

TOG minutes

KX 7/5/94

NRL SPECIAL PROJECTS CONTROL NUMBER

~~TOP SECRET~~ - HANDLE VIA BYEMAN
CONTROL SYSTEM ONLY

E NRL B-000215-73

DATE
16OCT73ORIGINATOR
PME 106

SERIAL NO.

BYE 59829/73

ENCLOSURES

- (1) Agenda
- (2) LIST OF ATTENDEES
- (3) ESN 20 msg 211738Z Sep73
- (4) MINIMUM DAILY VOLTAGE PLOT
- (5) SOLAR CELL CURRENT PLOT
- (6) COLLECTION HIGHLIGHTS

DATE REC'D
26OCT73TICKLER DATE
-

COPY NO.

10.11

RECEIPT NO.

WA 80,704

SUBJECT

DIST INFO

TECHNICAL OPERATIONS GROUP
MEETING: REPORT OF

BASIC DOCUMENT ON R/S

BASIC DOCUMENT NOT HELD.

DESTROY.

ROUTE TO	*	CY NO.	W/ ENCL	SIGNATURE	DATE OUT	DATE RETURN
----------	---	--------	---------	-----------	----------	-------------

1000

1030

11

1225

10

7050

7040

CODES HAVING PRIMARY INTEREST CHECK ONE

- ☐ RETAIN INDEFINITELY. (REFERENCE VALUE).
- ☐ RETAIN _____ MONTHS. (INFO MATERIAL HAVING ONLY TEMPORARY REFERENCE VALUE).
- ☐ DESTROY AFTER ROUTING. (NO FURTHER REFERENCE OR INFORMATION VALUE).

DESTRUCTION REPORT NO. 1

FINISH FILE

REMARKS

NRL INCOMING DOCUMENT



B215-73



11



BYE-59829-73

* A-ACTION
I-INFORMATION
C-COMMENT
R-RETAIN
E-EVALUATION

RETURN THIS ROUTE SLIP TO NRL SPECIAL PROJECTS OFFICE, ROOM 222, BLDG. 43.
DO NOT ROUTE TO OTHER SECTION OR BRANCH.

ACTION TAKEN BY

~~TOP SECRET~~CONTROL NO. By 5-9829/73
cy 11

REFERRED TO OFFICE	RECEIVED			RELEASED		SEEN BY	
	SIGNATURE	DATE	TIME	DATE	TIME	NAME & OFFICE SYMBOL	DATE
NRL						11/27/73	

Handle Via Indicated Controls

BYEMAN

Access to this document will be restricted to those persons
cleared for the specific projects;

EARPOP.....

.....

WARNING

This document contains information affecting the national security of the United States within the meaning of the espionage laws U. S. Code Title 18, Sections 793 and 794. The law prohibits its transmission or the revelation of its contents in any manner to an unauthorized person, as well as its use in any manner prejudicial to the safety or interest of the United States or for the benefit of any foreign government to the detriment of the United States. It is to be seen only by personnel especially indoctrinated and authorized to receive information in the designated control channels. Its security must be maintained in accordance with regulations pertaining to BYEMAN Control System.

NRL B-000215-73 ⁽¹¹⁾ ~~TOP SECRET~~

GROUP 1
Excluded from automatic
downgrading and declassification

~~TOP SECRET EARPPOP~~BYEMAN
CONTROL SYSTEMNAVY SPACE PROJECT OFFICE
~~(S)~~ NATIONAL RECONNAISSANCE OFFICE, PROGRAM C
WASHINGTON, D.C.

OFFICE OF THE DIRECTOR

PME-106-531
16 October 1973

MEMORANDUM FOR: DIRECTOR, NRO STAFF (SS4, SS4A and SS7)
DIRECTOR, NATIONAL SECURITY AGENCY (W2 and R24)
DIRECTOR, CENTRAL INTELLIGENCE AGENCY (OSI)
COMMANDER NAVAL SECURITY GROUP
CHIEF OF NAVAL OPERATIONS (OP 094W)
DIRECTOR, NAVAL RESEARCH LABORATORY (1000 and 7030)

Subj: Technical Operations Group (TOG) Meeting; report of

Encl: (1) Agenda
(2) List of Attendees
(3) SECRET/EARPOP Message 211738Z Sep 73, Subj:
7107C Payload Malfunction
(4) Minimum Daily Voltage Plot
(5) Solar Cell Current Plot
(6) Collection Highlights

1. A POPPY TOG meeting was held at the Washington Naval Security Station at 0930 on 27 September 1973. The agenda and a list of attendees are forwarded as enclosures (1) and (2).

