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#57

14 OCT 1976

76-4489

111 76-4489

MEMORANDUM FOR DIRECTOR, JOINT STAFF

SUBJECT: Request for Coordination (U)

(S) Reference JCS position paper MICS 64-76, 1 March 1976, recommending a DoD position be established and transmitted to NASA to deny any possible military exploitation of SEASAT data by foreign powers.

(U) Request coordination of the attached draft DDR&E letter to NASA on or before 19 October 1976.

Col Thomas

Ross N. Williams
Rear Admiral, U.S. Navy
Military Assistant
Strategic and Space Systems

for

Attachment

Office of the Secretary of Defense
Chief, RDD, ESD, WHS
Date: 27 JUN 2016 Authority: EO 13526 + 5 U.S.C. 552
Declassify: X Deny in Full: _____
Declassify in Part: _____
Reason: _____
MDR: 13 -M- 4656

H L Krykendall/jw/14 Oct 76
OAD(S&AS) 57036

FOIA (b)(7)

SM:RS

DECLASSIFIED IN FULL
Authority: EO 13526
Chief, Records & Declass Div, WHS
Date: JUN 27 2016

~~Classified by DDA/...~~
~~EXEMPT FROM GENERAL DECLASSIFICATION SCHEDULE OF~~
~~EXECUTIVE ORDER 13526, EXEMPTION CATEGORY 3~~
~~DECLASSIFY ON 31 Dec 2024~~

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13-M-4656

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76-4489A

Honorable A. M. Lovelace
Administrator, National Aeronautics
and Space Administration
Washington, D. C. 20546

DECLASSIFIED IN FULL
Authority: EO 13526
Chief, Records & Declass Div, WHS
Date:

JUN 27 2016

Dear Al:

(S) You are aware of our concerns over the possibility of the unauthorized use of the SEASAT-A in times of hostility. The high resolution pictures generated by the Synthetic Aperture Radar (SAR) could provide Department of Defense order of battle information which cannot be openly disseminated without providing militarily significant data to an adversary. As you know, DoD has taken the position that uplink/downlink COMSEC protection should be applied. You have stated that downlink encryption is unacceptable because of international agreements on sharing meteorological data. We have jointly agreed in concept to provide uplink protection against unauthorized tasking of the satellite.

(S) A solution to uplink protection on SEASAT-A has been proposed by NASA which includes a SAR Enable Disable (SED) unit to be developed by Lockheed/JPL with a three day timer to inhibit output from the SAR. The SED has its own clock which cannot be reset or shortened via command. The SAR is continuously inhibited if appropriate commands are issued in less than three day intervals.

(S) The protection afforded SEASAT-A by use of the SED unit is acceptable to the Department of Defense. It satisfies some of our major concerns which are:

- Determining attempts at unauthorized use of SEASAT-A, and
- Providing the ability to inhibit the SAR during hostility or attempts at unauthorized use.

Classified by ~~DIRNSA/IS/H/ISS (2441/15511/149-2)~~
EXEMPT FROM GENERAL DECLASSIFICATION SCHEDULE OF
EXECUTIVE ORDER 11652. EXEMPTION CATEGORY ~~2~~
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(8) I assume we can agree to include the SED unit on SEASAT-A. I consider the question of what is appropriate for any follow-on operational SEASAT system is a subject to be addressed in our ongoing discussion about the operational system.

Malcolm R. Currie

DECLASSIFIED IN FULL
Authority: EO 13526
Chief, Records & Declass Div, WRS
Date: JUN 27 2018

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76-4076

23 SEP 1976

111-NASA

Honorable A. M. Lovelace
Deputy Administrator
National Aeronautics and Space Administration
Washington, D. C. 20546

Dear Al,

(S) I am in agreement with the points made in your September 3, 1976 memorandum recording understandings reached in our meeting of August 27, 1976 on the oceanographic satellite program. There are, however, two points that I believe are important to emphasize.

1. We should acknowledge that a primary purpose of the group is to identify potential problems in data dissemination/withhold and to seek innovative ways to solve these problems to everyone's satisfaction before they become issues.

