

years, Genex was forced to go public because it was facing a severe cash flow problem. It needed a major injection of cash to pay for a recent expansion of its research and development activities and to finance several projects that were not being funded by industrial partners. In July, it filed a registration statement with the Securities and Exchange Commission, announcing its intention to go public (*Science*, 20 August, p. 713). It was then envisaging the sale of 2.75 million shares at \$12 each, but that plan was evidently deemed too optimistic. The final prospectus scaled down the offering to 2 million shares at \$9.50 apiece.

About two-thirds of the proceeds will be spent on constructing and equipping new research and development facilities. The rest will support development and manufacture of proprietary products.—**Colin Norman**

Arianespace Picks Up the Pieces

The next launch of the European rocket Ariane, whose last flight ended abruptly in failure at the beginning of September when the fuel supply cut out 13 minutes after lift-off, is likely to be put back between two and five months from its scheduled November date as a result of the accident.

The exact date of the launch will not be decided until officials from the European Space Agency have had a chance to study the conclusions of an international panel of independent experts set up 2 weeks ago to look at the reasons for the accident. However, Frédéric d'Allest, recently appointed director-general of the French National Center for Space Studies (CNES) which is the prime contractor for Ariane to ESA, said in Paris last week that investigations were sufficiently advanced to state that the next flight was likely to take place in January 1983 at the earliest—and in April at the latest.

The precise timing will have a direct effect on the payload that is carried. If last month's flight had gone according to plan, the next would have been used to place into a polar elliptic orbit the x-ray orbiting satellite Exosat. Exosat will measure the position, struc-

tural features, and spectral and temporal characteristics of cosmic x-ray sources.

The launch window for Exosat, however, only extends up to 24 January. If the next launch is delayed later than that, some juggling of payloads will be necessary, the most likely outcome being that Ariane is used to launch EZN-1, the first of a series of European communications satellites financed by the newly formed telecommunications consortium EUTELSAT. Exosat would have to wait until May at the earliest for another launch window.

Although embarrassed by last month's failure which resulted in the loss of two satellites, the maritime communications satellite Marecs-B and the scientific satellite Sirio-2, ESA officials remain confident that the cause will be easier to diagnose and to cure than that which resulted in the failure of Ariane's second test flight in 1980. The latter was found to be due to unanticipated pressure fluctuations in the fuel injection system and took a considerable amount of redesigning to put right. Last month's failure, which occurred in the turbo pump which mixes the liquid hydrogen and oxygen fuels that are fed into the novel cryogenic engines of the third stage, is expected to be easier to solve.

Two potential causes for the latest failure are currently being studied. One puts the blame on mechanical parts mounted inside the pump casing, the other suggests that the problem originated in the lubrication circuit. The commission of inquiry, whose members, ESA emphasizes, have no previous involvement with the Ariane program, is expected to identify one of these as the culprit when it produces its report later this month.

Besides the scheduling problems caused by the delay of the next launch, ESA and the commercial company Arianespace set up to take over responsibility for selling space on future Ariane flights are having to respond to the inevitable concern which the failure has caused among potential commercial customers.

Aware of the major credibility problem which the rocket now faces, ESA has set up a second commission of inquiry also due to report later in October. This one has the task of verifying that the launcher conforms to the

specifications that were laid down by the agency in the early 1970's.

Major customers such as INTEL-SAT, which already has three commercial flights booked for next year, are said to be putting strong pressure on ESA to make sure that Ariane's problems are resolved satisfactorily. Until they are, the commercial future for Ariane does not look as bright as it did a few weeks ago (*Science*, 10 September, p. 1010).—**David Dickson**

Germany's New Science Minister

Despite their growing political popularity, West Germany's ecology parties are unlikely to find an enthusiastic ally in the country's new minister for research and technology, Heinz Reichenhüber, who intends as one of his top priorities to break the current deadlock over the future development of nuclear power by resolving public debates over the safe disposal of nuclear wastes.

A professional chemist with a Ph.D. from the University of Frankfurt and several years scientific and managerial experience in the chemical industry, Reichenhüber has been chief energy spokesman for the Christian Democrats (CDU) since entering the federal German Parliament in 1976. He was appointed to head the ministry of research and technology last week by West Germany's new chancellor, Helmut Kohl.

As chief opposition spokesman on energy policy, Reichenhüber has frequently stated that the safe disposal of nuclear waste is no longer a technical problem, but a question of generating public acceptance by demonstrating that the government is able to bridge the gap between theory and practice in the management of radioactive materials. At the same time, Reichenhüber says he wants to increase Germany's use of nonnuclear power, in particular solar energy. However, he makes clear that he expects the market—rather than the government—to take principal responsibility for promoting such energy sources, arguing that successful innovation is a question of "market pull" rather than "government push."

—**David Dickson**