SECRET-EYES ONLY

MEMORANDUM

OFFICE OF THE DEPUTY SECRETARY

2 October 1969

Colonel [redacted]

Appended for your information and official file is a copy of Dr. Kissinger's memorandum to higher authority re the NRP Annex to the Space Task Group Report.

Both recommendations submitted by the 303 Committee were accepted as of 30 September 1969.
MEMORANDUM FOR THE PRESIDENT

FROM: Henry A. Kissinger

SUBJECT: National Reconnaissance Program (NRP) Annex to the Space Task Group Report

The attached Annex to the Space Task Group Report covering the intelligence reconnaissance activities of the National Reconnaissance Program has been forwarded separately by Mel Laird because of the special security controls applied to this aspect of the space program.

The following are highlights of the annex:

The National Reconnaissance Program is covert and comprises the development, management, and operation of satellites, aircraft, and drones for photographic or electronic overhead (as distinguished from peripheral) reconnaissance of denied areas of the world. Emphasis is on satellite reconnaissance and the cost is [redacted] per year of the budget being devoted to satellite systems.

The program is responsive directly to the national intelligence collection requirements and priorities established by the United States Intelligence Board (USIB). Its plans and schedules for both satellite and aircraft overflights are submitted to the 303 Committee for operational approval.

Most of this nation's information on USSR strategic offensive and defensive systems has been acquired by satellite reconnaissance. The same is true of a considerable portion of other important intelligence acquired by the United States. Dependence on satellite reconnaissance would be magnified further by U.S. withdrawal from foreign bases.

Since reconnaissance satellites require a permissive environment, both political and physical, it is critically important to nourish the conditions which contribute to the kind of international political atmosphere existing today which provides all the advantages of tacit acceptance of satellite reconnaissance without the hazards inherent in open discussion or confrontation.
The Soviets have a clear existing capability to destroy a reconnaissance satellite if they wish, although National Intelligence Estimates conclude that it is extremely unlikely they would take such steps other than as a prelude to general war. The United States has no present non-nuclear capability for intercepting Soviet reconnaissance satellites. The desirability of acquiring such a capability will be considered in the Department of Defense's contributions to the main report of the Space Task Group.

The long-term goals of the National Reconnaissance Program are to continue to:

1. Conduct a covert program to collect intelligence through the overflight of denied territory.
2. Seek methods to reduce the cost of such collection.
3. Improve the responsiveness of collection systems to intelligence needs.
4. Advance satellite reconnaissance techniques in order to improve collection capabilities and respond to new collection needs.

RECOMMENDATION:

This Annex recommends on page 21 that you confirm the goals, objectives and capabilities of the National Reconnaissance Program as presented in the report. With this guidance the Secretary of Defense will continue to make program decisions consistent with the needs expressed by the intelligence community.

The 303 Committee has reviewed this annex and believes that because of its sensitivity and lack of general applicability to the basic Space Task Group Report it should not be further disseminated to the full membership of the Space Task Group and their staffs.

The 303 Committee also endorses the above recommendation and recommends that you approve it.
MEMORANDUM FOR THE PRESIDENT

SUBJECT: National Reconnaissance Program (NRP) Annex to the Space Task Group Report

During the planning stages of Space Task Group activity in the Department of Defense, the Vice President apprised the National Reconnaissance Program Executive Committee (Mr. Packard, Mr. Helms, and Dr. DuBridge) of Task Group plans to include in its report a brief Top Secret annex which would outline the prospective missions, payload weights, cost estimates and launch frequency of National Reconnaissance Program satellites over the next decade.

The National Reconnaissance Office has prepared such an Annex. It contains an outline of the National Reconnaissance Program, a summary of national policy applicable to the program, and comments on key interagency relationships.

The Annex has been reviewed and approved by the NRP Executive Committee for inclusion in the Space Task Group report. It has also been reviewed by Secretary Seamans with respect to DOD space interests and objectives.

