

SEVEN DAYS

The news in brief

RESEARCH

Moon smash

Twin spacecraft that mapped the gravity field of the Moon with unprecedented precision ended their mission with a controlled crash on 17 December. Ebb and Flow, the two probes that make up NASA's Gravity Recovery and Interior Laboratory (GRAIL), produced the first ultra-high-resolution picture of the Moon's gravitational field by flying in tandem in lunar orbit for just under a year while exchanging radio signals. See go.nature.com/uoa1ft for more.

Ice plunge halted

A broken boiler has scuppered the first attempt to drill through more than 3 kilometres of ice to reach Lake Ellsworth, an ancient subglacial lake in Antarctica. The main burner-control circuit blew as a team from the British Antarctic Survey powered up its hot-water drill on 10 December. The team fitted a secondary burner to keep the boiler going until a replacement part could arrive, but that, too, packed up four to five days later. The team is unlikely to resume drilling before 21 December.

Collisions pause

CERN, Europe's particle-physics laboratory near Geneva, Switzerland, announced on 17 December that it had stopped its run of proton-proton collisions at the Large Hadron Collider, in which the Higgs boson was discovered. For about a month in early 2013, the accelerator will instead smash protons with lead ions to recreate conditions just after the Big Bang. It will then shut down until 2015 for an overhaul that will increase the proton-collision energies by more than 60%.



JULIE LARSEN MAHER/WILDLIFE CONSERVATION SOCIETY

Sprinklers aid a toad's return

A toad declared extinct in the wild in 2009 has been reintroduced into its original location in Tanzania, the Wildlife Conservation Society's Bronx Zoo announced on 12 December. The construction in 1999 of a hydroelectric dam had damaged the original waterfall microhabitat

of the Kihansi spray toad (*Nectophrynoides asperginis*) in the Kihansi Gorge. While naturalists bred the toad in captivity, the Tanzanian government built an artificial spray environment in the gorge. That enabled the zoo and its partners to return 2,000 toads to the wild.

Ancient ice

Australia will lead a team to Antarctica next summer to collect an ice core spanning the past 2,000 years, environment minister Tony Burke announced on 15 December. The 400-metre core, drilled from an area of high snowfall called Aurora Basin North, should yield a year-by-year picture of climate changes over that period.

eLife launches

The open-access journal *eLife* officially launched on 13 December. The online publication, for advances in life and biomedical sciences, has been publishing articles since October, but it now has a dedicated website. The journal, which currently charges no author fees, is the brainchild of three major funding organizations: the

US Howard Hughes Medical Institute, Germany's Max Planck Society and the UK Wellcome Trust.

PEOPLE

Negligence found

Germany's main funding agency, the DFG, has prohibited immunologist Silvia Bulfone-Paus from submitting funding proposals for three years. An investigating committee had said Bulfone-Paus had committed a 'gross negligence of her supervisory duty' after it found that two members of her lab at the Research Center Borstel had manipulated data in four papers. See go.nature.com/wed2en for more.

Oceans chief quits

Marine ecologist Jane Lubchenco announced her resignation as head of the

US National Oceanic and Atmospheric Administration (NOAA) on 12 December. During her tenure at NOAA, Lubchenco pushed through a national ocean policy as well as scientific-integrity rules for the agency. She had previously said that she would be willing to stay on for President Barack Obama's second term, but in a memo to staff, Lubchenco cited family issues in choosing to return to Oregon, where she is a professor at Oregon State University in Corvallis, at the end of February.

POLICY

Texas cancer probe

Texas prosecutors have launched a criminal probe into irregularities in grant review at a US\$3-billion publicly funded cancer agency. On 7 December, the district attorney in Travis

DEMOITIX/CORBIS

County, home to the Cancer Prevention and Research Institute of Texas (CPRIT) in Austin, notified executive director William Gimson of the investigation. Gimson resigned on 10 December. On the same day, CPRIT announced the appointment of a new chief scientific officer: cancer immunologist Margaret Kripke.

Animal ruling

A higher administrative court in Bremen, Germany, ruled on 11 December that local health authorities had been wrong in 2008 when they chose not to reapprove a licence for studies on macaque monkeys granted to neuroscientist Andreas Kreiter of the University of Bremen. The authorities' decision had followed animal-rights protests. But the court ruled that licensing decisions should be made by expert committees, in line with European laws. See go.nature.com/w2dwzd for more.

