(TICKLER)

2.

NRL SPECIAL PROJECTS CONTROL NUMBER

NRL B-124-75

TOP SECRET - HANDLE VIA BYE CHANNELS ONLY

ORIGINATOR: NRO.		SERIAL NO.: BYE 59,453-75	DATE: 16 Apr 1975
DATE REC'D: 5/16/75	TICKLER DATE:	COPY NO.: 13	RECEIPT NO.: VA 80,597
SUBJECT: POPPY Technical Operations Group (TOG) Meeting; report of		DIST INFO:	ENCLOSURES:

☐ BASIC DOCUMENT ON R/S ____

☐ BASIC DOCUMENT NOT HELD. DESTROY..

ROUTE TO	*	CY NO.	W/ ENCL	SIGNATURE	DATE OUT	DATE RETURN
1000						
7000						
7030		13		RWM	5/22/75	
1225		12				
Frankowiak				Phone/rec'd		
Lawton						
7032						
7033				[signature]		

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.

FINISH FILE 7.2

NRL INCOMING DOCUMENT

B124-75

13

BYE-59453-75

Transferred 8-22-05 NKO

*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

NRL CONTROL RECORD NDW-NRL-5216/1005 (REV. 3-72)

YEAR 1975

NAVY SPACE PROJECT OFFICE
~~(S)~~ NATIONAL RECONNAISSANCE OFFICE, PROGRAM C
WASHINGTON, D.C.

OFFICE OF THE DIRECTOR

PME-106-542/pt
APR 16 1975

MEMORANDUM FOR CHIEF OF NAVAL OPERATIONS (OP955)
COMMANDER, NAVAL SECURITY GROUP COMMAND
DIRECTOR, NATIONAL SECURITY AGENCY (A81, R24, W2 and W34)
DIRECTOR, NRO STAFF (SS4, SS4A, and SS7)
DIRECTOR, CENTRAL INTELLIGENCE AGENCY (OSI)
DIRECTOR, NAVAL RESEARCH LABORATORY (1000 and 7030)

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

Ref: (a) JUNO 262015Z MAR 75 CITE 1191

Encl: (1) Agenda
(2) List of Attendees
(3) Sun Exposure Plot
(4) Minimum Daily Voltage Plot
(5) Satellite [redacted] Spacing Plot
(6) Collection Highlights
(7) Processing Highlights

1. A POPPY TOG Meeting was held at the National Security Agency at 0930 on 27 March 1975. The Agenda and a List of Attendees are forwarded as enclosures (1) and (2).

2. The following specific topics were discussed:

A. Satellite Status. (NRL)

Since the last TOG Meeting the satellite orbit has entered and left full sunlight. It is now in an extended minimum exposure period and will not be in full sunlight until day 171 (June 20th). See enclosure (3). Today the reading is sixty eight percent. Tasking returned to normal on all satellites after reaching full sunlight lasting only ten days. Reduced tasking of 7107A was resumed on 10 March on eclipse orbits and appears to be working as intended. There was a 7107B low voltage of 10.957 reached on orbit 16351 but the charge has been built up and appears to be operating satisfactorily (see enclosure (4)). NRL and NSG are monitoring the health of all 7107 satellites and will continue to be cautious during the next three month low sun exposure period.

Warning Notice - Sensitive Intelligence Sources and Methods Involved

B0124-75 (13)

59,453-75
CONTROL NO.
COPY 13 OF 14 COPIES
PAGE 1 OF 3 PAGES

PME-106-542/pt

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

Thrusting was accomplished in a two week period taking advantage of full sunlight when all [redacted] passes could be used for thrusting. An early estimate that the [redacted] will only separate to [redacted] prior to closing is forecast by NRL engineers. Enclosure (5), illustrates the spacing of both sets of satellites. The ordinate is the number of seconds of spacing (multiply by 3.98 to obtain nm).

[redacted]

There have been severa[redacted] passes recently on which interrogation of 7107B was not successful. It was discussed that passes on which the satellites do not rise above ten degrees above the horizon should not be tasked because there are known instances of this problem. Actually, problems are encountered up to twenty degrees above the horizon. Since no danger to satellite health is involved, no tasking restrictions are deemed necessary at this time. The low passes should be recognized as potentially fruitless collection opportunities, bu[redacted] operations should continue on all tasked passes. NRL and/or NSG will make recommendations for curtailing tasking of this sort when either satellite health is at stake or when operations are hopeless.