In light of the special security controls applied to National Reconnaissance Program activities and information, it was decided that the Annex should be transmitted separately from the DOD report. We are, of course, exercising extreme care in disseminating, using, and storing this Annex, to prevent unauthorized disclosure of its existence or content.
The NRP Annex is attached. I trust it is fully responsive to your needs.
ANNEX TO
THE SPACE TASK GROUP REPORT

THE NATIONAL RECONNAISSANCE PROGRAM

July 15, 1969

DEALIST CORON.

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Jointly

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THE NATIONAL RECONNAISSANCE PROGRAM

Summary

This document is an annex to the Space Task Group's report to the President. It discusses the National Reconnaissance Program, briefly describing content, goals, and projections, together with a summary of national policy applicable to the program and comments on key interagency relationships.

The National Reconnaissance Program comprises intelligence collection overflight operations of the Department of Defense and the Central Intelligence Agency. The program is predominantly satellite reconnaissance, using photographic and electronic sensors. Aircraft operations are also conducted within the program, but, for purposes of the report, the space activities are emphasized. The program is one of intelligence collection and usually has relied upon developments within the DOD of boosters, launching facilities, and tracking and control networks. Technology advances within the program have generally been restricted to operational sensor development with only occasional benefit to other activities, due to specific applications orientation.
Satellite reconnaissance is a quasi-legal espionage activity conducted covertly by the National Reconnaissance Office. Satellites are vulnerable vehicles which need a permissive environment for successful operation. The United States government is deeply dependent on overflight reconnaissance, and particularly satellite reconnaissance, for information on closed societies.

The long-term goals of the NRP include enhancing collection capability and reducing costs. An important consideration is to insure adequate collection capability to monitor all possible arms limitation agreements. New program possibilities include electronic imaging satellites, improved electronic intelligence satellites, surveillance satellites, and very long-lived satellites.

National satellite reconnaissance policy recognizes the need to operate reconnaissance satellites with great discretion, develop tacit acceptance of these operations as a reasonable national activity, and avoid embarrassment to our allies or confrontation with our enemies in carrying out our operations. These policies, and the special security arrangements resulting from them, have been primary forces in protecting United States reconnaissance operations from the threat of international confrontation. If this protection should fail, and our satellites encountered harassment, it would
appear wise to have a non-nuclear interceptor capability available as a psychological and real countermeasure.

NASA's and ACDA's interests in earth-sensing satellites require special consideration which can be, and is being, provided through close coordination and cooperation between those agencies and the DOD. It appears that significant benefits would accrue through the DOD (1) making an SR-71 or U-2 capability available to NASA for civil earth-sensing activities, and (2) encouraging NASA to sponsor a major program in readout technology. NASA has proposed undertaking the development of an open satellite system designed for the single purpose of verifying U.S. and USSR adherence to the conditions of a strategic arms limitation agreement.

The Nature of the Program

The National Reconnaissance Program is a single, national program dedicated to the collection, through overflight, of intelligence to meet the needs and objectives of the United States Government. The Secretary of Defense is the Executive Agent for the Program, managing resources of the CIA and DOD in carrying out the mission; he receives program recommendations from an Executive Committee made up of the Deputy Secretary of Defense, the Director of Central Intelligence, and the President's Science Advisor. The Program is managed by the
Director of the National Reconnaissance Office, who is an official of the Department of Defense. The technical aspects of the program are reviewed by a special panel established by the President's Science Advisor.

The Program is covert and comprises the development, management, and operation of satellites, aircraft, and drones for photographic or electronic overhead reconnaissance of denied areas of the world (peripheral reconnaissance is a separate responsibility managed by the Joint Chiefs of Staff). The cost of the Program is approximately \[\text{redacted}\] year.

The National Reconnaissance Program is responsive directly to the intelligence collection requirements and priorities established by the United States Intelligence Board. The National Reconnaissance Office sends its plans and schedules for both satellite and aircraft reconnaissance overflights directly to the 303 Committee of the National Security Council for operational approval.

