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DEPARTMENT OF STATE
WASHINGTON

May 30, 1975

NSC UNDER SECRETARIES COMMITTEE

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~~ATTACHMENT~~

NSC-U/DM-134

MEMORANDUM FOR THE PRESIDENT

Subject: Policy on Release of Data from Geodynamics Experimental Ocean Satellite 3 (GEOS-3)

As directed, the Under Secretaries Committee has reviewed national security, domestic policy, and foreign policy issues related to the release of data being acquired by NASA's GEOS-3. These issues are summarized below, and the views and recommendations of the Members of the Committee are presented for your consideration. A more detailed report is enclosed.

GEOS-3

GEOS-3, launched on April 9, forms part of NASA's continuing effort to employ satellite techniques to obtain improved information on the topography and dynamics of the earth and oceans. Earlier, less advanced, satellites in this series were launched in 1965 and 1968. More advanced satellites of this type are technically feasible and are under consideration in connection with the proposed Sea Satellite (SEASAT) program. The SEASAT program is beyond the scope of this review.

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The GEOS-3 program has been conducted by NASA with participation by the Department of Defense and the National Oceanic and Atmospheric Administration (NOAA). Data being acquired by the satellite, together with precise tracking data acquired by NASA and Department of Defense ground stations, will provide, among other scientific results, a basis for highly accurate measurements of local gravitational anomalies in the oceans. Rough grain and fine grain data will be acquired. Analyses are expected to be completed in about three years.

Implications

As discussed in the enclosed report, local gravitational anomalies affect submarine navigation and the accuracy of submarine-launched ballistic missiles (SLBM's). National security concerns center around the extent to which GEOS-3 data would be of assistance to the USSR (in the 1980's and beyond) if it should seek an SLBM capability for destroying hard targets. The data could also be of some assistance in improving the effectiveness of Soviet submarine operations.

If it should be determined that certain of the data require protection from the standpoint of our national security interests, classification of the data would provide a legal basis for withholding them. NASA and the Department of Defense have arrived at an agreement under which fine-grain data covering certain ocean areas would be transferred by NASA to the Department of Defense and would be classified by the Department of Defense. The rest of the data would be released for use by qualified scientists. The classified data would be subject to review to determine whether they could be declassified to meet future scientific requests.

The GEOS-3 program has thus far been conducted on an unclassified basis, and the satellite's technical specifications are publicly known. This would be the first instance in which data acquired in space by NASA for its own programs have been classified.

Misleading

There is a divergence of views among the Members of the Under Secretaries Committee concerning the policy that should be followed respecting withholding or releasing GEOS-3 data.

Views of Department of Defense and Recommendations of Defense and NASA

The Joint Chiefs of Staff have reviewed the GEOS-3 radar altimetry program and resulting impact on long-range missile capabilities. They concluded that there is militarily significant information contained in the radar altimetry product which is not otherwise available to either the USSR or the PRC and, therefore, should be protected from exploitation. The Department of Defense fully supports this view.

Based on the view of the Joint Chiefs of Staff, the Department of Defense requested that NASA encrypt the GEOS-3 radar altimetry data. When NASA was unable to comply with this request, the Department of Defense worked with NASA to define an equitable agreement whereby NASA could provide reasonable protection of militarily significant data against foreign exploitation. GEOS-3 was launched without delay, and satellite data are being disseminated in accordance with this Department of Defense/NASA agreement. In arriving at this agreement, the Department of Defense was extremely concerned over and believes it has been responsive to the need to provide for dissemination of a maximum amount of data for the civil community.

The GEOS-3 altimetry data are of high value to the Department of Defense. These data should have increasing military significance with time as the accuracies of our SLBM systems improve and as our ability to derive highly accurate launch region gravity models from GEOS-3 data develops. Having the option of developing in the future a highly accurate (.1 nm or better Circular Error Probable) all inertial SLBM system is important to the Department of Defense.

The Department of Defense believes that GEOS-3 radar altimeter data, if available, would be of some assistance to the USSR in improving the effectiveness of its current SLBM operations, and would be of significant value to the USSR in any development of a highly accurate all inertial SLBM system.

In the view of the Department of Defense, unless some restriction is placed on the dissemination of that part of the GEOS-3 data which is militarily significant, the total product of the GEOS-3 program will be analyzed and reported by US scientists to the world geodetic community. Once released, these data cannot be retrieved.

Based on the military assessment of the national security implications of unrestricted GEOS-3 data availability, NASA and the Department of Defense recommend continuation of the existing NASA-Department of Defense agreement.

NASA and the Department of Defense believe this option, under whose terms GEOS-3 data availability is in fact currently being managed, provides the only practical approach to balancing two national objectives:

-- To provide the national and international scientific communities with geophysical data from spaceborne sensors for the benefit of all mankind.

-- To prevent unrestricted availability of scientific data that could be used by potential enemies of the US to endanger the security and well-being of US citizens.

NASA and the Department of Defense agree that the current agreement between them is the best way to accommodate the concerns of both the scientific and military communities. NASA can accommodate Department of Defense objectives and believes this does not compromise the basic scientific objectives of the program. The agreement accommodates NASA objectives by providing a flexible data review and release procedure designed to meet valid current and future scientific requirements without compromising national security. NASA, with Department of Defense support, intends to inform its legislative committees in the House and Senate of the data management approach contemplated in the NASA-Department of Defense agreement and believes this will be acceptable to them.

Both NASA and the Department of Defense agree that the data management agreement is limited to the GEOS-3 program and does not establish a precedent or a policy for future missions.

Should an option other than continuation of the existing Department of Defense/NASA agreement be seriously considered, the Department of Defense requests that the matter be made an agenda item for the next meeting of the National Security Council.