B. Site Status. (NSG)

The NSG representatives provided the following summary:

(1) [redacted] will remain as active as it is now, until October 1975, and then technical analyses will cease due to personnel transfer. Only automated processing can be done after October.

(2) [redacted] will be receiving the [redacted] installation, beginning in April 1975. No POPPY operations curtailment is now planned.

(3) [redacted] continues to operate at minimum manning due to [redacted] personnel training activities.

(4) [redacted] will continue to operate, with sixteen operations personnel assigned, until 31 October 1975. An impact statement on reduced capability will be issued soon.

(5) [redacted] ceased POPPY operations this month. By reference (a), the SOC canceled the requirement for further collection. This ends a long and significant contribution.

PME-106-542/pt

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

C. Collection Highlights. (NSG)

The CNSG representatives submitted enclosure (6). It was mentioned tha[redacted] reports are being used by CINCLANTFLT as alternative coverage to VP flights, for Krivak transits to Cuba. A significant amount of aviation fuel is being saved through this coordination.

D. Processing Highlights. (NSA)

The NSA (W34) representative submitted enclosure (7).

3. The SPO representative briefly described an analysis effort currently underway that is using POPPY digital tapes to determine the number and character of[redacted] intercepts (versus what is routinely reported which might only represent approximately twenty percent of total intercepts). The techniques may be useful for some other studies.

4. The next TOG Meeting is scheduled to be hosted by the Naval Research Laboratory on 24 April 1975.

R.T. DARCY
Captain, USN
Deputy Manager
Navy Space Project

AGENDA

SATELLITE STATUS

GROUND SITE STATUS

COLLECTION HIGHLIGHTS

PROCESSING HIGHLIGHTS

ENCLOSURE (1)

BYE No. 59,453-75

~~SECRET~~

LIST OF ATTENDEES

SPO

NRO/SOC

NRL MR LAWTON

NSG CDR COLE

NSA

MR GALLAGHER (W34)

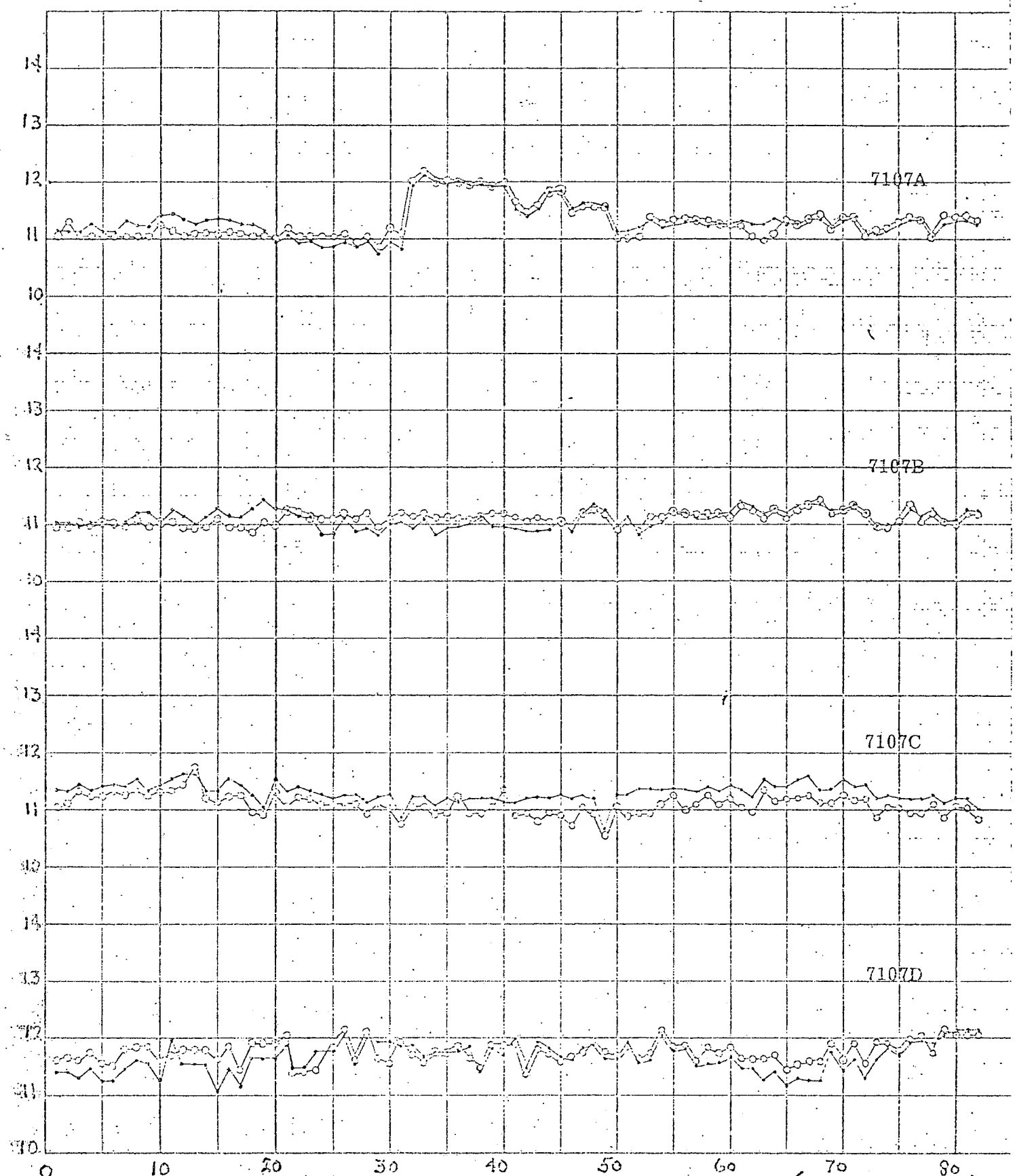
ENCLOSURE (2)

