

# Astronautical News

11 August 2017

**What we know  
about the 12  
proposals for  
NASA's next  
New Frontiers  
mission**

**India eyes big  
business with  
Africa in space  
exploration**

**SES to launch a  
satellite on a  
previously  
flown Falcon 9**

**SwRI's small  
satellite mission  
moves forward**

NASA's Juno mission to Jupiter captured stunning images of the planet's great red spot in its first up-close flyby.

Image credit: NASA

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**Rapidly evolving space industry needs faster UN response** Why the international space community should support UNISPACE+50



**What we know about the 12 proposals for NASA's next New Frontiers mission** NASA officials are in the process of selecting the agency's next planetary science mission from a field of 12 competitors.



**SES to launch a satellite on a previously flown Falcon 9** SES plans to launch its SES-11 satellite, also known as EchoStar 105, as soon as late September from Cape Canaveral. The first stage that will be used on launch is likely the Falcon 9 that first flew in February to send a Dragon cargo spacecraft to the International Space Station.



**China ramping up quest to become a space science superpower** Eagerly anticipated missions in the coming decade include attempts to bring back lunar samples, a joint CAS-ESA project to study space weather and ground-breaking missions to probe dark matter and black holes.



**ISRO set to launch satellite with corrected clocks** The Indian Space Research Organisation will launch a replacement navigation satellite fitted with corrected atomic clocks to make up for the crippled satellite, IRNSS-1A. The upcoming IRNSS-1H will be sent up towards the end of August 2017.



**Russian, US experts suggest launching satellite and balloons as part of Venus space probe** The Venera-D mission might be launched in 2026.



**Lockheed Martin invests \$350 million in state-of-the-art satellite production facility** Preliminary construction is underway on a new, \$350 million Lockheed Martin facility that will produce next-generation satellites. The new facility, located on the company's Waterton Canyon campus near Denver, is the latest step in an ongoing transformation, infused with innovation to provide future missions at reduced cost and cycle time.



**NASA selects proposals to study Sun, space environment** NASA has selected nine proposals under its Explorers Program that will return transformational science about the Sun and space environment and fill science gaps between the agency's larger missions; eight for focused scientific investigations and one for technological development of instrumentation.



**Vector performs second test flight of smallsat launch vehicle** Vector, a company developing the Vector-R small launch vehicle, carried out what it said was a second successful low-altitude test flight of the rocket from a Georgia site.



**China's Tiangong-1 Space Lab to Fall to Earth by April 2018** The United Nations Office for Outer Space Affairs has reissued a notification by China on the future uncontrolled re-entry of the country's robotic Tiangong-1 space lab, which is expected to take place in the next eight months.



**Virgin Galactic Carries Out "Dry Run" for Powered SpaceShipTwo Flights** Virgin Galactic performed the latest glide flight of its second SpaceShipTwo suborbital spaceplane Aug. 4, calling it a "dry run" for upcoming powered test flights.



**Tricorders in space: Not just a 'Star Trek' dream anymore** A tricorder may soon be an essential part of every voyaging astronaut's tool kit, and not just in the "Star Trek" universe.



**NASA, Norway to develop Arctic laser-ranging station** NASA and the Norwegian Mapping Authority are partnering to develop a state-of-the-art satellite laser ranging station 650 miles from the North Pole that will produce high-precision locations of orbiting satellites, help track changes in the ice sheets and improve the efficiency of marine transportation and agriculture.

## Recent Launch Activities

**Vega orbits two Earth observation satellites**  
Arianespace has launched two Earth observation satellites for civil and military applications: OPTSAT-3000 for the Italian Ministry of Defence; and Venus, a mission of the Israel Space Agency (ISA) - a government body sponsored by the country's Ministry of Science and Technology - and the French CNES space agency.  
(3 August 2017)

**New crew arrives at Space Station after speedy 6-hour trip**  
A Soyuz spacecraft carrying a crew of three linked up with the International Space Station, doubling the orbiting lab's population and kicking off a five-month mission for its space traveling trio.  
(29 July 2017)

**Soyuz carrier rocket blasts off From Baikonur**  
A Russian Soyuz-2.1a rocket blasted off from Baikonur Cosmodrome. The rocket is delivering over 70 satellites to Earth's orbit, including the Kanopus-V-IK orbiting spacecraft equipped with Earth-viewing cameras to map the planet in colour to aid emergency responders, crop managers and environmental scientists.  
(18 July 2017)

**Russia orbits forest fire monitoring satellite**  
The Kanopus-V-IK forest fire monitoring satellite was delivered into its designated orbit, Roscosmos reported.  
(17 July 2017)

