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HANDLE VIA
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CONTROL SYSTEM

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~~(S)~~ NATIONAL RECONNAISSANCE OFFICE
WASHINGTON, D.C.

THE NRO STAFF

29 November 1971

MEMORANDUM FOR DR. McLUCAS

Dr. McLucas has seen.

SUBJECT: Ocean Surveillance

PROBLEM

To determine where system management for satellite ocean surveillance should reside.

ISSUE

How much system management autonomy should the Navy assume in the mission of satellite ocean surveillance?

BACKGROUND

The ocean surveillance responsibility has traditionally been assigned to the U. S. Navy when considering "conventional" surveillance systems. For space based ocean surveillance systems conflicting statements regarding responsibility have been made. DOD Directive 5160.32, 8 September 1970, specifically mentions ocean surveillance as one area in which a space system could be developed (by the Navy) under existing DCP/DSARC policies. On the other hand, the Agreement for the Reorganization of the NRP, assigns to the NRO the responsibility for collection of intelligence through overflight (satellites and aircraft). A Memorandum of Agreement was signed by CNO, ASN (R&D), and the Under Secretary of the Air Force, 2 April 1971, which commits the Navy to make use, to the maximum extent possible, of existing assets for ocean surveillance. Decisions on future dedicated systems as to management, operational command and control, etc., will be made on a case-by-case basis.

DISCUSSION

Within the next several months the Navy may propose a dedicated system management approach for satellite ocean surveillance under their auspices. Some pros and cons of such an approach are included at TAB A. The NRO preferred approach at this time is to continue selective improvement in existing capabilities (surface and space) with system

management to be retained under the existing NRO structure. The rationale for this approach is consistent with SECDEF policy (TAB B). A plan of action is briefly summarized below:

a. Continue probing ways to eliminate delays at various interfaces to enhance timely data transfer and dissemination of ocean surveillance information [redacted] SPECTRE, etc.).

b. Selectively improve existing or proposed systems (POPPY, URSALA, etc.) to more effectively accomplish ocean surveillance mission. Possibilities are:

(1) Upgrade the URSALA program to include a mini-computer to preprocess essential data for direct readout to tactical/fleet commanders or forward area activities while retaining capability for stored readout to SCF's.

(2) Optimize [redacted] for the ocean surveillance mission. Continue search for ways of interfacing with data collected from other NRO systems.

c. Evaluate fall-out from [redacted] Tactical ELINT Study (due April 1972). A multipurpose system approach (battlefield plus ocean surveillance) might be the solution to the overall tactical problem.

d. Evaluate effectiveness of URSALA 1 [redacted]

NRO POSITION

Continue developing better ways of satisfying ocean surveillance requirements within the existing NRO environment. This offers the most cost effective and technically attractive approach. Appears to be premature to consider any other approach at this time.

RECOMMENDATION

Continue existing system management arrangements with the Navy.

David D. Bradburn

DAVID D. BRADBURN
Colonel, USAF
Director

Agree with Bradburn but am not sure you can hold the line here. Navy may generate much momentum. I suggest no comment at Int.

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TAB A thru D

TOTAL NAVY MANAGEMENT OF OCEAN SURVEILLANCE SYSTEM

PROS

a. Central management of resources (men, money, materials)

b. Insures total responsiveness to Navy's needs

c. Optimized for ocean surveillance

d. Reporting totally within Navy channels

CONS

a. System not integrated into national tactical plan

b. Potential proliferation of specialized collection systems

c. Duplication of processing stations

d. Ignores battlefield EOB

e. Relationship to existing national processing/reporting center is unclear

f. Decentralization of effort

g. Collector opportunities sacrificed for Navy ocean surveillance mission

h. Expensive to duplicate existing collector-tasking-processing-reporting network

THE SECRETARY OF DEFENSE
WASHINGTON, D. C. 20301

19 FEB 1971

MEMORANDUM FOR: The Secretary of the Army
The Secretary of the Navy
The Secretary of the Air Force
Director, Defense Research & Engineering

SUBJECT: Utilization of DoD Space-Oriented Resources

The Defense role in space has been uncertain. Defense space programs have been started, altered, and, in some cases, terminated. The Air Force has likewise been the principal DoD contact with other agencies and organizations with space missions. Throughout the evolution of the Defense space role, however, the Air Force has carried the principal burden.

As a result of the Air Force's assignment in managing and collaborating on space activities, the Air Force accumulated a substantial space-oriented resource base. That base includes installations, equipment, personnel, and expertise.

The future DoD role in space remains uncertain. Whatever that role may be, however, it is important that we not allow unnecessary redundancy and duplication of effort to creep into DoD programs. The facilities and talents already available should be used to the fullest.

I would appreciate your review of existing and prospective space programs involving DoD elements or DoD participation. I would like your assurance that, where possible, existing resources and talents are being used to perform DoD space functions.

September 8, 1970
NUMBER 5160.32

DDR&E

Department of Defense Directive

SUBJECT Development of Space Systems

Ref: (a) DoD Directive 5160.32, March 6, 1961, subject as above (hereby cancelled)

I. PURPOSE

This Directive establishes policies and assigns responsibilities for research, development, test, and engineering of satellites, anti-satellites, space probes and supporting systems therefor, for all components of the Department of Defense.

