

Yet, as pointed out previously (*Science*, 21 February), there was really no serious attempt to achieve a MIRV ban, and this despite the fact that no MIRV's had been deployed when SALT began.

The irony is that, now, under the Vladivostok principles for a SALT II agreement, the superpowers would have to verify compliance with not a relatively simple MIRV ban, but rather a MIRV limitation under conditions of considerable complexity. Each side could deploy up to 1320 MIRV'ed missiles, representing a little more than half of all the strategic delivery vehicles allowed them. To detect a missile silo obviously is easier than to determine whether the missile hidden inside that silo carries a single war-

head or multiple warheads. Verification capabilities equal to that task must be very good indeed.

Actually, such determinations would not be feasible if it were not for two factors. One is the ability of intelligence to identify MIRV'ed missile systems as they undergo testing. The other is that any installations for the present generation of U.S. or Soviet MIRV'ed missiles have certain exterior—and plainly visible—characteristics that distinguish them from un-MIRV'ed missiles.

In this connection, senior American officials revealed during the weeks after Vladivostok essentially what the United States would ask for in the negotiations about verification that are now under way in Geneva. Barring

some unexpected change that may have escaped the notice of unofficial observers, the U.S. position is that, once a missile has been successfully tested in a MIRV'ed mode, all missiles of that type would be counted as MIRV'ed. Some new Soviet missiles have been tested with both single and multiple warheads. (No MIRV'ed model has yet been reported by the Pentagon as definitely operational.)

Furthermore, inasmuch as none of the Soviet missiles tested with MIRV's will fit into any but a few of the existing silos, the United States would assume that any silo that undergoes substantial modification will carry a MIRV'ed missile. Under both the Vladivostok principles and the 5-year interim agreement of 1972, construc-

Briefing

Science Adviser

May Return to White House

There are now some clear signs that President Ford is likely to appoint a science adviser to the White House soon. Sources close to Vice President Rockefeller say that he has put at the top of a recent list of options for the President the appointment of a single science adviser who, with a White House office and a small staff, would coordinate the activities of existing science committees attached to the National Security Council and the Domestic Council. Rockefeller has been studying the science advising issue for the President since December.

According to knowledgeable sources, the recommendations made by Rockefeller give low priority to the formation of a council of science advisers modeled on the Council of Economic Advisers, a proposal which has received wide support among spokesmen for the scientific community.

Unresolved, however, is the question of whether the upgraded science adviser's job will go to H. Guyford Stever, Director of the National Science Foundation, who became science adviser when former President Nixon decided to abolish the White House science office in January 1973. A previous report stated that the White House had backed off from putting

Stever in the job (*Science*, 14 February); now it appears that, although some members of the White House staff do not want Stever to move in with them, this option is still a possibility.

There has even been a body hunt for a good candidate, according to knowledgeable sources. Although no names have been mentioned, President Ford's recent appointment of the head of the University of Chicago to the post of attorney general, and Vice President Rockefeller's lifelong habit of surrounding himself with academics and scientists, make it likely that they will make a concerted effort to find someone of eminence for the job.—D.S.

\$8.8 Million Sought for Binary CW Production

Last year when the House and Senate defeated proposed military funding for binary weapons production in a rare display of legislative coordination, perhaps the legislators thought they had nipped in the bud any military ambitions for constructing a new chemical weapons arsenal. This year, however, the Department of Defense (DOD) in its proposed 1976 budget requested \$3 million more than last year, or \$8.8 million for binary weapons production. The DOD is also re-

questing funds for binary weapons research, which has aroused little congressional opposition in the past.

A binary weapon operates by storing less-than-lethal chemicals in separate compartments of a projectile which do not mix and become lethal until after the munition is fired. Although safer to store and transport than ordinary chemical weapons, binary weapons nonetheless represent an entirely new generation in the larger family of chemical weapons. The United States renounced nearly all first uses of chemical weapons when it ratified the Geneva Protocol of 1925; other possible uses of chemical weapons in war are the subject of disarmament negotiations now going on in Geneva.

Opponents of escalation of U.S. binary weapons research into the production stage argue that manufacture of the weapons will call into question the country's good faith at the Geneva disarmament talks, and that binary weapons are not all that useful militarily, anyhow. Proponents argue that the United States will need a defensive chemical weapons capability in the future and that the existing arsenal of chemical weapons should be replaced by the safer, binary munitions at a cost of approximately \$100 million.

A new congressional fight against the binary procurement item is expected this year and some Congressmen's offices are already, so to speak, arming themselves.—D.S.