Views and Recommendations of the Department of State

The Department of State notes that the GEOS-3 program has been planned and thus far implemented

on an unclassified basis. If there were persuasive reasons for classifying certain of the resulting data, the Department of State would recommend such an action. However, the principal arguments advanced in support of classification concern the possibility that the USSR might in the future seek a hard target SLBM kill capability. The Department of State does not regard the issue here as one of determining a "trade-off" between our security interests and our political interests. Instead, it regards the security concerns which have been expressed as unrealistic, particularly in view of the fact that withholding GEOS-3 data would be inconsequential if the USSR should at some future time seek such an SLBM capability.

Although the possibility that the USSR might adopt the objective of such a capability cannot be ruled out, no agency has argued that such an objective is likely.

The USSR's ICBM's have much greater potential as the basis for a hard target kill capability than its SLBM's. If, however, the USSR were to seek an SLBM hard target kill capability, it would need to embark on major, costly new efforts to eliminate present sources of error affecting SLBM accuracy. Only if it were successful in making the across-the-board changes needed to overcome other sources of error and only if it elected not to pursue possible alternative types of guidance systems not dependent on GEOS-3 type data would such data be essential. The USSR is capable of obtaining such data on its own, and the cost and effort of doing so would be minimal in comparison with the overall cost and effort involved in developing an SLBM hard target kill capability. Moreover, the Department of State notes that a Soviet program similar to GEOS-3 is, in any event, considered probable.

The Department of State believes that the major departure from past policy involved in classifying certain of the GEOS-3 data would impair NASA's international credibility, undermine its reputation as an open civilian activity, and cast a cloud over future cooperative activities. Such an action would also raise broader questions concerning our policy on the availability of data from our civilian space activities. Generating such uncertainties would reduce the value of our civilian space activities and adversely affect our ability to influence international consideration of constraints on space activities.

Accordingly, the Department of State recommends against classification of GEOS-3 data and believes release of the data to qualified scientists should be managed by NASA in accordance with its customary procedures. Regarding future satellites of this character, the Department of State believes that any issues comparable to those raised in the case of GEOS-3 should be weighed before programs are initiated.

Views of the Central Intelligence Agency

In CIA's view, the enclosed report properly characterizes the current state and near-term projections of Soviet submarine launched ballistic missile accuracy. It properly notes that the achievement of a hard target capability by the Soviets for their SLBM's constitutes a long and expensive program requiring very significant technological accomplishments before the GEOS-3 gravimetric data will become significant. Thus, there is little reason to believe that through the next ten years the availability of that data will significantly affect Soviet SLBM capabilities. Because of the very long period in which these data will remain valid, however, such

relatively near-term intelligence assessments cannot fully answer the question of their significance to our national security. From an intelligence point of view, the proposed NASA/Department of Defense agreement would seem to deny the Soviets the data they need to reduce gravimetric contributions to SLBM guidance errors to a level consistent with a hard target capability. The Soviets will in any event, however, benefit from the NASA experiment and be better able to undertake a similar one of their own.

Views and Recommendations of the National Oceanic and Atmospheric Administration (NOAA)

NOAA does not consider itself in a position to comment upon all of the national security implications of the resolution of this issue, or in a position to evaluate intelligence and other military estimates. It does, however, have expertise in evaluating the technical and scientific data which are used as a basis for the recommendations of the Department of Defense. Based upon its technical assessment, NOAA believes the argument of the Department of Defense is weak, and that the potentially adverse consequences to our domestic and international satellite programs are substantial.

From NOAA's perspective as a major civilian scientific organization, restrictions on GEOS-3 data are objectionable from several points of view. First, NOAA believes such restrictions would deprive the scientific community of some of the potential benefits and cause repercussions in the international scientific community. Second, and in the long run most importantly from NOAA's standpoint, restrictions on GEOS-3 data will establish a precedent that will strongly imply even more stringent restrictions on SEASAT data.

NOAA's interests in GEOS-3 together with SEASAT-A go far beyond its interest in research satellites. It is NOAA's intention to develop quasi-operational uses for the satellite data as was done with earlier meteorological satellites. Three examples of programs which NOAA envisages as utilizing GEOS-3 and/or SEASAT data are: study of coastal upwelling and off-shore currents (which occur within or near the territorial waters of other nations) as these phenomena affect the abundance and availability of living marine resources and regional weather and climate factors -- the El Nino Current off the west coast of South America and the Gulf Stream, for example, both of which have an impact on our own economy; the monitoring of major storms, such as those generated in the tropical Atlantic and Pacific, and the sea surface conditions and storm surges associated with these storms; and the proposed role in 1979 of SEASAT-A in the First Global Atmospheric Research Program Global Experiment and the World Weather Watch being conducted under the auspices of the UN World Meteorological Organization.

NOAA wishes to point out that all of these important programs will involve data which would be subject to classification under the NASA-Department of Defense agreement as well as data taken in waters under the jurisdiction of Canada, Central and South American nations and other nations, and all must involve free data exchanges with scientists around the world. In NOAA's view, these examples demonstrate the need for unrestricted availability of data in "real time."

In view of the foregoing, the National Oceanic and Atmospheric Administration recommends that the NASA-Department of Defense agreement be voided and that NASA follow its usual practices in releasing GEOS-3 data to the national and international community. In the event that foreign governments

express unusual interest in the data through requests for large blocks of high density data taken within the area of concern to the Department of Defense, NOAA believes that NASA could follow its past practice of negotiating on the basis of meeting needs of legitimate, approved scientific investigations, and that any requests which cannot be so negotiated could be brought to the attention of the National Security Council for resolution.

Robert S. Ingersoll
Chairman

Attachment:

Report