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~~RESTRICTED DATA - ATOMIC ENERGY ACT OF 1954~~

404170

PROPOSED PROJECT SUMMARY

OPERATION CASTLE (ENERGY)

LOG 53-884

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UNIQUE DOCUMENT # 9433000403A001

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PROJECT NUMBER: 7.3

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PROJECT TITLE: Detection of Airborne Low Frequency Sound

SPONSOR: Headquarters USAF ORGANIZATION: AFATL-1

PROJECT OFFICER:

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Agency:

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Applic. Res. Act 1954
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Applic. Res. Act 1954
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 signals. 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 (Deton.).

STATUS:

Acoustic measurements during Operations GREENBARK (Unclassified), BUSTER/JAGHILL (Unclassified), and FUMBLE/HALF (Unclassified) 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:

Steady state permanent acoustic stations together with certain permanent stations will be operated especially for Operation CASTLE. These stations will be located at Gohn, Ft. A. Fredericks, Alaska; Ft. Lewis, Washington; Desert; Washington, D. C.; and PALMYRA, N.H. Operations will cover the entire CASTLE test series.

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

~~SECURITY INFORMATION~~

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~~UNCLASSIFIED~~

~~ENERGY ACT OF 1954~~

SUPPORT REQUIRED:

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 AEO Contractors: None
- d. Air and Rail Transportation: None
- e. Funds:

	<u>RAF</u>	<u>Extra-Military</u>
Total Estimated Cost	\$125,000	0
Funds Available	0	0
Test Agency Funds Required	\$125,000	0