Europe in Space: The Program Is in French

Concern over the INF treaty's impact on Europe's security was one of several factors that helped forge last month's agreement between France and Germany on three new space programs

Paris

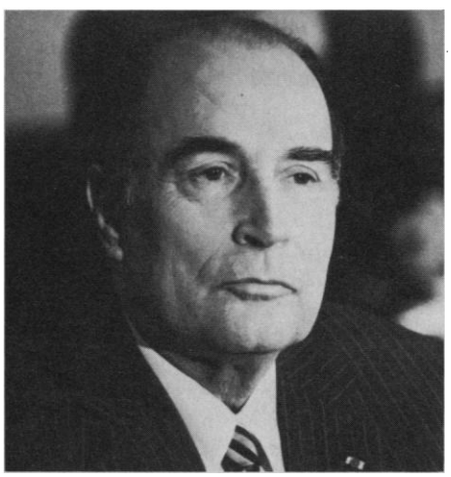
LAST month, research ministers of 12 of the 13 member states of the European Space Agency (ESA) jointly agreed—somewhat to their own surprise—to give the green light to three major programs that will determine the main thrust of Europe's space efforts up to the end of the century. The three are a new, heavyweight launcher Ariane V; a small manned spaceplane, Hermès; and Columbus, a set of hardware components for space-based operations, one of which—a laboratory module—will be permanently attached to the space station being planned by the National Aeronautics and Space Administration.

The decision to endorse the three programs was a major diplomatic victory for the French government. France has for the past few years been leading what its space officials describe as a "maximalist" strategy designed to secure the support of other ESA members in launching all three simultaneously, at a total cost of $14.4 billion. Indeed, several members of the French delegation to the research ministers' meeting, held in The Hague, had not expected to return to Paris with quite so many of their plans approved for equipping Europe with an autonomous manned capability in space by the year 2000.

The loser, at least in diplomatic terms, was the United Kingdom. Even before the meeting, statements by Britain's Trade and Industry Minister Kenneth Clarke had made it clear that he was not enthusiastic about the three major programs, and there was little surprise when he announced that, at present, Britain was not prepared to sign up for any of them. But the abrasive way in which Clarke made his views known, describing Ariane V as "a despot's dream" and Hermès as "a cuckoo in the nest," appears to have persuaded some of those who shared his economic and technical misgivings that they would still be better off in the French camp.

The real key to the outcome of the meeting at The Hague lay with the government of West Germany. Germany has long been enthusiastic about Columbus, partly because the laboratory module, which will be attached to NASA's space station—and another version of which will form the kernel of the separate man-tended free-flyer—is based directly on the experience acquired during the development of the shuttle-launched Spacelab.

Up to 2 weeks before the meeting, however, the German government had been putting out signs that it was reluctant to approve the whole package. Finance Minister Gerhard Stoltenberg, himself a former minister of science, had raised doubts about the cost effectiveness of Hermès. These



President Mitterrand. *Lobbied for the space package in Germany 2 weeks before the ESA meeting.*

doubts were shared by those in many parts of German industry (outside the aerospace industry), by a large sector of its space science community, and to a lesser extent by the Minister for Research and Technology, Heinz Riesenhuber.

In the end, Germany swung its weight behind Hermès, and thus behind the French-proposed package. Some of the reasons were industrial—several of the Hermès contracts, for example, are expected to go to the Bavaria-based company Messerschmitt-Bölkow-Blohm (MBB)—and the project was thus energetically supported by the state's powerful premier Franz Josef Strauss. Observers also detected an element of blackmail in reported threats from Paris that if Germany created problems over Hermès, France would reciprocate over Columbus.

Behind these arguments lay the growing concern in Bonn over the impact on Europe in general, and West Germany in particular, of the INF treaty agreed between the United States and the U.S.S.R. The agreement to eliminate land-based intermediate-range missiles, it was suggested, strengthened the need for greater European unity on political issues—particularly on building a common defense policy—and a strong space program was seen as a crucial step in this direction.

"West Europeans must combine to use space to enhance their security," says a recent report from the German Foreign Policy Association in Bonn, coauthored with several other European think tanks. "It would be extremely shortsighted to look at space only from the accountant's point of view; the balance sheet must include foreign policy and security considerations."

No government spokesman in Europe will officially acknowledge that national security considerations play a direct role in determining civilian space policy. This is primarily because of the statutory requirement on both ESA and national space agencies such as France's National Center for Space Studies to explore only the peaceful uses of space.

France, however, has done little to hide its awareness of the connection. For example, the two new earth-observation satellites SPOT-3 and SPOT-4, which were approved by the French government last month, are widely acknowledged as being looked upon by the French government as stepping-stones toward military observation satellites.

The link between civilian and military programs was implicitly made by French President François Mitterrand, when he met with West German Chancellor Helmut Kohl 2 weeks before the meeting in The Hague. The main purpose of their meeting was to announce that their respective countries had agreed to cooperate on two projects, the formation of a Franco-German military brigade and the joint development of an antitank helicopter. But Mitterrand was quick to use the occasion to plead France's case for an enlarged European space program that would provide Europe with autonomy in space affairs from the United States—and, by implication, eventually greater protection from the Soviet Union. He has already suggested that Europe should build its own defense-oriented space station.

