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~~SECURITY INFORMATION~~

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~~RESTRICTED DATA - ATOMIC ENERGY ACT OF 1946~~

PROPOSED PROJECT SUMMARY

OPERATION CASTLE (SECRET)

Log 53-820

UNIQUE DOCUMENT # ~~SAB2000L403A001~~ SAB2XX1775100000

Copy 8

Total # of pages 2

PROJECT NUMBER: 7.3

PROJECT TITLE: Detection of Airborne Low Frequency Sound

SPONSOR: Headquarters USAF **ORGANIZATION:** AFOAT-1

PROJECT OFFICER: Mr. George B. Olmsted
Agency: Headquarters USAF (AFOAT-1)
Address: Headquarters USAF
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FORMERLY RESTRICTED DATA Act to Atomic Energy Act 1954.

OBJECTIVE:

Remote measurements of the airborne low-frequency sound from the atomic explosions of Operation CASTLE will be made at a variety of distances and azimuths from the detonation point. Data will be analyzed in order to obtain amplitude, duration, azimuth, horizontal phase velocity and frequency spectrum of acoustic arrivals. Results will be used in the interpretation of acoustic signals picked up from unknown sources during routine operation of the Atomic Energy Detection System acoustic net. Data are particularly important as a supplement to results expected from Operation IVY ([redacted]).

STATUS:

Acoustic measurements during Operations GREENHOUSE (Unclassified), BUSTER/JANGLE ([redacted]), and TUMBLER/SNAPPER ([redacted]) have indicated the feasibility of acoustic long-range detection. Continued acoustic measurements during atomic tests are required in order to determine the variations in signal characteristics as a function of season, location, and yield.

PROCEDURE:

Standby semi-permanent acoustic stations together with certain permanent stations will be operated especially for Operation CASTLE. These stations will be located at Oahu, T.H., Fairbanks, Alaska; Ft. Lewis, Washington; [redacted] California-Arizona Desert; Washington, D. C.; and Belmar, N.J. Operations will cover the entire CASTLE test series.

DEPARTMENT OF ENERGY DECLASSIFICATION REVIEW
1ST REVIEW-DATE: 6/15/95 DETERMINATION [CIRCLE NUMBER(S)]
1. CLASSIFICATION RETAINED
2. CLASSIFICATION CHANGED TO:
3. CONTAINS NO DOE CLASSIFIED INFO
4. COORDINATE WITH:
5. CLASSIFICATION CANCELLED
6. CLASSIFIED INFO BRACKETED
7. OTHER (SPECIFY): WITH DELETIONS
AUTHORITY: DADC DADD
NAME: R. Rodriguez
2ND REVIEW-DATE:
AUTHORITY: ADD
NAME:

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SUPPORT REQUIREMENTS

No activity under this project is planned in the area defined as coming under the jurisdiction of the Task Force.

a. Personnel: None

b. Instrumentation: None

c. On-Site Construction required from AEC Contractors: None

d. Air and Rail Transportation: None

e. Funds:

	R&D	Extra-Military
Total Estimated Cost	$125,000	0
Funds Available	0	0
Test Agency Funds Required	$125,000	0