## Development Activities

**SwRI's small satellite mission moves forward**  
NASA has selected Southwest Research Institute (SwRI) to further develop the concept for a small satellite mission to image the Sun's outer corona. SwRI's "Polarimeter to Unify the Corona and Heliosphere" (PUNCH) program was selected for a mission concept study through NASA's Heliophysics Small Explorers Program (SMEX).  
(10 August 2017)

**Russian, US experts suggest launching satellite and balloons as part of Venus space probe**  
The Venera-D mission might be launched in 2026.  
(8 August 2017)

**NOAA's GOES-S and GOES-T satellites coming together**  
Progress continues on the development of NOAA's GOES-S and GOES-T spacecraft that will follow the successful launch of the Geostationary Operational Environmental Satellite or GOES-R, renamed GOES-16 upon reaching geostationary orbit.  
(6 August 2017)

**United Launch Alliance to launch Astrobotic mission to the Moon**  
Astrobotic and United Launch Alliance report that Astrobotic's Peregrine Lunar Lander will be onboard a ULA launch vehicle in 2019, during the 50th anniversary of Apollo 11.  
(31 July 2017)

**India to build second RLV demonstrator by 2018**  
The unmanned, unpowered RLV-TD is a space shuttle-like subscale reusable spaceplane that is launched atop a booster rocket.  
(30 July 2017)

**Ariane 6 & Vega C rockets will secure independent space access for Europe**  
Ariane 6 launch facilities are under construction in French Guiana along the Vega rocket is getting a n will increase the capabilities of the the space agency and European launch industry.  
(27 July 2017)

**NASA'S first asteroid deflection mission enters next design phase**  
The first-ever mission to demonstrate an asteroid deflection technique for planetary defence - the Double Asteroid Redirection Test (DART) - is moving from concept development to preliminary design phase, following NASA's approval on June 23.  
(8 July 2017)

**Russian devices for ExoMars mission to be ready late 2017**  
Two Russian devices to be mounted on the Mars rover of the ExoMars 2020 mission are nearly ready, by the end of 2017 they will be supplied to the European Space Agency, head of the Russian Academy of Sciences' Space Research Institute laboratory Daniil Rodionov told Sputnik.  
(4 July 2017)

## ISS Activities

**Astronauts grow cucumbers in space to help scientists understand root growth**  
Which factor is more important to root growth: gravity or water? To find out, scientists recruited astronauts to grow cucumbers on the International Space Station.  
(25 July 2017)

**US spy satellite buzzes ISS**  
Vigilant amateur satellite observers keep tabs on a recently launched US spy satellite that is getting a little too close to the ISS for comfort  
(13 June 2017)

**NanoRacks deploys CubeSats from Cygnus spacecraft**  
NanoRacks said that it successfully deployed four Spire LEMUR-2 CubeSats from Orbital ATK's Cygnus spacecraft at a nearly 500-kilometre orbit.  
(12 June 2017)

**John Glenn Cygnus departs ISS begins secondary mission**  
Orbital ATK reports that its Cygnus spacecraft successfully unberthed from the International Space Station, beginning the next phase of its mission before it reenters Earth's atmosphere. The "S.S. John Glenn" now conducts three secondary payload missions including the Saffire-III fire experiment, deployment of four CubeSats and an experiment to further study spacecraft conditions upon  
(7 June 2017)

**Thomas Pesquet returns to Earth**  
ESA astronaut Thomas Pesquet landed on the steppe of Kazakhstan today with Russian commander Oleg Novitsky in their Soyuz MS-03 spacecraft after six months in space. Touchdown was after a four-hour flight from the International Space Station.  
(2 June 2017)

## Space Tourism

**Virgin Galactic Carries Out "Dry Run" for Powered SpaceShipTwo Flights**  
Virgin Galactic performed the latest glide flight of its second SpaceShipTwo suborbital spaceplane Aug. 4, calling it a "dry run" for upcoming powered test flights.  
(7 August 2017)

**CubeSats swarm Earth orbit** A boom in nanosatellites could revolutionize space science and industry, but also dramatically increase the hazards of space junk

(26 July 2017)

**Galileo handover** After four years of work, the ESA team tasked with keeping the world informed on the status of the Galileo satellite navigation system has formally passed on its responsibility to a European Union agency. This shift is part of a wider transfer of responsibilities, as this month see the official handover of the running of the Galileo system from ESA to the European Global Navigation Satellite Systems Agency, or GSA.

(24 July 2017)

**ESA drives to move past Galileo clock issue**

The European Space Agency says its well on the way to a full constellation of 24 operational satellites, the continuing renewal of which would probably require an average two satellites to be launched every year.

(14 July 2017)

**World's first demonstration of space quantum communication using a microsatellite**

The National Institute of Information and Communications Technology of Japan who developed the world's smallest and lightest quantum-communication transmitter (SOTA) onboard the microsatellite SOCRATES, have succeeded in the demonstration of the first quantum-communication experiment from space.

