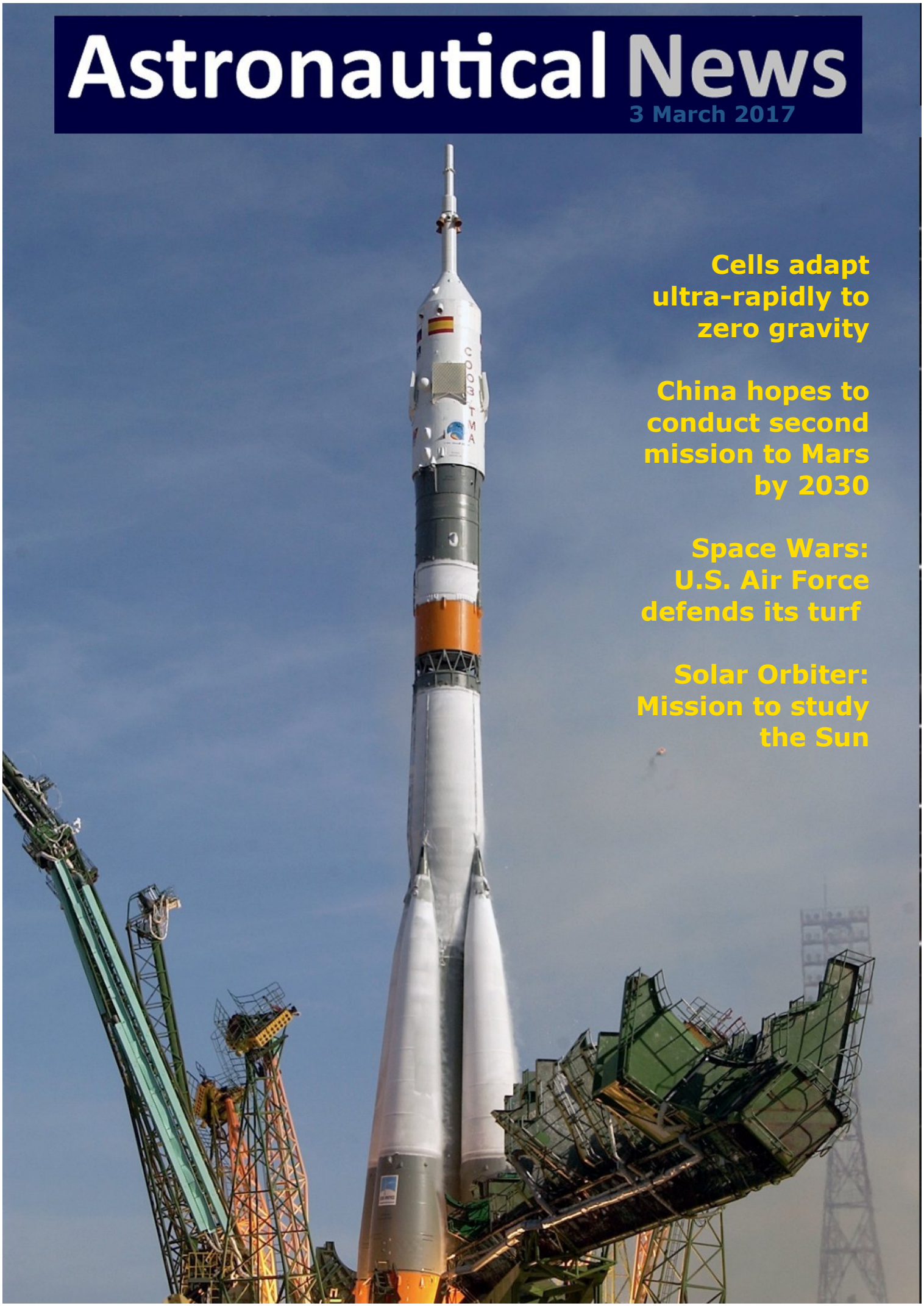
Astronautical News

3 March 2017



Cells adapt ultra-rapidly to zero gravity

China hopes to conduct second mission to Mars by 2030

Space Wars: U.S. Air Force defends its turf

Solar Orbiter: Mission to study the Sun

Astronautical News
3 March 2017

Collator
Scott Hatton

Graphic Design
Takiss Vessim

In cooperation with
The British Interplanetary Society

You can subscribe to the daily edition of Astronautical News by sending an email to astronautical-news+subscribe@googlegroups.com

