

launched with high hopes and a big budget, and in the early days was essentially a research organization focused on the peaceful uses of nuclear energy. As nuclear power became a commercial possibility, the major members of the Common Market began to see Euratom as a rival to their own national nuclear industries. The French first pursued their own nuclear destiny on the basis of the reactor technology developed for their nuclear submarine. In Germany, private industry assumed the initiative and built itself up by licensing American technology. Britain, for its own part, had made a heavy investment in nuclear power development and showed no disposition to share the results through Euratom or otherwise.

The strains of technological nationalism have been reflected in the impasse over Euratom policy, which has caused the agency to operate on a year-to-year extension of the budget for the last 4 years rather than a longer term plan. Now, prospects seem better for the financing of a program extending to 1974. Euratom has always been more comfortable with work promising a remote commercial payoff—such as work on fusion reactors—and the new program would call for research on various aspects of reactor development, rather than on the development of a particular commercial reactor. Research categories would be enlarged to give researchers more flexibility; more work in nonnuclear fields, using the multidisciplinary skills of staff at Euratom's

joint research centers, is also contemplated. The British are reportedly amenable to the new tack Euratom proposes to take.

Euratom aside, there are some clear signs that Europeans are coming around to the view that the impulse to go it alone is unrealistic for nuclear industry. It is true that electricity-generating authorities in major European countries are still virtually certain to buy new nuclear power stations from their own national companies; at this point, there are no real prospects for British companies in France or vice versa. But there is still a limited market for nuclear stations in Europe, as well as wholly inadequate markets in individual countries. In Britain, five groupings of nuclear power station design and con-

Briefing

L'Affaire Eole

Franco-American cooperation in space has never been a vigorous affair, and what little there is to it suffered an agonizing stroke of bad luck last month. In an incident that drew little notice here, the French weather satellite Eole, launched in August by the National Aeronautics and Space Administration (NASA), got its signals mixed during one orbit of the earth and radioed destruct commands to scores of weather balloons from which it was supposed to be collecting information. NASA officials, who said the loss of the balloons was an unfortunate but not disastrous setback for the cooperative Eole program, attributed the faux pas to mission controllers at an installation outside Paris.

The incident occurred on 11 September, shortly after French and Argentine technicians had launched the first 115 of the balloons from three sites in Argentina. The balloons, which were eventually to number about 500, carry a 6-pound instrument package to an altitude of 38,000 feet. At that height, they drift eastward across the Southern Hemisphere between latitudes 20° and 70°S, gathering data on wind speed and direction, temperatures, and air pressure. On command from Eole, which orbits 560 miles above the earth,

the balloons transmit their information to the satellite. Eole then relays the data to the Bretigny center near Paris, where it is analyzed before being sent for further study to a group of French and American meteorologists at the Goddard Space Flight Center near Washington, D.C.

To eliminate useless data from balloons that stray outside the 20° to 70°S experimental zone, French engineers equipped the gasbags with explosive charges, which Eole could detonate on command—singly or all at once. It was this provision that backfired, according to Eugene Ehrlich, NASA's manager for the cooperative program.

As the satellite sped over Bretigny on its 346th orbit, Ehrlich said, French personnel inadvertently sent up the general "destruct" command instead of the "interrogation" command. The error was discovered quickly, but not quickly enough. Before the order could be rescinded, Eole had hurtled over the horizon and beyond control. "I couldn't tell you what happened after that, what sort of chaos broke loose in the station," Ehrlich said. East of Argentina, events were clearer. Seventy-two of 115 balloons, all those in Eole's flight path on that orbit, plunged to Earth, mostly into the Atlantic Ocean. NASA officials said the mistake resulted in some "procedural changes" at mission control as well as the possible demise of "one dumb computer programmer."

—R.G.

Nixon on Science

President Nixon has seldom revealed his attitude of mind toward science and scientists. His few recorded remarks on the subject suggest an interest, such as it is, that stems from faith in technological progress rather than intellectual curiosity. Nixon has shown a penchant for ambitious glamor projects such as the SST and the breeder reactor program, and his familiarity with the technical details of the breeder is said to have surprised the AEC staff who briefed him for the decisions taken on the program this June. But he is apparently less well primed on the scientific underpinnings of technology. "That was one of my poorest subjects, science," the Chief Executive informed citizens of Hanford, Washington, last month. "I got through it, but I had to work too hard. I gave it up when I was a sophomore. But I can assure you that it always has been fascinating to me, because it seems to me that if a people are to be a great people, we must always explore the unknown. We must never be afraid of it. That is why we have to go to space. That is why we should have built the SST. That is why . . . we must not be afraid [of nuclear power]. We must explore it."—N.W.