Program Background

The essential background of the National Reconnaissance Program begins shortly after the May 1, 1960 loss of a U-2 aircraft engaged in overflight reconnaissance of the Soviet Union. In the aftermath of this
event, faced with the loss of reconnaissance capability over the USSR, President Eisenhower directed the National Security Council to review intelligence collection alternatives, such as satellite reconnaissance. As a result of this review and subsequent deliberations, the reconnaissance satellite projects of the Department of Defense and the Central Intelligence Agency were consolidated into a single, national program to be managed by a special arrangement designed to enhance covert operation and assure successful achievement of program objectives. By the spring of 1962 these organizational adjustments culminated in the establishment of a National Reconnaissance Program which was to be managed by a National Reconnaissance Office -- a single, national agency responsible for satellite photographic and signal intelligence collection operations, satellite mapping and geodesy, and aircraft/drone overflight reconnaissance.

What the Program Does

The National Reconnaissance Program uses aircraft, drones, and satellites as its collection vehicles.

The satellite vehicles carry sensors which collect (1) broad coverage search and surveillance photography (2) high resolution spotting and surveillance photography and (3) signal (communication
and electronic intelligence.*

A typical broad-coverage satellite photographic mission produces photography of about seven million square miles of land mass at ground resolutions of seven to ten feet. Such a mission also produces special coverage suited specifically to mapping and charting purposes. The current system became operational in 1960. Some satellites are designed and operated to collect electromagnetic signal emissions which originate from Soviet or Chinese Communist radars and communication devices. The collected intelligence reveals the status, locations, and characteristics of key weapon

*Details on these projects (characteristics, weights, dimensions, orbital altitudes, schedules) are given in the Appendix.
systems such as the Soviet anti-ballistic missile system.

Whenever possible, the NRO has carried, and will continue to carry, secondary payloads on its flights as a service to other programs.

**National Importance of the Program**

Most of this nation's information on USSR strategic offensive systems has been acquired by satellite reconnaissance. In the case of operational ICBM sites within the USSR, our dependence on satellites has been total. Similarly, strategic defensive systems, like the Moscow and Tallinn systems, have been positively detected and identified within the first 45 days of construction by satellite photography and observed closely and repetitively from that time forward.

Information providing the basis for significant reassessment of Soviet and Chinese Communist ground force strength and capability to supply and reinforce units in conflict along the periphery of Communist nations is derived largely from satellite reconnaissance, either directly or by implication. The Defense Intelligence Agency estimates that 65% of what the U.S. knows about the strength, equipage, and disposition of Soviet ground forces -- 90% for the Chinese -- is attributable to satellite intelligence.
In special categories like locating SAM defenses in Southeast Asia, satellites have been practically an exclusive intelligence source.

In the field of electronic signal intelligence, satellites have contributed uniquely to our knowledge of the disposition of Soviet air defense radars; this knowledge aids the Strategic Air Command in selecting bomber penetration routes. Satellites have also determined deployment status and operational characteristics of the Soviet ABM system. These are two examples only of a broadly productive program.

Today the United States depends on the National Reconnaissance Program for most of its strategic and tactical information on the world’s closed societies. This dependence would be magnified further by U.S. withdrawal from foreign bases.

Policies Supporting the Program

When the first U-2 photography of the USSR was produced (in 1956), President Eisenhower directed that it be protected -- as an ultra sensitive espionage product -- in a special security system. In 1960, when the first satellite reconnaissance photographs were produced, President Eisenhower directed that they be similarly protected and placed them in a compartment of the same special security system.
During 1961 and early 1962, the Soviets made a number of private overtures to the U.S. protesting the use of satellites for reconnaissance. In 1962, the question of the legitimacy of satellite reconnaissance began to appear as an important pre-condition to international negotiations on disarmament and on the peaceful uses of outer space. In response to increasing pressure, the President asked a Committee of Principals, acting under the leadership of Ambassador U. Alexis Johnson, to formulate a national policy which would (1) maintain United States freedom of action to conduct reconnaissance satellite operations unilaterally, (2) prevent foreign political and physical interference with those operations, (3) prevent accidental or forced disclosure of the details of the operations or end-products of the United States reconnaissance program, and, at the same time, (4) permit the United States to continue to work toward disarmament and international cooperation in space.

