

SEVEN DAYS

The news in brief

POLICY

Animal-data dispute

Following a backlash from advocacy groups, lawmakers and the public, the US Department of Agriculture began to restore previously deleted animal-welfare data to its website on 17 February. The move reverses the agency's decision two weeks ago to censor tens of thousands of facility inspection reports, including those on violations of the Animal Welfare Act, because of privacy concerns and litigation. The advocacy group People for the Ethical Treatment of Animals, along with five other organizations, is suing the agriculture department over its previous decision. It says that it will continue to fight until all the records have been restored.

SPACE

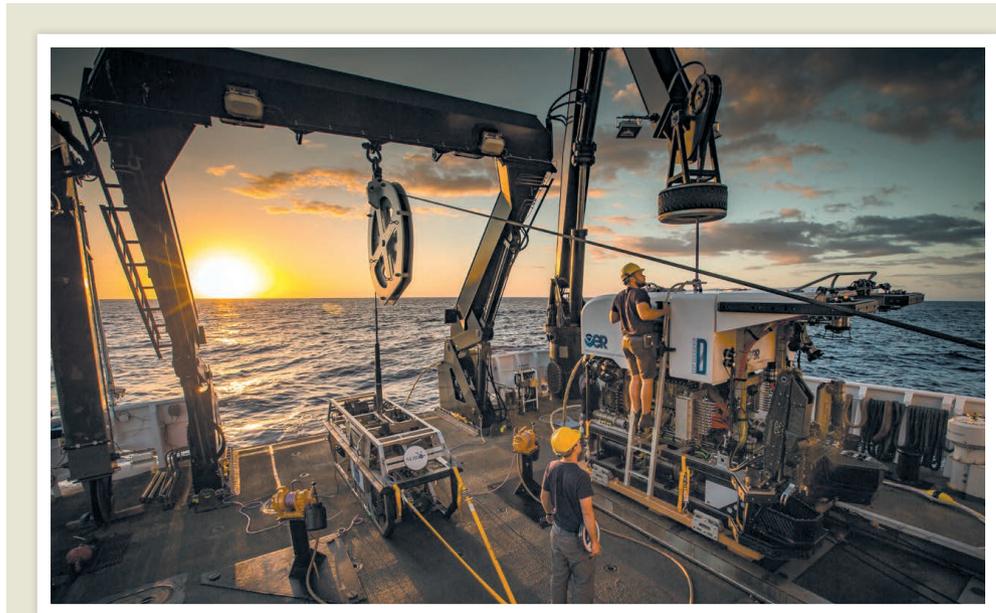
NASA crew plans

NASA is considering putting astronauts on the first flight of its new heavy-lift rocket and crew capsule, the agency announced on 15 February. Astronauts would ride in the Orion capsule atop the Space Launch System (SLS), a behemoth even more powerful than the Saturn V rocket that took humans to the Moon in the Apollo programme. Launching a crew would push back the date of the flight, currently scheduled for 2018, by at least a year, but give it a higher profile. The SLS is the foundation for NASA's long-term plans to send humans to Mars and deep space.

PEOPLE

Pruitt confirmed

The US Senate has confirmed Scott Pruitt as head of the Environmental Protection Agency (EPA). On 17 February, senators approved Pruitt's



NOAA OFFICE OF OCEAN EXPLORATION AND RESEARCH

Sunken gardens surrender their secrets

Divers are exploring deep-sea coral and sponge habitats as well as hydrothermal vents near American Samoa and its surrounding islands and atolls. The expedition, which began on 16 February, will map the sea floor, collect data on water chemistry and capture geological

and biological samples. The trip is part of the final phase of a three-year campaign led by the US National Oceanic and Atmospheric Administration to explore the deep-sea environments of US marine sanctuaries in the central and western Pacific Ocean.

nomination with a 52–46 vote, mostly along party lines, despite his previous clashes with the agency, of which he has been a vocal critic. As Oklahoma attorney-general, Pruitt had sued the EPA on 13 occasions to stop regulations concerning clean water and air. Many senators had hoped to delay his confirmation until a batch of e-mails related to his ties with the fossil-fuel industry were released as part of a public-records request.

EVENTS

CRISPR patents

The US Patent and Trademark Office has upheld the patents it granted for CRISPR–Cas9 gene editing to the Broad Institute of MIT and Harvard, in Cambridge, Massachusetts.

The decision on 15 February concludes one part of a row over intellectual-property rights to the potentially lucrative technology. The Broad Institute was awarded its patents first; but the University of California, which was first to apply for a patent on the technology, argues that its team in Berkeley had invented CRISPR before competing researchers at the Broad Institute. See page 401 for more.