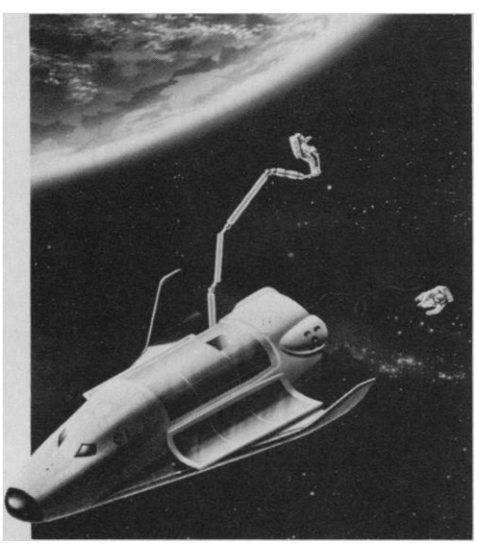
Mitterrand's arguments were addressed both to Chancellor Kohl and, through the guarantee of extensive press coverage, to the German people, a tactic which he had used in 1983 to argue the case for the basing of

U.S. Pershing II missiles in West Germany. He found a sympathetic hearing in some of Germany's own political circles.

Thus, along with Bavarian premier Strauss, Foreign Minister Hans-Dietrich Genscher has argued strongly that a refusal to support France's strategy for developing the European means for putting man into space could threaten to undermine the political alliance that was needed to ensure Europe's security, particularly if the U.S. nuclear umbrella was to be removed.

There remain many opponents, particularly in the German scientific community, where the additional funding being demanded for Hermès on top of an already tight research budget is seen as threatening to starve funding for other areas of research, including ground-based astronomy.

"Many people in the scientific community say that building a manned infrastructure in space does not really offer significant new possibilities for basic research, and that most scientific experiments could be done with systems such as the planned Eureca platform," says Wolf-Michael Catenhusen, chairman of the research and technology committee in the German Parliament in Bonn, which has warned that the cost of the three programs is likely to turn out much higher than currently predicted.



Hermès. *"A cuckoo in the nest"?*

Three days after his meeting with Mitterrand, however, and following a meeting of the three parties that make up the coalition government in Bonn, Chancellor Kohl announced that his government, despite maintaining reservations about Hermès, was now prepared to back the overall French project, thus opening the way to general agreement at The Hague. He also announced that West Germany would, as a result of the expanded ESA program, be increasing its annual spending on space science from $670 million in 1987 to $1.8 billion by the year 2000.

Britain's heated opposition to all three programs, which Clarke complained were based on a plan that was "too concerned with imitating the United States and the Russians," are not likely to have a significant impact. Each is an optional program to which ESA member states are merely invited to subscribe; and each has already received informal commitments from other governments that cover virtually all the development costs.

There still remains a possibility that, if satisfactory terms are agreed to with the United States, Britain may after all participate in NASA's space station project by building a linked polar orbiting platform. British Aerospace, the leading European contender for such a contract, was one of the companies that agreed to contribute money directly to ongoing studies of Columbus at ESA when Prime Minister Margaret Thatcher announced in the summer that the government's own support for the studies would not be increased.

The biggest impact of Britain's reluctance to provide additional funds for space will be on ESA's annual $220 million space science budget. This is a mandatory program to which all member states are required to contribute sums proportional to their gross national product, and it currently covers projects such as the star-mapping satellite Hipparcos, the "solar polar" mission Ulysses (jointly with NASA), and the Infrared Space Observatory.

Two years ago, the research ministers agreed at their last meeting in Rome to increase the space science budget in real terms by 5% a year up to 1989—the first such increases since the early 1970s. ESA officials had been hoping that a decision would be reached in The Hague to continue this rate of increase after 1989. Clarke, however, stated that he saw "no justification" for any further increase in a budget that would have grown by 27% in real terms between 1985 and 1989.

Britain's reluctance to increase ESA's space science budget had been widely resisted by the space science community in the rest of Europe. "The long-term space science program is based on achieving steady increases up to 200 mecus [$250 million] a year," says Heinz Volk, a physicist at the Max Planck Institute for Nuclear Physics in Heidelberg, and chairman of the permanent committee on space research of the European Science Foundation. "If that does not happen, the whole program is in danger; you cannot take a single piece out of the program, because different scientific communities—and their governments—are interested in different things."

Three factors, however, will make it difficult to persuade Britain to shift its position. The first is that even Britain's own space scientists acknowledge that their discipline is not a top national priority. The Science and Engineering Research Council (SERC), for example, recently announced that although ESA's current science program was "excellent," further increases were not rated sufficiently highly in relation to other demands to warrant funding.

More broadly, both the SERC and the Department of Trade and Industry remain skeptical of the prospects for industrial processing in space, and thus the commercial justification of facilities offering a microgravity environment. "It would be different if there were a good number of solid-state physicists saying that this is an important tool that we must have, but at present that is not the case," says Peter Willmore of the University of Birmingham, chairman of the scientific advisory committee to the British National Space Center.

Finally, Clarke made it clear in The Hague that Britain does not currently share either France or Germany's conviction about the political value of a manned presence in space. And its Ministry of Defense remains confident that it would be given access to U.S. hardware if a real need arises beyond the observation and telecommunications satellites that are already made available.

Helen Wallace and James Eberle of the Royal Institute for International Affairs in London, in a report published last month,* warn that each of these assumptions could prove complacent, and they call for a clearly stated national space policy. "Much more needs to be done to integrate civilian and military planning in space, to appraise the full technological and industrial applications, and to find the collaborative arrangements best suited to promote British interests," say the authors.

On other fronts, such as the joint research and development of new nuclear weapons and fighter aircraft, Britain is showing itself increasingly enthusiastic about cooperation with the rest of Europe. In the case of space, however, Thatcher's demands for cost-effectiveness or nothing remain at odds with those of other European leaders who, largely for their own national reasons, are keen to make an enlarged space program both a symbol and a tool of European unity. ■

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**British Space Policy and International Collaboration*, by James Eberle and Helen Wallace. Available from Royal Institute for International Affairs, 10 St. James's Square, London SW1Y 4LE.