2. The group should continue for four months, at which time the principals of the August 27 meeting should review the progress.

(U) I believe these additional points were generally agreed to at our meeting and can see no reason why we can't start immediately.

Sincerely,

s/ Mal

Malcolm R. Currie

Col R T Poppe /w/ 16 Sep 76
OAD(S&AS) X53359

AD(S&AS) R. G. 21 Sep 76

DD(S&SS) *[Signature]* (signal Coe-ling) 23 SEP 1976

cc: Dr. Robert White, NOAA
RAIM Ceiger, ONR

[Handwritten initials]

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~~NOFORN DISSEM~~

DECLASSIFIED IN FULL
Authority: EO 13526
Chief, Records & Declass Div, WHS
Date: JUN 27 2016

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EXEMPTED FROM GENERAL DECLASSIFICATION SCHEDULE OF EXECUTIVE ORDER 11652, EXEMPTION CATEGORY *[Number]*
DECLASSIFY ON *[Signature]*

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76-40764

COVERING BRIEF

22 SEP 1976

TO: DIRECTOR, DEFENSE RESEARCH AND ENGINEERING

FROM: DEPUTY DIRECTOR, STRATEGIC AND SPACE SYSTEMS *TP Large*

(U) PROBLEM: To provide DDR&E comments on a NASA memorandum redording understandings reached in a NASA/NOAA/DDR&E/Navy meeting on SEASAT.

(S) DISCUSSION: On 27 August 1976 and at NASA request, you met with Dr. White (NOAA), Dr. Fletcher (NASA) and RADM Geiger (ONR) to define a mechanism for solving data release/withhold problems that could arise from a NASA operational oceanographic satellite system. All present agreed to a NASA/NOAA/DoD study which would look at requirements for an operational system and attempt to resolve problems in data dissemination before they become issues. You also expressed a desire to have the principals at the meeting review the study progress after four months to determine if it is worth continuing. (An SASS MFR on the meeting is at Tab A.) Dr. Lovelace's memorandum (Tab B) provides the NASA perspective on understandings reached. The memorandum emphasizes requirements generation and largely obscures the problem solving aspect.

(S) RECOMMENDATION: A memorandum (Tab C) to Dr. Lovelace, with a copy to Dr. White and RADM Geiger, has been prepared for your signature. The memorandum agrees with the points made by Dr. Lovelace and notes that the problem solving aspect and fourth month review are important to emphasize. I believe we should not enter into a requirements study without a concomitant effort to identify dissemination problems and seek solutions. Also we need the fourmonth review point to insure our interests are being met. I recommend you sign the memorandum.

(U) CONCURRENCE: None

Poppe
COL RT Poppe/amv/18 Sep 76
OAD(S&AS) X-53359

b(1)

DECLASSIFIED IN FULL
Authority: EO 13526
Chief, Records & Declass Div, WHS
Date: JUN 27 2016

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COVERING BRIEF

12 1 1976

TO: DIRECTOR, DEFENSE RESEARCH AND ENGINEERING

FROM: DEPUTY DIRECTOR, STRATEGIC AND SPACE SYSTEMS SIGNED

PROBLEM: (S) NASA has proposed a change in the SEASAT-A orbit and has requested an official DoD statement on the value of the altimeter data and the national security implication attendant to the change. The NASA letter is at Tab B.

DISCUSSION: (S) A proposal to change the orbit of SEASAT-A from the present inclination of 108° retrograde to polar or near polar inclination has been made by members of the Ocean Dynamics Advisory Subcommittee (the external advisory group to NASA on SEASAT-A). The reported impetus for the change is to permit more effective coverage of the polar ice regions. It is also potentially based on the premise that changing the orbit to a polar inclination would reduce the value of the altimeter data to DoD thereby eliminating the classification/encryption problem with SEASAT-A.