(12 July 2017)

**OneWeb vouches for high reliability of its deorbit system**

Satellite broadband startup OneWeb says no other system on its low-Earth orbit satellites will be built for higher reliability than the deorbit module it is including to prevent the creation of space debris.

(12 July 2017)

**Satellites see giant iceberg split from Antarctic**

One of the biggest icebergs ever recorded has just broken away from Antarctica. A US satellite observed the berg while passing over a region known as the Larsen C Ice Shelf. An infrared sensor on the American space agency's Aqua satellite spied clear water in the rift between the shelf and the berg.

(12 July 2017)

**India plans to roll out national GPS in 2018**

The Indian Space Research Organisation is set to offer GPS from its own navigation system for mobile users from next year, aiming to make it more accurate than foreign competitors' products.

(8 July 2017)

**Europe's Galileo satnav identifies problems behind failing clocks**

Investigators have uncovered the problems behind the failure of atomic clocks onboard satellites belonging to the beleaguered Galileo satnav system, the European Commission said. For months, the European Space Agency - which runs the programme - has been investigating the reasons behind failing clocks onboard some of the 18 navigation satellites it has launched for Galileo.

(5 July 2017)

**Satellite image project that helps spot and stop slavery sites from space**

A crowdsourcing project at the University of Nottingham, England which aims to - via satellite imagery - identify notorious sites that could be involved in modern slavery globally, has attracted a number of online volunteers.

(4 July 2017)

**Space junk colution? Tiny cubesat to test new de-orbiting thruster**

A tiny satellite that reached orbit will make history when it comes back down to Earth.

(3 July 2017)

**Satellite image showcases centuries of desertification in India**

A new image from the European Space Agency's Copernicus Sentinel-2A satellite showcases the extreme aridity of India's Thar Desert. Geologic and archaeological analysis suggests the region, which encompasses more than 123,000 square miles in India and Pakistan, was once green and lush. Centuries of farms have depleted water resources and taxed the soil, slowly drying out the land.

(24 June 2017)

**Global nanosatellite market anticipated to reach \$6.35 billion by 2021**

According to a new market intelligence report, the global market is expected to reach \$6.35 billion by 2021, growing at a CAGR of 37.91% during the forecast period. With the emergence of space technologies, which enable satellites to operate under harsh space environment, it has become easier to carry out cost-effective space missions.

(23 June 2017)

**Magnetic space tug could target dead satellites**

Derelict satellites could in future be grappled and removed from key orbits around Earth with a space tug using magnetic forces.

(21 June 2017)

**Quantifying the effects of climate change**

Last year was the hottest on record, Arctic sea ice is on the decline and sea levels continue to rise. In this context, satellites are providing us with an unbiased view of how our climate is changing and the effects it is having on our planet.

(6 June 2017)

**China launches advanced satellite navigation positioning system**

China has launched a national satellite navigation and positioning system, the largest in the country Li Weisen, deputy director of the National Administration of Surveying, Mapping and Geoinformation, said that the system consists of 2700 base stations, a national database centre and 30 provincial level database centres. The system, featuring faster speed, higher accuracy and wider coverage, will be compatible with other satellite navigation systems, such as BeiDou.

(29 May 2017)

**Russia aims for 15 remote sensing satellites in orbit by 2020**

Russian President Vladimir Putin stated that the remote sensing technologies must be used to boost the Russian defense and security, develop the economy and social sphere, and increase the quality of the state's governance. The number of operating Russian remote sensing satellites orbiting the Earth will reach 15 by 2020, Russian President Vladimir Putin said.

(25 May 2017)

**New nano-satellite fleet starts launch in June**

An Australian-backed company is to launch the first three of a planned fleet of 200 new nano-satellites in the third week of June. Sky and Space Global (SAS) says the satellites will provide affordable communication services to those who are currently underserved across the equatorial belt.

(18 May 2017)

**Novel use of satnav saves precious water**

Water conservation is a growing concern globally, and particularly for farmers in the USA, where decades of irrigating huge fields has depleted vital resources of fresh surface water and groundwater. An ESA spin-off that can help to preserve water supplies while guaranteeing crop irrigation is now undergoing final testing.

(15 May 2017)

**Iridium deploys first 10 Next satellites**

Iridium Communications has integrated the first set of its Next satellites into the existing operational constellation to improve communications for shipping. This followed a rigorous testing and validation process of the 10 satellites in orbit.

(11 May 2017)

**New look at satellite data questions scale of China's afforestation success**

China has invested more resources than any other country in reversing deforestation and planting trees. However, given the large scale of these programmes it has been difficult to quantify their impact on forest cover. A new study shows that much of China's new tree cover consists of sparse, low plantations as opposed to large areas of dense, high tree cover.