2. The following specific items were discussed:

a. Status: (NRL)

The 7106 satellites are no longer able to produce useful data. Continuous monitoring of the last active satellite in this set by the facility indicates that no revival can be expected.

The 7107 Satellites continue to operate in a very satisfactory manner at the current levels of collection tasking. At the present time the satellites' orbit is oriented so that the 100 per cent sun condition is experienced. This condition will soon pass and declining sun exposure will prevail for about three months, with a minimum of about 66 per cent sun exposure. No reduction in tasking levels is predicted to be necessary during this period.

Classified By Byeman-1
Exempt From GDS of Executive
Order 11652 Exemption Category
PARA 5B(2) AND (3) Automatically
Declassified on Impossible
to Determine

Warning Notice - Sensitive
Intelligence Sources and
Methods Involved

HANDLE VIA
BYEMAN
CONTROL SYSTEM

NRL

B-000215

~~TOP SECRET EARPPOP~~

EXCLUDED FROM AUTOMATIC REGRADING

CONTROL NO BYE-59829/73
COPY 11 OF 12 COPIES
PAGE 1 OF 4 PAGES

~~TOP SECRET EARPPOP~~BYEMAN
CONTROL SYSTEM

PME-106-531

Subj: Technical Operations Group (TOG) Meeting; report of

Current satellite spacing is [REDACTED]

A pulse width anomaly has been noted recently from [REDACTED] originating in [REDACTED]. [REDACTED] has been monitoring to ensure that commanded activation is not the problem (the telemetry tape has been checked). Specifically, the C satellite has downlinked a BY when this transpond identifier is not tasked. The problem was first seen by [REDACTED] and reported by enclosure (3). [REDACTED] has since observed similar phenomena. All sites are monitoring and the NRL is working with NSA analysts to ensure that a data anomaly does not exist.

Enclosure (4) is a plot of minimum daily voltage or sun exposure, showing that the satellites are maintaining predicted levels; and enclosure (5) is a plot of solar cell current, since the launch of the 7107 set, that shows the exponential decay that is now nearly level. Extrapolation of this solar cell response tends to indicate that no large change in tasking level will be required in the near future. 7107 C is not plotted because of the instability of the satellite.

b. Collection Highlights: (NSG)

The NSG representatives reported the information contained in enclosure (6).

c. Engineering Evaluation: (NRL)

The next scheduled site Engineering Evaluation is planned for [REDACTED] on 13 thru 15 November 1973. The 13th will be used to observe normal operations and the 14th and 15th will be dedicated to testing.

Some specific tasks that are planned are:

(1) Check-out of the [REDACTED] anomalies reported by NSG sites (first observed at [REDACTED])

(2) Evaluation of the concept of using a US fire control radar to covertly report the position of a US ship.

HANDLE VIA
BYEMAN
CONTROL SYSTEMCLASSIFIED BY BYEMAN - 1 EXEMPT FROM
GENERAL DECLASSIFICATION SCHEDULE OF
EXECUTIVE ORDER 11652 EXEMPTION CATE-
GORY 602 DECLASSIFY ON IMP DET.~~TOP SECRET EARPPOP~~CONTROL NO BYE-59829/73
COPY 11 OF 12 COPIES
PAGE 2 OF 4 PAGES

~~TOP SECRET~~

EARPOP

HANDLE
BYEMAN
CONTROL SYSTEM

PME-106-531

Subj: Technical Operations Group (TOG) Meeting; report of

A radar at the Chesapeake Bay Division of the NRL will be used for both of the above. [] will also monitor the tests.

d. On-Orbit Calibration: (NRL)

The Stanford dish was used as the transmitter to illuminate the satellites and provide a measured signal. The transponded data are received at [] which is somewhat handicapped by reduced equipment availability at this time. Aside from some initial problems with the calibration transmitter being unable to illuminate both satellites in a pair simultaneously, the on-orbit calibration has proceeded smoothly.