(S) An analysis performed by the Navy indicates the polar orbit would cause a significant degradation in DoD's ability to use the SEASAT-A altimeter data to improve the accuracy of inertial navigation systems for our operational forces. However, the national security implications persist regardless of the inclination as long as a precise altimeter and the accompanying timing system are retained on SEASAT-A. The Synthetic Aperture Radar would not be affected by the proposed inclination change. While the synergistic effect of the total SEASAT-A instrument complement has not been determined, the concept is an additional point for holding the DoD position of data link encryption until all effects are known.

(S) A letter has been prepared for your signature to NASA affirming the DoD position and listing the concerns associated with the proposed inclination change. DoD interest is best served by leaving the present orbit unchanged.

RECOMMENDATION: (U) That you sign the letter at Tab A.

CONCURRENCES: JCS See attached memo, dtd 22 Dec 76

DD (R&AT) _____

Kuykendall/emv/15 Dec 76

DAD(S&AS)

X-57036

DECLASSIFIED IN FULL
Authority: EO 13526
Chief, Records & Declass Div, WNS
Date: JUN 27 2016



76 5037

National Aeronautics and
Space Administration

Washington, D.C.
20546

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Copy to Attn of: ES

November 19, 1976

Adm. Ross N. Williams
OSD--ODDR&NE (S&SS)
Room 3E-130
The Pentagon
Washington, DC 20301

DECLASSIFIED IN FULL
Authority: EO 13526
Chief, Records & Declass Div, WHS
Date: JUN 27 2016

Dear Ross:

This is to follow-up our earlier discussions regarding the desire on the part of some of the Seasat-A users to change the orbit inclination of the spacecraft to better meet their needs.

During the Ocean Dynamics Advisory Subcommittee (ODAS) meeting on November 4, the subject was brought up and discussed in detail. There were many pros and cons aired regarding the desirability of a change in orbit inclination as well as the impact of any change on the spacecraft and mission. The net result was a request by John Apel, the Subcommittee Chairman, for each of the Subcommittee members to submit in writing their respective views and rationale on the Seasat-A orbit. He plans to integrate these views into a Subcommittee recommendation to NASA on the subject.

In view of the above, I would like to request that DoD provide NASA with an official statement regarding:

1. The value of the Seasat-A altimetry data in meeting DoD requirements vs. orbit inclination (in the range from 70° to 110°).
2. The security implications of Seasat-A altimetry data vs. orbit inclinations (in the range from 70° to 100°).

Suspense
NLT
13 Dec 76

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No. 1 of 2 Copies, Series ... A
T.A.B.E
301655

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Your early response to the above request would be appreciated--hopefully not later than mid-December 1976. I anticipate the recommendation from the Subcommittee about the same time and would like to be in a position for NASA to make a judgement on this matter.

Sincerely,

Francis L. Williams

Francis L. Williams
Director, Special Programs
Office of Applications

DECLASSIFIED IN FULL
Authority: EO 13526
Chief, Records & Declass Div, WNS
Date: JUN 27 2016

~~SECRET~~

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76-3820



OFFICE OF THE DIRECTOR OF DEFENSE RESEARCH AND ENGINEERING
WASHINGTON, D. C. 20301

27 August 1976

MEMORANDUM FOR RECORD

SUBJECT: DDR&E/NASA/NOAA Meeting, 27 August 1976 (U)

DECLASSIFIED IN FULL
Authority: EO 13526
Chief, Records & Declass Div, WNS
Date: JUN 27 2018

(S) Dr. Fletcher (NASA), Dr. White (NOAA), RADM Geiger (Navy), and Dr. Currie met on 27 August 1976 to discuss the mechanism for NASA/NOAA/DoD interagency coordination in planning for the follow-on operational SEASAT system. Others attending were Dr. Naugle and Dr. A. M. Lovelace (NASA), Mr. Eskite (NOAA), and Admiral Williams and Col Poppe (DDR&E). Dr. Fletcher opened the meeting by noting that the intent was not to discuss the current action regarding the military utility of SEASAT-A data. Rather, the intent is to define a mechanism for solving such problems that could arise from an operational system in the early stages of planning that system.