Ivory seized

About 1,500 pieces of African elephant ivory have been seized in Malaysia, its customs authority revealed last week. Unconfirmed reports suggest that the stash weighs up to 24 tonnes, which would make it the largest haul of illegal ivory ever. The ivory (pictured) was hidden in ten crates being shipped from Togo to China,



and the seizure has reignited concerns over the growing illegal trade. See go.nature.com/oik71p for more.

EU patent package

After decades of negotiation, the European Union (EU) approved a unified 'patent package' on 11 December. The agreement will allow applicants to obtain a unitary patent that will be valid in 25 out of the 27 EU member states, after Spain and Italy refused to sign up to the deal. The first unitary patents are expected to be granted in April 2014. See go.nature.com/jgyvly for more.

Drugs neglect

Of the 756 drugs approved from 2000 to 2011, 3.8% were for 'neglected diseases' that afflict poor countries, according to a report from the aid organization Médecins Sans Frontières and the Drugs for Neglected Diseases Initiative, a Swiss not-for-profit research and development programme. Just 1.1% of 1,393 approvals in the previous

25 years were for such diseases. The findings were presented last week. See go.nature.com/nvwhoi for more.

Safety for sharks

The Cook Islands has joined forces with neighbouring French Polynesia to create the world's largest shark sanctuary, an area of 6.7 million square kilometres. Roughly the size of Australia, the sanctuary has a ban on shark fishing and possession or sale of shark products. French Polynesia established most of the area on 6 December, and the Cook Islands added another 1.9 million square kilometres on 13 December.

BUSINESS

India's drug law

India adopted legislation to cap the price of essential medicines last week — and promptly faced a challenge in its Supreme Court. The All India Drug Action Network filed a petition against the measure, an update of a 17-year-old law. Although the goal of the legislation is to make medicines more affordable, observers say that loopholes in the policy could allow pharmaceutical companies to sidestep the price ceiling. Critics say that poor people might end up paying higher prices for some drugs. See go.nature.com/irsqur for more.

COMING UP

1 JANUARY

California launches its market for trading carbon emissions — the second largest in the world, behind only the European system. go.nature.com/8xfxq

2 JANUARY

Barring a last-minute deal, legislation that makes US federal science agencies subject to automatic 'sequestration cuts' takes effect, removing around 8% from their programme budgets. go.nature.com/7nrwj

IP superpower

China's State Intellectual Property Office (SIPO) handled 526,412 patent applications in 2011, surpassing the 503,582 received by the US Patent and Trademark Office, according to a report published on 11 December by the World Intellectual Property Organization in Geneva, Switzerland. This makes SIPO for the first time the world's largest patent office. See page 323 for more.

EVENTS

Troubled rocket

North Korea may finally have achieved its space dream — only to see its satellite spiral out of control. The country has been successful in its fifth attempt since 1998 to launch an object into orbit, as confirmed by the US–Canadian defence radar network NORAD on 11 December. However, as *Nature* went to press, US reports suggest that the spinning satellite is 'dead' in orbit — with no transmissions.

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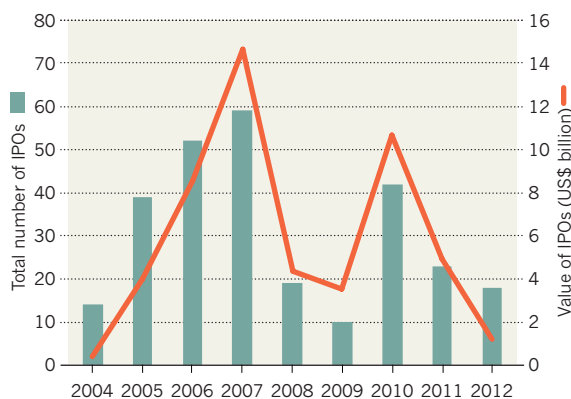
For daily news updates see: www.nature.com/news

TREND WATCH

It has been a dismal year for initial public offerings (IPOs) of clean-technology firms (see chart). "Clean energy has been hit with a double whammy of oversupply and declining policy support," says Stefan Linder, an analyst at Bloomberg New Energy Finance in New York. The largest debut was by Jiangsu Sunrain Solar Energy in Lianyungang, China, which raised US\$340 million. Most recently, on 13 December, solar installer SolarCity of San Mateo, California, raised \$92 million in its IPO.

CLEAN-TECH IPO CRUNCH

Initial public offerings (IPOs) in clean energy suffered a dismal year in 2012, raising the lowest total since 2004.



SOURCE: BLOOMBERG NEW ENERGY FINANCE