(8 May 2017)

**Satellites track Antarctic ice loss over decades**

Over two decades of observations by five radar satellites show the acceleration of ice loss of 30 glaciers in Western Palmer Land in the southwest Antarctic Peninsula.

(3 May 2017)

**Cassini to begin final five orbits around Saturn**  
The Cassini spacecraft will enter new territory in its final mission phase, the Grand Finale, as it prepares to embark on a set of ultra-close passes through Saturn's upper atmosphere with its final five orbits around the planet.  
(11 August 2017)

**China's Tiangong-1 Space Lab to Fall to Earth by April 2018** The United Nations Office for Outer Space Affairs has reissued a notification by China on the future uncontrolled re-entry of the country's robotic Tiangong-1 space lab, which is expected to take place in the next eight months.  
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**NASA selects proposals to study Sun, space environment** NASA has selected nine proposals under its Explorers Program that will return transformational science about the Sun and space environment and fill science gaps between the agency's larger missions; eight for focused scientific investigations and one for technological development of instrumentation.  
(6 August 2017)

**Company loses contact with communications satellite while changing orbit** A 20-year old satellite in fleet operator EchoStar's constellation is drifting after an anomaly the company said has crippled communications.  
(4 August 2017)

**ALMA confirms complex chemistry in Titan's atmosphere** Saturn's largest moon, Titan, is one of our solar system's most intriguing and Earth-like bodies. It is nearly as large as Mars and has a hazy atmosphere made up mostly of nitrogen with a smattering of organic, carbon-based molecules, including methane (CH<sub>4</sub>) and ethane (C<sub>2</sub>H<sub>6</sub>). Planetary scientists theorize that this chemical make-up is similar to Earth's primordial atmosphere.  
(2 August 2017)

**NASA tests Webb Telescope's communication skills** NASA called, and the Webb telescope responded. NASA's James Webb Space Telescope recently completed its Ground Segment Test Number 1 (GSEG-1), for the first time confirming successful end-to-end communication between the telescope and its mission operations centre.  
(2 August 2017)

**NASA's Voyager Spacecraft Still Reaching for the Stars After 40 Years** Humanity's farthest and longest-lived spacecraft, Voyager 1 and 2, achieve 40 years of operation and exploration this August and September. Despite their vast distance, they continue to communicate with NASA daily, still probing the final frontier.  
(1 August 2017)

**Smallest satellite ever paves way for planned interstellar fleet** Breakthrough Starshot, the \$100 million project to send tiny spacecraft to Alpha Centauri, successfully operated a mini-satellite in orbit for the first time.  
(29 July 2017)

**Has Cassini found a universal driver for prebiotic chemistry at Titan?** The international Cassini-Huygens mission has made a surprising detection of a molecule that is instrumental in the production of complex organics within the hazy atmosphere of Saturn's moon Titan.  
(28 July 2017)

**Cassini finds surprises for Saturn's magnetic field** Even though it doesn't have long left to go, Cassini is busy surprising scientists with data it has collected while plunging through Saturn's rings.  
(27 July 2017)

**Norwegian microsatellite deploys first-of-kind Yagi antenna** The Norwegian Space Centre has announced successful deployment of critical antennas and probes on the NORsat-1 and NORsat-2 microsatellites built by Canada's Space Flight Laboratory (SFL) and launched on 14 July from Kazakhstan. Most notable was deployment of a large Yagi antenna from NORsat-2 that will provide first-of-its-kind VHF Data Exchange (VDE) from space.  
(25 July 2017)

**First lunar observatory for Moon's south pole in 2019** The International Lunar Observatory Association (ILOA) and Moon Express have announced a collaboration for the delivery of an instrument to image the Milky Way from the lunar surface  
(25 July 2017)

**A new way to search for gravitational waves?** Scientists suggest looking for gravitational waves in data from a mission that is looking at star positions  
(22 July 2017)

**A Final Farewell to LISA Pathfinder** With the push of a button, final commands for the European Space Agency's LISA Pathfinder mission were beamed to space on July 18, a final goodbye before the spacecraft was powered down. LISA Pathfinder had been directed into a parking orbit in April, keeping it out of Earth's way. The final action this week switches it off completely after a successful 16 months of science measurements.  
(18 July 2017)

**First close-ups of Jupiter's Great Red Spot from Juno flyby** The closest-ever observations of our solar system's biggest storm could tell us how deep into Jupiter it extends and how it has continued to rage for centuries  
(13 July 2017)

**Hubble Telescope captures stars forming just after the Big Bang** Paired with a cosmic magnifying glass, NASA's Hubble Space Telescope has revealed insight into star formation in the early universe.  
(9 July 2017)

**SES transfers capacity from AMC-9 satellite following significant anomaly** SES has announced that, following a significant anomaly, the company is in the process of transferring capacity from its AMC-9 satellite. The incident was noted on the morning of Saturday 17 June 2017. SES has taken immediate action in contacting all customers and is working to transfer services to alternative satellite capacity in order to minimise disruption.  
(7 July 2017)

