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UNITED STATES
ATOMIC ENERGY COMMISSION
WASHINGTON 25, D. C.

SEP 10 1957

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Dear General Loper:

As you know, discussions have been underway for several weeks with the Chief, AFSWP, and with the Commander, Joint Task Force Seven, in an attempt to establish what joint fallout investigations we should undertake in HARDTACK. An attempt has been made in these discussions to determine a program which would make the greatest contribution to our knowledge of the fallout and still be within bounds of economic and physical feasibility. The general objective of the program should be to supplement to the maximum extent practical our knowledge of the nature, the distribution and the deposition of radioactive debris resulting from nuclear detonations but without curtailing unduly other important aspects of the test operation.

The Director of Military Application, based on his staff discussions, presented to the Commission an outline plan he believed would best meet the objective noted above. The plan would involve four inter-related subprograms as follows:

(a) A radioactive tracer would be added to the [illegible] Prime and [illegible] shots in order that the rate and location of fallout therefrom might be studied on a long-term world-wide basis. The AEC sponsored Sunshine network and other appropriate AEC and DoD agencies would participate in the project by collecting and studying fallout samples. In this regard an increase in the Sunshine sampling program is contemplated.

(b) Particulate and gas samples would be procured from the clouds of several representative shots to permit a study of the initial distribution and nature (to include particle size) of debris using high-altitude sampling aircraft made available to Joint Task Force Seven.

(c) Using B-57 sampling aircraft made available by the DoD, low level height-line particulate samples would be taken on at least one shot to permit a more detailed study of the effect of size on rate of fallout and to study fractionation.

(d) If the developmental efforts could be accomplished in time and without prohibitive cost, a project would be established to develop and use air sampling rockets to secure particulate samples from the cloud of one shot.

CLASSIFICATION CANCELLED
BY AUTHORITY OF DOE/OC
Carl Wilson 3/23/84
REVIEWED BY DATE
H.R. Schmidt 7/15/85
By: W. Tesch 3/18/86

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9-10-57

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Sincerely yours,

General Manager

Honorable Herbert B. Loper
Assistant to the Secretary of
Defense (Atomic Energy)
The Pentagon

1A&2A: Addee
3A: MLC
4A: Commander, JTF-7
5A: Hertford, ALOO
6A: DBM
7A: Test Subj
8A: Test Reader
9A: Starbird
10A: Locator
11A: Reader
12A: DMA - Files
13A: Secretariat
14A: General Manager

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