A national policy supporting these goals was recommended by this Committee, approved by the President on July 10, 1962, and issued in NSC Action 2454. Essentially, the policy enjoins the United States to (1) operate its reconnaissance satellites with great discretion, (2) work toward developing tacit acceptance of these operations, and
(3) avoid embarrassment to our allies or confrontation with our enemies.

As a result of careful satellite reconnaissance policy planning, the United States is enjoying, at this time, an international political situation which provides all the advantages of tacit acceptance without the hazards inherent in open discussion or confrontation. It is critically important to nourish the conditions which contribute to such an atmosphere, for reconnaissance satellites require a permissive environment -- political and physical -- for successful operation. Lacking such an environment, their operation could be challenged on the floor of the United Nations or in the skies of any nation which desired to demonstrate against space espionage.

Long Term Goals of the NRO

The NRO plans to continue to:

1. Conduct a covert program to collect intelligence through the overflight of denied territory.

2. Seek methods to reduce the cost of such collection.

3. Improve the responsiveness of collection systems to intelligence needs.
4. Advance satellite reconnaissance techniques in order to improve collection capabilities and respond to new collection needs.

Ten Year Projections

1. Extension of Current Programs

Based on the present understanding of future needs, the following schedule of launchings is anticipated:

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<thead>
<tr>
<th>Program*</th>
<th>FY 70</th>
<th>71</th>
<th>72</th>
<th>73</th>
<th>74</th>
<th>75</th>
<th>76</th>
<th>77</th>
<th>78</th>
<th>79</th>
<th>80</th>
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</table>

2. Possible New Programs. Although satellite reconnaissance is conducted as a covert program, its hardware and techniques are developed, procured, and used in "the open," whenever possible. For example, the program uses Air Force launching facilities at Vandenberg Air Force Base, and uses satellite recovery capabilities in Hawaii. The bulk of the program's hardware -- boosters and spacecraft -- is readily available to any organization.

*Additional detail on scheduled launchings is found in the Appendix. The values shown for 1980 may be extended to 1985, as best present estimates.
As a general rule, only the payload is handled under special security. The NRP budget for new technology reflects this arrangement, being oriented essentially toward improved payloads.

At present, photographic satellites return data by ejecting capsules which are serially recovered. It has long been desired to return imagery electronically, thus permitting nearly immediate intelligence analysis. Further, an electronic imaging satellite might have a longer useful life on orbit and thus be more economical than present systems. Recent developments show promise that such a satellite may soon be technologically feasible. If development continues favorably, consideration will be given to a program start leading to a system of very long-lived satellites which could be operating after 1975.

A second generation of electronic intelligence collection satellites is being developed now and will be operational during the early 1970's.

There are several possible ways to decrease the cost of photographic
satellite operations: (1) to recover the camera and re-use it, (2) to resupply the payload in orbit, and (3) to utilize a photographic system which returns imagery electronically and thus could have a useful life measured in years. The development emphasis and the apparent trend is toward an electro-optical imaging system for surveillance. Recoverable payload and resupply might permit economies for continued operation of current systems and are investigated in the DOD's contribution to the STG Report.

Studies and limited developments are underway in areas such as

Such techniques can augment current reconnaissance capabilities and will be evaluated during the 1970's.

3. Trends. The increasing success of satellite intelligence collection and the increasing sensitivity of the U.S. to international confrontation have caused a decreasing emphasis on covert aircraft programs. As satellites have become more effective, it has been possible to reduce the launching rate substantially while increasing intelligence collection. This trend is forecast to continue as indicated in the future year
schedule. If there were no new programs, the completion of development now underway and the reducing launch rates would permit a budget decrease as shown in the Appendix. It seems quite clear that there is a steady trend toward long-lived satellites. This trend will continue and will permit economies.