BYE No. 59,453-75

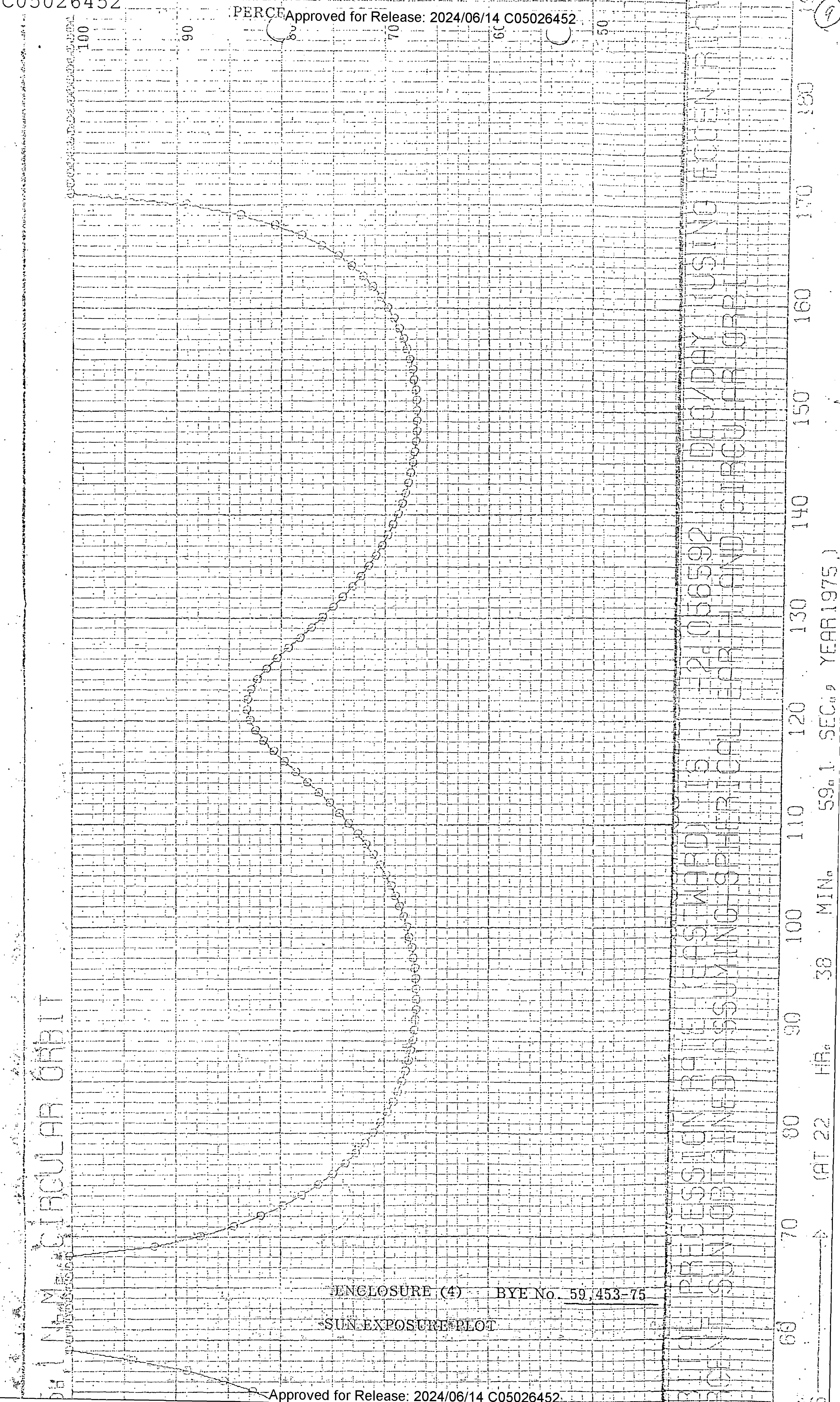
~~SECRET~~

ENCLOSURE (3) BYE No. 59,453-75

MINIMUM DAILY VOLTAGE PLOT



Enclosure (3) to BYE-59,453-75



ENCLOSURE (4) BYE No. 59,453-75

SUN EXPOSURE PLOT

COLLECTION HIGHLIGHTS

Ocean Surveillance: (25 February - 24 March 1975)

Since the last TOG meeting, there have been a total of three thousand five hundred seventy three [redacted] locations. Three hundred sixty seven of these were equated to major combatants and/or auxillaries. Three hundred nineteen intercepts were combatant associated, but could not be correlated to a specific hull. Forty four [redacted] emitters were intercepted, none of which were OOA. Two thousand eight hundred forty three intercepts of Merchant associated radars were reported.

1. [redacted] activity was at a low to moderate level in all fleet areas during the report period.

2. Two Krivaks, Svirepyj and Storoschevoy completed their Med to Cuba transit. They departed the Havana area and conducted operations in the Gulf of Mexico and then transited to the Caribbean.

3. Primorye AGI Zakarpate exited the Barents Sea and was enroute to probable operations off the U.S. East Coast when the AGI changed course and returned for operations off the West Coast of Portugal.

4. Primorye AGI Kavkaz departed its operations area off Cyprus, transited to the Tyrrhenian Sea, and has since returned to the Black Sea.

5. Boris Chilikin AOR Kolyechitskiy continues a Sea of Japan to Indian Ocean transit, and after passing through the Strait of Malacca, was last intercepted heading west in the Indian Ocean.

6. Kresta II CLGM Admiral Izachenkov, Kresta I CLGM Vice Admiral Drozd, and Kashin DLGM Smyshlenyj transited from the Baltic Sea to the Barents Sea.