The NRL representative stated that some differences in payload are usually observed when these calibrations are performed, but that they are identified, known and predictable. The NRL is the source of further data on payload peculiarities if questions arise in resolution of the calibration data.

The NSG representatives asked whether the actual POPPY timing accuracy (TOA) was known. This factor is relevant because recently attempts have been made to perform a kind of multi-sensor analysis on some ocean surveillance emitters of interest. The quality of data from the systems involved [] (URSALA and POPPY, primarily) is one of the fundamentals of cross correlation. The NRL is attempting some statistical analyses that should help to answer this question.

e. Transition: (SPO)

Since the last TOG meeting, at which the schedule for [] POPPY operations interruption was announced, the [] schedule has been identified. The following summarizes these schedules:

Feb 74, [] - 10 days inoperative while equipment is moved to one room and temporary security shielding is installed.

Aug - Sep 74, [] - 60 days inoperative while the above space is renovated for re-installation of POPPY equipment.

HANDLE VIA
BYEMAN
CONTROL SYSTEMCLASSIFIED BY BYEMAN - 1 EXEMPT FROM
GENERAL DECLASSIFICATION SCHEDULE OF
EXECUTIVE ORDER 11652 EXEMPTION CATE:
COPY 582 DECLASSIFY ON IMP DET.~~TOP SECRET~~ EARPOPCONTROL NO BYE-59829/73
COPY // OF 12 COPIES
PAGE 2 OF 14 PAGES

~~TOP SECRET~~

EARPOP

BYEMAN
CONTROL SYSTEM

PME-106-531

Subj: Technical Operations Group (TOG) Meeting; report of

Sep - Oct 74, [] - 60 days inoperative while the interior of the building is renovated for POPPY [] equipments.

Because action has not been completed on requests for additional operating site personnel, and because of continuing uncertainty on the time at which the 7107 series will not longer produce useful data, no firm dates for phase out of [] and [] will be available for some time.

3. The next TOG meeting will be held at NSA on 25 October 1973.

R. K. Geiger
R. K. GEIGER

HANDLE VIA
BYEMAN
CONTROL SYSTEM

CLASSIFIED BY BYEMAN - 1. EXEMPT FROM
GENERAL DECLASSIFICATION SCHEDULE OF
EXECUTIVE ORDER 11652 EXEMPTION CATE-
GORY 5B2 DECLASSIFY ON IMP DET.

~~TOP SECRET~~

EARPOP

CONTROL NO BYE-59829/73
COPY 11 OF 12 COPIES
PAGE 4 OF 4 PAGES

~~TOP SECRET EARP~~AGENDA

STATUS

COLLECTION HIGHLIGHTS

ENGINEERING EVALUATION

ON-ORBIT CALIBRATION

TRANSITION

Enclosure (1) to
BYE 59829/73cy 11/07/12
Page 1 of 7 Pages~~TOP SECRET EARP~~

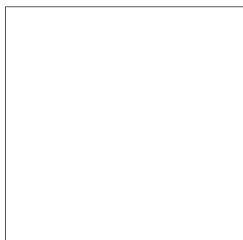
~~TOP SECRET EARP~~LIST OF ATTENDEES

SPO:

OPNAV:

NRO:

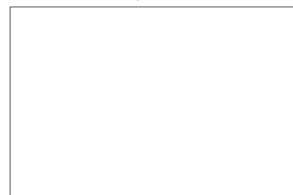
NSG:



LTJG ZOGBY

NRL: MR. MAYO
MR. LAWTON
MR. FRANKOVIC*DD*

NSA:

~~TOP SECRET EARP~~cy 110712
Enclosure (2) to
BYE 59829/73Page 2 of 7 Pages
Date 12/28/73

~~TOP SECRET EARP~~

SEP 73 18:45

ZCZCXA628
 RR YEKXLD
 DE YERIQ L #0503 2641737
 ZNY MMAHX
 ZKZK RR AAZ DE
 R 211738Z SEP 73 ZYS
 FM [REDACTED]
 TO COMNAVSECGRU
 INFO CNO
 NSACSS

2TE/SAO/6
 COG: OP-009E2P
 INFO: NRL, NAVELEX (PME-106)
 VIA OP-009E2P

HANDLE VIA BYEMAN
 CONTROL SYSTEM ONLY

CONCEN
 ZEM

~~TOP SECRET EARP~~ BYEMAN CHANNELS

DO NOT TRANSMIT VIA OPINTEL BROADCAST
 CNO FOR NRL, AND OP-942E2P FOR NAVELEX (PME-106)

