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NAVY SPACE PROJECT OFFICE

~~(S)~~ NATIONAL RECONNAISSANCE OFFICE, PROGRAM C

WASHINGTON, D.C.

OFFICE OF THE DIRECTOR

PME-106-4331

20 August 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) Minimum Daily Voltage Plot
(4) Collection Highlights

1. A POPPY TOG meeting was held at the NRL in SPO spaces at 0930 on 26 July 1973. The agenda and a list of attendees are forwarded as enclosures (1) and (2).

2. The following specific items were discussed:

a. 7107 Status: (NRL)

The status of the satellites has improved slightly since the last TOG meeting, because they have been enjoying greater sun exposure after the long period (see enclosure (1)) of reduced sun charging time. At the last TOG, it was requested that the reaction wheels be reactivated when sun exposure increased. The wheels consume a large amount of power which would require reductions in collection; and some time would be lost in collection in that it takes days for the wheels to come up to speed and for the oscillations to damp out completely. There is also the danger that a satellite could generate an oscillation that could cause instability and a violent tumbling with resultant injury to the satellite. It is therefore not feasible to restore power to the reaction wheels.

The NSA representatives stated that no problems are being encountered in using the satellites attitude information, that is being produced by NRL, to resolve collected SLM data.

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

[REDACTED]

Although some weak data have recently been reported no problem is anticipated. A RETEP relay may be stuck and NRL analysis indicates that it may remain stuck until after the maximum sunlight period.

The high sun exposure created a high temperature problem on 7107A, B and D, which was solved by re-activating some analog telemetry channels that had been secured earlier, when power problems were being experienced. Increasing the power drain slightly reduces battery temperatures. It is expected that [REDACTED] will reverse this action about 7 August when the high sun period ends.

b. Collection Highlights: (NSG)

The NSG representative introduced [REDACTED] who recently returned from [REDACTED] for duty with GS4 to help in preparing for the transition to [REDACTED]. Enclosure (4) is the CNSG report on collection highlights.

c. Processing Highlights: (NSA)

Analyses of POPPY acquired data are contributing to knowledge on three specific emitter types:

[REDACTED] studies are being conducted on 70 POPPY intercepts and 30 intercepts from other systems. One of the POPPY passes intercepted seven different [REDACTED] emitters.

[REDACTED] Power studies are continuing.

[REDACTED] Power studies are complete.

The current NSA reorganization is expected to provide more effective analyses of POPPY data as a by product. Certain specific types of emitters (ABM, EW, Naval, etc.) are the subject of study by specially assigned groups, while [REDACTED] group will have charge of analyzing all other land based and unidentified radar systems.

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Feedback reports and resolution of unidentified signals were discussed. As an example, the NSA representative stated that an unidentified signal intercepted by [] in 1971 was just recently associated with []. The problem with most of the outstanding unidentified signals is that follow-up intercepts are not obtained and insufficient information precludes resolution. Feedback, which greatly encourages field site personnel, will continue to be generated as appropriate.

Project Departure has been working on [] Collection), but inconsistencies are hampering efforts. A variation of 8 db between intercepts was cited. The NSG representative stated that [] would be reporting to NSA for duty within the next few months and could be very effective on Project Departure. } 20

It was noted that some SLM data on naval emitters had been collected but the requirement to process and report these data did not carry sufficient priority.

d. Transition at [] (SPO)

The TOG members were appraised of the schedule to conduct MILCON (military construction) at []

It is now planned to turn [] over to a contractor early in April 1974 for building renovation and expansion. Renovation at [] is scheduled to begin early in June 1974. This activity implies that some interruption to POPPY operations at both sites will occur slightly before the MILCON initiation dates and will continue through a period as long as seven months at each site unless provision is made for interim operation of POPPY while MILCON []

The alternative that presents the least down time for POPPY operations is: to move the equipment to vans which must be purchased and specially configured. Decision on the [] transition must be made by 1 September 1973 in order to provide vans for this purpose.

