

# ESA avoids split over space station plans ...

**Toulouse.** France and Germany last week pulled Europe's joint space programmes back from the brink of collapse in a flurry of late-night negotiations that led to agreement on Europe's participation in the international space station, and the continued development of the new Ariane-5 launcher.

The negotiations marked the nail-biting climax to a meeting of the ministers of the member states of the European Space Agency (ESA) in Toulouse, France. "Europe is back in orbit," declared a beaming Ivan Illieff, Belgium's science minister and the chairman of the three-day meeting, as he announced that consensus had been reached on all the crucial decisions that it had faced.

At Illieff's side, looking grey-faced from lack of sleep, Jean-Marie Luton, the director general of ESA, smiled nervously. "The money didn't exist, but it came," he sighed with relief, referring to the end of months of deadlock among the member states over funding of the agency's proposals.

Failure to break this deadlock would probably have led to the disintegration of ESA, claimed François Fillon, the French minister responsible for space, with Germany withdrawing in order to participate on its own alongside the station's other international partners, the United States, Russia, Canada and Japan. "It could have been handkerchief time tonight," he remarked.

But agreement has not been without its price. Both France and Germany have significantly increased their commitments to the costs of the programmes approved at the meeting. At the same time, under the agreements reached at the meeting, ESA itself will have to reduce its annual running costs of ECU170 million (US\$225 million) by 12 per cent over the next five years, and reduce its 3,500 staff by 500.

The meeting agreed to spend ECU2.8 billion on Europe's contribution to the space station between 1996 and 2004. This will include development of the Columbus Orbital Facility (COF), to be built by Germany and Italy, an Automated Transfer Vehicle, built by France, to ferry freight and fuel to the station.

The meeting also agreed that Europe's contribution to the running costs of the station should be made in kind, and not exceed the equivalent of one Ariane-5 flight to the station every 20 months, relieving fears among the member states that the running costs of the station might erode ESA's budget. Although this proposal will need to be approved by the other international partners, Daniel Goldin, administrator of the US National Aeronautics and Space Administration, told Luton this month that it would be acceptable.

Agreement on the financing of Europe's space station contribution was primarily the

result of France and Germany — already ESA's largest paymasters — agreeing to support each other's pet projects.

Germany's main interest is in the space station, and France, which had previously agreed to withdraw a proposal to substitute a French built crew rescue vehicle (CRV) for the planned COF space laboratory (see *Nature* 377, 191; 1995), agreed to increase its funding for the German-led station programme from 16 to 27 per cent. Germany will pay 41 per cent of the costs of the programme.

At the same time, recognizing France's goal of maintaining the autonomous access of Europe to space through the Ariane launcher programme, Germany has agreed to increase its contribution to the French-led programme to further develop the Ariane-5 launcher from 7 to 17.7 per cent. The meeting agreed to spend ECU1,721.4 million on this programme between 1996 and 2003, with France meeting almost half the costs. In a further gesture towards France, the meeting also agreed that ESA will spend ECU50 million on further technical studies of its CRV project.

Despite these concessions, negotiations almost broke down when Italy repeated its previous refusal to pay more than ECU100 million of the ECU300 million it had originally promised to ESA's planned contribution to the station over the period 1996–2000. Eventually, however, Italy agreed to borrow ECU150 million to make

up its contribution, after France and Germany had promised that Italian industry would be awarded an extra ECU50 million in contracts, and ESA agreed to make ECU50 million of economies in the programme.

As a result, Italy will now contribute 19 per cent of the costs of ESA's contribution to the station, and 6 per cent of the costs of the Ariane development programme. The United Kingdom, which has never participated in the Ariane programme, also indicated that it would contribute 2 per cent to the launcher programme.

There will, however, be a heavy price to pay by France and Germany — as well as ESA itself — for the space station decision. The French space agency, CNES, for example, will have to cut its budget by 5 per cent to meet France's obligations.

Jacques Chirac, the French president, applauded the agreements reached. But Lionel Jospin, the leader of the opposition socialist party, criticized the level of France's increased contribution to the station programme, warning that it could damage national programmes.

But the major political outcome of the meeting seems to be the firm re-establishment of the

Franco-German axis as the central pillar of Europe's space programmes. Papering over the tensions of the past few months, when Germany and France were backing their rival versions of Europe's contributions to the space station, Fillon said that a critical factor had been a meeting of minds between the two countries, a sentiment echoed by Jürgen Rüttgers, his German counterpart.

**Declan Butler**



**Going up: Ariane V will help to pay space station bill.**

## ... but holds back on space science

**Toulouse.** The science programmes of the European Space Agency (ESA), considered by many as 'the jewel in ESA's crown', have fallen victim to twin pressures of a general squeeze on the space budgets of some of its member states due to their commitments to the space station (see above) and pressure from some states to shift the balance of spending back to domestic and bilateral programmes.

In the run-up to last week's ESA space ministers meeting in Toulouse, ESA had been insisting that the budget for the various programmes in its flagship Horizon 2000 science programme should be increased at the rate of inflation over the next five years. But

the United Kingdom had opposed this increase, arguing that ESA could cut 25 per cent of the costs of its science missions over this time period, while Germany proposed that the budget remain level.

Under a French-brokered deal agreed at the meeting, the annual budget of the science programme will be kept constant at ECU347 million (US\$457 million) from 1996 to 1998 — roughly in line with German demands — and will be indexed only for any inflation over 3 per cent. The meeting agreed to reconsider in 1998 whether a constant budget should be maintained up to the end of the decade.

