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Operation HARDTACK

Mr. Strauss recalled the President's instructions to the AEC to reduce, if possible, the number of shots scheduled for Operation HARDTACK to less than 25. He said the Commission wished to discuss with the MLC the schedule for the test series and attempt to eliminate some of the shots. General Starbird then reviewed with the aid of charts the 18 devices scheduled by the AEC, and the 3 contingency devices which are to be ready for testing if some of the other shots do not function properly.

Colonel Lay described with the use of slides the five shots requested by the DOD for the test series. Three of the five, he said, would be high altitude detonations and the other two would be underwater bursts designed for naval use. The high altitude shots to be detonated from rockets, Colonel Lay said, are intended to provide information in three major categories; (1) weapons effects data for anti-ICBM missiles (2) data on neutron fluxes at high altitudes, and (3) the ability to detect nuclear detonations at high altitudes.

Mr. Strauss observed that two of the high altitude shots are to be detonated at 125,000 feet and 250,000 feet and inquired whether it would be possible to obtain all the information needed from the 250,000 foot shot alone. He pointed out that off-site fallout would be reduced by approximately two megatons if the 125,000 foot shot were eliminated.

General Loper replied that in order to determine the effects of detonations at these high altitudes it is necessary to know the effects from at least two shots so that effects data can be accurately plotted. With only one shot, this would be impossible.

he said. It is important, he pointed out, to learn the best altitude at which to engage enemy ICBM's. Mr. Strauss remarked that it might be best to engage them at an altitude of 250,000 feet rather than lower since more fallout would remain in the stratosphere than from shots detonated at a lower altitude.

General Loper pointed out that an anti-missile system designed to detonate at 250,000 feet would be much more costly than one designed to detonate at 125,000 feet. He also said in response to a comment by Mr. Strauss that there is not enough time to develop for Operation HARDTACK a weapon system of lower yield which could be detonated at these high altitudes. The Redstone rocket is being used, he said, because it is the only tested weapon at the present time which can be detonated at heig of 125,000 to 250,000 feet.

General Loper observed that the DOD had no official knowledge of instructions from the President to limit off-site fallou to any specific amount. In several recent conversations, Mr. Strauss said, the President had not insisted upon a definite limitation but had urged that it be kept to a minimum.

The Commissioners briefly discussed with the members of the MLC the date for beginning Operation HARDTACK. General Lop indicated that the DOD hoped to begin its five weapons effects tests on April 15, 1958. Mr. Strauss said that in view of the adjournment of the London disarmament discussions, the possibil of a test moratorium in 1958 was ~~extremely slight~~ less likely. [1] Therefore, he said he believed there was now no urgency about beginning the tests early in 1958, and indicated would not begin testing its devices prior to May 1.