**Artificial brain helps GAIA catch speeding stars** With the help of software that mimics a human brain, ESA's Gaia satellite spotted six stars zipping at high speed from the centre of our galaxy to its outskirts. This could provide key information about some of the most obscure regions of the Milky Way.  
(7 July 2017)

**NASA releases Kepler Survey Catalog with hundreds of new planet candidates** NASA's Kepler space telescope team has released a mission catalogue of planet candidates that introduces 219 new planet candidates, 10 of which are near-Earth size and orbiting in their star's habitable zone, which is the range of distance from a star where liquid water could pool on the surface of a rocky planet.  
(20 June 2017)

**The future of the Orion constellation** A new video, based on measurements by ESA's Gaia and Hipparcos satellites, shows how our view of the Orion constellation will evolve over the next 450 000 years. Stars are not motionless in the sky: their positions change continuously as they move through our Galaxy, the Milky Way.  
(17 June 2017)

**A whole new Jupiter: First science results from NASA's Juno mission** Early science results from NASA's Juno mission to Jupiter portray the largest planet in our solar system as a complex, gigantic, turbulent world, with Earth-sized polar cyclones, plunging storm systems that travel deep into the heart of the gas giant.  
(26 May 2017)

**Juno spacecraft has close encounter with Jupiter's cloud tops in sixth flyby** Juno skimmed the cloud tops of Jupiter at a range of just 3,500 kilometres during its close approach, NASA officials said. The manoeuvre marked the sixth time the Juno probe's orbit has brought it up close with Jupiter.  
(21 May 2017)


**LIGO could detect gravitational waves' permanent space-time warp** When gravitational waves permanently distort space-time, it causes a 'memory signal' which may help LIGO find some of the universe's most exotic objects  
(20 May 2017)

**Fermi satellite observes billionth gamma ray with LAT instrument** On April 12, one of the spacecraft's instruments - the Large Area Telescope (LAT), which was conceived of and assembled at the Department of Energy's SLAC National Accelerator Laboratory - detected its billionth extraterrestrial gamma ray.  
(15 May 2017)

**Astrophysicists find that planetary harmonies around TRAPPIST-1 save it from destruction** When NASA announced its discovery of the TRAPPIST-1 system back in February it caused quite a stir, and with good reason. Three of its seven Earth-sized planets lay in the star's habitable zone, meaning they may harbour suitable conditions for life. But one of the major puzzles from the original research describing the system was that it seemed to be unstable.  
(14 May 2017)

**First results from Jupiter probe show huge magnetism and storms** Observations from the Juno spacecraft are confounding astronomers with revelations about the weather and magnetism of our solar system's biggest planet  
(5 May 2017)

**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 cloudtops. The probe executed the daredevil manoeuvre on Wednesday - the first of 22 plunges planned over the next five months - while out of radio contact.  
(27 April 2017)

 **US Senate restores funding for NASA Earth Science and satellite servicing programmes** An appropriations bill approved by a Senate committee would restore funding for several NASA Earth science missions slated for termination by the administration as well as a satellite servicing programme.

(4 August 2017)

 **UK space companies to develop international partnerships** The UK Space Agency is working with research institutions, industry and non-profit organisations to develop strong international partnerships to help tackle economic, societal and environmental issues using satellite technology. The Agency will award funding through its International Partnership Programme (IPP), which is designed to partner UK space expertise with overseas governments.

(3 August 2017)

 **Loss of MexSat-1 satellite not to hinder Russian-Mexican space cooperation** Mexico is ready for strengthening space and hi-tech cooperation with Russia despite an unsuccessful launch of the Russian Proton-M carrier rocket in 2015, which led to the incineration of Mexico's MexSat-1 communications satellite, Mexican Ambassador in Moscow Norma Bertha Pensado Moreno told Sputnik.


(28 July 2017)

 **Iran in 'successful' test of satellite-launch rocket** Iran has tested a satellite-launch rocket. It said the launch vehicle, named Simorgh after a bird in Iranian mythology, was capable of propelling a satellite weighing 250 kilograms to an altitude of 500 kilometres

(28 July 2017)

 **Japan's first private rocket set for launch** Japan's first privately developed rocket has been scheduled for launch on July 29 by developer Interstellar Technologies (IST).


(26 July 2017)

 **UK wants continued EU Copernicus participation** The UK has given the clearest statement yet of its desire to stay within the European Union's Copernicus Earth observation programme after Brexit.


(21 July 2017)

 **Egyptosat-2 replacement to be launched in 2019** The launch of the Egyptosat-A satellite has been scheduled for 2019, Deputy Chief Executive Officer of Russia's RSC Energia corporation Alexander Derechin said.


