. Blue Origin owner Jeff Bezos said that his company has been working on a cargo lander that would support a human base set up in a zone of almost full-time sunlight on the crater's rim.  
(4 March 2017)

## ISS Activities

**Cygnus docks with ISS, delivering 28 Cubesats from multiple customers** Orbital ATK's Cygnus (OA-7) spacecraft successfully berthed to the International Space Station (ISS) after launching 18 April. This mission is NanoRacks' largest CubeSat mission to date - carrying 38 CubeSats to be deployed from NanoRacks deployers on both the ISS and on the outside of Cygnus.  
(24 April 2017)

**Two new crew members arrive at International Space Station** After a six-hour flight, NASA astronaut Jack Fischer and cosmonaut Fyodor Yurchikhin of the Russian space agency Roscosmos arrived at the International Space Station at 9:23 a.m. EDT Thursday where they will continue important scientific research.  
(21 April 2017)

**Two Russians, one American land back on Earth from ISS** Two Russian cosmonauts and a US astronaut touched down safely in central Kazakhstan Monday following a 173-day mission aboard the International Space Station. NASA astronaut Shane Kimbrough was accompanied by Russian space agency cosmonauts Sergei Ryzhikov and Andrei Borisenko.  
(11 April 2017)

**Russia could stay with the International Space Station to 2028** The orbital outpost is presently slated to be retired as early as 2024.  
(10 April 2017)

**Spacewalks to advance Space Station commercial crew dockings** NASA is prepped to lay the groundwork for the installation of the second of two U.S. International Space Station commercial docking ports with a series of spacewalks.  
(24 March 2017)

## Space Tourism

**No Roscosmos plans to send space tourists to ISS before 2020** Russia's Roscosmos state corporation has no plans to send space tourists to the country's segment of the International Space Station (ISS) before 2020, Roscosmos deputy director general for international cooperation told Sputnik in an interview.  
(11 April 2017)

**Space debris problem getting worse, say scientists** Scientists sounded the alarm over the problems posed to space missions from orbital junk - the accumulating debris from mankind's six-decade exploration of the cosmos. In less than a quarter of a century, the number of orbiting fragments large enough to destroy a spacecraft has more than doubled, a conference in Germany heard.

(19 April 2017)

**ESA helps faster cleaner shipping** With around 90% of world trade carried by ships, making sure a vessel follows the fastest route has clear economic benefits. By merging measurements from different satellites, ESA is providing key information on ocean currents, which is not only making shipping more efficient but is also helping to reduce carbon dioxide emissions.

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(15 April 2017)

**China considering cooperation with Russia on space debris** China is contemplating developing cooperation with Russia with respect to space debris, China's National Space Administration Secretary-General Yulong Tian told Sputnik.

(12 April 2017)

**China's BeiDou system to expand cooperation to SE Asia** China's home-grown BeiDou Navigation Satellite System (BDS) will expand its cooperation to Thailand and Sri Lanka, and then to the entire Southeast Asia, in a bid to go global, the system's operator has said.

(1 April 2017)

**Decommissioned Earth Science satellite to remain in orbit for decades** A NASA Earth science satellite whose mission is ending this week will remain in orbit through the middle of the century, far longer than the limit set by orbital debris mitigation guidelines.

(30 March 2017)

**Satellites shed new light on earthquakes** Satellite radar scans of last year's earthquake in New Zealand are changing the way we are thinking about earthquake hazards in regions where our planet's tectonic plates meet.

(25 March 2017)

**ICESat-2 to provide more depth to sea ice forecasts** In March, the Arctic sea ice pack is supposed to reach its greatest extent - but this year it's far below average, off by an area about the size of Texas and New Mexico combined. Satellite observations currently reveal how much of the ocean surface is covered by ice, but there is another critical measurement to make.

(23 March 2017)

**30 years of deforestation** While the world marks the International Day of Forests, satellites continue to monitor the long-term effects of human activities on our planet's precious resources

(22 March 2017)

**Copernicus Sentinel-2B delivers its first images** Just over a week after being lofted into orbit, the European Union's Sentinel-2B satellite delivered its first images of Earth, offering a glimpse of the 'colour vision' it will provide for the Copernicus environmental monitoring programme.

