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DEPARTMENT OF THE AIR FORCE
HEADQUARTERS UNITED STATES AIR FORCE
WASHINGTON 25, D. C.

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~~AUTH CS USAF~~
~~6-2-53~~

UNCLASSIFIED

AFOAT-1/OPNS 370.009

6 FEB 1953

Dr. J. C. Clarke,
Los Alamos Scientific Laboratory
ATTN: J Division
PO Box 1663,
Los Alamos, New Mexico

Dear Dr. Clarke:

Reference is made to discussion between you and Major Hedrick, this Headquarters, on 13 January 1953 at Sandia Base on alert and timing system for Operation UPSHOT/KNOTHOLE (Restricted) and your request for details of the system; telephone conversations between Major Hedrick and Mr. Lyon, LASL, on 28 and 29 January 1953; and conversation between Mr. Ralph Carlisle Smith and Major Hedrick at Kirtland AFB, Albuquerque, 16 January 1953.

An alert and timing system for Project 7.1 Operation UPSHOT/KNOTHOLE has been devised. The system is, in principal, like the AFSAL system used during Operation IVY (Unclassified) and the Lamp-light system used during Operation TUMBLER/SNAPPER (Restricted). This Headquarters has been assigned a project officer from the AACS to assist in the planning and implementation of the system. The following additional details are furnished for your information.

a. Coded alert notices will be placed on land lines from Quonset 22, Mercury, Nevada to McChord AFB, Washington and MacDill AFB, Florida. There the land line signals will be broadcast by existing transmitter facilities so as to assure reliable reception at the locations listed. The coded signals will be operational advisories, periodic alert notices and timing signals.

b. Locations of Project 7.1 stations utilizing this radio alert: Boulder, Colorado; Ft Belvoir, Virginia; Palo Alto, California; Anchorage, Alaska; Macon, Georgia; Bermuda; Belmar, New Jersey; Austin, Texas and Pepperell, Newfoundland.

c. Operational periods: 17 March 1953 to approximately 21 May 1953. Critical time periods are from 0400 to 1000 PST. Testing and security signal periods: 3 March to 17 March 1953 and 21 May to 3 June 1953. Frequencies to be broadcast:

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CLASSIFICATION CANCELLED
DOENS DECLASSIFICATION PER EXEC ED 12050
BY *[Signature]* 9/11/97
(NAME) (DATE)

CLASSIFICATION CANCELLED
PER DOC REVIEW JAN 1973

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SECURITY INFORMATION
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MacDill AFB

4580 KC
7912.5 KC
12487.5 KC

McChord AFB

3422.5 KC
5097.5 KC
7765 KC
10215 KC

d. Timing signal details: EG&G has stated that the same timing device used for the Lamplight system will be available for this operation. A copy of our letter to EG&G requesting this service was furnished you. Certain modifications in the equipment may be necessary for security reasons.

e. Broadcast codes: AFOAT-1 is asking the National Security Agency to prepare suitable codes for this system. That agency prepared the AFSAL book for the IVY system and it is anticipated that the code book for this system will be similar.

Probable support required from you in this matter will be the release of at least two, preferably four, of your contract circuits from Mercury to Las Vegas for the land line transmission of our signals. These circuits will be required if the telephone company is unable to supplement existing carrier equipment into Mercury to meet this requirement, or, if the cost of such additional carrier circuits is prohibitive. When the National Security Agency publishes the system code book, presently scheduled for 15 February 1953, a copy will be furnished the Test Director's office. Mr. Smith made certain suggestions concerning security for the system. These are being incorporated. Upon publication of the code book planning of the system should be complete and formal approval of all details will be required.

Sincerely yours,



HARVEY W. C. SHELTON
Colonel, USAF
Executive, AFOAT-1
Office for Atomic Energy DCS/O

cc: DWET (Dr. Doll)
Maj Wells, 1800th AACS
Lt Col Starkey

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