NSACSS FOR W221 AND W21

CONCEN FOR DEL/GSD FOR [REDACTED]

7107C PAYLOAD MALFUNCTION (C)

080557C/890-ANOMALOUS PAYLOAD PULSE WIDTHS (PW) NOTED. EMITTER
 [REDACTED] NOTED WITH PULSE WIDTHS, WITHIN A PULSE TRAIN, RANGING
 FROM 38 USEC TO 120 USEC. NORMAL POPPY PW FOR RF BAND OF EMITTER
 IS 120 USEC. ABUNDANT PULSE DROPPING ALSO APPARENT. SIGNAL
 ACTIVE OVER FOUR (4) MINUTES. [REDACTED] DELTA PAYLOAD DATA
 EXCELLENT WITH NORMAL PW. SIGNAL STAGGERED WITH PRI'S OF 400 AND
 566 USEC IN DELTA VEHICLE. PRI'S IN CHARLIE VEHICLE ARE IRREGULAR
 AND INCONSISTANT. NO LOCATION POSSIBLE DUE TO ANOMALOUS PW AND
 WEAK DATA IN CHARLIE. TARE FWDED.

E-2 IMPDET

240

#0503

NNNN

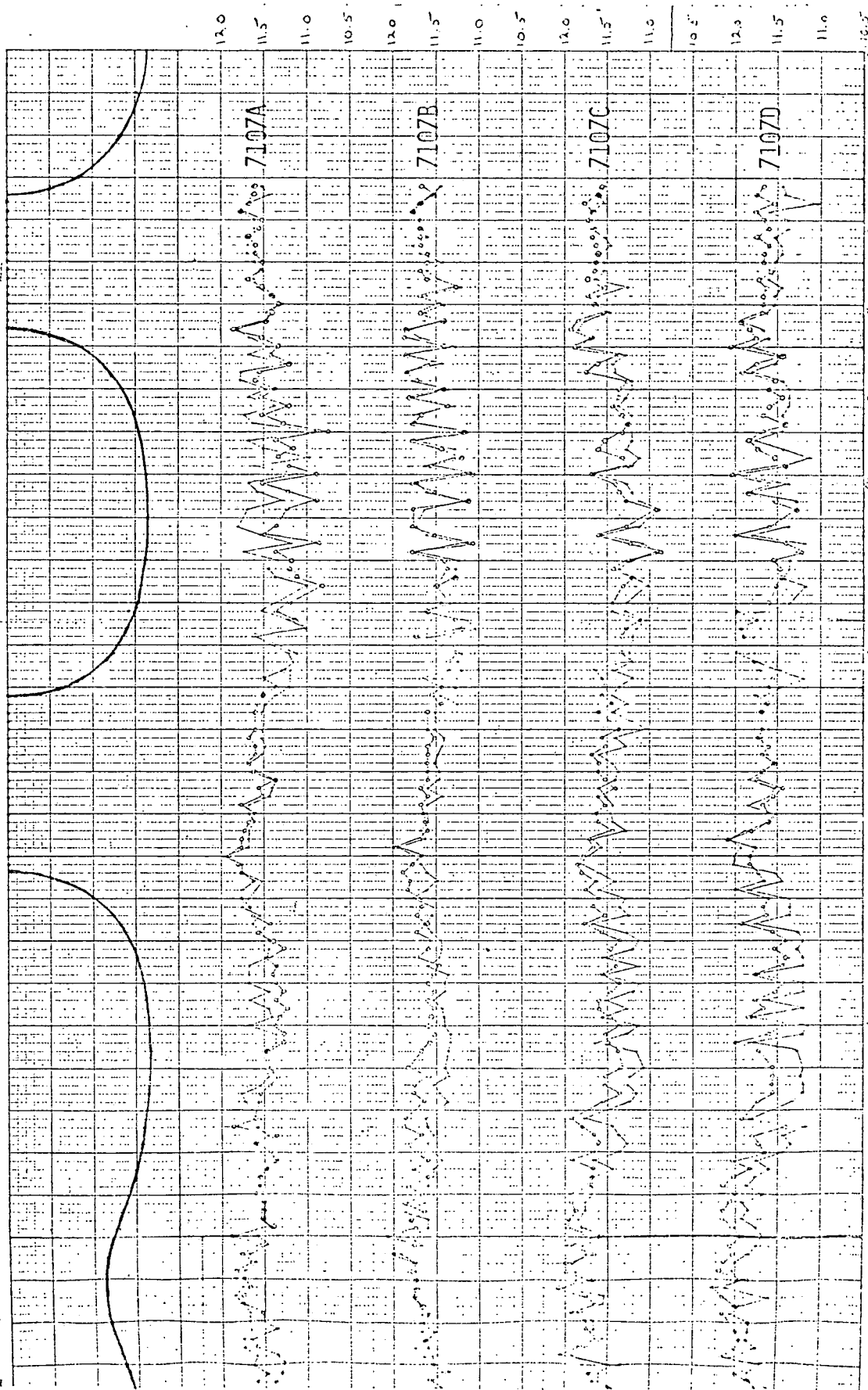
cy 110712
 Enclosure (3) to
 BYE 59829/73