(16 March 2017)

**NASA studies growing Louisiana deltas** The Louisiana coastline is sinking under the Gulf of Mexico at the rate of about one football field of land every hour (about 18 square miles of land lost in a year). But within this sinking region, two river deltas are growing. The Atchafalaya River and its diversion channel, Wax Lake Outlet, are gaining about one football field of new land every 11 and 8 hours, respectively.

(28 February 2017)

**Using high-resolution satellites to measure African farm yields** Stanford researchers have developed a new way to estimate crop yields from space, using high-res photos snapped by a new wave of compact satellites. The approach, detailed in the February 13 issue of the journal of the Proceedings of the National Academy of Sciences, could be used to estimate agricultural productivity and test intervention strategies in poor regions of the world.

(25 February 2017)

**Turn satellites into sparkling fireworks to burn up space junk** Satellite debris that falls to Earth could be deadly, but pellets made of a heat-generating mixture could help them burn up safely in the atmosphere

(19 February 2017)

**100 Earth-shattering remote-sensing applications and uses** This list may change the way you feel about how this industry is changing our world and the way we think.

(13 February 2017)

**CryoSat reveals lake outbursts beneath Antarctic ice** A novel way of using ESA's CryoSat mission has revealed how lakes beneath Thwaites Glacier drained into the Amundsen Sea - potentially the largest such outflow ever reported in this region of West Antarctica.

(11 February 2017)

**Keeping space communications reliable for an "always on" world** So many of the services we all depend on today are powered by space communications. Without space the world economy, in many ways, turns back half a century in time. For some time now, we have been hearing from the Pentagon that space is no longer the sanctuary it once was.

(7 February 2017)

**Sea ice cover in 2016 is lowest ever recorded** Latest data from ISRO's weather monitoring satellite SCATSAT-1 has revealed changes in the sea ice cover over the Arctic and the Antarctic. According to ISRO, the changes in the Arctic summer minimum sea ice cover were observed using SCATSAT-1 data collected on October 02, 2016, and compared it with OSCAT data collected on October 02, 2011. It was observed that sea ice cover during 2016 is lower than that observed in 2011, which was earlier lowest sea ice record.

(6 February 2017)

**Satellites counting whales from space revolutionising monitoring techniques for researchers** A research team in Perth is becoming familiar with what whales look like from space. They have commissioned two satellite images to be taken from 600 kilometres above Earth in order to do an accurate headcount of humpbacks migrating up the WA coast.

(5 February 2017)

**Time to make sure Europe's troubled satnav system really flies** Europe's costly Galileo satnav network has been branded a vanity project. In an isolationist world, it now seems a wise insurance policy, says Paul Marks

(4 February 2017)

**ISRO to launch backup satellite to replace IRNSS-1A** India will launch one of its back up navigation satellites this year as a replacement to IRNSS-1A satellite, whose three atomic clocks have failed, ISRO said. The agency denied the existence of similar problems with the rubidium atomic clocks in another navigation satellite.

(4 February 2017)

**African villagers use satellite data to help save wild chimpanzees** Given that chimpanzees are a keystone species and the closest extant relative to humans, their rapid decline in the wild has sparked widespread concern. In response, NASA and the Jane Goodall Institute partnered on a project that aims to use space-down views of chimpanzee habitats to guide local activists involved in conservation.

