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## European Program

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# Allies protest the NASA cutbacks

by Dana Sloan.

"The European Space Agency's survival may be at stake" as a result of the cancellation of the joint ESA-NASA Solar Polar mission, declared French state secretary for scientific research Pierre Aigrain on a visit to New York April 17.

In an interview with reporters, Pierre Aigrain explained how ESA was jeopardized after budget cuts here forced the cancellation of the joint project, on which ESA has already spent large amounts. The cancellation and ESA's public protests, covered by *EIR* on March 11, have gone largely unreported in the American press.

The International Solar Polar Mission was a cooperative ESA-NASA venture, in which two spacecraft, one developed by ESA and the other developed by NASA, were to be launched by the Space Shuttle. Their trajectories were to take them on paths overflying the poles of the Sun after using Jupiter's high gravity as an accelerating force to throw them out of the ecliptic plane. This was to be the first time that a spacecraft would go out of the ecliptic plane.

In testimony before the congressional Subcommittee on Space Science and Applications last month, ESA Director-General E. Quistgaard warned that as a consequence of the decision, which at the time was not final, "European scientists from no less than 17 scientific institutes who are participating in experiments to be flown on the NASA spacecraft would no longer be able to fly them. This will have profound consequences on the long-term research activity of these groups and nullify the efforts already invested in the mission."

Aigrain told *EIR* that he hoped Congress would give NASA more funding now, after the success of the first Space Shuttle flight, to give a fresh start to the same or a similar project. And despite some announcements that the Spacelab, which ESA is building to fly on the Space Shuttle, was in jeopardy, Aigrain appeared confident that funding problems have been resolved.

The French minister issued an appeal for international cooperation, particularly between the United States and Western Europe in basic science projects. As an example, he cited the case of the Large Electron Positron (LEP) particle accelerator currently being built by the European Center for Nuclear Studies and Research (CERN) based in Geneva.

In a striking presentation to members of the French community in New York, Aigrain explained how the government's ambitious program for scientific and technological R&D has come to be shared by the citizens of the country. Because the government has taken the pains to educate them on the necessity for nuclear energy, for example, it is now common to find vacationing French citizens touring nuclear plants. But 1990, 80 percent of France's electricity requirements will be met by nuclear power.

As he explained it, France has only one unlimited natural resource: the scientific and creative capabilities of its population. "And gray matter has one enormous advantage," he declared. "It is the only raw material that doesn't get used up when you use it. In fact, the more you use it, the more you have of it."

Aigrain emphasized that "it would be inconceivable, it would not permit our population to satisfy its aspirations, if we were not engaged in a research effort placing us among the first in the world. . . . We have great ambitions, but they can only be realized if the population as a whole considers scientific and technological research to be the future of the nation."

To that effect, the French government published a White Paper on scientific research and circulated it widely, especially in the media. "It had the impact we wanted," he said, "which is that for the first time, research became the main preoccupation of the nation."

Americans should take a hard look at Budget director Stockman's budget cuts into research after considering that.

France has the "world's most ambitious research program" for the next seven-year period. The Eighth Plan calls for 7 to 8 percent increases in research spending per year for the next seven years. The 1981 research budget, adopts the 8 percent increase figure over 1980. According to Aigrain, this is the highest growth rate in the world, including Japan.

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## Interview

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# French official calls for U.S. push

*The following are excerpts of an interview with Pierre Aigrain, state secretary of France in charge of research, which was conducted on April 17 by EIR's Dana Sloan.*

**EIR:** The Ariane will be launched in June of this year. What is the perspective after that?

**Aigrain:** After that there will be another launch, assuming that this one is successful, of course, so that the

launcher can be considered qualified. The rule is that it has to be launched three times successfully, or four times with one launch that may have missed, if the reason for the miss is known—which is the case. We know why we did have a miss. If we have two successful launches now, the launcher will be considered qualified for “commercial use.”

I say “commercial use,” because some of the things which will be launched will not really be commercial, like *Meteo-Sat*, which is a meteorological satellite. We have a number of customers who have already placed orders for a launching satellite, including *Intelsat*, and we have different projects, German-French projects, telecommunications satellites, and a direct TV satellite which will be put in orbit around 1983 or so. We are very optimistic about a reasonable number of customers for *Ariane* launchers.

And I don't believe we are really in competition with the Space Shuttle with this. Space is enormous, there are different sections of space, and there is room for everybody. In fact *Ariane* was much more in competition with the four *Delta* launchers, which is an old launcher not really being used anymore.

**EIR:** You have said that the cancellation of the NASA Solar Polar mission “threatens ESA's existence.” Can you elaborate?

**Aigrain:** Here's the problem. [The European Space Agency] ESA is a fairly large organization and during a long period ESA was concerned with experimental satellites in telecommunications and things of that kind. And of course, it was concerned with the launcher and the Space Lab project. Now that the launcher project is almost over, of course we will have development of the [*Ariane*] launchers, since every launcher has evolved, become bigger and so on. But that part of ESA's work is finished. The television and telecommunications satellites are becoming commercial, and so they are taken over now by other types of organizations, for example, by the minister of telecommunications of various countries. So they are getting out of ESA. ESA has done its job.

So, while I'm oversimplifying somewhat, what ESA was left with was basically the scientific missions. And here you have one of the important scientific missions it was involved in falling apart. So we have come to the point where ESA's fixed costs are becoming too large compared with the workload.

**EIR:** Do you have any reason to believe that the Solar Polar decision could be reversed at this point?

**Aigrain:** The U.S. knows this better than I do. But I would hope so. I would hope that possibly other projects could be found in cooperation with the U.S. in this area of basic science.

**EIR:** Perhaps with the success of the Space Shuttle there will be a mobilization of support.

**Aigrain:** Yes, we can hope that Congress will give more money to NASA, and that NASA will be able to start either the same project or a new project.

**EIR:** Some people, particularly in the Club of Rome and related world institutions, claim that we have entered what they call the postindustrial society. Do you think this is true, and if not what role can research play in the future of industry?

**Aigrain:** I think that it's partially true. *If* what is meant by that is that the share of the Gross National Product of a new type of service—which by the way is strongly technology dependent—like information storing, treatment, and so on is increasing and is going to go on increasing. And if you call a society, an economy in which the share of that type of service has become large and may possibly become a majority, then it's true that we are moving toward a postindustrial society, or we are already in it.



*Pierre Aigrain.*

The point I would like to make is that the postindustrial society is a big user of science and technology. Second, it is obvious that it can only exist if the industrial hardware part of the system is there. The cost of that hardware, the proportion of that hardware in the GNP may be small and may even be decreasing, but it is essen-

tial. If it is not there, then the rest is not there.

For the same reason, the number of people involved in primary agriculture in the developed countries has been going down. But it doesn't mean that food production is going down. Fortunately not; food production has been going up, and I believe that industrial production will be going up and certainly will be going up in terms of included R&D. So it's true, we have entered the postindustrial society, but in the postindustrial society the role of industry is enormous.

**EIR:** It seems from what you are saying that there are two different concepts of what is called the “postindustrial society,” the one that you have just given and the one being put forward by the environmentalist movement, for example?

**Aigrain:** That's not the postindustrial society. That's the *pre-industrial*, and even to some extent the *pre-civilization* society. I don't believe, and I hope this is not, the way we are moving. I don't believe we should have a society which is a combination of stone age economics plus philosophical discussions.