Possibilities of Satellite Interdiction

Since the legality of satellite espionage is an unsettled matter, the possibility of some nation attempting to destroy U.S. reconnaissance satellites has long been a matter of concern. The Soviets have a clear existing capability to destroy U.S. satellites on orbit; with their extensive space surveillance network, the Soviets could easily accomplish nuclear kill of U.S. satellites with any number of Soviet launching vehicles. With their existing ABM facilities and hardware, U.S. reconnaissance satellites could be neutralized by means of non-nuclear warheads. Despite these apparent capabilities, National Intelligence Estimates conclude that it is extremely unlikely the Soviets would take hostile action against our reconnaissance satellites in any circumstances other than as a prelude to general war. While China probably now has a marginal capability to interfere with our satellites through the use of nuclear weapons, no fully developed Chinese anti-satellite capability,
either nuclear or non-nuclear, is anticipated for some time. On the basis of these estimates, there has been little attempt to provide protection for current satellite operations, although a certain amount of research has been accomplished.

If the Soviets were to harass our satellite reconnaissance operations, it would be difficult and expensive to provide means for assurance of continued photographic intelligence. Upon such an occasion, it might be a useful tactic to respond in kind, intercepting a Soviet reconnaissance satellite in the hope that such action would deter further interference. The U.S. has no capability at present to carry out such an interception with non-nuclear weapons. It would appear prudent to consider acquiring such a capability as an aid to insuring the availability of continued satellite reconnaissance to this nation. Additional information on such a capability will be found in the DOD’s contributions to the report of the Space Task Group.

NRP Relationships with NASA: Post-APOLLO Goals

For some time, NASA has been exploring the use of satellite-borne sensors to locate and study earth resources. Experiments involving hand-held cameras operated by GEMINI and APOLLO astronauts have not been politically offensive to other nations, largely
because the photographs are at a fairly gross resolution, the "targets" are carefully selected, the film is reviewed by a United States Intelligence Board security panel before it is released to the public, and hostile states such as the USSR and Red China are either not overflown or not now photographed. Future possible NASA applications, involving oceanography, forestry, geology, geography, and agriculture, must be planned and controlled very carefully, for the line between economic research photography and economic intelligence photography is very thin and casual experimentation could trigger challenges to the legitimacy of not only the NASA earth-sensing program but of the National Reconnaissance Program. In 1966, Ambassador U. Alexis Johnson's satellite reconnaissance policy committee met again and developed policy to cover this potential danger area. Within the guidelines established by that committee, NASA and the NRO have been proceeding on a cooperative basis in planning a NASA earth-sensing program which will meet our nation's scientific needs without jeopardizing its ability to gather intelligence from space.

In addition, the President's Science Advisor, with the endorsement and support of the Director of Central Intelligence and the Deputy
Secretary of Defense, sponsors a committee with membership from the non-defense agencies which identifies ways in which space intelligence photography can be used by these agencies within the present security and policy regulations and provides a channel for passing these needs to USIB's Committee on Imagery Requirements and Exploitation. This committee has had a strong positive influence in coordinating the needs of the civil community and assisting to plan a reasonable earth-sensing program. In order to encourage further progress, consideration should be given to allotting a small but regular percentage of film from each search satellite to these purposes.

There are two areas in which NASA could benefit from closer technical ties with the NRO. First, the DOD maintains a reconnaissance wing of SR-71 aircraft whose main purpose, in the event of war, is nuclear strike assessment. At present, some of these aircraft fly training missions and some are stored in flyable condition. Both the DOD and CIA maintain U-2 aircraft units for the NRO. Some U-2's have already been made available for NASA earth-sensing surveys. Photography from these aircraft can continue to be very useful to NASA and its user community in developing baseline
mosaics and in evaluating the possible return to be expected eventually from satellite photography. This support should be continued and strengthened. It should also be noted that NRO and DOD optical technology will continue to be made available to NASA engineers who are planning an Earth Resources Technology Satellite.

Second, NASA has concluded that its initial earth resources satellite will be more cost-effective if it uses an electronic imaging system, rather than film-recovery cameras. It is also quite possible that highly refined electronic imaging sensors will permit economy and improvement in NRP operations in the future. It may be appropriate and mutually advantageous for NASA to make a significant commitment to advancing the technology of high resolution electronic sensors to replace film-camera systems.