(31 January 2017)

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**NASA's Cassini, Voyager missions suggest new picture of Sun's interaction with galaxy** New data from NASA's Cassini mission, combined with measurements from the two Voyager spacecraft and NASA's Interstellar Boundary Explorer, or IBEX, suggests that our sun and planets are surrounded by a giant, rounded system of magnetic field from the sun - calling into question the alternate view of the solar magnetic fields trailing behind the sun in the shape of a long comet tail.  
(26 April 2017)

**China's first cargo spacecraft docks with space lab** China's first cargo spacecraft, Tianzhou-1, successfully completed docking with an orbiting space lab, the Beijing Aerospace Control Center said.  
(24 April 2017)

**Gaia's snapshot of another galaxy** While compiling an unprecedented census of one billion stars in our Galaxy, ESA's Gaia mission is also surveying stars beyond our Milky Way. A new image of M33, also known as the Triangulum galaxy, shows tens of thousands of stars detected by Gaia, including a small stellar census in its star-forming region NGC 604.  
(24 April 2017)

**Cassini probe heads towards Saturn 'grand finale'** Cassini has used a gravitational slingshot around Saturn's moon Titan to put it on a path towards destruction. The flyby swept the probe into an orbit that takes it in between the planet's rings and its atmosphere. This gap-run gives the satellite the chance finally to work out the length of a day on Saturn, and to determine the age of its stunning rings. But the manoeuvre means also that it cannot escape a fiery plunge into Saturn's clouds in September.  
(22 April 2017)

**NASA and partners survey space weather science** NASA scientists worked with scientists and engineers from research institutions and industry during a pair of intensive week-long workshops in order to assess the state of science surrounding this type of space weather.  
(22 April 2017)

**Saturn moon 'able to support life'** Saturn's ice-crusted moon Enceladus may now be the single best place to go to look for life beyond Earth. The assessment comes on the heels of new observations at the 500km-wide world made by the Cassini probe. It has flown through and sampled the waters from a subsurface ocean that is being jetted into space. Cassini's chemistry analysis strongly suggests the Enceladean seafloor has hot fluid vents - places that on Earth are known to teem with life.  
(14 April 2017)

**New Horizons spacecraft enters hibernation** The New Horizons spacecraft has entered hibernation, reported by Johns Hopkins University Applied Physics Laboratory.  
(13 April 2017)

**Milky Way stars on the move - satellite data used to see into the future** The motion of 2 million stars over the course of 5 million years into the future is depicted in this new animation from the European Space Agency. Data from their Gaia Mission was used to create it.  
(13 April 2017)

**Metal detected in Mars' Atmosphere** NASA's MAVEN spacecraft has spotted iron, magnesium and sodium ions ?? electrically charged atoms - high up in the Red Planet's atmosphere over the past two years, a new study reports.  
(12 April 2017)

**Cassini prepares for last plunge** NASA's unmanned Cassini spacecraft is preparing for its final plunge into Saturn later this year, after two decades of helping Earth-bound scientists make new discoveries about the sixth planet from the Sun and its mysterious rings.  
(8 April 2017)

**NASA observations reshape basic plasma wave physics** When NASA's Magnetospheric Multiscale - or MMS - mission was launched, the scientists knew it would answer questions fundamental to the nature of our universe - and MMS hasn't disappointed. A new finding, presented in a paper in Nature Communications, provides observational proof of a 50-year-old theory and reshapes the basic understanding of a type of wave in space.  
(6 April 2017)

**Prolific Mars Orbiter Completes 50,000 Orbits** The most data-productive spacecraft yet at Mars swept past its 50,000th orbit this week, continuing to compile the most sharp-eyed global coverage ever accomplished by a camera at the Red Planet. In addition, the spacecraft - NASA's Mars Reconnaissance Orbiter (MRO) - recently aided preparations for NASA's next mission to Mars, the InSight lander.  
(3 April 2017)

**NASA orbiter shows Mars lost 90 per cent of its CO2 to space** The MAVEN spacecraft has completed the key part of its mission: to track down how much argon Mars's atmosphere is giving up as a proxy for carbon dioxide loss  
(2 April 2017)

**ExoMars: Rover scientists to study Mawrth Vallis option** Scientists are going to investigate a second site on Mars as a possible destination to send ESA's 2021 rover. Scientists spent two days considering the options and plumped in the end for Mawrth Vallis - an area rich in clay minerals that must have formed during prolonged rock interactions with water. Mawrth joins Oxia Planum, which was selected for study in 2015.  
(29 March 2017)