(21 July 2017)

 **Canadian presence in US space initiatives swells** Vancouver's MacDonald, Dettwiler and Associates is making inroads in satellite-servicing markets once dominated by U.S. companies.

(20 July 2017)

 **Luxembourg Adopts Space Resources Law** The government of Luxembourg has passed a bill giving companies the rights to space resources they extract from asteroids or other celestial bodies.

(20 July 2017)

 **Heinrich Hertz satellite shows military reluctance to expand commercial satcom** The German government's decision to contract for a new telecommunications satellite is the latest example of governments' continued reluctance to outsource satellite telecommunications to the private sector. It will also likely mean reduced purchases of commercial satellite services as the Bundeswehr moves more of its requirements to the government-owned Heinrich Hertz satellite. The formal go-ahead for Heinrich Hertz, which has been debated for several years inside the German government before being approved by the German parliament, was confirmed on June 28.

(19 July 2017)

 **Netherlands and Norway join forces in space** The Netherlands and Norway are going to conduct scientific research in the field of space. It concerns matters that are relevant to military operations. The focus is on designing a 'space demonstrator' using a small satellite.

(18 July 2017)

 **Ghana launches satellite into orbit** Ghanasat-1 was released from the International Space Station, nearly a month after its launch from the Kennedy Space Center on Elon Musk's SpaceX flight 11.


(10 July 2017)

 **Russia to carry out five launches from Vostochny Space Centre in 2018** Russia will conduct five launches from the Vostochny space center in Russia's Far East in 2018, Deputy Prime Minister Dmitry Rogozin told Sputnik. Vostochny is expected to reduce Russia's dependency on the Baikonur space centre in Kazakhstan. Baikonur is on lease to Russia until 2050.

(8 July 2017)

 **Japan reveals plans to put astronaut on moon by 2030** Japan has revealed ambitious plans to put an astronaut on the Moon around 2030 in new proposals from the country's space agency. This is the first time the Japan Aerospace Exploration Agency (JAXA) has said it aims to send an astronaut beyond the International Space Station, an agency spokeswoman told AFP.

(3 July 2017)

 **Launch of Hellas Sat 3 satellite brings Cyprus into the space era** The launch of the Hellas Sat 3 satellite, the biggest European telecommunication satellite, promotes Cyprus into the space era and more specifically in space technology, Minister of Transport, Communication and Works Marios Demetriades has told CNA. Demetriades, who attended the launch of the satellite at the European Space Station of Kourou, in the French Guiana, said that the Hellas Sat 3 satellite will bring many benefits for Cyprus.

(2 July 2017)

 **President Trump Re-Establishes National Space Council** U.S. President Donald Trump signed a long-awaited executive order June 30 re-establishing the National Space Council.


(1 July 2017)

**India, Portugal shake hands on space cooperation** Indian Prime Minister Narendra Modi during his visit to Lisbon agreed with Portuguese authorities on creation of alliance to advance space research, the Indian Foreign Ministry said in a statement. India, Portugal sign a memorandum of understanding (MoU) on cooperation in the field of space, according to the statement.

(29 June 2017)

 **Studies into UK National Microgravity Experiments Call for Proposals** The UK Space Agency is making funding available for studies...

(29 June 2017)

 **Russia, Brazil consider joint space launches from Brazilian spaceport** #Russia and #Brazil are considering the possibility of conducting joint launches of carrier rockets from a Brazilian space centre, Russian President Vladimir Putin said.

(27 June 2017)

 **Vietnam, Israel sign agreement on space technology cooperation** The Vietnam National Satellite Centre and the Israel Space Agency inked an agreement on cooperation in science and technology and peaceful use of outer space, in Hanoi. At the signing ceremony, Israeli Ambassador to Vietnam Meirav Eilon Shahar said under the agreement, the two sides will boost cooperation in such areas as earth observation, space industry, and satellite activities.

(22 June 2017)

 **NASA, CNES express commitment to joint exploration** France and the United States have a long history of cooperation in space, combining their talents over the years to advance science and launch exploration missions whose results have been instrumental in creating entirely new fields of research. The leaders of the two space agencies, Acting NASA Administrator Robert Lightfoot, and CNES President Jean-Yves Le Gall, reaffirmed the agencies' cooperation efforts.

(21 June 2017)

 **Galileo contract faces Brexit crunch** A contract signed is giving a German-UK consortium the go-ahead to build another eight satellites for Galileo - Europe's version of GPS. OHB System of Bremen and SSTL of Guildford have so far produced all of the fully operational satellites in the constellation. But it is highly unlikely that SSTL, which assembles the timing and navigation payloads on the spacecraft at its Surrey factory, will have completed its share of the production effort by Friday 29 March, 2019 - the date for Britain's withdrawal from the EU.