How SpaceX's 2018 Moon flight will work

Nearly 45 years after NASA astronauts last embarked on a lunar mission, SpaceX CEO Elon Musk has announced his company's plans to send two private citizens on a flight around the Moon in 2018. The weeklong trip will look a lot like NASA's historic Apollo 8 mission - the first and only purely circumlunar, crewed mission in history - but SpaceX's mission will fly with two crewmembers instead of three, and will use a fresh new spacecraft and launch vehicle.

More...

NASA's audacious Europa missions are getting closer to reality NASA announced progress on a spacecraft that would assess whether Jupiter's Moon Europa is habitable, and earlier this month, an agency-sponsored science team released a report on a separate lander mission that would directly search for signs of life.

Space Wars: U.S. Air Force defends its turf As the nation's space mission grows, does the service have enough clout to manage it all?

Solar Orbiter: Mission to study the Sun Solar Orbiter is a planned European Space Agency mission that will study the surface of the Sun.

Virgin Galactic's SpaceShipTwo aces third glide test flight Virgin Galactic's SpaceShipTwo aced its third unpowered free flight on February 24, a glide test that marked the first time at the new space plane's controls for one former NASA astronaut.

CubeSats: Shaping Possibilities in Space For more than a decade, CubeSats, or small satellites, have paved the way to low-Earth orbit for commercial companies, educational institutions, and non-profit organizations. These small satellites offer opportunities to conduct scientific investigations and technology demonstrations in space in such a way that is cost-effective, timely and relatively easy to accomplish.

NASA team develops modular avionics systems for small missions In just two years' time, a team of NASA engineers accomplished what some thought impossible: the group created a smaller, more capable "brain" for smaller spacecraft.

Cells adapt ultra-rapidly to zero gravity Mammalian cells are optimally adapted to gravity. But what happens in the microgravity environment of space if the earth's pull disappears? Previously, many experiments exhibited cell changes - after hours or even days in zero gravity. Astronauts, however, returned to Earth without any severe health problems after long missions in space.

China hopes to conduct second mission to Mars by 2030 China is likely to conduct its second Mars mission, aimed at collecting soil samples for analysis, by 2030, according to the China Aerospace Science and Technology Corporation (CASC).

GomSpace to supply 3 satellites for Sky and Space Global constellation GomSpace ApS a subsidiary of GS Sweden AB has been selected by and has entered into a procurement contract with the UK company Sky and Space Global (UK) Ltd. to develop and deliver a constellation of satellites within a 4 year period. The first delivery of satellites will be in 2018. The revenue will be distributed over the term of the agreement.

Moon tourists risk rough ride, experts say Non-stop vomiting, a puffy face and the constant need to pee: Volunteers for a week-long loop around the Moon may be in for a rough ride even if all goes to plan. In the week that SpaceX announced it would launch two tourists to skirt Earth's satellite in 2018, experts agreed the health effects would chiefly be minor and short-lived.

US guardsmen to test space capsule recovery systems Forty-five members of the New York Air National Guard's 106th Rescue Wing have headed to Hawaii to participate in a joint NASA and Defense Department mission to evaluate recovery techniques and gear that will be used to recover NASA's Orion spacecraft, the next generation of American space vehicle.

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.

Energia to make 2 modifications of Federatsiya spaceship Russia's Energia rocket and space corporation is getting ready for the production of the Federatsiya spacecraft. Russia's Korolev Rocket and Space Corporation (RSC) Energia is developing two modifications of the Federatsiya spacecraft, which could carry four or six cosmonauts respectively, the corporation's general director told Sputnik.

