

Limits to SALT . . .

EUPHORIA at the news that President Ford had achieved something in the way of a step forward in arms control during his recent meeting with Mr Brezhnev in Vladivostok has been short lived. Although it is certainly encouraging to know that Dr Kissinger has been able to persuade Mr Ford of the importance of keeping SALT high on the list of priorities, the expectations for the next round of talks are likely to be limited and, paradoxically, talk of a long control period (up to 1985) is bad rather than good news. The signs now are that SALT-2 will restrain both superpowers to do only what they intended to do in any case and will allow them ten years before they need to take up the running on limiting arms again.

SALT-2 froze for five years (1972-77) the total number of ballistic missile launchers at 1,710 (United States) and 2,350 (Soviet Union). Of these not more than 710 and 950 respectively could be submarine-based, and the conversion of land-based launchers from 'light' to 'heavy' character was prohibited. The figures were arrived at by little more than an examination of the *status quo* in 1972 and a belief that, if the numbers were disparate, quality made up for quantity. The ultimate in quality was, of course, to put many warheads on each missile, and the impossibility of satellite inspection of MIRVs ruled out any control of their extent.

Two years later the process of MIRVing is proceeding rapidly, with much of the United States fleet both at sea and on land already converted, and Soviet intentions (if lagging) perfectly obvious. Proposals for SALT-2 now include multiple warheads in the list of constraints, not, as far as one can gather, because of dramatic improvements in satellite inspection but presumably because it is considered economically desirable not to go the whole way on MIRVing.

Perhaps the most interesting development, however, is the agreement to trade off concessions. In return for acknowledgement that in SALT-2 strategic bombers will be included in the count of delivery vehicles (an American concession since their bombers out-number Soviet ones 3:1) the Soviet Union will not urge inclusion in the treaty of American forward-based systems. It seems that the total number of vehicles each side will then agree to keep to is about 2,500—a figure that the Soviet Union is already at and that the United States is close to. And 1,300 of these vehicles on each side would be fitted with MIRV, legitimising a total of nearly 2,000 more MIRVed missiles than exist at present!

The quantitative plateau on which both sides will happily take a rest is hardly likely to pose many problems of unemployment for the military-industrial complex. Accuracy and manoeuvrability have long since replaced size as the growth points of the missile field. Undoubtedly the next step is the MARV, or manoeuvrable re-entry vehicle, which can pursue a complex course

to its target, and no doubt sometime in the late 1980s when these have an accuracy of 10 metres or so, the superpowers will start talking about constraints on them.

. . . and UNESCO

ANY discussion on the status of Jerusalem is bound to be charged with emotion, and anyone who chooses this particular instant to raise questions of the maintenance of the cultural heritage of the Old City must be assumed to be intent on making the maximum of mischief out of a complex situation. The sponsors, then, of the UNESCO resolution inviting the Director General to cut off assistance to Israel for its 'persistence in altering historical features' and undertaking excavations which endanger monuments 'subsequent to its illegal occupation of the city' were not acting out of purely archaeological concern. Whatever the rights or wrongs of the 'cultural' case against Israel there could hardly have been a more divisive time to raise this issue, and the sponsors, Arab and communist countries, are guilty of hypocrisy if they believe that the rest of the world will see their initiative as other than vulgarly political.

If the sort of moralistic criteria that they are applying to Israel were applied uniformly then Britain should be condemned for retaining the Elgin marbles, the Soviet Union and Czechoslovakia for severe restrictions on academic freedom, the United States for its past oppression of the Indian community and so on. Smart diplomats could rip apart UNESCO within months. But perhaps they need the contributions from the big boys more than they do from Israel.



THE TRANSIT OF VENUS

THE long-anticipated Transit of Venus took place yesterday morning; and already has the first instalment of news from distant observers arrived. The Astronomer Royal has been good enough to inform us that Col. Tennant's observations at Roorkee, India, have been quite successful; 100 photographs have been taken. He also telegraphs, at the moment of going to press, the gratifying intelligence that the micrometric observations near Cairo and Suez, and the photographic observations at Thebes have entirely succeeded.

At the last meeting of the Astronomical Society the Astronomer Royal gave an account of the final arrangements of the English parties, which do not vary much from those we stated some time ago. Messrs. Green have arranged for one of their outgoing ships to pass near Kerguelen's Land, with a view of picking up intelligence and telegraphing it from Melbourne.

The southern stations occupied by the American, French, and German parties leave no doubt that the Halleyan method will be extensively employed.

From *Nature*, 11, 112, December 10, 1874.