

## MILITARY SCIENCE

# A-Tests Hinge on Talks

► THE UNITED STATES will postpone atomic testing in the atmosphere, now scheduled for late April, if "substantial progress" is made before then toward a U.S.-Soviet nuclear test ban treaty.

"Substantial progress" would be conclusive evidence that the Russians are negotiating in good faith. This would require unequivocal Soviet acceptance of enough of our verification requirements to permit some immediate inspection preparations both in the United States and the Soviet Union.

While the United States will insist on territorial inspection, it will probably relax its demands because of new information on detection gathered from the latest U.S. underground tests.

Contrary to earlier theories, the tests have established that nuclear explosions can be distinguished from earthquakes and that even low yield explosions can be detected at great distances.

Therefore seismic stations placed in either country to guard against secret underground testing are no longer considered essential. Both sides can afford to take risks in this area, it is believed.

The U. S. also appears to have abandoned demands that a system of inspection to prevent or detect secret preparations for atomic tests be included in any nuclear test ban agreement with the Soviet Union. The Administration has recognized that no inspection system can effectively detect or prevent such preparations in an area as vast as the Soviet Union.

The U.S. Government clearly recognizes the danger of war if no limit is put upon the current arms race and if international

tensions continue. A settlement of the continuing Berlin crisis, an end to hostilities in Viet-Nam or Laos would be a real step forward toward arms control and ultimately disarmament.

Even if the tensions remain and the arms race continues to escalate, there is still some hope that war may be averted simply because both sides recognize that nuclear force, no matter how great, does not assure victory unless the first strike is great enough to completely immobilize the enemy. Neither side now has this power.

This is why some officials believe nuclear weapons testing in the atmosphere is necessary since it demonstrates to the Soviets U.S. determination to maintain a superior defensive strength.

An East-West disarmament agreement covering outer space, where no arms presently exist, could be the first major breakthrough toward disarmament and peace. William C. Foster, director of the U.S. Arms Control and Disarmament Agency (ACDA), has said that the United States is prepared to discuss arms control in outer space with the Russians at the 18-nation United Nations disarmament conference which began at Geneva March 14. The ACDA is vitally interested in reaching an agreement banning arms in space because of the growing possibility that weapons of massive destruction can be stored and delivered from space platforms.

The arms race could escalate from earth to outer space thereby increasing the danger of a war that could destroy all life on earth.

There is some hope and even expectation that a treaty on outer space, similar to the

13-nation Antarctic treaty, may be reached at Geneva this year.

Every effort will be made by the United States toward some arms control agreement, no matter how limited. An agreement is under consideration that would ban the transfer of nuclear weapons from one country to another accompanied by mutual boundary check of troop movements. The banning of nuclear weapons transfer would be a concession by the United States since the Russians are not likely to give such arms to their satellite countries.

But this concession would be matched by the troop movement check since the Russians have superiority in manpower in Europe. This agreement might be acceptable to the Russians since a precedent for troop checks already exists in Berlin.

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**HANDY HIP PACK**—Two National Guardsmen show how medics could be outfitted with a new hip pack developed by Bell Aerosystems Company, Buffalo, N. Y. The medics' case contains sterile water and plasma. The plasma bottle can be hung from the hook attached by a bracket to the pack so plasma can be given to the sick carried on the stretcher hung from straps attached to the hip pack.

## GENERAL SCIENCE

## Unveiling of Memorial To Admiral Byrd

► A MEMORIAL to the late Rear-Admiral Richard E. Byrd, famed Antarctic explorer, was unveiled on March 11.

Loftily perched on a hilltop overlooking the city of Wellington, New Zealand, the memorial faces southward to the vast white continent, Antarctica. The monument was built by friends and admirers of Admiral Byrd through the Richard E. Byrd Fellowship. The winged monument, studded with Antarctic glacial boulders, contains a bust of Admiral Byrd.

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## MEDICINE

# Plan Hepatitis Seminars

► TO COMBAT the spread of hepatitis, which reached an all-time high of approximately 73,000 cases in the United States last year, the U.S. Public Health Service is co-sponsoring a series of seminars with state public health associations and the Commonwealth of Puerto Rico.

More than 13,000 cases of the liver-damaging disease have been reported in the first nine weeks of 1962, as opposed to 15,422 cases in that same period of 1961, and public health officials are hopeful that they can keep the disease in check.

Montgomery, Ala., held the first seminar March 2. The next will be in San Juan, P. R., April 6, and others will be in Tucson, Ariz., Atlanta, Ga., Des Moines, Iowa, Thermopolis, Wyo., Salt Lake City, Utah, Toledo, Ohio, Jefferson City, Mo., Huntington, W. Va., and Madison, Wis., during the spring and summer. Two more seminars are planned in Yakima, Wash., and Reno, Nev., in the early fall.

Hepatitis was first recognized as a major health problem in 1951, Surgeon General Luther L. Terry of the Public Health Service said, and it became one of 16 communicable diseases reported.

Although hepatitis is a virus disease that is spread from person to person, it may also be spread by contaminated water and food.

Last year, Raritan Bay, N. J., clams and Pascagoula, Miss., raw oysters were associated with outbreaks of hepatitis. Although the Public Health Service keeps close surveillance over shellfish, further research has now been authorized in the area of shellfish sanitation.

Congress has appropriated \$1,700,000 to build two new shellfish sanitation research centers to be administered by the Division of Environmental Engineering and Food Protection of the Public Health Service.

Bids for the new laboratories will be received May 1 and contracts let in June. By the spring of 1963 the centers will be built on donated land. The University of Rhode Island has given land for one laboratory to be built near Kingston on Narragansett Bay. An Alabama center will be at Indian Mound Park on land given by the Dauphin Island Park and Beach Board to the Alabama State Department of Conservation.

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