Recent Launch Activities

Russia launches Progress MS-05 cargo mission to ISS Russia launched the Progress MS-05 space freighter to the International Space Station from the Baikonur Cosmodrome earlier. It was the final flight of a Souyz-U rocket that has been in use since 1973.
(23 February 2017)

SpaceX launches from historic NASA pad SpaceX succeeded in launching on its second launch attempt at NASA's Launch Complex 39A, at Kennedy Space Center in Florida. The first attempt, scrubbed the day before. SpaceX aborted its planned Dragon cargo launch to the International Space Station just seconds before liftoff Saturday due to a "slightly odd" technical issue with the Falcon 9 rocket engine.
(19 February 2017)

India launches record 104 satellites in single mission India has created history by successfully launching 104 satellites on a single mission, overtaking the previous record of 37 satellites launched by Russia in 2014. All but three of the satellites are from foreign countries, most of them from the United States. Observers say it is a sign that India is emerging as a major player in the multi-billion dollar space market.
(15 February 2017)

Ariane 5's first launch this year An Ariane 5, operated by Arianespace, has delivered the Sky Brasil-1 and Telkom-3S telecom satellites into their planned orbits.
(15 February 2017)

Development Activities

China hopes to conduct second mission to Mars by 2030 China is likely to conduct its second Mars mission, aimed at collecting soil samples for analysis, by 2030, according to the China Aerospace Science and Technology Corporation (CASC).
(3 March 2017)

Chinese cargo spacecraft set for liftoff in April In April, China will launch a cargo spacecraft into orbit as part of a schedule to develop an international space station as soon as 2020. A Tianzhou-1 cargo spacecraft could be headed into space "as early as mid-April" atop a Long March-7 Y2 rocket, representing a major milestone for China's space programme.
(27 February 2017)

NASA's audacious Europa missions are getting closer to reality NASA announced progress on a spacecraft that would assess whether Jupiter's Moon Europa is habitable, and earlier this month, an agency-sponsored science team released a report on a separate lander mission that would directly search for signs of life.
(27 February 2017)

BepiColombo: ESA and JAXA join hands to explore Mercury in 2018 The spacecraft will reach Mercury over a span of seven years. It will fly by Earth in 2020 and Venus in 2021.
(25 February 2017)

German-French climate mission enters its implementation phase DLR and Airbus DS signed a contract for the design and construction phases of the German-French climate satellite MERLIN (Methane Remote Sensing LIDAR Mission). From 2021, this small satellite mission will measure the methane concentration in Earth's atmosphere to an unprecedented level of accuracy and thus contribute to research into the causes of climate change.
(18 February 2017)

Mars landing sites for 2020 NASA mission down to the final three At a meeting in California, NASA scientists whittled down the landing sites for its next rover which will search for signs of life
(15 February 2017)

NASA wants to put a lander on Europa's surface to look for life If it goes ahead, the proposed lander mission would be NASA's first search for life on the surface of another planet since the Mars Viking missions in the late seventies.
(12 February 2017)

China to launch night light observing satellite China is set to launch its first remote-sensing satellite capable of detecting large lighted structures on the ground at night. The Luojia-1A, a 10-kilogramme mini satellite, is being developed by scientists at Wuhan University in Hubei province and will carry a highly sensitive night light camera with a 100-meter ground image resolution. The satellite will be capable of detecting large lighted structures on the ground within its designated observation area, such as bridges over the Yangtze River.
(12 February 2017)

ISS Activities

NASA developing contingency plan for commercial crew delays NASA plans to complete by the middle of March a contingency plan for ensuring access to the International Space Station should its two commercial crew partners suffer additional delays.
(25 February 2017)

Progress underway for first commercial airlock on Space Station Deployment of cubesats and other small satellite payloads from the orbiting laboratory by commercial customers and NASA has increased in recent years. To support demand, NASA has accepted a proposal from NanoRacks to develop the first commercially funded airlock on the space station.
(9 February 2017)

Japanese craft leaves Space Station to conduct space-junk experiment A Japanese cargo ship undocked from the International Space Station and will spend the next week doing a science experiment in orbit before burning up in Earth's atmosphere on Super Bowl Sunday (Feb. 5).
(29 January 2017)

NASA considering Boeing offer for additional Soyuz seats NASA is proposing to purchase, through Boeing, additional Soyuz seats for International Space Station missions to both take advantage of Russian plans to decrease the size of its crew and as insurance against potential additional commercial crew delays.
(23 January 2017)

NASA to rely on Soyuz for ISS missions until 2019 If NASA intends to continue sending astronauts to the International Space Station or the Moon, the space agency has little choice but to rely on Roscosmos' Soyuz spacecraft, at least until 2019. NASA filed a "presolicitation" requesting that private firms reach out to NASA if they can transport astronauts to and from the orbital research platform.
(21 January 2017)

