

Administration has been carrying out its own internal review of the binary programme. The matter is now said to be awaiting the attention of Secretary of State Henry Kissinger, and it is no secret that the Arms Control and Disarmament Agency (ACDA) has been vigorously opposing production of the weapons. It would clearly be in the Administration's political interest to abort the programme itself rather than face another hopeless battle with Congress.

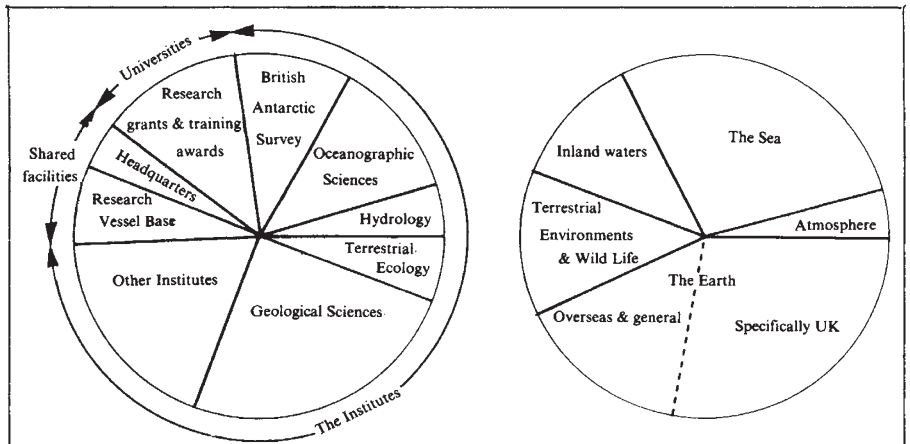
Moreover, even in military terms, the Pentagon may come to realise that the programme just is not worth the candle. It has been estimated that it will cost at least \$1,000 million to replace existing nerve gas stockpiles with binaries and since the Pentagon is always complaining about the inadequacy of the defence budget, it should be asking itself whether the money could better be applied elsewhere.

But, the ratification last month of the Geneva Protocol may at least help the CCD talks when they resume in Geneva this spring. The fact that the United States had not even ratified the 50-year-old treaty barring first use of chemical weapons was viewed by several delegations in Geneva—particularly the Soviet delegation—as evidence that the United States was not really interested in chemical disarmament, but at least that stumbling block has now been removed.

The problems with the protocol came in two parts when it was originally submitted to the Senate for ratification. (All such treaties require a two-thirds majority vote in the Senate before they become official US policy.) First, it fell foul of the chemical industry and was never brought to a vote; after languishing in the Senate Foreign Relations Committee for years, it was eventually withdrawn from the Senate. Then, in 1971, President Nixon resubmitted the treaty to the Senate for ratification.

But another impasse developed because Nixon insisted that herbicides and riot control agents are not covered by the protocol an interpretation which would have meant that, even if the United States ratified the treaty, it could continue using herbicides and tear gases in Vietnam. Senator J. W. Fulbright, Chairman of the Senate Foreign Relations Committee, did not, however, accept that interpretation. He refused to bring the measure to a vote and asked the Administration to review its position.

There the matter rested for three and a half years until Fulbright called a meeting of the Foreign Relations Committee on December 10 last year to review the situation. Faced with another embarrassing blaze of publicity the Administration finally overruled the



THE British Natural Environment Research Council (NERC) saw through half of the total Rothschild transfers in the year 1973-74 according to its recently published report (HMSO, £1.50). For that year £3.6 million worth of research was assigned to customer departments, for the most part satisfactorily—meaning that everyone carries on much as before including the NERC which goes on managing. The NERC does, however, sound a warning signal. The council doesn't reckon it has enough applied research under its wing to meet the Rothschild targets, so some "quite basic research" is being transferred to departments. The question is whether in lean times ahead basic research in a customer department's budget will present a "conflict of priorities", a delicate term for being axed.

Some of the transferred programmes do not sit too easily in customer departments: the NERC gives two examples. The geological survey of the continental shelf is a hard-to-place baby. There is £1.5 million of applied research to be transferred, but the first home for it, the Chemical and Minerals Board of the Department of Trade and Industry, turned out to be less than ideal. It looks as if it can find a foster-home with the Shipping and Marine Technology Board of the

NERC's £19 million cake divided—by means and by ends.

same department but the NERC would like to see it finally adopted by the Department of Energy. On the other hand, the land Geological Survey is a much sought-after property and in order to prevent it from being torn limb from limb, the NERC has agreed to the survey being overseen by a consortium comprising, *inter alia*, the NERC's chairman, Sir Peter Kent, and representatives of the departments of Trade, Industry, Environment, Scottish Development and of the Welsh office.

The Institute of Geological Sciences is reported to be finding difficulty in recruiting and keeping staff to work on the independent analysis of North Sea commercial data that it attempts to carry out. Uncompetitive salaries in the scientific civil service are blamed.

Further, significantly fewer people applied for research studentships this year, the report notes, but those that did were distinctly more willing to move to a different university for their second degree.

As the figure shows, universities continue to comprise only a modest fraction of the NERC's commitment. Britain's terrestrial toe-hold in the Antarctic, gets almost as much as the total expenditure in universities.

Pentagon, and Dr Fred Iklé, Director of ACDA, announced that President Ford now accepts that the protocol bars first use in war of all chemical weapons, including herbicides and tear gases. The measure then sailed through the Senate without opposition.

The actual effect of all this on progress in the CCD talks is uncertain at present, largely because of the looming threat of the binary programme. But, assuming that talk of producing binaries dies away this year, the chief stumbling block in Geneva will become the difficulty of making sure that a chemical disarmament treaty can not

be violated. One possibility, however, is that a treaty banning further production of lethal chemical weapons will first be negotiated. That would prevent chemical proliferation—and also reduce the capability of both the United States and the Soviet Union, since existing nerve gas stocks will slowly deteriorate. A ban on stockpiling would then be negotiated later. A Japanese proposal along those lines is now receiving close attention in the United States.

The key to the whole business, however, is what happens to the binary programme. □