ENCLOSURE (4) TO
BYE 59829/73

~~TOP SECRET~~

Minimum Daily Voltage

Page 4 of 7 Pages
Oct 11 - 12 Oct 73



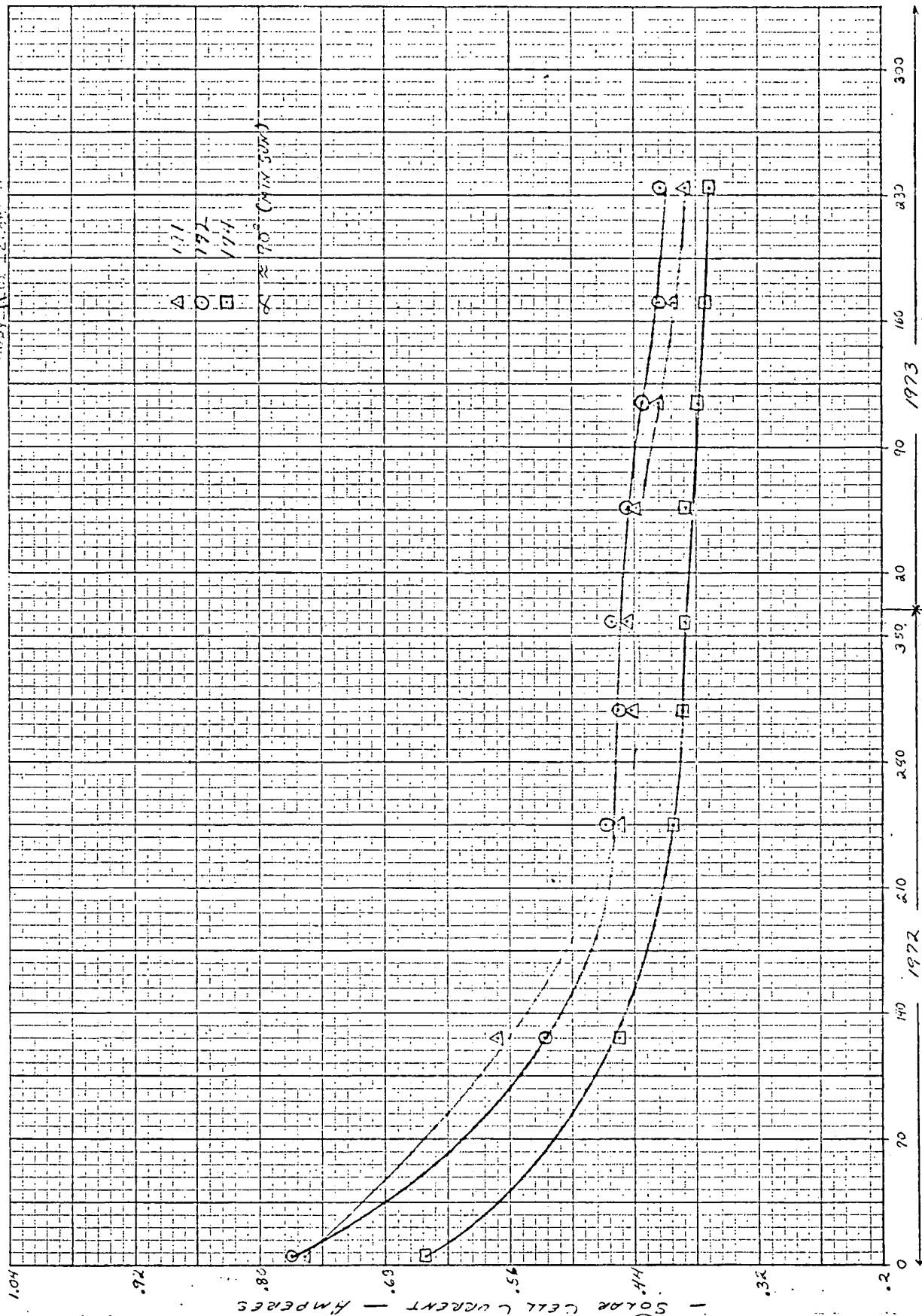
Enclosure (5) to

BYE 59029/73

1000-1000-1000

Copy 1 of 1200

~~TOP SECRET~~



~~TOP SECRET EARP~~

poly

COLLECTION HIGHLIGHTS

Since the previous TOG meeting, the following have occurred:

Technical Intelligence: [] the new 3900 MHZ signal being intercepted from the Black Sea, has been added as a target signal for SLM collection in the 17-001-73 special task. Signal has also been added to POPPY SOI list as 38th priority. Signal was intercepted 10 times this last month; four of the intercepts were collected in SLM. This signal, originally thought to be a [] Modification, is probably a New Development Shipborne Radar.

The [] signal, or 34 GHZ [] is probably a payload anomaly in which the [] is being intercepted and transponded through RETEP. The [] of the 34 GHZ band is also the RETEP []. Also the Radio Frequency [] of the [] [] similar to that of RETEP. This anomaly had been seen by NRL personnel during Phase II Engineering Evaluations in 1971. Signal was only intercepted when RETEP was activated. Sites are still running tests against signal to erase all doubt as to validity of [] RETEP theory.

Electronic Order of Battle: 130 SA-6 emitter intercepts have been geopositioned in []. Because of the volume the requirement to report these intercepts in both the Project Flavor reports and the daily location reports has been dropped. Only those signals exhibiting unusual parameters or collected in SLM will be reported in daily location reports.

Calculation of Orbital Geometry of a [] Dog House intercept indicates signal may originate from 282 degree Boresight/Face of the Chekov site. Presently unable to confirm if Chekov site is, in fact, operational.

