Demolished satellite turns into dangerous debris

One unwelcome outcome of China's recent destruction of a satellite is the creation of a large amount of space debris.

On 11 January, according to US intelligence sources, China launched a test weapon that struck and destroyed an obsolete weather satellite.

David Wright, a weapons expert at the Union of Concerned Scientists in Cambridge, Massachusetts, estimates that the explosion created a cloud of 2 million particles in an orbit similar to that of many other satellites. The debris probably includes some 40,000 particles larger than 1 centimetre moving at about 7.5 kilometres a second, 30 times the speed of a jumbo jet.

"A millimetre-sized piece of debris can very seriously damage a satellite," says Wright. Many of the particles will remain in orbit for a decade or longer, he adds.

Drop in fatalities fuels optimism over cancer

The number of people dying from cancer in the United States has fallen for the second time in two years. The second decline has convinced experts that the drop — a first since records began in 1930 — marks a real trend rather than a statistical fluke.

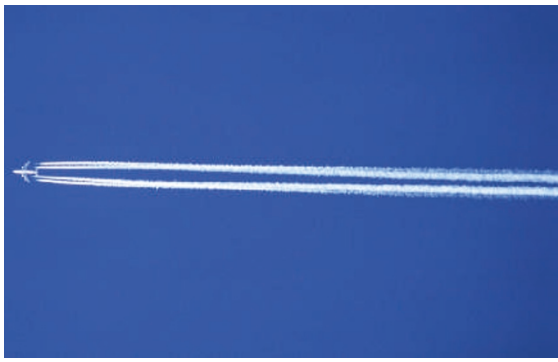
The latest figures were announced by the American Cancer Society on 17 January (A. Jemal *et al. CA Cancer J. Clin.* 57, 43–66; 2007). Compiled for 2004, they show that the number of deaths fell by 0.5% over the previous year to 553,888. Earlier tumour detection, better treatment and disease prevention due to lifestyle changes are probably behind the drop, the society says.

But the decline doesn't mean doctors and researchers can drop their guard. Cancer still kills more than 7.6 million people each year, accounting for about 13% of all deaths worldwide.

Britain draws up rules for carbon buy-back schemes

Britain is set to become the first country to introduce government-regulated voluntary standards for carbon-offsetting schemes. The move would allow consumers to ensure that money paid into such projects goes towards cutting greenhouse-gas emissions.

Under the scheme, offsetting agencies that measure up to the government's code of practice will get a 'quality mark' that they can advertise to customers, said environment minister Ben Bradshaw, who opened the plans up to public consultation on 18 January.



Pay as you go: a UK scheme could boost consumer confidence in ways to offset carbon emissions.

F. DAMM/ZEFA/CORBIS

Carbon offsetting (see *Nature* 444, 976–977; 2006) gives consumers the chance to buy back greenhouse-gas emissions from activities such as flying by investing in emissions-saving projects. Some businesses have begun offering offsets as part of holiday packages, but consumer groups have warned that not all schemes deliver genuine emissions cuts. The new scheme would give a thumbs-up to agencies that offer offsetting schemes approved by monitoring bodies such as the United Nations' Clean Development Mechanism.

Growth of transgenic crops seeds food fight

For the first time, the area of the world planted with genetically modified crops has exceeded 100 million hectares, according to an industry-backed group. The figure represents a 13% jump over 2005, it says, and shows a 60-fold increase since the crops were first planted a decade ago.

In its report issued on 18 January, the International Service for the Acquisition of Agri-biotech Applications notes that more than 90% of the 10.3 million farms growing biotech crops are relatively small.

But opponents of genetically modified crops published their own report on 9 January asserting that uptake of the technology has generally increased the use of pesticides and has not benefited either small farms or consumers.

The Amsterdam-based Friends of the Earth International and the Center for Food Safety, based in Washington DC, say that most genetically modified crops are used as high-priced animal feed to supply rich nations with meat. They report that more than 70% of the crops are grown in the United States and Argentina, and claim that genetically modified crops have served to boost herbicide sales while increasing the number of herbicide-resistant weeds.

Dutch astronomer shines at European observatory

Astronomer Tim de Zeeuw has been appointed director-general of the Munich-based European Southern Observatory (ESO). When he takes office in September, he will become the observatory's seventh director — and the fourth to be Dutch. At 50 years old, he is also one of the youngest to hold the post.

Currently science director of the Leiden Observatory in the Netherlands, de Zeeuw will temporarily exchange his personal research interests in galaxy and star formation for the technical, organizational and financial management of the ESO's three major projects: an upgrade of the Very Large Telescope in Chile, construction of the Atacama Large Millimeter Array, and development of the European Extremely Large Telescope.

ESO

Starman: Tim de Zeeuw will take the reins at the European Southern Observatory in September.

Think-tank highlights rapid rise of science in Asia

Surges in markets, state funding and a flow of native talent heading home are boosting science and innovation in China, India and South Korea to an unprecedented extent that is too little appreciated elsewhere. That's the main conclusion of four reports surveying these countries, published last week by the UK think-tank Demos.

The reports also note the countries' weaknesses, including a need to establish more confidence in ethical frameworks and to develop home-grown creativity. Nevertheless, Demos says, a fundamental shift in the geography of scientific ideas and their impacts is under way.

Demos warns governments in the West not to react in a defensive way to this growth. Instead the group proposes schemes by which Britain, in particular, should increase its engagement with the three countries.