(TICKLER) B I K 2.

NRL SPEC PROJECTS CONTROL NUMBER

B I K
NRL B-261-75

~~FOR SECTION~~ HANDLE VIA B/K

DATE 10 OCT 75

ORIGINATOR BME 106-543

SERIAL NO. BYE 59,589-75

ENCLOSURES (1) AGENDA (2) LIST OF ATTENDEES (3) MISSION 7107 STAT (4) COLLECTION HIGHLITES (5) PROCESSING HIGHLITES

DATE REC'D 10/31

TICKLER DATE

COPY NO. 2

RECEIPT NO. WA 80728

SUBJECT POPPY TECHNICAL OPERATIONS GROUP (TOG) MEETING: REPORT OF

DIST INFO

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7000						
7030		2		[signature]	11/3/75	
1225		3				
7032				[signature]	11/13	
7033				[signature]	11/12	
Ed F				[signature]	11/17	
Tom L				[signature]	11/17	
File						

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REMARKS

NRL INCOMING DOCUMENT
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REMARKS:

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NRL BYE 261-75

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

OFFICE OF THE DIRECTOR

PME-106-543/1c

OCT 10 1975

MEMORANDUM FOR THE DIRECTOR, NAVAL RESEARCH LABORATORY (1000, 7030)
CHIEF OF NAVAL OPERATIONS (OP955)
COMMANDER, NAVAL SECURITY GROUP COMMAND (G54, POCG)
DIRECTOR, NATIONAL SECURITY AGENCY (A81, R24, W2, W34)
DIRECTOR, NATIONAL RECONNAISSANCE OFFICE (SS4, SS4A, SS7)

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

Encl: (1) Agenda
(2) List of Attendees
(3) Mission 7107 Status
(4) Collection Highlights
(5) Processing Highlights

1. The POPPY Technical Operations Group met at 0930 on 25 September 1975 at the Naval Research Laboratory. The meeting agenda and a list of attendees are forwarded as enclosures (1) and (2).

2. Enclosure (3), a status report on the POPPY satellites, was submitted by the Naval Research Laboratory representative. The recent incidents of low positive voltage on 7107 Charlie have led to constraints on payload tasking. It was established that the November engineering evaluation will include a statement of existing capabilities on each of the four satellites.

3. The Naval Security Group Command (POCG) representative submitted enclosure (4) which provides operational highlights for the month of September. [redacted] received a commendatory message from Commander Task Group 68.1 for support rendered during Project SILVER FOX, a Black Sea exercise.

4. The National Security Agency representative reported on POPPY intercepts of [redacted] a new Soviet shipborne radar carried on at least two major surface combatants. Details are contained in enclosure (5). The possibility exists that the Aircraft Carrier KIEV associated signal [redacted] has been collected by POPPY at [redacted] Tapes forwarded from [redacted] will be searched for the signal whose parameters did appear in [redacted] summary output at times when the signal was known to be active from British sources.

5. All POPPY sites are presently in full operation, but there have been numerous short duration outages over the past month. [redacted] finished an operational suspension on 13 September and is again being tasked.

PME-106-543/1c

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

6. The Navy Space Project Office representative reported details of a POPPY continuation meeting held at the Navy Space Project Office on Monday, 22 Sept. 1975. A report of that meeting is being promulgated by message. A study effort will be conducted to determine the costs and benefits of continuing POPPY operations at [redacted] and of implementing POPPY operations at [redacted]

7. The next TOG meeting will be hosted by the Navy Space Project Office and held at the Naval Research Laboratory on 30 October at 0930.

R.T. DARCY

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PAGE 2 OF 2 PAGES

AGENDA

MISSION 7107 STATUS

COLLECTION HIGHLIGHTS

PROCESSING HIGHLIGHTS

GROUND SITE STATUS

Enclosure (1) to BYE No. 59,589-75

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LIST OF ATTENDEES

CNO

CNSG

NSA

Mr. Gallagher (W34)

NRO

LCDR Potts (NSPO)

NRL

Mr. Mayo (7030)

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Enclosure (2) to BYE No. 59,589-75

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MISSION 7107 STATUS

Since the last TOG meeting, the 7107 spacecraft have left 100% sunlight (day 245 - September 2), have reached minimum sunlight (today - day 268 - September 25) and will be in low sunlight for several weeks. This is an extended period of low sunlight; 100% sunlight will not be attained until day 349 in December.

