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77-2355 11 NASA

7 JUN 1977

Dr. A. M. Lovelace Acting Administrator National Aeronautics & Space Administration Washington, D. C. 20546

Dear Dr. Lovelace:

- (U) In response to your letter of May 13, 1977. I agree that it is appropriate to review the joint DoD/NASA agreements for both SEASAT-A and GEOS-3.
- (U) With respect to GEOS-3, I have recently requested the Defense Mapping Agency to work with your staff in releasing all the fine-grain altimeter data. A copy of this letter was forwarded to NASA, Office of Applications. I am hopeful that an agreement can be reached which will not be burden-some to either NASA or DoD.
- Enable/Disable Unit provides a significant degree of protection for the SEASAT SAR against unauthorized use. Since this will insure the evallability of SAR data not only to NASA but to other countries which have committed significant resources to the acquisition of SAR data, NASA will also benefit from the protection. Therefore, I feel that the funding for this capability should be borne jointly by NASA and Dob. Once the total cost has been determined, final funding agreements can be resolved.
- (S) The planned acquisition of SAR data with the three United States stations and one Canadian station is acceptable as is the intended method of SAR operation. I am also in conceptual agreement with extending ground station access to allies of the United States under the conditions stipulated in your letter.
- (U) It appears that expanding our existing Memorandum of Agreement for SEASAT-A global data is timely and should proceed. I am asking the Defense Mapping Agency to work with you in resolving this operational issue with the aim of

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Reviewer: 3/274/Date: 4/36/2/6

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developing a mutual funding arrangement. I feel this is the most equitable way sings a major computational burden will be lifted from you.

(U) I approximate the appartualty to comment on your plans for SENERY A and ONOS-1. Our july desperation should increase the benefits from both products to bell and NASA.

Singerely,

William J. Perry William J. Petry

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OSD 5 U.S.C. § 552 (b)(6)

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National Aeronautics and Space Administration

Washington, D.C. 20546

Office of the Administrator

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Honorable William J. Perry Director Defense Research and Engineering Department of Defense Washington, DC 20301

DECLASSIFIED IN FULL
Authority: EO 13526
Chief, Records & Declass Div, WHS
Date: JUL 2 9 2016

Dear Dr. Perry:

In light of the President's recent decision on the handling of altimetry data from NASA's Seasat-A oceanographic research satellite, I feel it is useful to review the arrangements between the Department of Defense and NASA that relate to Seasat-A as well as to GEOS-3.

First, we plan to manage the Seasat-A synthetic aperture radar (SAR) as follows:

- a. We will provide the secure but unclassified SAR command uplink as defined in our exchange of correspondence on November 1 and December 14, 1976. The added project costs of including this capability appear to be some \$500,000, and we plan to make a formal request for reimbursement as soon as the final costs are determined.
- b. We will provide routine, 24-hour-in-advance notification to DoD of the intended data acquisition program for the SAR.
- c. We do not intend to acquire radar imagery routinely and repetitively over the entire United States landmass; some repetitive coverage over cropland, however, will be acquired for agricultural research.
- The SAR data acquisition network will include three United States ground stations (Alaska, West Coast, and East Coast) and one Canadian station.

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Second, we believe we will be receiving requests from friendly foreign countries for ground station access to the SAR down-link for research purposes. While the high costs of establishing a SAR receiving and processing capability are expected to discourage many potentially interested countries, we believe requests are most likely to come from Western Europe (Norway and/or Belgium), Australia or New Zealand, and perhaps Japan and South Africa. We would expect to respond positively to such requests, of course providing DoD with 24-hour notification of data acquisition plans, under the following conditions:

- a. We would retain control of the SAR programming in the United States, with no command-control from the foreign station.
- b. We would be provided with copies of all SAR data at no cost upon request.
- c. SAR coverage would be limited in extent and for R&D, not routine operational, purposes.

Third, we are now in a position to respond positively to DDR&E request of January 17, 1977, on providing Fleet Numerical Weather Center with near-real-time Seasat-A global data; I am requesting the NASA Office of Applications to work with your office on expanding the Memorandum of Agreement along these lines, with the proviso that the added costs to NASA (currently estimated at \$1.3 million per year) will be reimbursed.

Fourth, I want to repeat our intent to engage only serious investigators in the Seasat-A program and we will provide each only the altimetry data sets required by his approved investigation. We believe there will be few non-governmental institutions that wish to receive whole-ocean altimetry data sets.

Fifth, we need to reconsider the GEOS-3 data handling arrangements established in late 1975. We plan to continue routine data acquisition from GEOS-3 for about another year, relying on our existing ground stations. The majority of our principal investigators' research requirements have already

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been met with appropriate data sets; the operational data users such as the National Oceanic and Atmospheric Administration, however, have a continuing interest in current GEOS-3 data for sea state dynamics as well as geodesy. From now on, we intend to service future requests for GEOS-3 data from bona fide users or investigators in accordance with our normal procedures; requests for data previously acquired but which we do not have on file -- i.e., the fine-grain measurements within the annulus will be passed on to the Defense Mapping Agency to be filled.

I would appreciate your reaction to these plans so that we can proceed with a coordinated effort.

Sincerely,

A. M. Lovelace

Acting Administrator

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National Aeronautics and Space Administration

Washington, D.C. 20546

Office of the Administrator

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I would appreciate your reaction to these plans so that we can proceed with a coordinated effort.

Sincerely,

A. M. Lovelace

Acting Administrator

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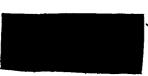
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COVERING BRIEF

TO: Director, Defense Research and Engineering

FROM: Deputy Director, Strategic and Space Systems



PROBLEM: (U) Respond to NASA letter, May 13, 1977 (Tab B), relative to plans for GEOS-3 and SEASAT-A.

<u>DISCUSSION</u>: (eT The NASA letter (Tab B) provides a review of all arrangements for DoD on both GEOS-3 and SEASAT-A. The specific points in the NASA letter and brief comments are as follows:

- a. (6) The SAR uplink/downlink protection will be afforded SHARK-A and the SAR method of operation is summarised.

 General: NASA will benefit from the increased protection afforded the SAR on SHARKT-A. It seems appropriate that NASA enter a joint funding arrangement with DoD for the Humble/Bissble Unit (cost \$500K). No disagreement with the SAR method of operation as proposed by NASA.
- b. (2) Extend the ground station access for the SAR to fereign countries with restricted conditions. Comment: Conceptually agreeable if countries are allies to the United States and the conditions stipulated in the NASA letter are followed.
- c. (U) Expand Memorandum of Agreement for global SEASAT-A data. Comment: DoD desires to get all altimeter data to Fleet Numerical Neather Central in near real time to minimize impact on computer and manpower. Cost is estimated at \$1.3M per year. NASA has indicated informally that partial sharing of the funding is possible. NOAA will also be asked to participate in the funding. The Defense Mapping Agency (DMA) should resolve this operational issue since RDT&E funds are not involved.
- d. (U) Engage only serious investigators in the SEASAT-A program. No comment.

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e. (U) Reconsider GEOS-3 data handling arrangements. Commant: By letter dated 24 May 77 you requested DMA accomplish this action. No major problems are anticipated.

IMPLIMENTATION: (U) A letter has been prepared to Acting Administrator, NASA which summarizes the comments in the preceding paragraph. See Tab A.

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

CONCURRENCE: (U) ____ Director, Defense Mapping Agency.

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Date: Jul. 2 9 2016

OSD 5 U.S.C. § 552 (b)(6)

NGA 5 U.S.C. § 552 (b)(6)

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Reason: 5 U.S.C. \$ 553 (b)(6)

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