**New treasures from Juno: Jupiter dazzles during fourth close approach** Image processor Björn Jönsson shares some of his latest stunning images of Jupiter, created using data from NASA's Juno spacecraft.  
(28 March 2017)

**NASA's SDO sees a stretch of spotless Sun** For 15 days starting on March 7, 2017, NASA's Solar Dynamics Observatory, or SDO, returned visible light images of a yolk-like spotless sun. This is the longest stretch of spotlessness since the last solar minimum in April 2010, indicating the solar cycle is marching on toward the next minimum, which scientists predict will occur between 2019- 2020.  
(26 March 2017)

**China's first cargo spacecraft to make three rendezvous with Tiangong-2** China's first cargo spacecraft Tianzhou-1 is expected to dock with the orbiting Tiangong-2 space lab three times after its planned launch in April, sources said. Tianzhou-1 will be sent into space from the Wenchang Space Launch Center in south China's Hainan Province aboard a Long March-7 Y2 carrier rocket.  
(9 March 2017)

**Orbiter steers clear of Mars moon Phobos** NASA's MAVEN spacecraft performed a previously unscheduled manoeuvre to avoid a collision in the near future with Mars' moon Phobos. The Mars Atmosphere and Volatile Evolution (MAVEN) spacecraft has been orbiting Mars for just over two years, studying the Red Planet's upper atmosphere, ionosphere and interactions with the sun and solar wind.  
(4 March 2017)

**Increasing the sensitivity of next-generation gravitational wave detectors** Nearly one year ago the LIGO Collaboration announced the detection of gravitational waves, once again confirming Einstein's theory of General Relativity. This important discovery by the Advanced Laser Interferometer Gravitational-Wave Observatory (aLIGO) has spurred great interest in improving these advanced optical detectors.  
(27 February 2017)

**Kepler's 'second life' - DLR researchers find six planets** In 2009, NASA's Kepler space probe was launched, embarking on a mission to hunt for exoplanets. In 2013, due to the failure of two of its reaction wheels, the mission had to be modified. Mission control managed to change the operational modus and manoeuvre the telescope orbiter into a different position in its orbit around the Sun that enabled the mission to continue.  
(24 February 2017)

**Wonderful potentially habitable worlds around TRAPPIST-1** Scientists have found seven, Earth-size planets orbiting a star just 40 light years away. Three lie in the habitable zone and could have water on their surfaces.  
(23 February 2017)

**NASA's Kepler mission could detect exomoons formed by giant impacts** The hunt is on for moons orbiting distant exoplanets - but only the most massive "exomoons" may be detectable.  
(21 February 2017)

**Juno Jupiter probe won't move into shorter orbit** NASA's Juno spacecraft won't move into a closer orbit around Jupiter as originally planned, agency officials announced.  
(20 February 2017)

**Big data for the universe** Astronomers at Lomonosov Moscow State University in cooperation with their French colleagues and with the help of citizen scientists have released "The Reference Catalog of galaxy SEDs" (RCSED), which contains value-added information about 800,000 galaxies.  
(13 February 2017)

**Who will get first dibs on the powerful James Webb Space Telescope?** NASA has issued solicitation for science projects using the long-awaited and incredibly powerful successor to Hubble, which is scheduled to launch next year.  
(10 February 2017)

**Angling up for Mars science** ESA's latest Mars orbiter has moved itself into a new path on its way to achieving the final orbit for probing the Red Planet.  
(9 February 2017)



**China courts international coalition set up to promote space cooperation** A coalition was established Sunday in northwest China's Shaanxi Province to promote innovation and cooperation on space exploration under the Belt and Road Initiative. The coalition, set up in the provincial capital of Xi'an, encompasses 48 universities, research institutes and academic organisations at home and abroad.

(28 April 2017)



**ESA boosting its Argentine link with deep space** Thanks to some high-tech improvements, ESA's radio dish in Argentina will be ready to receive the rising torrent of scientific data beamed back by future missions exploring deep in our Solar System.