Problems have arisen with 7107 Charlie. On rev 18845 (17 September) the positive voltage fell immediately upon acquisition to the cutoff voltage of 10.88 volts at [redacted] The payload was reset and no further operations attempted. All POPPY sites ceased interrogation and the problem was referred to [redacted] There was no tasking on 7107 Charlie for a day; the vehicle was examined on Friday, 19 September 1975, and a decision was made by NRL to allow sunlight only tasking of 7107 Charlie. There were no problems over the weekend 19-21 September). On 22 September (Monday), there were again problems in holding a charge and NRL recommended that the spacecraft not be tasked for five minutes after exiting from darkness. NRL has continued to monitor the spacecraft at [redacted] and memory dumps are examined daily. NRL is recommending low current drain task groups for 7107C for use during low sunlight periods.

There have been no problems the last two days.

Enclosed are the minimum daily voltage plots.

The spacing is as follows:

[redacted]

7107C was thrusted on 2 September and the operation was successful.

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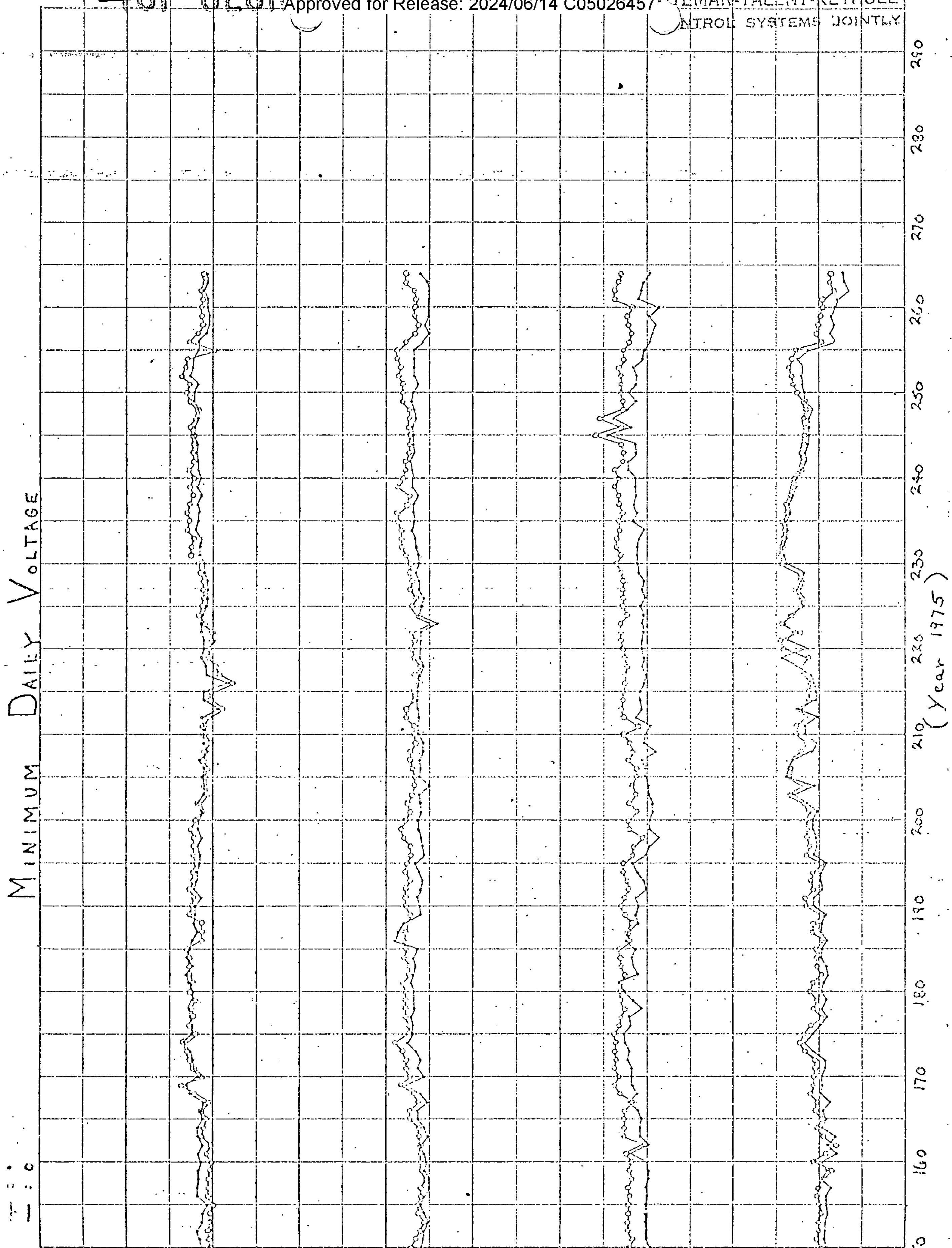
Enclosure (3) to BYE No. 59,589-75



COLLECTION HIGHLIGHTS

1. OCEAN SURVEILLANCE:

A total of 3897 items were reported. Of these, 704 reflected major combatant activity, 48% of which were equated to specific hulls. There were 2405 merchant and intercepts reported. There were no noted during the report period.