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e. SORS Guidance: (SOC)

On 25 July 1973, SORS approved simultaneous collection of emitters related to the same weapons system. Current task groups for POPPY must be re-evaluated, and the SOC will chair a meeting for this purpose in mid August.

3. The next TOG meeting is scheduled for NRL on 30 August 1973.



R. K. GEIGER

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AGENDA

7107 STATUS

COLLECTION HIGHLIGHTS

PROCESSING HIGHLIGHTS

TRANSITION AT

SORS GUIDANCE

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ENCLOSURE (1)

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LIST OF ATTENDEES

SPO:



NRL:

Mr. Hellrich
Mr. Lawton
Mr. Frankovic

NRO (SOC):



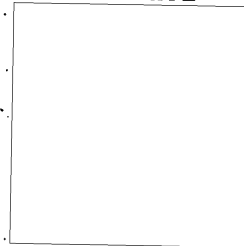
CNO (OP 094W):

NSG (G-54):

LT Morgan

ENS Eichel

NSA:



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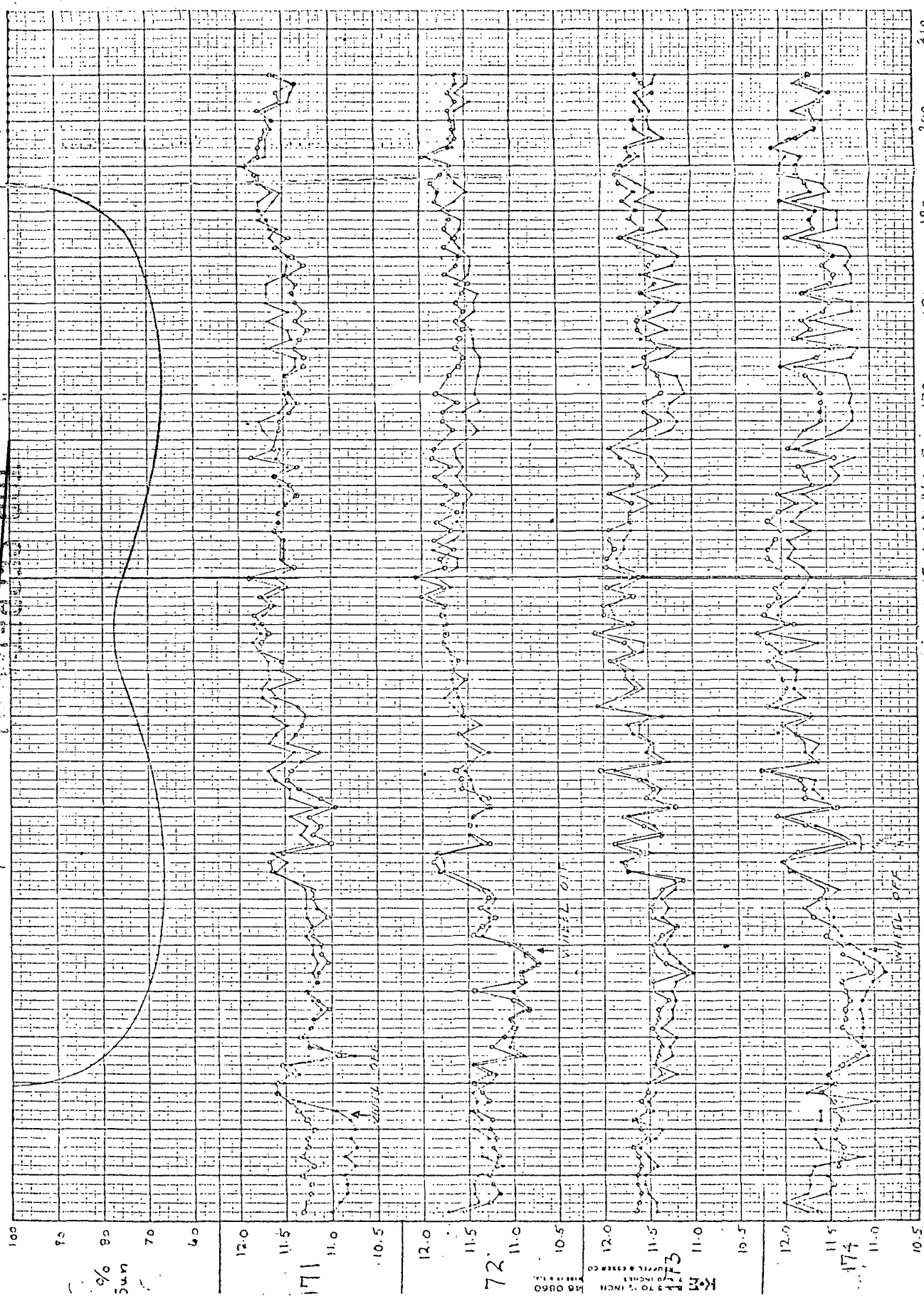
ENCLOSURE (2)