(27 April 2017)



**Houston Spaceport Breaks Ground On New Control Tower** A new, state-of-the-art air traffic control tower for the city of Houston's Ellington Airport and Spaceport is expected to be operational by the end of next year.

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(25 April 2017)



**US President signs Commercial Satellite Weather Bill** President Trump signed into law this week a weather bill that includes provisions formally authorizing ongoing commercial satellite weather data projects and a study of future weather satellite needs.

(23 April 2017)



**Australia's back in the satellite business with a new launch** The first Australian-built satellites to be launched in 15 years have been sent to the International Space Station where they will be deployed from. Unlike the enormous satellites Australia uses for telecommunications, each of these new satellites is the size of a loaf of bread. But although small, they may provide a key step in enabling Australia's entry into the global satellite market.

(22 April 2017)



**Mongolia launches its first satellite** Mongolia launched its first satellite on Wednesday, part of its efforts to make use of new technology to diversify its resource-dependent economy.

(20 April 2017)



**Creation of carrier rocket for Baiterek Space Complex to cost Russia \$500M** In The director of the joint Kazakh-Russian enterprise JSC Baiterek said that the creation of a carrier rocket for the joint Russian-Kazakh Baiterek Space Complex at the Baikonur cosmodrome will approximately cost Russia \$500 million, while the Kazakh side will finance the modernization of the existing facilities at the cosmodrome.

(20 April 2017)



**Russia and US woo Brazil, hope to use advantageous base for space launches** Russia, France, the United States and Israel are interested in using Brazil's Alcantara Launch Center (CLA) for space launches, according to Brazilian Defense Minister Raul Jungmann; the CLA is valued internationally for being the closest launch centre to the equator.

(20 April 2017)



**China's National Space Agency outlines space exploration agenda** China is pushing forward on a number of space fronts, including milestone-making robotic missions to the moon, as well as scoping out an automated Mars sample-return mission by 2030.

(17 April 2017)



**Brexit raises question mark over UK's role in some European space projects** The future participation of major segments of Britain's space industry in Europe's Galileo navigation system and Copernicus environmental network, two multibillion-dollar flagship programmes with dozens of satellites, is sure to be a significant part of negotiations as the UK withdraws from the European Union, according to a member of the European Commission.

(17 April 2017)



**BAE Systems to develop U.S. space, missile defense tech** BAE Systems received a contract to research and develop new space and missile defense technologies for the U.S. Army, the company announced. The enterprise is one of eight contractors to compete for the \$3 billion indefinite delivery, indefinite quantity deal. It was awarded by the U.S. Army's Space and Missile Defense Command/Army Forces Strategic Command, or SMDC/ARSTRAT.

(16 April 2017)



**Two Vostochny launches expected in late 2017** Russia plans to hold two launches from its newest Vostochny space centre in the Far East this December, the head of the Roskosmos space corporation told the Rossiiskaya Gazeta government daily.

(14 April 2017)



**SSL completes agreement to partner with DARPA on satellite servicing** Space Systems Loral (SSL) announced that it has signed and executed an agreement with the U.S. Defense Advanced Research Projects Agency (DARPA) to develop advanced capabilities for servicing and maintaining spacecraft in geostationary orbit.

(13 April 2017)



**SES and Luxembourg government extend SATMED E-Health contract** SES and the Luxembourg Ministry of Foreign and European Affairs report that they have extended a contract to maintain and support SATMED, an e-health satellite platform, until 2020.

(11 April 2017)



**Ukraine in talks with ESA to become member** Ukraine's State Space Agency is currently in accession discussions with the European Space Agency (ESA) to become its member.

(10 April 2017)



**Russia critical to ExoMars Project says Italian Space Agency Head** Russia is a fundamental partner in the joint project between the European Space Agency (ESA) and Russia's Roscosmos space corporation ExoMars, Italian Space Agency (ASI) President Roberto Battiston told Sputnik.