Space Tourism

Virgin Galactic's SpaceShipTwo aces third glide test flight Virgin Galactic's SpaceShipTwo aced its third unpowered free flight on February 24, a glide test that marked the first time at the new space plane's controls for one former NASA astronaut.
(27 February 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)

Tiny satellites to make big contributions to science CubeSats were designed as educational tools and technological proofs-of-concept, demonstrating their ability to fly and perform needed operations in the harsh space environment. As the capabilities of these nanosatellites increase and their possible contributions grow, they've earned their own place in space.
(30 January 2017)

Europe's new geostationary satellite platform for the telecommunications market The Hispasat 36W-1 telecommunications satellite, the first in a new satellite platform called SmallGEO, developed and built in Germany, was launched to space on 28 January 2017 at 02:03 CET (27 January, 22:03 local time).
(29 January 2017)

NOAA's GOES-16 satellite sends first images to Earth GOES-16, the first spacecraft in NOAA's next-generation of geostationary satellites, has sent the first high-resolution images from its Advanced Baseline Imager (ABI) instrument. Included among them are a composite color full-disk visible image of the Western Hemisphere captured on January 15, 2017.
(25 January 2017)

NASA's Earth Observatory reveals Cambodia's incredibly shrinking forests Scientists from the University of Maryland and the World Resources Institute's Global Forest Watch have been using Landsat satellite data to track the rate of forest loss on a global scale. Though other countries have lost more acres in recent years, Cambodia stands out for how rapidly its forests are being cleared.
(23 January 2017)

Clocks 'failed' onboard Europe's navigation satellites Europe's beleaguered Galileo satnav has suffered another setback, with clocks failing onboard a number of satellites in space, the European Space Agency said Wednesday. Designed to render Europe independent from America's GPS, the 10 billion-euro ($11 billion) project may experience further delays as the cause of the failure is investigated, ESA director general Jan Woerner told journalists in Paris.
(19 January 2017)

Cubesat testbeds trim risk and save millions Tom and Jerry are more than an old-school cartoon, they are now an important cubesat experiment.
(13 January 2017)

China to offer global satellite navigation service by 2020 China plans to form a BeiDou network consisting of 35 satellites for global navigation services by 2020, said a white paper released by the State Council Information Office. The country plans to start providing basic services to countries along the Silk Road Economic Belt and 21st-century Maritime Silk Road in 2018, said the document titled "China's Space Activities in 2016."
(2 January 2017)

NASA releases new Greenland glacier data NASA's Oceans Melting Greenland (OMG) mission has released preliminary data on the heights of Greenland coastal glaciers from its first airborne campaign in March 2016. The new data show the dramatic increase in coverage that the mission provides to scientists and other interested users. Finalized data on glacier surface heights, accurate within three feet (one meter) or less vertically, will be available by Feb. 1, 2017.
(27 December 2016)

Preparing for air traffic control via satellite ESA recently completed its first flight trials using satellites to help bring Europe closer to its goal of modernising air traffic control.
(21 December 2016)

Galileo begins serving the globe Europe's own Galileo satellite navigation system has begun operating, with the satellites in space delivering positioning, navigation and timing information to users around the globe.
(17 December 2016)

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)

Gravitational wave detector prepares to peer into bizarre stars It has already made the discovery of the decade ?? next LIGO aims to model weird events so we can recognise them when they arrive
(8 February 2017)

WorldView-4, DigitalGlobe's newest satellite, enters service DigitalGlobe's WorldView-4 high-resolution-imaging satellite entered service this week, following nearly three months of in-orbit testing and calibration.
(7 February 2017)

NASA spacecraft to hunt for Earth's asteroid 'ghosts' NASA's asteroid-sampling Osiris-Rex mission will search for possible Trojan asteroids that could be travelling along with Earth around the sun.
(5 February 2017)

Galactic X-rays could point way to dark matter A small but distinctive signal in X-rays from the Milky Way could be key to proving the existence of dark matter. That is the claim of US scientists who analysed the energy spectrum of X-rays gathered by NASA's Chandra satellite. They found more X-ray photons with a particular energy than would be expected if they were produced only by familiar processes. Those photons could in fact have been generated by the decay of dark matter particles, say the researchers.
(2 February 2017)