(S) There was general agreement that the SEASAT program is likely to provide data whose utility will support a follow-on operational system in the 1980s. Thus, there is a need to get started now to seek innovative ways to solve the data dissemination/withhold problems to everyone's satisfaction.

(S) There was unanimous agreement to form an ad hoc group to begin planning for an operational SEASAT system. The group will seek to identify and propose solutions to potential problems that could arise in the handling and dissemination of the data. The goal is to reach an appropriate balance between the needs of the civil and scientific communities while protecting the interests of national defense. Likely requirements for the operational system will be defined. These requirements will be examined with the view toward identifying whether closed or open dissemination of specific data applies and whether restrictions on the quality of the data are applicable. The group will continue for four months, at which time, progress will be examined. A mid term review by the principals present at this meeting should be scheduled for mid December. While the group is to be external to the existing Program Review Board, it will work with the PRB. The group will consist of "fairly high level" people (Dr. Fletcher is expected to designate Deputy Associate Administrator Jaffee). The output of the group is expected to contain classified information and the existence of the group will be treated as Confidential. NASA has agreed to lead the group (at least in the formative stage) and the other agencies will advise Dr. Naugle of their representatives within a week (Phone: 755-3818).

Classified by DB (3255)
EXEMPT FROM AUTOMATIC DOWNGRADING AND DECLASSIFICATION SCHEDULE OF
EXECUTIVE ORDER 11652, CATEGORY 1
DECLASSIFY ON: 3255

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TAB A

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2

(U) Dr. Currie took the position that the DoD membership on the group should include a DDR&E and a Navy representative. It was his suggestion that the ad hoc group be initially chartered for four months. He noted that he encourages this kind of "getting together to resolve problems before they become issues." Dr. Currie expressed the desire that the group be so chartered and selected to encourage innovative solutions rather than have a group predisposed to follow institutionalized positions/solutions of the past. RADM Williams will be the DDR&E representative on the ad hoc group.

Robert T. Poppe

Robert T. Poppe
Colonel, USAF
Military Staff Assistant
Space & Advanced Systems

COORDINATION:

Ross N. Williams

Ross N. Williams, Rear Admiral, U.S. Navy

DECLASSIFIED IN FULL
Authority: EO 13526
Chief, Records & Declass Div, WRS
Date: JUN 27 2016

~~SECRET~~

4. The study is to focus on national technical requirements for oceanographic information with the ideal of defining the minimum programs (both operational and R&D) to meet these without initial regard to current or future policy considerations such as roles and missions, international involvements, R&D versus operations, or system and data security issues.

5. Starting in September, the study is expected to be complete by June of 1977 in time to contribute to the formulation of the FY 1979 budgets of the involved agencies. A preliminary interagency review will be scheduled for December 1977, at the level of the PRB, to assess progress and to decide on the appropriate mechanism for addressing the civil-military policy issues expected to have been identified by the Study Team.

I am sending an identical letter to Bob White in the hope that, if you both agree, we can begin immediately on this important, far-ranging effort. John Naugle and I intend to remain very close to this study as it proceeds.

Sincerely,



A. M. Lovelace,
Deputy Administrator

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Authority: EO 13526
Chief, Records & Declass Div, WRS
Date: JUN 27 2016

~~SECRET~~

2

(S) It is recognized that a polar or near polar orbit will enhance the results of the SKASAT-A experiments of interest to the oceanographic community. However, the use of the data for accuracy improvement in strategic weapon systems is of greater importance to DoD. Our needs are best served by retention of the present 108° retrograde orbit.

(S) The proposed orbital inclination change does not affect the Synthetic Aperture Radar. The concerns previously expressed will still prevail.

Sincerely,

/s/ Robert M. Parker
for

Malcolm R. Currie

[Handwritten initials]
LKuykendall/emv/16 Dec 76
OAD (S&AS) X-670365
AD (S&AS) *[Handwritten initials]*
DD (S&SS) *[Handwritten initials]*
JCS (By memo dtd 16 Dec 76)
DD (R&AT) *[Handwritten initials]*

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Authority: EO 13526
Chief, Records & Declass Div, WHS
Date: JUN 27 2016

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