(8 April 2017)



**Norway joins US Strategic Command space data sharing programme** The U.S. Strategic Command is to share space situational services and data with Norwegian government agencies under a memorandum of understanding.

(8 April 2017)



**Russia offering Brazil to develop Gonets-like satellite system** Director General of Russia's Reshetnev Information Satellite Systems company said that Russia is offering Latin American states, in particular Brazil, to develop a satellite communications system similar to Gonets system, which will be capable to completely meet the communication needs of the region.

(6 April 2017)



**Russian plant to overhaul nearly all Proton rocket engines in 2017** Russia's Voronezh Mechanical Plant will overhaul nearly all the recalled engines for the Proton launch vehicles this and next year, the head of Russia's Energomash space and rocket engine manufacturer told Sputnik. Energomash Director General Igor Arbutov said the 71 engines constitute "almost all of the second and third stage reserves."

(4 April 2017)



**ISRO to outsource satellite manufacturing after 30 years** Having been unable to keep pace with satellite fabrication, the ISRO is involving private industry to bridge the gap.

(3 April 2017)



**Ukraine firms to supply rockets for spaceport** Ukraine's aerospace giants Yuzhmash and Yuzhnoye Design Office have agreed to supply rockets to launch satellites into space from a new spaceport to be built in eastern Canada. This tracks with a trend of Ukraine industry of replacing traditional Russian partners with new Western ones.

(1 April 2017)

## Opportunities

### **NASA AFRC Internship - NASA (United States)**

previous work. Students are given an opportunity to interact with NASA researchers, engineers, and technicians in design, construction, implementation, verification

### **NASA History Division Internship - NASA (United States)**

As part of NASA 's Office of Communications, student interns will assist the NASA History Division by writing our social media posts; writing features for our Web

### **NASA Journalism and Multimedia Fall Internship - NASA (United States)**

INTRODUCTION: NASA invites students working towards degrees in journalism, communications, media relations, science writing, interactive journalism, or broadcast

### **NASA LaRC: Crew Systems and Aviation Operations - NASA (United States)**

NASA is conducting research in the areas of intelligent flight systems, autonomous systems, aviation operations, flight deck systems, and crew

### **NASA LaRC: Flight Deck Technologies - NASA (United States)**

NASA is conducting research into Increasingly Autonomous Systems (IAS) for the flight deck. This work involves computer programming, machine learning, and human in

### **Business Analyst**

For one of our main customers ESAESTEC, we are currently looking for a Business Analyst who will give support to the Business Management Administration Functions, onsite at ESTEC. The European Space Agency is ATGs biggest client. They are an international organisation with 22 member states with sites in the Netherlands, Germany, Spain, France, Italy, UK and Belgium. ESA is Europes gateway to Space! Task Responsibilities Contribute to, implement and validate the Planning, Budget and controlling reporting environment by Collecting requirements Validating and improving data sources Documenting Data model and architecture Settingup HWSW architecture Contribute to producing training material and delivery to end users Contribute to the Data Conversion and generation when needed activities Work with and report to the reporting process leader andor deputy process leader Participate to the solution delivery meeting and any other meeting as required by reporting process leader andor de...

### **Data Management Analyst - NASA Open Data Project - Qualified Technical Services, Inc (United States)**

Work Location: NASA Ames Research Center (Mountain View, CA) Minimum Citizenship: US Citizen Clearance: US Government JOB DESCRIPTION Interested in improving the

### **Data Management Analyst/technical Writer, \*Nasa\* Project Open Data - Sgt Incorporated (United States)**

Data Management Analyst/Technical Writer, NASA Project Open Data Information Technology Moffett Field, California Job ID: 20308 I'm Interested! Description

### **Development of Advanced Optical Diagnostics for NASA Ground Test Facilities - NASA (United States)**

of several non-intrusive, advanced optical measurement techniques for use in NASA wind tunnel facilities in support of several strategic thrusts identified

### **Engineering internship with SOFIA at NASA Armstrong - NASA (United States)**

Provide potential experience in leadership, engineering, and astronomy. The student will assist the SOFIA Program in the development and integration of various

