In an April 25 presentation to Canadian defense specialists and foreign diplomats, Soviet deputy minister for atomic power and industry Victor Mikhailov praised the verification protocol to the threshold test ban treaty and called on the U.S. to negotiate further limits on nuclear testing. Discussing third generation weapons, Mikhailov warned that once developed these weapons would be tempting to use. The only way to prevent their development is a complete ban on testing, Mikhailov stated. Press reports of the April 23-24 Canadian arms control center's symposium on nuclear testing quoted Mikhailov as saying there is some unintentional venting in about 30 percent of Soviet tests. In half of these cases, radioactive material travels beyond the boundaries of the test site. End summary.

On April 25, Dr. Victor Nikitovich Mikhailov, deputy minister of the USSR Ministry for Atomic Power and...
Mikhailov, a Soviet defense specialist, spoke to a group of Canadian defense specialists and foreign diplomats on nuclear testing issues. He was in Ottawa as the leader of a nine-person Soviet delegation to an April 25-26 scientific symposium on the potential environmental effects of underground nuclear testing and its containment. Sponsored by the Canadian Arms Control Center, the symposium was also attended by delegations from several Scandinavian countries. See Refs B-E for additional background on the conference. Mikhailov's presentation focused on two areas: (1) verification of the Threshold Test Ban Treaty (TTBT), and (2) the effects of testing limitations on third generation nuclear weapons innovation.

Verification of the TTBT

4. Mikhailov reviewed in considerable detail the developments leading to the verification protocol of the 1974 TTBT, concentrating on the 1988 USSR-U.S. Joint Verification Experiment (JVE). He praised the JVE as a "unique event" in the history of verification, which served as the basis for bilateral negotiations in Geneva leading to the new protocol to the TTBT. The verification protocol itself was a "great step forward," Mikhailov stressed. He went on to state that the professional level of discussion during the JVE and the Geneva negotiations raised hopes that in the very near future negotiations may be continued and limits on the number of tests per year and the lowering of thresholds may be achieved. "It is now the turn of the U.S. to show some initiative," Mikhailov said. "The Soviet side is always ready to negotiate."

5. Future negotiations will be complicated from both political and technical points of view, Mikhailov said. If we are to limit tests, we must define what is a nuclear test and define minimum yields. If we are to lower the threshold, there would have to be new verification methods developed which include both hydrodynamic and seismic verification.

6. Mikhailov then reviewed the terms of the TTBT verification protocol, emphasizing that at present experts from both sides are completing development of anti-intrusive devices and controls for diagnostic equipment. This technical cooperation, which demonstrates the "resolution" of both countries, "must be the main road to follow for further limiting and eventually banning nuclear testing." In conclusion, Mikhailov stated, "The technical side is ready and progress there could lead to the political will to go to the negotiating table to put further limitations on testing."

7. Touching on international participation in the TTBT, Mikhailov said that not all nations would be able to join in the new verification protocol since it includes the very complicated and expensive hydrodynamic method as a part of verification. The only nations that Moscow is really concerned about are France and China, Mikhailov said.

8. Noting that the results of the 1988 JVE have not yet been published, Mikhailov said it would be useful to have them in print so that other nations could be brought into an international seismic system.
THE PROBLEM OF THIRD GENERATION WEAPONS

9. MIKHAILOV BRIEFLY DESCRIBED THIRD GENERATION WEAPONS, SAYING THAT THEIR SURGICAL PRECISION WOULD ENABLE THEM TO DESTROY SPECIFIC FACILITIES WITHOUT ANY LARGE SCALE EFFECT ON THE ECOLOGY. YIELDS WOULD BE HUNDREDS AND THOUSANDS OF TIMES LOWER THAN EXISTING WEAPONS AND HUNDREDS AND THOUSANDS OF TIME HOURS. DANGEROUS TO THE ECOLOGY. THIRD GENERATION WEAPONS WOULD NOT LEAD TO CATASTROPHIC GLOBAL CONSEQUENCES, HE STRESSED, AND THEREFORE THERE MIGHT BE A TEMPTATION TO USE THEM EVEN IN LOCAL CONFLICTS. THIS CONCERNS ALL OF US," MIKHAILOV SAID.

10. THE ONLY WAY TO BAN THE DEVELOPMENT OF THIRD GENERATION WEAPONS IS TO BAN ALL NUCLEAR TESTING. MIKHAILOV SAID. ESTABLISHING LOWER THRESHOLDS OF TEN KILOTONS, ONE KILOTON OR EVEN LESS THAN ONE KILOTON WOULD NOT WORK SINCE AT EVEN VERY LOW YIELDS, IT WOULD BE POSSIBLE TO DEVELOP IMPROVED NUCLEAR WEAPONS. A COMPLETE BAN WILL BE THE FIRST STEP TO A NUCLEAR FREE WORLD, MIKHAILOV SAID. THERE ARE GREAT DIFFICULTIES, ESPECIALLY IN THE AREA OF DEVELOPING THE NOTION OF WHAT IS A NUCLEAR EXPLOSION. THE ONLY WAY TO MAKE PROGRESS IS TO CONTINUE NEGOTIATIONS, FIRST OF ALL BETWEEN U.S. AND USSR TECHNICAL EXPERTS, MIKHAILOV CONCLUDED.