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MINIMUM DAILY VOLTAGE

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198 190 180 170 160 150 140
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cy 11 - 08 12 cy 12

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Since the TOG meeting in June, the following has occurred.

OCEAN SURVEILLANCE

Total [] production has increased considerably, producing a total of 4002 locations during the last month. This increase in [] productivity is a result almost entirely of the increased processing capability at [] (PAPS II). Even though [] production has increased, submarine location volumes have been fluctuating greatly with productivity being low for the last several weeks. The percentage of hull to emitter equations is down relative to the total number of [] due to significantly increased production of presently un-equatable emitters (DON's) and to a slight degree even with radars normally equatable which are carried aboard combatants.

Examples of reduced equations to major combatants can be partially explained by the lack of intercept from Soviet exercises and deployments. The ASW exercise in the Kuriles has produced only sparse intercept from Kotlin DDG-448 and at this point collateral sources have not identified any of the other participants. The Soviet OOA deployment to the Philippine Sea in which a KASHIN, KILDEN, FOXTROT, AOR and AO are involved has produced no intercept since they departed Pacific Soviet Coastal waters. All collateral indications suggest a lack of radiations as being the primary cause of negative intercept. In a Caribbean transit from the Mediterranean of Kresta II CLGM-289, Kanin DDG-559 and an AOR, intercept has been almost nil. Intercepts of two unequated [] on 19 July from the vicinity of the Canaries and a single [] from the Kresta II on 24 July from 30N 50W have been the only activity noted. Prior transits of this nature have been extremely productive.

In summary, Ocean Surveillance activity equated to major combatants has been extremely sparse for the amount and type of Soviet activities currently in progress.

Arbitrary Designator [] has been equated to [] This new construction Kashin is currently deployed OOA in the Mediterranean Sea.

ENCLOSURE (4)

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NIC has reported a 3960MHZ, 800PPS, 5.5SPR transmission from Krivak DDGSP-553 as a possible Head Net. [] on 21 February reported an unidentified transmission 3600-4050MHZ, 809PPS, 8.8SPR and speculated on the possibility of being from a modified [] on 29 June and 25 July reported an unidentified emission 3950MHZ, 797.836PPS, 10.8SPR from The Black Sea. Several collateral sources have speculated on the possibility of the above transmission being associated with a modified []

During this period we have had one [] intercept of a [] from the []

TECHNICAL INTELLIGENCE

PAPS RELEASE II has been in operation for approximately one month. [] reports a large increase in [] items and that the ability to process staggered [] has been particularly useful and nearly cut processing time in half. Problem areas include an overload of the fixed head disc due to high data densities and an inability to process emitters with a hertz rate without reverting to the 810-BRIC routine due to the generation of parallel LOP's at the hertz rate of the emitter. These items have somewhat reduced the overall effectiveness of PAPS RELEASE II.

New tasking, based on SORS guidance, was forwarded to field stations and implemented on 23 July. No problems have been encountered with the new task groups.

[]

A two month extension of the special SLM collection task has been forwarded to field stations. Along with the task extension are two new SLM task groups oriented towards collection of []

ELECTRONIC ORDER OF BATTLE

[]

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ENCLOSURE (4)