### **Full Stack Developer - NASA Open Data Project - Qualified Technical Services, Inc (United States)**

Work Location: NASA Ames Research Center (Mountain View, CA) Minimum Citizenship: US Citizen Clearance: US Government REQUIREMENTS Education: BS Discipline(s):

### **Galileo GCS Information Assurance Architect**

Airbus is a global leader in aeronautics, space and related services. In 2016, it generated revenues of 67 billion and employed a workforce of around 134,000. Airbus offers the most comprehensive range of passenger airliners from 100 to more than 600 seats. Airbus is also a European leader providing tanker, combat, transport and mission aircraft, as well as Europe's number one space enterprise and the world's second largest space business. In helicopters, Airbus provides the most efficient civil and military rotorcraft solutions worldwide. Our people work with passion and determination to make the world a more connected, safer and smarter place. Taking pride in our work, we draw on each other's expertise and experience to achieve excellence. Our diversity and teamwork culture propel us to accomplish the extraordinary on the ground, in the sky and in space. A vacancy for an Information Assurance Architect has arisen within Airbus Defence and Space in Portsmouth. Airbus DS requires a secur...

### **Galileo GCS IT Infrastructure Project Manager**

Airbus is a global leader in aeronautics, space and related services. In 2016, it generated revenues of 67 billion and employed a workforce of around 134,000. Airbus offers the most comprehensive range of passenger airliners from 100 to more than 600 seats. Airbus is also a European leader providing tanker, combat, transport and mission aircraft, as well as Europe's number one space enterprise and the world's second largest space business. In helicopters, Airbus provides the most efficient civil and military rotorcraft solutions worldwide. Our people work with passion and determination to make the world a more connected, safer and smarter place. Taking pride in our work, we draw on each other's expertise and experience to achieve excellence. Our diversity and teamwork culture propel us to accomplish the extraordinary on the ground, in the sky and in space. A vacancy for a GCS IT Infrastructure Project Manager has arisen within Airbus Defence Space in Portsmouth. An experienced IT system...

### **Galileo GCS IT Security Engineer**

Airbus is a global leader in aeronautics, space and related services. In 2016, it generated revenues of 67 billion and employed a workforce of around 134,000. Airbus offers the most comprehensive range of passenger airliners from 100 to more than 600 seats. Airbus is also a European leader providing tanker, combat, transport and mission aircraft, as well as Europe's number one space enterprise and the world's second largest space business. In helicopters, Airbus provides the most efficient civil and military rotorcraft solutions worldwide. Our people work with passion and determination to make the world a more connected, safer and smarter place. Taking pride in our work, we draw on each other's expertise and experience to achieve excellence. Our diversity and teamwork culture propel us to accomplish the extraordinary on the ground, in the sky and in space. A vacancy for a Galileo GCS IT Security Engineer has arisen within Airbus Defence Space in Portsmouth. A versatile IT Security engineer...

### **Galileo Ground Segment Operations Engineer**

HE Space is a successful international space company. For over 30 years, we have been supporting our customers with qualified experts in the field of engineering, science and administration. We are currently looking for a Galileo Ground Segment Operations Engineer to support our customer in Germany. Galileo Ground Segment Operations Engineer Key Tasks and Responsibilities As part of the Ground Operations Team, you will have the following responsibilities: Prepare, support, execute system, segment and element operation validation activities. This includes the definition of validation scenarios, plans or test cases and the procedure development and validation, testing, result reporting. Develop, review, update Operations Plans and Operations Concept documents. Preparation of SCTC and simulation. Assist with the planning and coordination of GCS maintenance activities across both sites and GMS backup activities at GCCD and providing Take over ground position duty on call support of routine, special an...

