100 SECRET SPECIAL MANDLING REQUIRED

BRIEFING ON PROJECT CANES

INTRODUCTION

1. Objective of project and sponsorship.

Project CANES is an ARPA experimental project which has resulted from the coordinated efforts of the Service cryptologic agencies, and NRL, ONI, NSA, and CIA. Within the Navy, the project is under the sponsorship of the Office of Naval Intelligence and has been developed by the Naval Research Laboratory. Operational control is exercised through the Technical Operations Group (TOG) consisting of representatives from NSA, NRL, ONI, and the Naval Security Group.

2. Mission and Objectives of the system.

- a. To determine the <u>signal environment</u> in S-band (2600-3250 mcs) within the Sino-Soviet Bloc. This information, correlated with other intelligence, will assist in the development of medium and long term indications of hostilities.
- b. To determine the <u>locations of known types</u> of high-powered operational military S-band emitters in areas of the Sino-Soviet Bloc not now accessible to U.S. and friendly collection resources. This will extend the present Electronic Orders of Battle in their coverage and provide new planning information for future probes and, if necessary, for interim targeting.
- c. To determine the <u>locations</u> and major emission <u>characteristics</u> of <u>unknown</u> and unique high-powered S-band emitters in the Sino-Soviet Bloc in order to locate and <u>identify centers</u> of Communist electronic <u>R&D</u> activity and increase the intelligence lead-time on new techniques and equipment.
- d. To obtain information which will aid in the <u>development of</u> more <u>sophisticated processing techniques</u> and intelligence applications. Oncoming projects, such as the Naval Radio Research Station and SAMOS, should benefit from the lessons learned.

TOP SECRET

TOP SECRET - SPECIAL HANDLING REQUIRED

CONTROL SYSTEMS BALL JOINTLY

HANDLE YIA

TOP SECOND

TOP SECRET - SPECIAL LANDLING REQUIRED

3. <u>History - past milestones.</u>

Project CANES has been developed under an accelerated time schedule, as may be noted by the following dates:

. <u>9 Mar 1959</u>	Concept proposed by SECNAV to ARPA
29 Apr 1959	ARPA recommended SECDEF approval
13 Jul and 18 Aug 1959	Approval requested from the President by SECDEF
. 24 Aug 1959	President approved the project
. 2 3 Jun 1960 🐠 542	CANES launched as a piggy-back payload on TRANSIT II
6-7 Jul 1960	Satellite checked out against U.S. radars on the West Coast
• <u>9-25 Jul 1960</u>	Check-out and initial experimental collection against Sino-Soviet radars.
18 Sep 1960	Commenced 3rd operational phase- continued check-out and scheduled completion of initial experimental collection on 3 Nov 1960.
. 28 Sep 1960	Failure of classified portion of project.
. 30 Nov 1960	Attempt to launch another satellite failed with failure of 1st stage of TRANSIT III. 2nd stage and CANES package destructed by AMR range safety officer.

4. Costs.

The total cost of the project through 1 Dec 1960, exclusive of boosters, was about \$1.1M. An additional \$3M has been made available to continue with the project.

TOP SECRET

TOP SECRET - SPECIAL HANDLING REQUIRED

BYENAN JOLLAND KESTENSOWY .

CONTROL SYSTEMSOWY .

TOP SECRET

TOP SECRET - SPECIAL LANDLING REQUIRED

5. Security and security control.

In compliance with specific order of the President, security control of the project has been exceedingly strict. This was the result of the security compromise of an earlier similar project, TATTLETALE. Disclosure of the existence and details of Project CANES has been on a strict need-to-know basis and security oaths are required from all those granted access.

The true nature of the project and its associated codeword, CANES, are classified "TOP SECRET - SPECIAL HANDLING REQUIRED".

Security is enhanced by use of both fictitious and actual cover. The fictitious cover is Project GRAB (measurement of the galactic radiation background). The other cover is in the form of a second real built-in experiment, Project GREB, which is designed to study solar radiation. The words GRAB and GREB are both unclassified; however, the meaning of GRAB (galactic radiation background) is TOP SECRET. The entire GREB project is unclassified.

6. Outline of briefing.

The following portion of the briefing will discuss:

- a. The technical aspects of the project, including a description of the hardware.
 - b. The current status of the project and its organization.
 - c. Operations to date.
 - d. The problem of data analysis and results to date.
- e. The concept of future programs, including requirements, magnitude, proposed schedules and funding requirements.

TOP SECRET - SPECIAL HANDLING REQUIRED

TOP SECRET

HANDLE WIR Heghold
BYEMAN Jalent Keghold
CONTROL SYSTERS OF MY