Roger Bonnet, head of ESA's science ▶

programmes, has so far declined to comment on the reduction in the science budget until its full impact has been assessed, although he is reported to be "extremely disappointed".

David Southwood, professor of physics at Imperial College, London, and chairman of ESA's science programme committee, describes the prospect of a 9 per cent cut over three years as a "squeeze" that can be managed. But he goes on to say that he would be worried if the level of cuts were extended beyond then, arguing that this would lead to a general attrition of the programme.

The United Kingdom, which will be in a position to veto any further increase after 1988, at present feels confident that the level funding will be extended to the full five years. Ian Corbett, director of science at the UK Particle Physics and Astronomy Research Council (PPARC), says this will result in a reduction of 15 per cent in ESA's space science budget — equivalent to a saving of £15 million for the United Kingdom that is now available for its domestic space programme — and is therefore "not much less" than the 25 per cent reduction which Britain had been seeking.

Indeed, Britain's delegation to the ministerial meeting described the outcome as a "success". According to Corbett, as well as making money available for PPARC to spend on instruments and exploiting the results of missions, the agreement will improve PPARC's ability to plan in the long term, as ESA will no longer have to find extra money each time the inflation rate changes. "The arguing is now over," says Corbett. "We and ESA have a stable basis on which to move forward."

Jean-Marie Luton, the director general of ESA, claimed during last week's meeting that the budget cuts were unlikely to have a significant impact on planned space missions. But others are less optimistic. One agency official points out that all of ESA's programmes are under financial pressure, and that the science programme could still become a target for further cuts.

Such cuts may not be made directly, but rather may emerge as the result of administrative reforms at the agency. The science programme, for example, has until now benefited from privileged charging arrangements for overheads, and these risk being trimmed back, according to Southwood.

According to Southwood, the overall challenge to the agency, and indeed to Europe's space industry in general, is to improve the efficiency with which it carries out projects. He refers in particular to proposed reforms of ESA's industrial policies, which will be reviewed at an informal ministerial meeting next year. "Industry will need to do more for less," he says. But he warns that delays — or even cuts — to the science programme now seem inevitable.

D.B.

## Health bodies urge backing for early warning procedures

**Washington.** The World Health Organization (WHO) and the US Centers for Disease, Control and Prevention (CDC) have appealed to their respective funding bodies for more money to pay for joint and separate initiatives to identify, control and eventually eradicate emerging infectious diseases.

The WHO has asked its 190 member states for \$5.5 million to help foot the \$7 million costs for a worldwide early warning system to pre-empt infectious diseases, citing examples such as last year's spread of bubonic plague in India which killed 54 and left losses worth an estimated \$1.5 billion, and the Ebola virus outbreak that killed 300 in Zaire. The proposals include the setting up of a network of rapid response units to place expert health teams at any world disease zone within 24 hours of an outbreak.

Meanwhile the CDC is urging the US Senate to recommend an increase in its budget to match the \$125 million annual operat-

re-emerging disease through innovative field epidemiology and public health laboratory programmes," Heymann said last week.

The CDC project, which shares many of the WHO programme's objectives — although restricted to the United States — has so far received just \$7.7 million this year. The House of Representative has recommended an increase of \$12.8 million to the CDC's overall budget. But so far, the Senate has been less generous.

"History tells us that infectious diseases will remain important, evolving complex public health issues," David Satcher, the director of CDC, told a hearing of the Senate Labor and Human Resources committee last week. The main problem, he says, lies at the state and local levels, where funding cuts in health departments have left them "poorly prepared" to identify and respond to infectious agents. But Satcher added that federal agencies, led by the CDC, are well placed to deal with emerging infectious diseases both in the US and abroad.

His comments contrast with those in a 1992 report by the Institute of Medicine which criticized the nation's ability to identify and react to harmful organisms. This was seen as a clarion call for renewed effort against emerging infections.

The fact that the CDC and WHO projects share similar goals and the same lexicon — "to strengthen surveillance, strengthen prevention and control, strengthen infrastructures, foster applied research" — is no coincidence. One quarter of WHO's budget comes from the US government, and the US contribution is currently threatened with cuts of 35 per cent proposed by a Senate appropriations panel. WHO officials would dearly like to see CDC succeed in its bid for more funds. A vote for the CDC project would, by implication, be a vote for WHO.

Much of WHO's promotional literature addresses both its international as well as its US policymaker audience. In a briefing paper, Hiroshi Nakajima, WHO's director general, says the agency's strategy for tackling emerging infectious diseases "is consistent with the plan developed by the Centers for Disease Control and Prevention".

Meanwhile, a group of 17 US agencies led by the CDC, known as the Committee on International Science, Engineering and Technology, has been discussing how to upgrade the global response to threats of infection. In a report published in July, it recommends establishing a global surveillance network linking up to the CDC. A task force from this group will meet in November to produce another plan outlining how its recommendations should be implemented.

Adrienne Appel &amp; Ehsan Masood

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**First signs: rats in Surat provided indicators of the possible arrival of bubonic plague.**

ing costs once the conclusions of its report, *Addressing Emerging Infectious Disease Threats: A Prevention Strategy for the United States*, are fully implemented, planned for the year 2002.

The WHO project will be run by its newly created Division of Emerging, Viral and Bacterial Diseases Surveillance and Control (EMC). It will be headed by David Heymann, the physician credited with stopping the spread of Ebola to 2 million people in the Zairean capital of Kinshasha.

"EMC will work to strengthen country surveillance and disease control in order that countries that develop the early warning systems necessary to detect an emerging or