Fermi sees gamma rays from 'hidden' solar flares An international science team says NASA's Fermi Gamma-ray Space Telescope has observed high-energy light from solar eruptions located on the far side of the sun, which should block direct light from these events.
(1 February 2017)

Close views show Saturn's Rings in unprecedented detail Newly released images showcase the incredible closeness with which NASA's Cassini spacecraft, now in its "Ring-Grazing" orbits phase, is observing Saturn's dazzling rings of icy debris. The views are some of the closest-ever images of the outer parts of the main rings, giving scientists an eagerly awaited opportunity to observe features with names like "straw" and "propellers."
(31 January 2017)

Spacecraft sees water at Rosetta's comet while stranded in solar orbit The Japanese PROCYON spacecraft may have gotten stuck in orbit after launch, but it's been able to do some impressive observations of 67P/Churyumov-Gerasimenko from afar.
(30 January 2017)

China's hi-res SAR imaging satellite put into use China's first high-resolution Synthetic Aperture Radar (SAR) satellite has passed all its in- orbit tests and is now operational, according to the State Administration of Science, Technology and Industry for National Defense. The Gaofen-3 satellite, which is accurate to one meter in distance, was launched in August 2016.
(27 January 2017)

Gaia turns its eyes to asteroid hunting Whilst best known for its surveys of the stars and mapping the Milky Way in three dimensions, ESA's Gaia has many more strings to its bow. Among them, its contribution to our understanding of the asteroids that litter the Solar System. Now, for the first time, Gaia is not only providing information crucial to understanding known asteroids, it has also started to look for new ones.
(26 January 2017)

ISRO realigns orbit of Mars mission spacecraft 'Mangalyaan Indian Space Research Organization has successfully realigned the orbit of its Mars Orbiter Mission 'Mangalyaan' so it is not affected by a long-duration eclipse, ISRO chairman A S Kiran Kumar said.
(23 January 2017)

China's quantum science satellite begins experiments The world's first quantum science and communications satellite has been handed over to Chinese scientists for the official start of experiments to test the phenomena of quantum entanglement and 'unhackable' quantum communication.
(19 January 2017)

Breakthrough surveying other galaxies for planets to visit A private plan to visit Alpha Centauri is boosting science on Earth today. Breakthrough's Starshot plan is looking for exoplanets in the 'Goldlocks Zone' of the Alpha Centauri binary system that might support life.
(18 January 2017)

Curiosity finds Mars rock that may be a meteorite made from iron NASA's Curiosity rover took a picture that appears to show a new iron-nickel meteorite on Mars, one of only eight that have been discovered by rovers there so far
(18 January 2017)

Eutelsat America's all-electric satellite enters service after seven-month journey The second of two all-electric satellites fleet operator Eutelsat gained through its acquisition of Satmex began service Jan. 16 after finishing a seven-month journey to its orbital location. Eutelsat 117 West B launched last June on a SpaceX Falcon 9 rocket with ABS-2A, a similar all-electric satellite Boeing built for Bermuda-based ABS. Both satellites formed the second set in a four-satellite order paired with Falcon 9 dual launches.
(17 January 2017)

Chinese imaging satellites reach orbit after botched launch China has received images from a pair of 0.5-meter high-resolution remote sensing satellites launched in late December last year. According to the China Aerospace Science and Technology Corporation (CASC), the satellites have reached their operational orbit after a partial launch failure.
(15 January 2017)

Thousands of cosmic distances now catalogued The universe just got an address book. A new NASA catalogue of objects will help scientists identify the distance of tens of thousands of objects that are so far away they date back to the beginning of the universe.
(9 January 2017)

Mars Odyssey rebounds from Safe Mode Mars Odyssey is resuming science observations this week, following a Dec. 26 safe mode incident.
(5 January 2017)

Odyssey recovering from precautionary pause in activity NASA's Mars Odyssey orbiter, which has been in service at Mars since October 2001, put itself into safe mode - a protective standby status - on Dec. 26, while remaining in communication with Earth. The Odyssey project team has diagnosed the cause - an uncertainty aboard the spacecraft about its orientation with regard to Earth and the sun - and is restoring the orbiter to full operations.
(2 January 2017)

