Deciding on indecision

London

LAST week's gathering of European ministers in Munich may have failed in its task of deciding the future of the European Space Agency (ESA) in manned spaceflight, but most delegates went home satisfied that they at least avoided a catastrophic disintegration of ESA's two flagship projects — the reusable spaceplane Hermes, and Columbus, Europe's contribution to the US-led space station Freedom. For the time being, the ministers decided, both will continue, although with slightly reduced budgets.

The cost of saving the projects, however, is that Europe's ambition to become an independent power in manned spaceflight has taken a body blow: if ESA officials cannot pull in extra funds by persuading the Soviet Union and Japan to collaborate in the agency's manned programme, the German government may yet act on its threat to withdraw from Hermes when the ministers meet in Spain a year from now — an action that would kill the project.

ESA director-general Jean-Marie Luton was seeking backing for a plan to complete Hermes for \$7,600 million (at 1990 prices) and Columbus for \$5,300 million. Although Luton did not receive this endorsement, ESA's managers are relieved at the outcome of last week's meeting. Not only were the reluctant Germans kept in the Hermes project, despite a 40 per cent cost overrun since the last ESA ministerial meeting in 1987, but a threatened revolt of the smaller ESA nations was also averted. Norway, which was expected to lead this protest by withdrawing its 0.2 per cent contribution to the Hermes budget, was placated by assurances that its aerospace industry will receive a fair share of the contracts to build the spaceplane.

The central question was whether Europe's grand ambition to develop an autonomous manned space programme is still realistic. This idea has long been championed by France, and in the relative economic plenty of 1987, the other large ESA states — apart from Britain — were prepared to agree. But in today's harsh economic climate, enthusiasm for expensive manned space projects is waning.

Germany, the second biggest contributor to ESA after France, has reconsidered its commitment to big space programmes because of the budget squeeze forced upon the German government by the need to invest in the former East Germany. Research and technology minister Heinz Riesenhuber had a clear brief in Munich not to agree to Luton's extended budget

for Hermes. With Riesenhuber threatening publicly to pull out of the project if France, Hermes' main supporter, forced the issue, last week's compromise was perhaps the best ESA could hope for.

The obvious route for savings on Hermes is to interest the Japanese and the Soviets in taking a share in the project, but this will take time to arrange. The alternative to the present year of limbo could have been the loss of both Hermes and Columbus. Although Columbus is still favoured by Germany, a German withdrawal from Hermes might have led to the French making retaliatory attacks against the Columbus budget.

Under the Munich agreement, Hermes and Columbus will continue to inch forwards, but next year's budget for each must be trimmed by some \$40 million — more than 10 per cent below the figure Luton had hoped to spend. ESA officials will be able to award some contracts to build hardware for the projects, but aerospace companies accepting them have no guarantee that these will last beyond the end of 1992. In total, Luton will have to cut 5 per cent from ESA's 1992 budget, although spending on its space science programme, into which all the ESA members are obliged to pay, will be protected from any cuts.

Meanwhile, Germany's independent space science programme, which had been threatened with cuts if Riesenhuber failed to control German spending on ESA projects (see *Nature* 354, 97; 14 November 1991), should be secure for at least another year — although Germany has not yet decided whether it can afford to contribute in 1992 to the CRAF mission, a joint project with the United States to study a comet and the asteroid belt.

Despite having forced the French to compromise, the German research ministry is still worried that its demands for

savings will not have been met by the time ministers gather in Spain next year. Gottfried Greger, a space policy official at the research ministry, says ESA must begin talking with the Soviets and the Japanese immediately to determine what each can offer ESA. But he fears that ESA's management is reluctant to relinquish its dream of independence in manned spaceflight. "We are a little afraid that ESA doesn't want to understand our message," says Greger.

The Soviet space programme, with considerable experience in manned space stations through its Mir programme, may be able to contribute to Columbus. And Japan is planning its own (unmanned) spaceplane, called Hope (see *Nature* 351, 680; 27 June 1991), and so may have technology useful for Hermes. But precisely how new partners can become involved is still uncertain, and, in the case of the rapidly unravelling Soviet Union, ESA may also have problems finding the correct officials with whom to negotiate.

One thing, however, is clear after last week's meeting. The ESA member states are unlikely to allow ESA's programme to run for four years at a time without scrutiny by their ministers, as they have in the past. "We think it might be useful to have more regular [ministerial] meetings," says Greger, provided that these are low-key affairs. Greger points to the annual gatherings of European research ministers to discuss the Eureka applied research and development programme, which keep Eureka in check without causing the public controversy that preceded last week's ESA conference.

But would not regular ministerial scrutiny of ESA's programmes introduce the same uncertainty that afflicts the US National Aeronautical and Space Administration's long-term planning? Only this year, ESA director-general Luton appeared before a House of Representatives committee complaining bitterly about the possibility that US funding for the

space station Freedom could be cancelled, as part of the annual Washington budget round (see *Nature* 351, 428; 6 June 1991). Greger agrees that a long-term ESA strategy is essential, but says that this must be balanced against the need to match spending to shorter-term economic realities. Achieving this balance will be ESA's most difficult challenge over the next few years, if Columbus and Hermes survive beyond next year's Spanish showdown. In the long run, the losers from the Munich meeting are likely to be Europe's aerospace companies, who may find that guaranteed multi-year contracts to build hardware for ESA are a thing of the past.

Peter Aldhous

Riesenhuber retreats on big space programmes.