(21 June 2017)

## Opportunities

### **NASA Immersive 360th Multimedia and Video Winter/Spring Internships - NASA (United States)**

INTRODUCTION: Immerse yourself in NASA via our first internship dedicated to exploring the intersection of science and immersive/360 multimedia storytelling. Work

### **NASA IV&V Guidance Navigation & Control Software Engineer - Engility (United States)**

is the sole provider of Independent Verification and Validation (IV&V) services to the NASA IV&V Program located in Fairmont, West Virginia. At the NASA IV&V

### **NASA IV&V Guidance Navigation & Control Software Engineer - Engility Corporation (United States)**

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### **NASA IV&V Information Assurance/Cybersecurity Intern - Engility (United States)**

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### **NASA IV&V Systems Engineer - Engility Corporation (United States)**

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### **NASA Journalism, Multimedia, Social Media Winter/Spring Internships - NASA (United States)**

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

### **NASA Postdoctoral Fellowships - Universities Space Research Association (United States)**

NASA Postdoctoral Program - Application Deadline November 1, 2017 The NASA Postdoctoral Program (NPP) supports NASA 's goal to expand scientific understanding

### **NASA UAS Traffic Management (UTM) project - NASA (United States)**

As part of the NASA UAS Traffic Management (UTM) project, research is in progress to enable integration of small unmanned aerial vehicles (UAV) into the National

### **Branch Customer Services Associate/ NASA Goddard Branch - NASA Federal Credit Union (United States)**

largest credit unions in the region and top performing in the nation, NASA Federal Credit Union members enjoy banking with an organization that's well established,

### **Business Development Director- NASA - The Aerospace Corporation (United States)**

The Civil Systems Group is seeking qualified individuals experienced in working with NASA for the position of Account Director. The position supports the NASA

### **Control Software Engineer MF**

About us Space Applications Services NVSA performs and supports system and software engineering for the European Space Agency ESA, National Space Agencies and the aerospace industry. We are involved in international manned unmanned spacecraft programmes, Earth observation, science, exploration, communications and related technology development. We are currently looking for a Software Engineer, wishing to join our dynamic and international company for the following position Control Software Engineer MF. Tasks and Responsibilities The successful candidate will be working at the European Southern Observatory ESO Headquarters in Garching Munich, Germany in the ESO Control Software Engineering Department, on behalf of Space Applications Services. Occasional trips to the ESO observatories in Chile may be required. The Control Software and Engineering Department CSE in the Directorate of Engineering DoE of ESO is responsible for the definition, design and implementation of complex control sy...

### **Full Stack Development - NASA Open Source - 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):

### **Head of Projects Earth Observation**

Role Purpose the Head of Projects Earth Observation is responsible for the overall project management function, providing leadership, coordination and management of the PM processes and functions. Skills and Experience Masters or Bachelors Degree 5 years of experience managing Earth Observation EO projects Must be fluent in English and Spanish. The interview will be held in English Leadership skills. Used to work with different teams. Ability to interact at all levels Strong team player Experience managing and monitoring staff utilization and account profitability Focus on client needs Attention to detail and proactivity. Proactive, dynamic and strong Organizational skills High communication and negotiation skills Ability to present information logically, clearly and concisely Ability to stay calm and methodical, even under the pressure of juggling conflicting priorities Focus on quality and on improvement Key Accountabilities and Responsibilities To provide strong leadership to prom...

### **Ingenieur Oprations mission satellite de recherchesauvetage**

CS est un acteur majeur de la conception, de l'intégration et de l'exploitation de systèmes critiques. Au sein de la Business Unit Espace, le département FMO Flight Mission Operations se focalise sur les thématiques de centres de contrôle satellite, mécanique spatiale, programmation mission et navigation. Nous recherchons un Ingénieur Oérations mission satellite de recherchesauvetage HF. Vous viendrez renforcer une équipe existante assurant, pour le compte de notre donneur d'ordre, le support aux opérations d'une mission européenne de la recherche et au sauvetage. Sous la responsabilité du Chef de projet, vous participerez quelques-unes des activités suivantes Coordination des activités, mise à jour du planning, gestion documentaire, suivi des équipements, mise à jour des indicateurs du service Oérations et maintenance des moyens du service, validation et qualification opérationnelle, suivi des anomalies, maintien à jour de la configuration, reporting et maintenance et maintien à jour des procédures opérationnelles...

