

## Opposition mounts against Reagan's nerve gas

Christopher Joyce, Washington DC

IF THE US adds binary nerve gas to its chemical arsenal, Third World countries might decide to follow suit. This is one conclusion drawn by the Congressional Research Service, part of the US Congress, where a battle over production of binary nerve gas has raged since Ronald Reagan took office.

The Reagan administration wants \$105 million to finish a binary nerve gas plant in Pine Bluff, Arkansas, and then start building artillery shells and bombs there. Opponents in Congress hope to block the programme again this year.

Binary munitions become armed when two relatively inert chemicals mix during the flight of the shell to produce a deadly toxin. US enthusiasm for them, says the research service's report, might lead Third World nations to "the assumption that chemical wars can be fought and won..." Moreover, binary weapons require less sophisticated delivery systems in the field than existing nerve gas.

Binary weapons technology "probably lowers the required level of industrialisation" to create chemical weapons. For example, it does not need large, extremely safe factories for production the Research service's report says. Chemical weapons could prove an attractive "poor man's deterrent" for those countries with-

out the atomic-bomb, says the report, which was written before confirmation of Iraq's chemical attacks against Iran's troops. Nerve gas also appears to be more useful in unpopulated areas against insurgents or unprotected troops than in a modern battlefield. Binary weapons may not prove more effective than unitary weapons, says the report.

Binary munitions are complicated, and the two chemicals may not mix properly in flight. Or if an aircraft carrying a bomb that has become activated cannot reach a target,

the pilot would have to jettison the weapon before landing. Safe loading of the chemicals on the battlefield is also difficult. Nor are they as safe to handle as the US government claims—one of the two chemicals, Difluor, is as toxic as strong pesticides and would require special handling.

The report of the Congressional Research Service notes that worldwide industrialisation makes any nerve gas weapon more readily available, and concludes that US production of binary weapons would only be "marginally conducive" to what may be inevitable proliferation. □

## Dying serviceman tells of covert A-tests



Woomera: home for the bomb's scientists. Were there dead Aborigines in the outbreak?

## Now cosmonauts repair rocket in orbit

FOLLOWING the successful in-orbit repair of the Solar Maximum Mission observatory by American astronauts, the Soviet Union has begun a major effort to repair the engine of its orbital laboratory, Salyut-7. Last week, Leonid Kizim and Vladimir Solovyov spent a total of 12 hours in three separate forays into "raw space".

This is by far the most ambitious series of spacewalks undertaken by Soviet cosmonauts, who have much less experience in this field than their American counterparts. During one five-hour walk, a nut which refused to come undone delayed work for more than an hour.

Repairing a rocket propulsion system in outer space is a dangerous and ambitious task which has not been tried before. It lends credence to rumours circulating last autumn of serious fuel leaks on board Salyut-7. The tools and spare parts for the repair were probably brought to the station by the Progress-20 robot craft, which arrived shortly after the joint Soviet-Indian crew left the station earlier this month.

If the repairs are not successful, Salyut's project planners may decide to retire the station prematurely and launch a new Salyut later this year. However, it is most unlikely that the cosmonauts now on board will have to abandon the station before the end of their planned flight, which is thought to be due to continue for at least eight months, unless testing of the repaired engine system results in catastrophic damage to the station.

Following normal Soviet practice, such a test will probably be carried out with the cosmonauts in spacesuits in their Soyuz T-11 ferry craft at the other end of the station, ready to leave in a hurry if need be. □

NEW CLAIMS that Britain tested atomic bombs at Maralinga in South Australia in 1963 and that the bombs killed at least four Aborigines have created a storm of protest and renewed approaches to the British government for further information. Britain's opposition leader, Neil Kinnock, will be writing to the Prime Minister, Margaret Thatcher, demanding further information about the alleged tests.

The claims were made by 63-year-old John Philip Burke, a former technician with the Royal Australian Air Force, who died this week of stomach cancer in an Adelaide hospital.

He said that three as yet unpublicised tests were carried out at Maralinga in May and June 1963. The tests killed birds and animals, and led to the death of four Aborigines. Burke says he found the Aborigines lying in a bomb crater after one of the detonations.

He says he was some 2.5 kilometres from two of the tests and spent three days in hospital with burns and his legs "glowing in the dark" after one of the explosions. Burke also claims that a large amount of radioactive equipment is buried at up to 20 different sites in the area.

The federal government denies that Aborigines have access to the site where radioactive equipment is buried. It says that the area is within a restricted zone monitored continuously by the police.

The minister for resources and energy,

Senator Walsh, has also denied that the government has any knowledge of death or injury to Aborigines at Maralinga. He maintains that the three tests were not secret but were part of a series of "minor" trials carried out at Maralinga and Emu between 1953 and 1967. They have been mentioned in previous reports on the atomic tests.

The trials involved experiments on the effects of conventional chemical high explosives on nuclear materials, including plutonium, and with the safety of nuclear weapons in accidents. None were atomic tests but they did involve some nuclear materials.

He said the British government had confirmed that no tests or trials were carried out at Maralinga in 1963, apart from these minor trials.

However, the prime minister of South Australia, John Bannon, plans to contact both Thatcher and Kinnock to ask for further information on the tests. He says he is dissatisfied with the response of the British High Commission in Australia to requests for further information. A spokesman for Kinnock this week said that the Labour leader will take "positive steps" to find out the truth behind the allegations.

Bannon has also instigated a "vigorous and exhaustive" search of all state records on the tests, although previous searches have yielded little new information.

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