12. IN RESPONSE TO A QUESTION ON WHETHER THE SOVIET UNION HAS EVER TESTED THIRD GENERATION WEAPONS, MIKHAILOV SAID HE COULD ONLY ANSWER BY SAYING "THE SOVIET UNION IS CONCERNED WITH ITS OWN SAFETY AND TRIES TO FOLLOW CLOSELY THE PROGRESS IN THIS FIELD." ANOTHER SOVIET OFFICIAL SAID THE SOVIETS BELIEVED THE U.S. HAS ALREADY CARRIED OUT 30 TESTS RELATED TO THIRD GENERATION WEAPON DEVELOPMENT.

OTHER ISSUES

13. RESPONDING TO A QUESTION ABOUT THE NUMBER OF SOVIET TESTS, DR. CHERNYSHOV OF THE INSTITUTE OF EXPERIMENTAL PHYSICS, SAID THE SOVIET UNION HAS CONDUCTED 115 UNDERGROUND TESTS. OF THESE 115 HAVE BEEN PEACEFUL NUCLEAR EXPLOSIONS CARRIED OUT AT GREAT DEPTHS. TWO OF THESE TESTS WERE ESPECIALLY IMPORTANT. ONE USED TO EXTINGUISH A MAJOR OIL FIRE AND THE OTHER TO CREATE AN ARTIFICIAL LAKE ON THE BOUNDARY OF THE TEST SITE. THE REST OF THE SOVIET TESTS WERE RELATED TO WEAPONS DEVELOPMENT, CHERNYSHOV SAID.

14. IN RESPONSE TO A QUESTION ON WHETHER THE SOVIETS BELIEVED A COMPREHENSIVE TEST BAN (CTB) SHOULD ALSO BAN PEACEFUL NUCLEAR EXPLOSIONS, MIKHAILOV SAID THAT EVEN WITH A CTB IN EFFECT SOME PEACEFUL NUCLEAR EXPLOSIONS COULD BE CARRIED OUT WITH APPROPRIATE CONTROLS. HE MENTIONED A PROJECT UNDER CONSIDERATION IN THE USSR, OUTLINED AT THE SYMPOSIUM THE DAY BEFORE, WHICH WOULD USE PEACEFUL NUCLEAR EXPLOSIONS TO ELIMINATE TOXIC WASTE. MIKHAILOV STRESSED NO FINAL DECISION HAD BEEN MADE ON THIS PROJECT BUT THAT IT MIGHT BE THE TYPE OF PROJECT CARRIED OUT, EVEN WITH A CTB IN PLACE.

THE SCIENTIFIC SYMPOSIUM

15. ALTHOUGH EMBASSY DID NOT ATTEND THE APRIL 23-24 SYMPOSIUM WHICH PRECEEDED MIKHAILOV'S PRESENTATION, AN EXTAFF OFFICER WHO ATTENDED TOLD US THAT MUCH OF THE MEETING WAS HIGHLY TECHNICAL. DURING THE OPENING SESSION,
NSGNO 32 (STXX), IRL *30/04/91* *12:09*

According to the extaff officer, the Soviets pushed their views in support of a comprehensive test ban but in other sessions they concentrated on technical issues concerning underground testing. He added that the Soviets announced an invitation to the arms control center to visit Novaya Zemlya, which was incorrectly reported in the Toronto Globe and Mail article on April 24 as an invitation to the government of Canada and other Nordic countries. Our contact said extaff would follow up to see whether the Soviets intended to broaden the invitation beyond the arms control center.

In an article on April 25 the Globe and Mail reported that Mikhailov told the symposium radioactive gases or particles are unintentionally released during underground nuclear explosions in 30 percent of Soviet tests and in half of these cases they travel beyond the boundaries of the test sites. Mikhailov said every safeguard is used in tests although in ten percent of tests there are unpredictable events. Mikhailov claimed these figures compare with underground testing done in Nevada by the U.S. The Globe and Mail also quoted one of the U.S. participants who attended as a private citizen as saying Washington set a policy of "not one atom released" for its underground tests. The U.S. participant said it is difficult to keep to that level but that tests done in Nevada do not have the radiation leakage rate of those in the Soviet Union.

Conference organizers criticized the USG decision not to send any participants to the symposium. The Globe and Mail reported that arms control center director John Lamb as saying, "There are good Americans here, but sending some of the other Americans who wanted to participate and who are very well qualified to participate could have perhaps allowed us to achieve even more." Lamb also issued a press release on April 25 criticizing the USG decision not to attend (Ref A). Lamb's press release has attracted little attention in the local media.

End of message

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NNDD
National Security Archive,  
Suite 701, Gelman Library, The George Washington University,  
2130 H Street, NW, Washington, D.C., 20037,  
Phone: 202/994-7000, Fax: 202/994-7005, nsarchiv@gwu.edu