Looking ahead: Space exploration in 2017 An exciting year lies ahead for science and planetary spaceflight - by NASA and by other spacefaring nations.
(1 January 2017)

Space Wars: U.S. Air Force defends its turf As the nation's space mission grows, does the service have enough clout to manage it all?
(2 March 2017)

Italy, Russia working closely on Mars exploration, Earth monitoring satellites There are neither sanctions nor politics in space and cooperation there between Russia, the US and Europe is absolutely vital. In an interview with Sputnik, the head of the Italian Space Agency (ASI), Roberto Battiston, spoke about the joint projects being implemented by ASI and Russia's Roscosmos space agency.
(23 February 2017)

Mystery surrounds return of Pentagon's secretive X-37B spaceplane After nearly two years in space, one of the US Air Force's biggest mysteries may be returning to Earth.
(22 February 2017)

India takes Russian help to analyze chemical composition of lunar surface ISRO has started a series of ground tests for testing the performance of sensors and actuators for soft landing of the Lander on the lunar surface. India Space Research Organization (ISRO) has selected Russian company JSC Isotope for supply of Radionuclide curium-244 (Cm-244) that enables sources to determine chemical composition of any rocks and soils.
(21 February 2017)

Could Glasgow Prestwick airport host UK's first spaceport? Detailed plans to create the UK's first spaceports are set to be unveiled.
(20 February 2017)

Small satellite rocket booster arrives at New Zealand's first launch site Rocket Lab is one among dozens of companies around the world building rockets to handle an expected boom in demand for small satellite launches.
(18 February 2017)

SatRevolution to launch Poland's first satellite plant Polish company SatRevolution S.A. has unveiled plans to set up the country's first satellite production facility that is to make small spacecraft in cooperation with foreign space industry players.
(17 February 2017)

Indonesia sees long but possible path to developing own satellites Indonesia is taking steps to reduce its dependence on foreign telecommunications satellites through technology-transfer arrangements and micro-satellite development.
(14 February 2017)

UK may lose access to EU Galileo GPS system after Brexit The United Kingdom may be cut off the new EU global positioning system (GPS) Galileo, which has been developed with active participation of British companies, and will have to hold separate negotiations to obtain access to the system after London leaves the European Union, media reported.
(14 February 2017)

North Korea plans to continue satellite launches despite UN objections North Korea intends to continue launching satellites, despite UN Security Council sanctions and resolutions. According to the newspaper Rodong Sinmun, the country will continue to launch satellites when and where its leadership determines.
(11 February 2017)

Minister inaugurating Greek space agency The agency will be a public limited company called National Centre for Space Applications (EKDE in Greek), aimed at "making up for the country's huge deficit in this area," the ministry said. "The launch of the Hellas Sat satellite this year will create important commercial opportunities, which will be developed by a space policy agency along European lines," the announcement said.
(8 February 2017)

UAE aims to launch its first ever Mars mission in 2020 The United Arab Emirates has set an ambitious goal of sending nation's first mission to Mars in 2020, launching its unmanned orbiter from Japan's space centre.
(7 February 2017)

UK spaceport developments at Cambeltown UK Space science and technology firms QinetiQ and Telespazio VEGA UK have agreed Memorandum's of Understanding (MoU) to work with Discover Space UK on investigating the potential for a horizontal launch spaceport at the Campbeltown site on the West Coast of Scotland.
(29 January 2017)

Russia's Proton rocket grounded by poor quality control Russia's workhorse Proton rocket may be grounded until June or July, dealing another blow to the country's launch infrastructure.
(28 January 2017)

Russia to construct Glonass satellite navigation station in Nicaragua Experts from the Russian Central Research Institute of Machine Building (TsNIIMash) will construct a ground Glonass satellite navigation tracking station in Nicaragua, the TsNIIMash's press service said. "The TsNIIMash's specialists will construct a station for tracking data of the Glonass and other global satellite navigation systems in Nicaragua," the press release reads.
(27 January 2017)

Space: Where we've been, where we're going President Obama shook up space policy when he took office, and President Trump may be about to do the same.
(25 January 2017)