7. Kara CLGM Ochakov transited from the Gulf of Sollum to the Gulf of Hammamet in the Western Mediterranean.

8. AOR Manych returned to the Black Sea from the Med.

9. The first intercept of a [redacted] by the POPPY system was made by [redacted] on 15 March 1975, and probably reflects a Nanuchka PGGP in the Black Sea.

10. Project SMOKEY BLUE: Three intercepts were reported in the area of interest during the report period. Project ended 2 March 1975.

Enclosure (6) to BYE-59,453-75

11. Project SILVER FOX: A total of twelve intercepts were reported in support of this task. Eight intercepts were equated to the Kashin DLG Skoryy which was in surveillance of the U. S. units in the Black Sea. Project ended 14 March 1975.

12. Project OUTLAW HAWK: During the period 19 February to 28 March 1975, this U. S. Fleet exercise will be conducted off the U. S. West Coast and proceed to the Hawaiian Islands then return to the U. S. West Coast. Two hundred thirty nine U. S. shipborne emitters have already been reported by [redacted] in support of this task: SPS-10 (99), SPS-40 (57), SPS-43 (27), SPS-29 (17), SPS-43/37 (22), SPS-37 (1), SPN-43 (15), and SPS-31 (1). Of the two hundred thirty nine intercepts, one hundred twenty were associated to either an individual unit or an arbitrary designator assigned to an unidentified hull by SUNTEVDET as follows:

USS Hancock CVA19 (SPS-43)	3
USS Mason DD852 (SPS-29)	1
USS Horne DLG30 (SPS-43)	21
USS Jouett DLG29 (SPS-40)	9
USS Kitty Hawk CVA63 (SPN-43)	15
USS Ponchatoula A0148 (SPS-10)	1
USS Kirk DE1078 (SPS-10)	4
ARB 5018 (SPS-10)	1
ARB 5628 (SPS-10)	10
ARB 5628 (SPS-40)	29
ARB 5237 (SPS-40)	3
ARB 5015 (SPS-10)	13
ARB 5004 (SPS-10)	3
ARB 5645 (SPS-10)	1
ARB 5387 (SPS-10)	2
ARB 5387 (SPS-40)	2
AB 5047 (SPS-43)	2

