Chernobyl

Pact for nuclear accidents

FIFTY-ONE out of the 113 member countries of the International Atomic Energy Agency (IAEA) last week signed two conventions on the rapid notification of nuclear accidents and on mutual aid between neighbouring states in the case of a nuclear accident. First to sign was the Soviet Union, followed by West Germany, the United States, East Germany and China. There were few surprises; Jordan and Ghana did not sign while Luxembourg, which was intending to sign only the notification convention, had still not done so by Monday this week. Soviet Ukraine and Byelorussia, the republics most affected by Chernobyl, signed separetely.

The two conventions had been on the IAEA agenda since 1982, but before the Chernobyl accident in April 1986 little progress was made. Since Chernobyl, the Soviet media has claimed the idea of the conventions as a Soviet intiative, and, two days before the documents were opened for signature, the TASS news agency announced a "programme for creating an international system of safe development of nuclear energy".

The programme mainly consists of the two new conventions plus several of the recommendations of the Chernobyl post-accident review conference in Vienna in August. These include rapid notification procedures, procedures for dealing with nuclear accidents, all countries to abide by the IAEA safety recommendations, exchange of information on accidents and near-misses, the joint development of fusion power and the protection of nuclear power stations from terroist action.

More interesting is the Soviet stance on civil liability for nuclear damage. According to the proposed programme, attempts at "international legal regulation" in this field have so far not been "sufficiently worked out". In fact, the three Soviet United Nations delegations took part in the drafting of such a convention in the early 1970s, but failed to sign it. But, the Soviet programme suggests, a possible future liability agreement might provide for states to be responsible not only for the damage caused by cross-border radiation following an accident, but also for "material and moral–political damage" due to "unjustified actions taken on the pretext of protection from the consequences of nuclear accidents". Spreading "unscrupulous reports" and introducing "unjustified restictive measures" — the two charges the Soviet media made against the West after the Chernobyl accident — are cited as the type of action for which the country where the accident took place could demand compensation. **Vera Rich**

FINAL tests were underway this week in anticipation of a non-stop around-the-world flight by Voyager, the unusual looking aircraft pictured above. If all goes according to plan, Voyager will take off from the Mojave desert at the end of this week, taking a great circle route around the Earth, returning to the California desert in 10 to 12.5 days. Voyager was designed expressly for the round-the-world flight. At take-off it weighs approximately 9,300 lbs, of which 7,000 lbs is fuel carried in 15 separate tanks. The flight path will take Voyager over southern Africa and Northern Australia, but 95 per cent of the flight will be over water. US satellites will help track the aircraft and its two-person crew. Voyager has a wingspan of 110.8 feet, a fuselage length of 25.4 feet and a vertical tail height of 10.3 feet. The exterior surface of the plane is made of Magnamite, a composite graphite material. Joseph Palca

French science

More for defence; less for science

THE French government is to spend 20 per cent more on defence research than its predecessor, a leap which offsets falls in other sectors of government-sponsored research to produce a net rise in research spending of 8 per cent in 1987, according to the full government budget announced late last month. But these figures conceal a sorrier story for basic science.

Earlier figures discussed in these pages (31 July p.400 and 4 September p.3) are confirmed in the full budget. They represent a fall from the previous government's planned spending in 1986 on basic research of some 5 per cent, bringing 1987 spending levels to around FF 21,000 million (£2,100 million) including salaries, which is about what French scientists enjoyed in 1985. However the research ministry (now the ministry of research and higher education) now represents essentially only basic and strategic applied research, and the budget of all ministries now reveals the increased spending on defence research and development, which will rise FF 5,000 million to nearly FF 31,000 million in 1987. The principal target of this spending is the modernization of the French nuclear force, particularly land-based missiles. The defence ministry receives an increase of more than 13 per cent in capital spending in the 1987 budget.

Some crumbs of comfort for university and research council laboratories are present in the new budget, however, with FF 60 million of the education budget allocated for improving France's poor position in university computing. However, the expected decline in direct government support of industrial research is confirmed. The government has previously berated French industry for its poor commitment to research (private spending accounts for 43 per cent of research and development, against 49 per cent in the United States) but believes that direct, programmed support from government is misguided. Any more aid will come in the form of tax breaks for research expenditure than in direct programme aid, but the total support is expected to be down, as industry will inevitably take time to respond to the incentives.

Government spending on space will increase 5 per cent to FF 4,400 million. This is not enough to impress the previous president of the French national space agency and the last minister of research under the previous government, M. Hubert Curien, who says the reductions in support of industrial research would penalize the regions, where applied research was concentrated in small companies. **Robert Walgate**