There were 33 with the special flag "NIMITZ OPS" since the last TOG meeting. The transit by the USS NIMITZ was completed 24 September 1975.

received a well done from CTG 68.1 for their special flagging of during the Black Sea exercise "PROJECT SILVERFOX".

are reporting PRF's of 699.443 PPS and 713.598 PPS to the new construction Kresta II CLGM BAL VIII Marshall TIMOSHENKO, now operational in the Baltic Sea.

2. TECHNICAL INTELLIGENCE AND EOB:

A intercepted on 03 September displayed a PRF of 1085.753 PPS and equated to the 87th countdown of a 94.460 KHz crystal. This was the first intercept of this mode by

On 1 September tentatively geolocated a 1026Z emitter to 48-48N/044-02E which is near the Kapustin Yar Missile Test Range. Azimuth from the emitter to the payload varied from 337.7 degrees to 15.0 degrees during the intercept. Maximum detected horizontal beamwidth observed was 1.4 degrees. This represents the first intercept of the 1026Z at

Enclosure (4) to BYE No. 59,589-75

PROCESSING HIGHLIGHTS

1. Since 21 January 1974, SIGINT Satellite Mission 7107 has been intercepting and geopositioning a distinctly different I-Band shipborne navigational radar. These signals were correlated to the KRESTA I, CLGM "ADMIRAL ZOZULYA," and recently to the Antisubmarine warefare support Aircraft Carrier "KIEV." The signal parameters closely resemble those of the [redacted] radar, however, there are subtle differences in both PRI and SCAN that allow separation of these two radar types. To give an appreciation of these differences, the following tabulation summarizes: Master Oscillator (MO) and Scan values associated with; (A) Normal [redacted] signals, (B) New signals from the KRESTA I, "ADM ZOZULYA," (C) New signals from the CVSC "KIEV."

	[redacted]	KIEV	ADM ZOZULYA
MO (USEC):	12.35635-12.36093	12.363541-12.363768	12.363115-12.3631
MO (HZ):	80900.00-80930.00	80881.491-80882.976	80885.280-80885.7
SCAN:	3.60-3.76 SPR	[redacted]	

* combined parametric limits of [redacted] as observed by Mission 7107.

In addition, estimates were made of the horizontal beamwidth and vertical elevation coverage, these were 1.2-1.8 degrees horizontal and 0-15 degrees vertical.

2. NISC 221523Z Aug 75 reported, that while the KRESTA I was in port in Spain, observations were made of two new antenna structures - designated [redacted]. The antennas were described as 230CM (91 inches) by 57MM (2.28 inches) high with a solid cut paraboloid reflector. Attempting to associate our signal parameters with this new antenna was somewhat disconcerting. Considering the height of the antenna as reported by NISC, and the nominal 9400 MHz operating range, the radiated signal should yield a vertical coverage from 0 through approximately 90 degrees. NISC Weekly Wire 38-75 revised the antenna dimensions to read 230CM (91 inches) wide by 57CM (22 inches) high, these new parameters would result in a vertical coverage in the range observed by Mission 7107.

3. Thus far the photographic coverage of the "KIEV" has been of relatively poor resolution and has not shown evidence of the [redacted] antenna system.

4. The KRESTA I, "ADMIRAL ZOZULYA" is fitted with a normal [redacted] radar. Intercepts show that parametric limits of this radar are within those tabulated in paragraph 1.

5. A permanent ELINT notation, [redacted] has been requested for this signal. Pending assignment of the notation, the signal will be tranferred to W225. Some word of caution, unless collectors have a highly accurate measurement capability, this signal will be ambiguous with existing members of the [redacted] family.

6. Further tasking will be required to determine the additional operating characteristics of this signal. Principally what additional aspects or functions this radar will perform over and above the normal [redacted] functions.