### **IT System Administrator MF**

About us Space Applications Services NVSA performs and supports system and software engineering for the European Space Agency ESA, National Space Agencies and the aerospace industry. We are involved in international manned unmanned spacecraft programmes, earth observation, science, exploration, communications and related technology development. We are currently looking for an IT System Administrator, wishing to join our dynamic and international company. Tasks and Responsibilities Provide at our premises and on a regular basis to one of our clients Belgian Space Aeronomy in UkelUccle Brussels South dedicated onsite IT support such as troubleshooting, support and monitoring the IT environment Integrate new services Update the Service Portal Deploying, and maintaining of supporting tools. Qualifications and Experience Strong customer service minded Familiarity with Windows and Linux Knowledge of TCP/IP networking Able to troubleshoot basic OS, web application, and networking problems ...

### **PA and Safety Support Engineer**

We are looking for a PA and Safety Support Engineer E3 to join our Ajilon Technology Aerospace team, working onsite at the European Space Agency in the Netherlands Ajilon Technology Aerospace is a specialized Engineering consultancy with more than 30 years experience providing aerospace Engineers to our key partners in The Netherlands. Ajilon is a longstanding business partner of the European Space Agency ESA, with more than 110 employees recruited from across Europe currently supporting ESAs activities. Specific tasks to be performed Support the Galileo System PAS Unit in all the activities related to the execution of the Galileo System Product Assurance and Safety Programme. This includes the following main tasks Provide PAS support to the Galileo System Integration and Verification SIV activities Review test procedures and test reports Witness test executions and report on the status and the major issues Support configuration inspections as needed Participate in TRRs, PTRs, TRBs Co...

### **PostDoc fm**

SRONs mission is to bring about breakthroughs in international space research. Therefore, the institute develops pioneering technology and advanced space instruments, and uses them to pursue fundamental astrophysical research, Earth science and exoplanetary research. As national expertise institute SRON gives counsel to the Dutch government and coordinates national contributions to international space missions. SRON stimulates the implementation of space science in our society. Our Earth Science Group has a vacancy for a PostDoc fm Vacancy number SRON 1311 Project Outline and Tasks The continuous increase of carbon dioxide and other greenhouse gases in the Earth atmosphere accelerates changes of Earths climate and mitigation strategies inquire continuous monitoring of greenhouse gas concentrations using space borne observations. In light of this, the postdocs task will be part of an international project to define the future European carbon dioxide monitoring instrument including an a...

### **Science Driven Long Duration Venus Lander Concepts (NASA Space Academy at Glenn) - NASA (United States)**

1. Brief background & NASA mission/program support: Venus is a key planet to help better understand Earth and our solar system. Due to the thick acidic cloud layers,

**Senior Project Leader- NASA HQ - The Aerospace Corporation (United States)**

of The Aerospace Corporation, brings engineering expertise and valued capabilities to NASA . In this Sr. Project Leader role you will provide overall technical

**Senior/Senior Advanced Quality Engineer (NASA) - KBRwyle (United States)**

Title: Senior/Senior Advanced Quality Engineer ( NASA ) Location: US-US-MD-GREENBELT Job Number: 00336429 KBRwyle seeks an experienced Quality Engineer to provide

**Software Engineer Mission Performance and Monitoring Tools MPMT mf**

Terma The hightech and innovative Terma Group develops products and systems for defense, nondefense and security applications, including command and control systems, radar systems, selfprotection systems for aircraft and vessels, space technology, and aerostructures for the aircraft industry. Terma is headquartered at Aarhus, Denmark. Internationally, Terma has subsidiaries and operations in The Netherlands, Germany, United Kingdom, United Arab Emirates, India, Singapore and the U.S. The Space Business Area contributes with missioncustomized software and hardware products including power systems and star trackers as well as services to support a number of inorbit pioneering European scientific and Earth observation satellite missions. Additionally, Terma is contracted for the development and delivery of software and hardware systems and services for numerous ongoing and future European, and international missions. Terma Space operates out of Denmark, The Netherlands, Germany, and the ...

**Software Engineer mf**

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**Special Response Team Officer NASA Jsc - Chenega Corporation (United States)**

\*\*Company Job Title:\*\* Physical Security Specialist / Special Response Team Officer, NASA JSC \*\*Chenega Job Title:\*\* Police Officer I  
\*\*Clearance:\*\* Must be able

**Sr I&T Engineer for NASA Ground Terminals Deployment - General Dynamics Mission Systems (United States)**

Mission Systems has an immediate opening for a Sr I&T Engineer for NASA Ground Terminals Deployment. This position provides an opportunity to further advance the

**SSTProjects Administrator**

Responsible to the Head of SSA Unit to support the progress of Capability Development activities and projects Implementation of Capability Development activities and projects at the EU SatCen specifically in the SSA area User requirements analysis and design, development, integration and maintenance of software applications procured or specifically developed for SST activities at the EU SatCen Managing of tasks aimed at developing and/or integrating software ensuring the involvement and coordination of internal and external actors Ensuring the updating and maintenance of the EU SatCen project related databases Management of junior staff as needed Undertaking of additional duties, appropriate to the grade, as directed by the Head of SSA Unit.

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