GM rice theft

A federal jury convicted a Chinese scientist on 16 February of stealing genetically engineered rice from a Kansas laboratory. Weiqiang Zhang, a rice breeder formerly with Ventria Bioscience in Junction City,

stole hundreds of rice seeds from the company and stored them in his apartment, the US justice department said in a statement. In 2013, US customs officers found seeds belonging to Ventria in the luggage of Chinese crop researchers who had visited Zhang at his home. Ventria develops genetically programmed rice for medical uses.

Cyber threat

More than 60 universities and government agencies in the United States and the United Kingdom may have been targeted by cybercriminals. According to Recorded Future, a cybersecurity provider in Somerville, Massachusetts, a Russian-speaking hacker known as Rasputin is offering unauthorized access to a

wide range of information stored on databases. Affected institutions include the Fermi National Accelerator Laboratory near Chicago, Illinois; Cornell University in Ithaca, New York; and Britain's Oxford and Cambridge universities. The hacker is reportedly selling a tool based on a technique called SQL injection to attack applications and steal data. Recorded Future says that Rasputin used the same method to breach the US Election Assistance Commission in November last year.

Satellite record

The Indian Space Research Organisation sent a record 104 satellites into orbit with a single lift-off of its Polar Satellite Launch Vehicle on 15 February. The cargo consisted of India's Cartosat-2 Earth-observation satellite, along with 103 light-weight nanosatellites. These included 88 small commercial satellites made by Planet, an Earth-imaging company in San Francisco, California, which can now image all of Earth's landmass every day.

Armyworm crusade

Sixteen eastern and southern African countries have agreed to coordinate an emergency response to tackle the fall-armyworm infestation that is threatening food security in sub-Saharan Africa. The



decision was made at a meeting in Harare, Zimbabwe, on 16 February. Endemic to South America, the fall armyworm (*Spodoptera frugiperda*, pictured) was first observed in Africa in early 2016 and has since been detected in at least seven countries. In its larval form, the pest consumes the foliage and flowers of a wide variety of crops. Estimates by the Food and Agriculture Organization of the United Nations suggest that more than 250,000 hectares of African cropland have been affected.

RESEARCH

Alzheimer's setback

The pharmaceutical company Merck announced on 14 February that it is stopping a major late-stage clinical trial of its Alzheimer's drug because the compound has been judged ineffective. Like other experimental Alzheimer's drugs that have recently failed in trial, Merck's verubecestat

targets the protein amyloid- β , which clumps into plaques in the brain in people with Alzheimer's. Genetic evidence suggests that amyloid- β plays a key part in dementia, and the trials may have failed because they recruited people in whom the disease had advanced too far for therapy to help. Verubecestat is also being tested in people with very early-stage Alzheimer's, and several other clinical trials with drugs that target amyloid- β are in progress in people with a high risk of the disease.

HEALTH

Famine alert

South Sudan has officially declared a famine in parts of the war-torn nation. A collapsing economy and stifled agriculture mean that some 100,000 people in the country's Unity state are facing starvation, and a further 1 million people face the threat of famine, the government said on 20 February. According to the Food and Agriculture Organization of the United Nations, the spreading food crisis threatens to affect almost half of South Sudan's 11.3 million people by the height of the lean season (the period between harvests) in July. A formal famine declaration — the first in six years by any country

COMING UP

26 FEBRUARY–2 MARCH

Systems biologists discuss global regulation of gene expression at Cold Spring Harbor Laboratory, New York. go.nature.com/2kq6gph

27 FEBRUARY–1 MARCH

Planetary scientists discuss their visions for the future at a NASA workshop in Washington DC. go.nature.com/2me4r9v

27 FEBRUARY–2 MARCH

A meeting in Cancún, Mexico, covers new targets in cancer therapy. go.nature.com/2m0j3h3

— means that people have already started dying of hunger.

Global air pollution

More than 90% of the world's population lives in unhealthy air, and the total number of deaths from outdoor air pollution reached about 4.2 million in 2015, according to a report released on 14 February. Deaths due to inhalation of fine airborne particles increased by more than 20% from 1990 to 2015, according to the *State of Global Air 2017* report from the Global Burden of Disease project and the Health Effects Institute in Boston, Massachusetts. This type of air pollution is especially high in North Africa and the Middle East, but is also a major issue in Bangladesh, India and China. Particulate matter is now the fifth major health risk, behind high blood pressure, smoking, high blood sugar and high cholesterol, says the report.

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TREND WATCH

Funding for research on Ebola and other African viral haemorrhagic fevers shot up to US\$631 million in 2015, in response to the West African epidemic. But excluding that boost, global investment in research on other traditional neglected diseases is at its lowest level, according to the annual G-FINDER report by Policy Cures Research released on 16 February. In 2015, public and private sources invested an overall US\$3.63 billion in basic research and development of products and technologies for 39 neglected illnesses.

TWO SIDES OF THE COIN

Funding for Ebola research shot up in response to the West African outbreak, while money for other 'neglected diseases' continues to fall.