### **Ingenieur navigation par satellite HF**

Le Centre National d'Etudes Spatiales propose aux pouvoirs publics la politique spatiale de la France et la met en œuvre dans 5 grands domaines stratégiques: Ariane, les Sciences, l'Observation, les Télécommunications et la Défense. Afin de rester au premier rang mondial, anticipation, vision, innovation, imagination et rapidité d'action sont nécessaires et font l'objet d'un plan prioritaire pour les années à venir. Innovation et Inspiration. Pour en savoir plus: [www.cnes.fr](http://www.cnes.fr). Ingenieur dans le domaine de la navigation par satellite, vous assurez des activités d'ingénierie et de développement liées aux techniques d'augmentation GNSS permettant d'améliorer la précision et l'intégrité du positionnement. Vous contribuez au développement des traitements et l'évolution des moyens qui permettent de diffuser les corrections PPP aux utilisateurs et de les traiter. Vous contribuez également à l'amélioration des algorithmes et aux validations associées: ex: amélioration de robustesse, intégrité, en relation avec les partenaires externes...

### **Junior Engineer, Software**

SES is the world-leading satellite operator with a fleet of more than 50 geostationary satellites. The company provides satellite communications services to broadcasters, content and internet service providers, mobile and fixed network operators and business and governmental organizations worldwide. SES stands for long-lasting business relationships, high-quality service and excellence in the satellite industry. The culturally diverse regional teams of SES are located around the globe and work closely with customers to meet their specific satellite bandwidth and service requirements. SES holds a participation in O3b Networks, a next-generation satellite network combining the reach of satellite with the speed of fiber. This project-related position will primarily support the design, development and verification of Network Monitoring Systems, Operational Support Systems and Business Support Systems NMS/OSS/BSS for SES Techcom Services satellite broadband platforms and managed services. This ...

### **Operations Engineer**

The Operations Engineer reports to the Galileo Operations and Maintenance Manager. Such hierarchical reporting may change as soon as the Galileo exploitation enters its next phase. The Operations Engineer will be involved in the Galileo and/or SAR operations, depending on operational needs, priorities and his/her main areas of competence. The Operations Engineer tasks and responsibilities will in principle include without limitation and subject to adjustment by his/her reporting line manager: Contributing to the technical management of the service operations contracts GSOP and SGDSP managed by the Agency, in the area of Ground and Space segments operations; Preparing for and participating in project reviews; Participating in monitoring the operational validation activities; Reviewing regular e.g. daily, weekly, monthly and quarterly and ad hoc reports produced by operations contractors on all topics related to operations; Reviewing Observation Reports, Anomaly Reports and Incidents Reports, pr...

### **Part time Electrical Technician 24h/week**

Job Description Full details on application. Relocation assistance provided if applicable. Job Introduction Serco is a specialist at delivering vital services on behalf of European, National and Local Governments. Serco Europe employs a large workforce in Belgium, Luxembourg, France,

Switzerland, Germany, Holland, Spain, Italy and the UK. Our European operations have ca. 2,000 employees delivering critical services to public institutions throughout Europe. Main Responsibilities The candidate will support the ESTEC Electrical Engineers in all aspects of electrical engineering tasks and be appointed as a Work Responsible in control of work activities on High and Low Voltage, in accordance with NEN EN 50110. The position covers the following activities, including but not limited to Supervision of the annual preventive maintenance scheme in the domain together with the maintenance contractor Supervision of preventive and corrective maintenance as well as repairs in the domain in liaison w...

### **Quality Assurance Competence Area Manager**

Europe's Meteorological Satellite EUMETSAT is inviting candidates to apply for their exciting new vacancy. If you have strong experience in Quality Assurance management and are looking to utilise your skills in a multicultural and dynamic environment, then take advantage of this attractive offer. This is a brand new role, based within an international organisation, offering variation and scope for development. As Quality Assurance Competence Area Manager QA CAM you will lead several teams of Quality Assurance engineers specialists who are involved with supporting areas across the organisation. You shall ideally have a high tech aerospace background along with experience working within a matrix organisation. This is a challenging yet rewarding role offering a variety of tasks and responsibilities. Along with a university degree, or equivalent, in Engineering, Physics or Computer Science, you shall ideally have skillsexperience in each of the following areas Extensive experience in Quality...

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