Open row about joint space project

European space agency plans protest

Washington

Western European nations have agreed to organize a top-level protest to the US State Department at the proposal of the National Aeronautics and Space Administration (NASA) to withdraw its spacecraft from the International Solar Polar Mission.

The mission, under which two spacecraft would be flown simultaneously over opposite poles of the Sun, is being organized jointly by NASA and the European Space Agency. Originally each agency was to have supplied one of the spacecraft, the two being launched from the space shuttle in 1985. NASA has now decided to absorb some of the massive cuts in its space science programme required by the Reagan Administration by terminating the work on its own spacecraft. It would still provide support facilities for the European spacecraft if the European Space Agency decided to press on alone.

The European agency issued a strongly-worded statement last week saying that it considered NASA's actions to be a unilateral infringement of the memorandum of understanding signed between the two countries, and warning that it could have severe consequences for future co-operation in space research between Europe and the United States. Now several countries, including France, West Germany, Italy and the United Kingdom, have agreed to make a joint protest to the State Department, hoping that NASA can be persuaded to change its mind. Without the participation of the US spacecraft, which would have provided the first opportunity to study a star at close hand, the value of the mission will be severely limited.

Within NASA, however, officials have little hope that the proposed cuts will be reversed, since next to the space shuttle programme NASA's top priority has been to keep intact its two main space science projects, the space telescope and the Galileo mission to Jupiter.

NASA officials have stressed the importance they attach to maintaining links with European colleages, as both acting deputy director Anthony Calio and the director of the Goddard Space Flight Center, Dr A. Thomas Young, pointed out when Mrs Margaret Thatcher visited the centre during her visit to Washington last week.

However, NASA has had to take some hard decisions itself, and apparently decided that the cancellation of its share in the solar mission was the least of several evils. on the other hand, the deferral of the gamma-ray observatory and of the Venus Orbiting Imaging Radar have been demanded by the White House.

NASA has now been asked by the Office of Management and Budget (OMB) to make even more cuts in its next year's budget, following the discovery that the size of the required federal budget cut had been underestimated. Although it is not known where these most recent cuts will fall, one rumour is that funding for astrophysics experiments on the second Spacelab will be withdrawn, a decision which would particularly hit British scientists.

When rumours began to circulate in Washington last month that OMB was proposing to scrap Galileo, West Germany — which is developing several of the instruments to be flown on both the orbiter and the probe and is contributing about $50 million to the cost of the mission — protested strongly to Secretary of State Alexander Haig. Mr Haig's subsequent intervention with OMB is said to have contributed significantly to the decision not to terminate the project.

No mention was made at that time of a possible threat to the solar polar mission. NASA was given its total required budget cut but left to decide where the cuts would fall. Cancelling the solar polar mission spacecraft would save between $250 and $300 million total costs over the next eight or nine years.

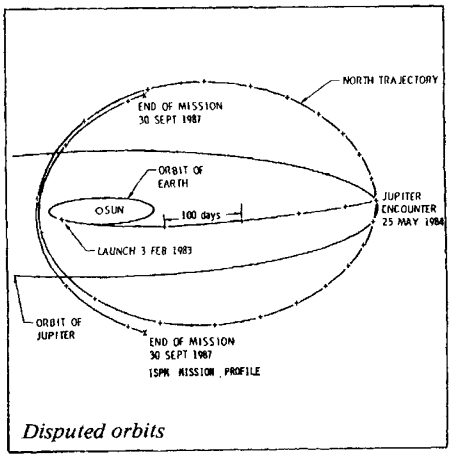
The European Space Agency council meets this Thursday (5 March) to decide on its reaction to the US moves. There is still a chance that some of the US instrumentation could be transferred to the European craft, although European experiments on the US craft would be given higher priority. The agency could equally well decide that, without full US participation, the mission is not worth pursuing, a decision which would severely disrupt its space science budget.

NASA's final proposals are expected to be announced next week, when Mr Reagan gives Congress a detailed list of his proposed budget reductions. There will undoubtedly be some opposition in Congress if the mission remains among the proposed cuts. Senator Jack Schmitt, an ex-astronaut and now chairman of the science and space subcommittee of the Senate Commerce Committee, said last week that he was very concerned that the decision could jeopardize future cooperation, particularly at a time when Europe seemed to be moving ahead of the United States in some areas of space technology.

But, as a loyal supporter of Mr Reagan, Mr Schmitt said he also acknowledged that there was a need to make substantial cuts in federal spending to restimulate the economy — and that space science, together with other research areas, would have to accept its fair share. **David Dickson**

Gloom at prospect of cancellation

Officials at the European Space Agency (ESA) are too upset by the decision by the National Aeronautic and Space Administration (NASA) to ditch its solar-polar spacecraft to talk about contingency plans, preferring to await the results of diplomatic efforts to get the decision reversed before 10 March when the federal budget goes to Congress and after which changes cannot be made. Nevertheless it is almost certain that, if it has to, ESA will go it alone, having already invested too much in the mission to abandon it.



Disputed orbits

The International Solar Polar Mission was originally conceived as a two-spacecraft mission that would observe dynamic and variable phenomena at high solar latitudes. The spacecrafts' journey round Jupiter would also provide the first opportunity for spatially and temporally resolved measurements of Jupiter's magnetosphere. Some of the experiments to be flown on the two spacecraft would be identical but others would complement each other.

A decision to abandon the NASA spacecraft would mean that spatial and temporal resolution could be achieved less adequately only by comparison with simultaneous observations from the Earth. In all probability, it would also mean that the NASA spacecraft's ability to make optical measurements of the Sun's surface — unlike the ESA spacecraft, it has a pointing device — would be lost.

Each spacecraft is to house some of the other partner's experiments. It is thought unlikely, because of commitments already made, that the experiments to be flown on the ESA spacecraft could be changed at this late stage. Fortunately NASA has said that it will continue support of its experiments to be flown on ESA's craft. That, however, begs questions of the

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