

balance between the two super-powers is concerned, the ABM is an irrelevancy. The standstill agreement negotiated under SALT I merely confirms this fact.

Problem of verification

One provision of the ABM pact is, however, worthy of note; it concerns verification, the problem that has bedevilled past nuclear-arms control negotiations. Article XII states that "each party shall use national technical means of verification . . ."; it "undertakes not to interfere with the national technical means of verification of the other party . . . (and) not to use deliberate concealment measures which impede verification . . .". This is important. The Russians, in particular, have, in their *Kosmos* space-vehicle series, tried out an earth-satellite destroyer that could sweep American reconnaissance spacecraft from the skies above the Soviet Union. They have now promised not to do so. Also, the formulation of Article XII is such that it may lend itself to adaptation to future nuclear-arms control agreements, perhaps (but this is very much open to question) even to a comprehensive test ban.

If there is at least some merit in the ABM pact, there is none in the strategic offensive missiles agreement — at least, none that would be readily discernible. There is something like a quantitative freeze in respect to missile-launchers, but at a level higher than that which the Soviet Union has reached. (The United States is already at the maximum level set by the agreement.) Even more significant — and regrettable — is that there are no qualitative restrictions to speak of.

The United States currently has 1,710 missile-launchers, 1,054 for ICBMs and 656 for SLBMs (submarine-launched ballistic missiles), in 41 nuclear submarines. This is also the total number allowed it under the agreement, except that the 54 oldest and most vulnerable missiles, the *Titan* ICBM, can be replaced with SLBMs, to a maximum of 710 in 44 submarines. The Soviet Union at present possesses 2,090 ICBM and SLBM launchers. Depending on which of two options open under the agreement the Soviets decide on, they can increase that number to 2,424 or 2,358 (the larger number would not necessarily give them a stronger punch). In any case, there must not be in the ultimate weapons "mix" more than 950 SLBMs in 62 submarines, or more than 309 of the most powerful land-based ICBMs, the SS-9.

At first sight, this looks like a bad deal for the United States, the more so as the Soviet land-based missiles are, in general, considerably more powerful than the

American. This, however, overlooks other factors that tend to equalize — some would say, more than equalize — the odds.

First of all, the Moscow agreements do not cover manned bombers. Here, the United States is vastly superior, with 455 (if only the B-52s are counted) or 531 (if the somewhat dubious, because of their more limited range, FB-111As are added) carriers to the Soviet 140. It is often argued that bombers would have a difficult time penetrating modern defences. This is a contentious question; it would lead too far to enter into it here. In any case, the U.S. bombers are just in the process of being equipped with a reputedly highly effective air-to-surface missile, the SRAM; the later versions of the B-52 will carry 20 of these each and the FB-111As six each. Since the explosive power of a SRAM is, according to reports, 200 kilotons, one B-52 would be able to deliver four megatons in 20 warheads, each of which is ten times more powerful than the Hiroshima bomb, while staying well outside the range of the close anti-aircraft defences ringing an important target (the range of SRAM is reported to be about 100 miles). Thus the least that can be said is that the manned bomber cannot be simply discounted as a nuclear-weapon carrier. It follows that the U.S. superiority in this category remains a factor in the general strategic balance.

Another factor to be considered is that the U.S. force can deliver from fewer launchers more warheads than the Soviet. This is because of the development, so far not matched by the Soviet Union, of multiple independently-targeted re-entry vehicles — MIRVs; each *Minuteman* 3 ICBM and each *Polaris* A 3 SLBM can carry three 200-kiloton MIRVs, each *Poseidon* SLBM ten 50-kiloton MIRVs. That these are relatively-low-yield weapons, at least by comparison with the mammoth Soviet ICBMs, is not all that important assuming — as one must — that either kind is meant to deter a first strike by the threat of retaliatory counterattack. Since the latter could logically be directed only against cities (if there had been a first strike, the enemy's nuclear-weapon carriers would be gone by the time the counterattack was launched), the yield would not greatly matter; either 50 or 200 kilotons is frightful enough. It is the more frightful as a single *Poseidon* submarine could conceivably hit 160 targets simultaneously. At the end of the current rearmament program, the United States will have 31 *Poseidon* submarines, with 496 launchers and 4,960 warheads.

This brings us to the principal failing

Freeze in pact is quantitative rather than qualitative