Joint space projects to yield results soon: Iranian official Iran's joint projects with other countries in the space field will yield results in the near future, Head of Iran's National Space Center Manouchehr Manteqi said. Iran has begun international cooperation in space projects, Manteqi said, adding that there was no such cooperation in the past.
(23 January 2017)

US Air Force pursues strategy to defend anti-satellite attacks While several countries are known to be making investments in the development of space weaponry, Chinese activities have engendered a particular concern among Pentagon leaders, analysts and threat assessment professionals.
(22 January 2017)

From school to space: satellite built by Brazilian students launched into orbit A satellite built by students of a Brazilian middle school was launched into space from aboard the International Space Station on January 16. The Tancredo-1 satellite, developed by the students of Tancredo de Almeida Neves Municipal School in the city of Ubatuba, measures only 13 centimeters in diameter and weighs about 700 grams.
(21 January 2017)

Russia-China joint space studies centre may be created in southeastern Russia A joint-working space centre of Russian and Chinese specialists could be built in Russia's southeastern Zabaikalsky Territory, the press service of the region's head said in a statement. A centre for joint work of Russian and Chinese specialists in the sphere of space studies could be built in Russia's southeastern Zabaikalsky Territory as a part of the comprehensive plan.
(19 January 2017)

First Singapore satellite launched from the International Space Station The first Singapore satellite launched from the International Space Station took place successfully. Called AOBA VELOX-III, it is a joint project between Nanyang Technological University (NTU) and Japan's Kyushu Institute of Technology (Kyutech). It will be conducting tests to evaluate the durability of commercial off-the-shelf microprocessors in space while orbiting at 400km above sea level.
(17 January 2017)

Lightfoot, Radzanowski will head NASA temporarily Associate NASA Administrator Robert Lightfoot will take over as acting administrator on 20 January.
(14 January 2017)

Opportunities

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

NASA Miro Center for Applied Atmospheric Research and Education (CAARE) - Urban Sustainability and Climate-UAH - NASA (United States)
Space Science Technology Center (NSSTC) in Huntsville, Alabama working with NASA -affiliated researchers, Drs. Maury Estes, Robert Griffin, and Sue Estes (Earth

NASA Moo-Howard University: Energetic Radiation Environment at Mars and Phobos - NASA (United States)
radiation environment will be assessed using data system resources of the NASA Space Physics Data Facility (SPDF), the Virtual Energetic Particle Observatory (VEPO),

NASA Office of Education: Educator Intern - NASA (United States)
Student will support NASA Armstrong Flight Research Center’s Office of Education programs using NASA STEM content to inspire and engage students and educators.

NASA Office of Education: Robotics Intern - NASA (United States)
Student will support NASA Armstrong Flight Research Center’s Office of Education programs using NASA STEM content to inspire and engage students and educators.

NASA Student Airborne Research Program (Sarp) - NASA (United States)
The NASA Airborne Science Program invites highly motivated advanced undergraduates who will be rising seniors in summer 2017 to apply for participation in the 9th

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

Development of CERS Using the NASA CADRe - NASA (United States)
develop predictive cost estimating relationships (CERS) using data contained in NASA ’s online cost data repository (CADRE-Cost Analysis Data Requirement) and through

Opportunity Title: NASA Miro Center for Applied Atmospheric Research and Education (CAARE) - Air Quality and Climate Effects on Public Health - USRA - NASA (United States)
This internship opportunity is part of a NASA -funded project entitled "Center for Applied Atmospheric Research and Education (CAARE)" that is led by San Jose State

Technology Transfer Program - Bringing NASA Technology Down to Earth - NASA (United States)
NASA ’s Kennedy Space Center (KSC) conducts a wide...across a broad spectrum of technical disciplines to help NASA meet its mission goals and objectives. As a

www.iac2017.org

INTERNATIONAL ASTRONAUTICAL CONGRESS 2017

ADELAIDE, AUSTRALIA
25-29 SEPTEMBER 2017

68TH IAC
ADELAIDE 2017

-- Unlocking imagination, fostering innovation and strengthing security --

INDUSTRY ANCHOR SPONSOR

LOCKHEED MARTIN

Australian Government

QANTAS