

vegetation; and a radiometer named NISTAR to measure the energy coming from Earth.

Current estimates of the planet's energy balance rely on stitching together strips of data from orbiting satellites, but DSCOVR will observe the entire sunlit side of Earth. It should reduce errors in estimates of Earth's radiation budget to 1.5% — a more-than-twofold improvement on present measures, says climate scientist Patrick Minnis of NASA's Langley Research Center in Hampton, Virginia, who now leads this aspect of the mission. It will not be the final word, says Adam Szabo, the mission's project scientist at NASA's Goddard Space Flight Center in Greenbelt, Maryland, but DSCOVR will be a big help to climate simulations. And it will partly fulfil Gore's original vision by posting snapshots of Earth online every few hours.

POLITICAL SCIENCE

Although it blew past its original US\$50-million budget to roughly \$100 million, DSCOVR was still built relatively quickly and cheaply. NASA completed construction in 2000, intending to launch the craft on the space shuttle.

In January 2001, George W. Bush became president after defeating Gore in a controversial election. Soon after, the mission was taken off NASA's shuttle flight manifest. The official reason was that construction of the chronically delayed and over-budget International Space

Station required a higher priority.

But that did not stop speculation about political motives. 'Who killed DSCOVR?' became something of a parlour game in space circles. Mitchell Anderson, a reporter for the climate website DeSmogBlog in Vancouver, Canada, cited an unnamed NASA source who said that

Bush's vice-president Dick Cheney had given the order; others suggest that it was the president himself.

In reality, the space shuttle's crowded launch schedule was the biggest obstacle, says Ghassem Asrar, who was the head of NASA's Earth-science division when the decision was made. But the project had become "tainted", he adds, preventing public support from privately sympathetic politicians and from NASA itself. "It would be dishonest to say the politics of climate science wasn't a factor. It was."

In November 2001, with no launch slot in sight, Congress approved \$1 million for DSCOVR to be put into storage at Goddard. And there it might have remained were it not for interest from space-weather forecasters at NOAA and in the Air Force. In 2008, they were looking to cheaply replace NASA's ageing Advanced Composition Explorer, which had

been informing forecasts from the same spot in space that DSCOVR was supposed to occupy. In October that year, Congress ordered NASA to come up with a plan for DSCOVR's revival, and after a series of tests, it began funding NOAA to refurbish and operate the craft with \$105 million over five years.

For Jay Herman, an atmospheric scientist at Goddard and EPIC instrument scientist, the delay has a silver lining: the refurbishment revealed a manufacturing defect in EPIC that would have let in stray light and potentially ruined its image of Earth. The delay allowed enough time to study the problem and correct for it. "So in some ways," says Herman, "I'm very glad it did not fly 14 years ago. Because it might have been embarrassing." ■

CORRECTION & CLARIFICATION

In the story about Suzanne Topalian in 'Nature's 10' (*Nature* **516**, 311–319; 2014), the text wrongly noted that the July approval for the drug she'd been involved with was in the United States — it was in Japan. The News Feature 'Pollution patrol' (*Nature* **517**, 136–138; 2015) quoted Joshua Apte as saying that air pollution is the largest global health risk. What he meant to say was that it is the largest environmental health risk.