NRP Relationships with the Arms Control and Disarmament Agency

The US-USSR discussions of 1968 regarding a Strategic Arms Limitation Treaty brought the Arms Control and Disarmament Agency directly into satellite reconnaissance policy considerations. Concerned that the USSR would not agree to on-site inspection, the Committee of Principals proposed to negotiate with the USSR on the assumption that the United States was prepared to accept "enforcement by maximum,
or if necessary, exclusive reliance on national means of verification...” (for the United States, this expression means “satellite reconnaissance”).

In addition, in order to support its proposal, the Department of State recommended declassifying the fact that the U.S. is conducting satellite reconnaissance, disclosing to the Soviets that reconnaissance satellites are our main reliance for verification, briefing Congress on our reconnaissance capabilities, and informing the press and public — gradually but officially — along the same lines. After discussion within the United States Intelligence Board and key affected government agencies, it was decided that disarmament discussions with the USSR could proceed effectively, and possibly more effectively, by restricting the U.S. delegation to use of the expression "national means of verification" with no reference to our satellite reconnaissance program. It was pointed out that disclosure is an irreversible step which could have profoundly adverse effects on national security. Furthermore, to single out one or some intelligence collection methods now and to pass only that or those to the Soviets, Congress, and the American public would be dangerous and misleading and could evolve a genuine "credibility gap."

An alternative approach has been presented by NASA in its
recommendation to the NSSM 28 Steering Committee. This approach would call for bilateral negotiations on verification means to include the development and utilization of an open satellite system designed for the single purpose of verifying U.S. and USSR adherence to treaty conditions. The NASA arguments for such an approach have emphasized the potential of this initiative in:

a. avoiding disclosure of the existence, scope, utility or sophistication of the present overhead reconnaissance program,

b. minimizing concern over international confrontation on this issue,

c. providing an important bulwark to the unimpeded continuation of covert intelligence gathering activities,

d. providing a reasonable overt basis for the possible challenges that might become necessary in the event treaty violations were discerned through any covert means.

The NRP Executive Committee has reviewed the security and policy implications of SALT with respect to the NRP, and has concluded that the current instructions and guidelines for the SALT delegation are sufficiently restrictive that the negotiations should not affect the NRP.
During this review, the subject of the arms control satellite initiative was also discussed. It was concluded that any decision on the arms control satellite initiative would be premature at this time and should await a further progress in the U.S. discussions of an agreement for strategic arms limitation.

Recommendation

It is recommended that the President confirm goals, objectives, and capabilities of the National Reconnaissance Program, as presented in this document. With this guidance, the Secretary of Defense will continue to make program decisions consistent with the needs expressed by the intelligence community.
DATA APPENDIX
INFORMATION ON ACTIVITIES OF THE NRP

1. Photographic Satellites
   a. CORONA. A medium resolution, broad-coverage search system which began operating in 1960 is scheduled for phase-out in 1971. Typically, seven or eight 10-14 day CORONA missions are flown per year and, on the average, each provides about 7.0 million square miles of photography at resolutions of seven to twelve feet.
3. Launching Schedules

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4. Ten Year Projections

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## System Characteristics

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<th>Payload Dimensions</th>
<th>Nominal Orbital Characteristics</th>
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<tr>
<td>CORONA</td>
<td>Thorad/Agena</td>
<td>4,280</td>
<td>14-20 days</td>
<td>Agena (80&quot; diameter; 44' length)</td>
<td>100 nm perigee 125 nm apogee</td>
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### 6. NRP Financial Program (Satellites)

(Million $)

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<td>Launches Costs</td>
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<td>Mission Support (SCF, AFSPFF, etc.)</td>
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**NOTES:**

1. Data is consistent with cost estimates in the Five Year Defense Program (FYDP).

2. These costs make no provision for new systems (such as readout) for launch, but do include technology efforts.

3. Two additional CORONA systems will be available for launch in FY 1971 or 1972 if needed.

4. The above total costs are included in the funding for current DOD space programs presented in the Preliminary Report "DOD Space Programs, Options, Recommendations."

5. The above costs are as of July 15, 1969 and do not reflect the follow-on consideration which could result from the recent termination of the MOL program.