Ocean Surveillance: 3254 [] locations were reported this past month, slightly less than 25% of which were equated to Soviet Naval Combatants and auxiliaries.

Overhead photography and COMINT have confirmed a second Kara is active in the Black Sea. [] has already fingerprinted a [] on the new Kara at a prf of 699.442 pps. This is the exactly same prf that is used by a [] on the first Kara.

Page 6 of 7 Pages
Copy 4 of 12 Copies

Enclosure (6) to
BYE 59829/73

~~TOP SECRET EARP~~

~~TOP SECRET~~

[] successfully monitored the Atlantic transits of the [] escorting Kresta II's. Kresta II 289 has returned to Caribbean after dropping escort of E-II casualty at Med. E-II continued on to North Flt and was intercepted twice by [] when off the coast of Portugal and again west of British Isles.

Missile combatants in Med have increased by two, the Kashin "Smetlivyj", and the Kara "Nikolaev". Vessels entered Med on 19 and 21 September respectively.

The Kashin "Obraztsovyy" of the Baltic Flt has joined the Med relief force transit from Barents. Transit consists of a sub tender, destroyer []

RIMPAC 73: [] supported the RIMPAC 73 exercises off the coast of Hawaii during period 12-20 September. [] reported 83 locations from RIMPAC area. Nine U.S. vessels were fingerprinted and several other prf entities were isolated. The AN/SPN-43 carrier controlled approach radar aboard the USS KITTY HAWK proved to be the most vulnerable for ident purposes with the AN/SPS-5 surface search radar of the USS BRONSTEIN DE 1037 running a close second. No intercepts were made of the van simulator of Soviet Shipborne Signals.

The [] format will be changed to conform to the standard Navy ASW format system, called [] will be reported in []

~~TOP SECRET EARNPOP~~

Cy 11 of 12
Enclosure (6) to
BYE 59829/73

Page 2 of 7 Pages