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LOS ALAMOS SCIENTIFIC LABORATORY  
UNIVERSITY OF CALIFORNIA  
LOS ALAMOS, NEW MEXICO

Communications  
UNCLASSIFIED

TO : S. R. Woodruff, Field Manager, LVFO  
THRU : James E. Reeves, Acting Director, Office of Test Operations, SFOO  
FROM : Test Director, LASL

DATE: 28 November 1952

PUBLICLY RELEASABLE  
LANL Classification Group

SUBJECT: REQUEST FOR ESTABLISHMENT OF FIFTH VHF-FM RADIO NET AT NEVADA PROVING  
GROUNDS.  
SYMBOL : J-15031

VERIFIED UNCLASSIFIED

JA Brown FSS-16 8/21/98  
w/Attch

The Test Director's Office has received a request from the Director of Weapons Effects Tests for the establishment of a fifth VHF-Fm radio network at Nevada Proving Grounds. This network will be used by personnel to provide necessary communications between operational units of DET located throughout the Nevada Proving Grounds and at Indian Springs APB.

The Test Director approves this request for the following reasons:

- 1. Elimination of some of the overcrowding of the existing scientific network.

On 25 February 1952, the Field Manager, Las Vegas Field Office, published a Communications Plan for Nevada Test Site. This plan indicated a VHF-FM radio system divided into the following networks:

- Net 1. Basic User - Weapons Development Program
- Net 2. Basis User - AEC Security
- Net 3. Basic User - Red-Safe
- Net 4. Basic User - Construction, Engineering, Maintenance
- Net 5. Basic User - Military Effects Program

Unfortunately, certain frequency difficulties were encountered, and it was necessary to combine Nets 1 and 5 into one net for Tumbler/Snapper. This resulted in overcrowding <sup>and</sup> the loss of efficiency in the use of stations on this net.

Looking ahead to the next test operation, we see minimum estimated VHF-FM radio requirements as follows:

For Test Director's Office, Weapons Development Programs, and Civil Effects Programs - 30 to 40 mobile stations, 7 - 15 fixed stations, and more than 4 remote control unit stations. (Figures do not include handie-talkies).

For Directorate of Weapons Effects Tests and Military Effects Programs - 10 mobiles, 7 fixed, and 2 remote control units. (Figures do not include handie-talkies)

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PER DOC REVIEW JAN. 1973

We believe that combining these requirements into one network will cause delays in transmission of information at critical times, and will slow down the work of several projects. Such delays will waste money and manpower.

2. Small Cost Involved.

The physical equipment to provide the fifth net is already in existence at Nevada Proving Grounds. This letter is not a request for procurement of additional radio sets.

It is our understanding that the frequency difficulties which prevented the use of the fifth network during Tumbler/Snapper have been solved, and that the purchase of additional crystal will be the major outlay for materials. We estimate that the establishment of the fifth net will cost from \$1000 to \$1500 in material and labor. We believe this outlay is justifiable.

3. Elimination of Other Communication Problems.

We have at hand a request from Project 5.1 for procurement of a frequency between 3 and 9 MC. for point-to-point communication between NPG and Indian Springs. Establishment of the fifth net will eliminate this requirement.

The present number of telephone circuits between NPG and Indian Springs is not adequate to meet the requests for telephone service between these two points. The fifth net will provide some relief for this overcrowding.

FOR THE TEST DIRECTOR:

*B. C. Lyon*

B. C. Lyon  
Plans & Operations  
J-3, J-Division, LASL

BCL:gy

Attachment: Copy of letter dated 5 Nov 1952, Ref. No. 311.32 FORD 52-237-0, from Lt. Col. H. A. Fulton for Com. General, Field Command, AFSWP, to Director, LASL, subject: Activation of a Fifth Radio Net in the VHF-FM System at Nevada Proving Grounds.

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FCDNET

5 Nov 1952

SUBJECT: Activation of a Fifth Radio Net in the VHF-FM System  
at Nevada Proving Grounds

TO: Director  
Los Alamos Scientific Laboratory  
P.O. Box 1663  
Los Alamos, New Mexico  
ATTN: J-Division

COPY

1. It is requested that a fifth net be activated in the Nevada Proving Grounds VHF-FM radio system to provide an independent facility for projects of the Weapons Effects Tests.

2. There will be a sufficient number of stations required by the Weapons Effects Tests projects in future operations to warrant a separate channel for their use.

3. The activation of this facility would:

a. Eliminate overcrowding of existing nets.

b. Eliminate the requirement for some of the high frequency channels that have been requested by projects of the Weapons Effects Tests.

c. Leave remaining nets free for other agencies for their particular use in case of an emergency.

d. Allow the Director of Weapons Effects Tests to have an independent channel to control the activities of military effects projects.

4. Based on information presently available, it appears that there will be a requirement for approximately twenty-five (25) stations for Weapons Effects Tests activities during the tests to be conducted next spring.

5. Subject to your approval, it is proposed to provide base station facilities at Indian Springs to allow point-to-point communication to back up the telephone circuits which could be inadequate during peak operational periods.

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FCD/MT

SUBJECT: Activation of a Fifth Radio Net in the VHF-FM System at Nevada Proving Grounds

6. The stations in this net will be divided into mobile, fixed, and handie talkie units as follows:

10 Mobile Stations  
9 Fixed Stations  
6 Handie Talkie Stations

a. The ten (10) mobile stations would be under control of the Director of Weapons Effects Tests for allocation and dispatch to projects as required.

b. The nine (9) fixed stations would tentatively be located as follows:

- (1) Office of Director of Military Effects Group, Camp Mercury.
- (2) Office of Program 7, Camp Mercury.
- (3) Office of Program 3, Camp Mercury.
- \* (4) Operations Office, Indian Springs.
- \* (5) Operations Van, Project 5.1 (Drone), Indian Springs.
- (6) Radar Site, Project 5.1 Yucca Lake.
- (7) Radar Site, Project 6.2, 1 Mile N. of CP.
- (8) Radar Site, Project 1.3, Yucca Lake.
- (9) Transmitter Site, Program 7, Indian Springs.

\*Stations marked with asterisk would require actual fixed station; the others could be remote control units.

c. The six (6) handie talkie sets would be pooled and issued as required by the Atomic Energy Commission with the stipulation that there would be six sets available for issue daily to persons in projects of the Weapons Effects Tests.

7. In addition to the above, it is possible that it would be desirable to have a base station at Desert Rock to back up the telephone link to Indian Springs.

FOR THE COMMANDING GENERAL:

H. A. Fulton  
Lt Col, AGC  
Adjutant General

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PER DDC REVIEW JAN. 1973