TECHNICAL ANALYSIS AND EOB:

1. On 16 November 1974, a [redacted] intercept was noted to exhibit three distinct PRF staggers during one intercept, all which used two or more of the following legs: 346.16, 321.45, and 247.4 USEC equating to the 28th, 26th, and 20th countdown of the 80.906 KHz crystal. This intercept also displayed a SLM maximum binary count of three and geolocated to the Black Sea.

2. [redacted] intercepted three unidents, two of which were observed for a duration of nine minutes but none of which were geolocated.

3. [redacted] intercepted one unident on 4 March which displayed a circular scan of 3.71 sec with a superimposed 47 Hz complex scan. PRF and circular scan parameters matched those of the [redacted] with the exception of hertz rate.

This intercept was most likely the result of the payloads passing through a minor vertical lobe of a [redacted] with the lower power of the lobe resulting in pulse dropping and the appearance of complex scan.

4. Ten unidents were cancelled, five for lack of intercept, two as non-threat, and two equated to variants of known signals.

5. Ninety one passes were tasked for Signal Level Measure- [redacted]

6. No target emitters were intercepted from the Middle East in support of PROJECT FLAVOR.

~~TOP SECRET~~ UMBRA ZARF

PROCESSING HIGHLIGHTS

A. New Notation Assigned

Unidentified PRC Signal Notated as [redacted]

1. The unidentified I-Band signal previously notated as [redacted] has been assigned the temporary Talent Keyhole designator [redacted] The signal is known to emanate only from the CHANG CHIA K'OU area (4032N 11449E). The signal parameters are somewhat indicative of a battlefield surveillance radar, however, the PRC is not credited with any radars of this type. To date Mission 7107 is the only collector known to have intercepted the [redacted] emission.

2. Analysis of the collected data has revealed the following:

a. [redacted] operates in three discrete RF bands within the RF range of 9100-9600 Mhz. The signal has been observed to display RF switching or RF sliding over these ranges.

b. [redacted] displays a highly stable PRF within the range of 2497.197 - 2498.513 PPS. PRF's equate to the one kilometer crystal oscillator.

c. [redacted] utilizes a bi-directional type scan (plane undetermined) occurring at a 4.3 Hz rate.

3. The analytic findings reported above are currently being incorporated into an ELINT technical report.

*The notation [redacted] will not be released outside of TALENT KEYHOLE CHANNELS.

Enclosure (7) to BYE-59,453-75

~~TOP SECRET~~ UMBRA ZARF

B. Update on analysis of [redacted]

1. [redacted] operates in the 3600-4050 Mhz ranges and displays PRF and Scan parameters indicative of the B301 family of emitters which operate in the 2 GHz RF range.

2. Recent tasking was forwarded to [redacted] for Signal Level subsystem tasking. Thus far two intercepts have been made in the SLM Mode. The tapes are in transit to NSA.

3. Interrogration of the 7300 data base shows an intercept of [redacted] collected by Mission 7341 which was geopositioned to the Soviet Union, impacting at a known [redacted] site.

4. Some preliminary photo analysis has been completed which indicates an additional "small" reflector attached to the side of the [redacted] antenna structure. This structure is similar to that observed on the [redacted] radar. Tasking has been requested for fine grain photography to resolve the dimensions of this reflector.

5. Analysis continues on this signal.

C. Update on analysis of [redacted] the 4 GHz RF component of th[redacted] Emitter

1. No change in status since last TOG meeting, ELT is in coordination and should be forthcoming shortly.

2. An initial look at existing overhead photography has revealed the presence of an additional reflector attached to the [redacted] antenna structure. The poor quality of the photography precludes assessment of the dimensions of this structure. Tasking of overhead missions with high resolution capability has been provided. Of the four sites associated with [redacted] radars with the additional reflector.

D. Unidentified Signal Repor[redacted]

1. Mission 7107 has reported intercepting an unusual signal with the following characteristics:

RF: I Band (9300 MHz)
PRF: 75 PPS
SCAN: 15 Seconds (Sector)

Although the origin of this signal is not yet identified, there is a great similarity between this intercept and one previously reported as [redacted]

BYEMAN [illegible] EYES ONLY
CONTROL [illegible] JOINTLY