II. CANCELLATION

Reference (a) is hereby superseded and cancelled.

III. POLICY AND ASSIGNMENT OF RESPONSIBILITIES

A. Functional responsibilities within OSD and the Military Departments for acquiring major weapon systems will be applied to the development and acquisition of space systems.

B. Existing assignment of responsibilities for on-going space systems are not changed by this Directive. The Air Force will have the responsibility for development, production and deployment of space systems for warning and surveillance of enemy nuclear delivery capabilities and all launch vehicles, including launch and orbital support operations. Military Department proposals for space development programs will require specific OSD approval based on DCP and DSARC policies. DCP's for space communications, navigation, unique surveillance (i.e., ocean or battlefield), meteorology, defense/offense, mapping/charting/geodesy, and major technology programs will desig-

nate the Military Department or DOD agency responsible for execution of the program.

C. Exceptions to B above will be made only by the Secretary of Defense or Deputy Secretary of Defense.

D. The Director of Defense Research and Engineering will monitor all space technology activity to minimize system technical risk and cost, to prevent unwarranted duplication, and to assure that a space program assigned to one department meets the needs of other departments. Other departments may appoint program/project monitors to report progress to their departments and perform liaison between their departments and the responsible department. DDR&E will continue to serve as a focal point for space technology and space systems where the interests of more than one department are involved.

IV. EFFECTIVE DATE AND IMPLEMENTATION

This Directive is effective upon publication. Two(2) copies of implementing instructions shall be forwarded to the Director of Defense Research and Engineering within sixty (60) days.

Deputy Secretary of Defense

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MEMORANDUM OF AGREEMENT ON USE OF DOD SPACE RESOURCES

Ocean Surveillance

It was agreed in principle that the Navy will utilize, to the maximum extent possible, existing assets or variations thereof for ocean surveillance. The evolution of such systems will be conducted by experimentation, studies, augmentation, and modification as appropriate. Future acquisitions management and operational command and control will be decided on a case by case basis. Future requirements for dedicated systems will be determined on the basis of experience with existing assets. The Navy expects to be responsible for management of new systems dedicated principally to Navy missions. The Navy's Space Project, (PM-16), will act as the central agency for management in this regard.

Satellite Programs

It was agreed in principle that in future space systems assigned to the U.S. Navy for overall management, existing U.S. Air Force assets (in essence SAMSO, Aerospace Corporation) will be utilized to the maximum extent possible to supplement existing Navy capabilities (in lieu of duplicating Air Force assets) to execute such Navy Programs. Specific details of the management arrangements in each case will be resolved by the two services.

Management Planning and Review

Problems of cooperative Navy-Air Force management of selected space systems will be reviewed quarterly by a joint panel appointed by the Under Secretaries of the Navy and of the Air Force.

E. R. ZUMWALT, JR.
Admiral, U.S. Navy
Chief of Naval Operations

ROBERT A. FROSCH
Assistant Secretary of Navy
Research and Development

JOHN L. MCLUCAS
Under Secretary of the
Air Force.

2 April 1971

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TALKING PAPER

FOR

DR. McLUCAS/ADM ZUMWALT MEETING
4 DECEMBER 1971

SUBJECT AREA: Ocean Surveillance with ELINT Satellites

EXPECTED NAVY POSITION: ADM Zumwalt will probably opt for a [redacted] (POPPY-like) system. Would go to industry with RFP Jan-Feb 1972 time frame. Some Navy funding will be offered.

RECOMMENDED NRO POSITION:

1. Continue with improvements to present mix of systems plus addition of URSALA.

2. Before committing to procurement of a new system, perform the following:

a. Determine whether a dedicated ocean surveillance ELINT satellite system is desired by both NRO and the Navy, or whether an all-purpose general EOB satellite system or system mix, serving national and other service needs as well as ocean surveillance is a better solution. Consider the following; costs, all known EOB requirements, present capabilities.

b. Evaluate interim capabilities having IOC in summer 1972; i.e., [redacted] POPPY 7107 with PDE and SEL-86 computer, URSALA I, improvements to [redacted] processing, improvements at Ft Meade in [redacted] improvements in data relay by 777 satellites [redacted] Do all this before a large commitment to a particular systems concept is made. In other words, "fly-before-buy."

3. Modify present POPPY program [redacted] to emphasize O/S more and to serve as a phase-in of the Navy preferred [redacted] system.

4. Consider the output of [redacted] Tactical ELINT Studies, scheduled for completion in April 1972.

SUMMARY:

1. Present, evolutionary approach is beginning to yield results. Evaluate real-life performance and experience gained

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in summer 1972 before committing heavily to any particular concept.

2. Address question of a "dedicated" O/S system vs a "land-sea general purpose EOB system." (The latter might be biased towards the O/S problem but would maintain good capability against land-based emitters as well.)

3. Discuss the question of three feasible read-out modes:

a. CONUS-centralized processing and correlating.

b. In-theater readout and processing.

c. Direct to user.