

Academic vacuum on arms control

This week's hoop-la in Washington should not conceal the need for more rigour, but also more intellectual adventurousness, in providing politicians with a means of making progress towards arms control.

THE successful negotiation of the agreement to get rid of Euromissiles, signed in Washington this week, has stimulated the appearance in international newspapers of advertisements in the names of public figures, most of whom appear to be retired generals, pleading (in the *International Herald Tribune* for 7 December) STOP THE INF TREATY!. The advertisement, evidently concerned to influence the debate in the US Senate to begin after the Christmas recess and attributed to an address in West Germany "c/o the Schiller Institute" at Hannover, makes one telling point: the day (last Tuesday) on which Mr Gorbachev and President Reagan signed the treaty was the anniversary of the Japanese attack on Pearl Harbour, in 1942 a US base in the Philippines.

Otherwise, there would be few whose attention would be caught by what the retired generals have to say. Indeed, the idiom of the advertisement is so redolent of ancient language (such as "Moscow" for "Soviet government") that it reads as if it were an almost mediaeval document. Surely, many readers of the advertisement will have asked, this is the language of the past? Before supposing that asking the question presupposes assent, people might stop to ask what is the present scholarly basis of arms control, and whether it is sufficient.

It is a curious business. After a decade of cold war (the 1950s) there was a remarkable flowering of interest in the machinery of arms control. To some extent, this was determined by the extent to which diplomats with inclinations (or instructions) to negotiate test-bans found themselves ignorant of the principles by which compliance with such agreements might be verified; they naturally turned to the people who knew about the construction of weapons and about seismology. By 1960, it was well-established that technical people had an important contribution to make to international diplomacy.

From that point on, but for about a decade only, academic initiatives directed towards the techniques of arms control flourished remarkably. In the United States, the running was made by the President's Scientific Advisory Council (PSAC), largely consisting of people whose background and preoccupations equipped them to comment on strategic issues. Private foundations such as Carnegie and Fords quickly followed suit. In Britain, organizations such as the Institute

of Strategic Studies (now the International Institute for Strategic Studies), already in being, flourished as general interest grew in the prospect that the cause of arms control might be advanced by intellectual activity of a familiar kind.

The 1970s, unfortunately, showed that conceit to be an illusion. Professor Sydney Drell (see page 511) is right to regret the abolition by President Richard M. Nixon of his PSAC, but the grounds for his regret may not properly be those stated. Advice on general matters can always, if unwelcome, be ignored. PSAC's public (but not presidential) service, during the great antiballistic missile debate raging on the eve of its abolition, was to engage the interests of the US academic community in an issue that would otherwise have seemed exclusively a matter for the military.

It is no great surprise that, with PSAC's abolition, the interest in academic studies relevant to arms control has substantially declined. Even the novel problems evoked by the US president's announcement in 1983 of his Strategic Defense Initiative (SDI) have not recreated the excitement of earlier decades. Part of the explanation is that the military have not been eager to provide funds for studies whose outcomes might be unfavourable, but there is more than that to be said.

Opinions are bound to differ, but the academic arms-control enterprise has become unsatisfying to its practitioners. That is at least part of the explanation why so much of the still considerable torrent of published work in the field appears stilted. People embark on theoretical schemes for the more accurate identification of underground explosions from earthquakes, or for the calculation of the numbers of satellites required to keep a missile launching point under surveillance, with all the enthusiasm of people who have designed the skeleton of a novel computer program and who must now buckle down to the task of writing all that beastly code. While embarking on that tedious task, moreover, they know that it must already have been done (and promptly classified) by people working for the military.

This is another way of saying that, public service though it may be, the business of giving advice to the military (or, more publicly, to their electors) is unexciting. The chance of making a discovery is small. The likelihood that the outcome of an intricate piece of work will

be indecisive is great. And the record shows, in any case, that policy-makers will not take much notice of it unless there are powerful advocates of its importance.

That is a sufficient explanation of the decline, since the early 1970s, of the contemporary interest in strategic studies bearing on arms control. But it is not the whole explanation. In the fashionable language, the field of study has become interdisciplinary to an unexpected degree. So much should be apparent from the verification of the treaty on intermediate nuclear missiles signed this week in Washington, which includes provisions for allowing each side to request from the other an inspection of some factory or missile silo. In the idiom of the 1960s, that would have been a simple matter of gaming theory; Herman Kahn would have had a computer simulation of the problem in a twinkling. The snag is that the act of asking for an inspection will inevitably, under the treaty, be a political act whose consequences will not be easily calculable. Can the calculators of strategic stability avoid straying into political science?

It is unlikely that new developments in mathematics will bring the subject back to simple science. To be sure, the past few years have seen several attempts to relate the instability of military situations to catastrophe theory or, more recently, to the chaos that may arise from simple non-linear equations. The results of calculations along these lines are usually suggestive of the real world, but are often also demonstrations that it is likely always to be impossible to gather empirical data accurate enough to provide more than a qualitative basis for conclusions about the real world of the strategic balance.

That is why Professor Drell may be mistaken in his belief that his Stanford centre exists to replace the generation of natural scientists who have given valiant public service in the cause of arms control during the past three decades. It could be that circumstances have changed too much for similar contributions to be as useful in the years ahead. It may even be that the arms control process itself, the process of writing treaties, has reached the limits of complexity capable of comprehension by those elected to sign them. If that is so, the academic community would not be absolved from responsibility, but the opposite. Finding new ways of tackling old problems may, indeed, be the most urgent need. **John Maddox**