Ariane launcher

Run of successes is broken

THE fifteenth launch of Ariane, Europe's expendable space launcher, ended as a further expense for space insurers last week. In the presence of the French President, M. François Mitterrand, the rocket had to be blown up over French Guiana with two communications satellites on board. The bill, according to Lloyd's of London, which had arranged the insurance of the satellites, will amount to some $170 million.

But "there's no need to panic" over the future of the European space effort, a spokesman for Arianespace, the company that builds Ariane, said the day after the accident. According to Klaus Iserland, deputy director-general of Arianespace for technical matters, "the opposite situation" has prevailed for a few months: panic in the United States over satellite losses by the space shuttle and fears that Europe might sweep the board. "This one failure may reduce their panic a little but it's not suddenly going to reverse things."

The exact reason for failure in the Ariane 3 rocket is still unknown, so the effect of the loss on the Ariane launch programme is unpredictable. All that is known is that something went wrong with the ignition of the third-stage motor. Real-time data from the motor indicated the beginnings of ignition — a pressure build-up in the combustion chamber — and ignition was announced, but a few seconds later it was clear that the motor had not in fact ignited. The payload and third stage were then calculated to be on target for "a populated area", according to the European Space Agency, whose communications satellite ECS3 was aboard, and ground crew at Kourou then pressed the destruct button.

Now, teams are at work in Kourou and at the headquarters of Arianespace at Evry, near Paris, to analyse every hundredth of a second of telemetry from the launch vehicle to determine exactly what went wrong (which may take a few days) and why (which could take weeks). Identical third stages have been used on four previous Ariane 3 launches without any apparent problems, said Iserland.

The effect on the Ariane launch programme depends on the fault. If pinned down to a single faulty component, perhaps one which turns out simply to be from a poor batch, "we could be back very quickly" says Iserland. If, on the other hand, the problem is more complicated and requires design modifications and ground testing of the motor, the return of Ariane could take months.

Meanwhile, insurers who were tearing their hair out over space losses even before the latest failure may now be more difficult to convince that Ariane is really more reliable than the space shuttle. But Arianespace is going to continue to argue that insurers should not attempt to recover losses on shuttle insurance by high premiums on Ariane. Lloyd's plans to wait to see the reaction when the next "risk" [a satellite to insure] comes on the market. **Robert Walgate**

• The European Space Agency (ESA) claimed last week that it could meet its commitments to provide the European telecommunications satellite organization, Eutelsat, with four communications satellites, despite the loss of ECS3 on Ariane. A fourth satellite, ECS4, is under development for launch in early 1987, and ESA says the programme could be accelerated to get ECS4 in space by mid-1986. A fifth satellite in the ECS series, a spare, will now also be made ready for production as ECS5. The programme has already been voted and funded "so ESA can meet its obligations without any difficulty." Launch costs for ECS5 will come from the $65 million insurance that ESA took out on ECS3. □

Berne Convention

Britain lags on protection

BATS are well protected in Britain. They have it so good, in fact, that if other animals were equally well protected under the Wildlife and Countryside Act, Britain would have an excellent track record of enforcing the Berne Convention, which is the principal international agreement monitoring Europe's endangered wildlife. Instead, according to a report published last week by Wildlife Link, a consortium of environmentalists, Britain is failing to provide adequate habitat or protection for the animals it has promised to conserve.

"Britain voluntarily signed the Convention in 1979", says World Wildlife Fund consultant Simon Lyster. "They knew what they were letting themselves in for." The European Wildlife Convention, signed in Berne, outlines protection priorities for strictly protected plants (Appendix I), strictly protected animals (Appendix II) and protected animals (Appendix III). Britain's Wildlife and Countryside Act is intended to implement this agreement.

Corncrakes and merlins, great crested newts and smooth snakes: the Berne Convention is notable for the nonglamorous animals it protects. Providing that protection, however, requires complete surveys of animal habitats and population levels. France and West Germany, says Mr Keith Corbett of the British Herpetological Society, are running large computerized surveys of habitats, but the Nature Conservancy Council (NCC), which is entrusted with Appendix II protection, relies on unsystematic questionnaires. Habitat of very rare species, such as the corncrake, is not too difficult to identify; but "NCC is complaisant about great crested newts" because of their comparative numbers even though Britain has a large percentage of the European population.

The Wildlife Link report also points to the need to identify and defuse threats to wildlife populations protected by the convention. Otter numbers, for example, have not withstood pesticides, riverbank clearance and eel traps. At least 90 otters have been killed in eel traps in the past nine years, even though otter-excluding devices are easily installed. Identifying threats, in other words, is only useful if the government offers incentives to farmers, companies and river authorities to modify their behaviour where necessary to protect endangered species.

Under the Wildlife and Countryside Act, the previously existing system of Sites of Special Scientific Interest (SSSI) is now being used and expanded as a means of upholding the Berne Convention. NCC must "renotify" an owner of an SSSI and identify the potential threats to the wildlife population there before the owner is obliged to negotiate with NCC over planned changes to the site. Only half the owners of Britain's 4,000 SSSIs have been renotified in the past three years, and it is unlikely that new SSSIs will be set up before this process is finished.

A principal problem of the SSSI system, according to the Wildlife Link report, is that SSSIs are chosen to protect representative types of environment — say, wetland or moor — and not species-specific habitats. What good, say environmentalists, is there in having the breeding areas of the merlin within SSSIs if its hunting grounds are not also protected? It would have been just as easy, claims Mr Lyster, to place the conifer plantations at issue in a different part of the uplands.

The sale of Appendix III species in Britain, such as frogs and smooth snakes, is controlled by a licensing system under the Department of the Environment. The system is "ludicrous", says Mr Corbett: the department has no idea how many animals are taken from the wild or where they come from. Three people in Britain applied for licences in the first half of 1984; yet well over 20,000 frogs were sold from Cornwall alone in 1983–84.

Britain's bats were lucky to have a successful lobby when the Wildlife and Countryside Act was passed, but any deficiencies of that act may not be the real problem. Britain has a good record with other international conventions on endangered species, but these affected such groups as jaguar-skin traders, not interests spread over the country. "The law is good enough", says Mr Lyster, "if the government wants it to be." **Elizabeth Collins**