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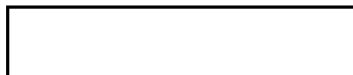
THE DD/S&T HISTORICAL SERIES

DD/S&T-1

THE DIRECTORATE FOR SCIENCE AND TECHNOLOGY
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NRO review(s) completed.

Carl E. Duckett
Director
Science and Technology

HISTORICAL STAFF
CENTRAL INTELLIGENCE AGENCY

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V. DD/S&T Relations with the National Reconnaissance Program (NRP)

A. The NRO Concept

A proposal for the creation in Washington of a single operational organization charged with carrying out all peacetime overflight reconnaissance was advanced in November 1955 by Mr. Richard M. Bissell, Jr., as a long-range plan whereby such activities currently being carried on by various Air Force Commands and by the joint CIA/USAF U-2 project might be brought under central control with savings in money and manpower. (This proposal was drafted two years before the first intelligence satellite project was initiated and so related only to manned overflight activities in being at that time.) Mr. Bissell's proposal* was made in a memorandum to Director of Central Intelligence Allen W. Dulles, and stemmed from the immediate need to decide, in coordination with the Air Force, what the future budgeting and management arrangements for the U-2 project should be.

The future reconnaissance organization envisioned by this proposal would draw its support from existing commands of the Defense Department (principally

*Appendix D, Tab 1.

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Air Force) and from CIA, but all of its air crews would be civilian and its activities would be regarded as clandestine intelligence-gathering operations. It would be set up outside the framework of any of the regular military services, although Mr. Bissell was inclined to believe that the Air Force should own a majority of the common stock in the organization. He recommended that Mr. Dulles propose to the Secretary of the Air Force an examination of the organization for overflight reconnaissance in order to arrive at a rational and orderly arrangement for the longer run.

B. The Initial NRO Agreement

It was more than five years later, after CIA, with approval of highest authority, had become involved in satellite reconnaissance and had a promising supersonic, manned reconnaissance vehicle coming along, that consideration of a single organization to control the national reconnaissance effort reached the agreement stage. [A letter from the Deputy Secretary of Defense, Mr. Roswell L. Gilpatric, to Mr. Allen Dulles, dated 6 September 1961, and concurred in for CIA by the Deputy Director, General C. P. Cabell, confirmed details of the agreement: (1) establishment of a National Reconnaissance

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Program (NRP) covering satellite and manned overflight reconnaissance projects, overt and covert; (2) establishment of a National Reconnaissance Office (NRO) to manage the program; this would be under direction of the Under Secretary of the Air Force (then Dr. Joseph V. Charyk), and the Deputy Director (Plans) of CIA (then Mr. R. M. Bissell, Jr.), acting jointly, and including a small staff drawn from DOD and CIA; (3) the Department of the Air Force would be the operational agency for management and conduct of the programs; (4) the requirements, priorities, and approved end users of the products of the program would be established by the USIB; and (5) appropriate cover, security, and personnel procedures would be established by NRO.*

Efforts to translate the terms of this first agreement into a workable assignment of responsibilities took the form, first, of unilateral drafting sessions by Dr. Charyk's Air Force Staff on the one hand, and a DPD/CIA working group on the other. On 22 November 1961 a working draft on "NRO Functions and Responsibilities" was presented by the Air Force side which went into detail on all aspects of the total reconnaissance program, even to establishing responsibilities for the

*Appendix D, Tab 2.

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formatting of the collected product. The DPD working group under Mr. Eugene P. Kiefer countered in December 1961 with a two-page "Division of Responsibilities Within NRO" recommending the continuation of the current workable allocation of responsibilities between the Air Force and CIA based on existing agreements, with redefinition of responsibilities for new developing programs as they emerged.* Mr. Bissell, with Dr. Charyk's agreement, sent copies of the two-page statement to General Maxwell Taylor (then Special Assistant to President Kennedy) and to the members of the President's Foreign Intelligence Advisory Board, as a basis for an NRO agreement.

On 29 November 1961 a new Director of Central Intelligence, Mr. John A. McCone, had been sworn in. The imminent departure of Mr. Bissell from CIA was anticipated, and a reorganization of the Agency's overhead reconnaissance activities was forecast.

Early in January 1962, Mr. McCone had several preliminary exchanges with Messrs. Gilpatric and Charyk concerning the NRO concept, and the form the organization should take. On 10 January 1962 Mr. Bissell recommended

*Appendix D, Tab 3.

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to Mr. McCone that the best solution for setting up NRO would be to make the organization into a truly joint project, headed by a director responsible to both the DCI and the Secretary of Defense. All resources required for the conduct of national reconnaissance programs should be assigned by the two partner agencies to the NRO and directly controlled by it. The table of organization of the NRO should include personnel in project offices and the operational control center on the West Coast as well as in Washington, and its budget should cover the full costs of all programs. It should be empowered to execute contracts and carry out procurement under the authority of the Secretary of Defense for all overt activities and under that of the DCI where security so required. Joint control would serve as a protection against the absorption of these functions by the military services, and hopefully the opportunity for secure and technically venturesome research and development could be maintained.*

Dr. Scoville's appointment on 19 February 1962 to the newly-created position of Deputy Director for Research also gave him the responsibility for planning for CIA's role in NRO. In a 23 February 1962 meeting with

*Appendix D, Tab 4.

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Dr. Charyk, Dr. Scoville reached agreement with him that the current "phantom" NRO organization did not serve the purpose and that a truly activated NRO was needed.

Mr. Bissell, having already severed his official connection with CIA at the end of February, advised Mr. McCone on 5 March that he was inclined to believe that the present loose arrangement should remain in effect, with possibly a few more CIA personnel moved to Charyk's staff and, conversely, assignment of one or two of Charyk's people to CIA's reconnaissance activities. This would encourage and give appropriate status to the participation of the DD/R in certain DOD planning, and to Dr. Charyk in certain Agency planning. Mr. Bissell warned, however

On the other hand, I believe there would be real dangers in any effort to embody the NRO concept in elaborate formal regulations. I would urge that the DD/R in due time seek agreement with Dr. Charyk to leave the arrangement a loose and informal one and that the DCI seek the support of Dr. Killian and of General Taylor for the maintenance of this state of affairs. 85/

C. First Revision of the NRO Agreement

The "loose arrangement" recommended by Mr. Bissell lost currency after his departure and the "elaborate formal regulations" which he had tried to forestall began to bind the NRO into a bureaucratic structure. First of a long line of rewritings of the basic agreement

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was accomplished by Dr. Scoville, based on Mr. McCone's expressed desires with regard to the NRO organization. He favored a single Director, chosen from DOD or CIA, with the senior representative of the other agency serving as deputy. While the language of the agreement should not mention individuals by name, Mr. McCone was willing to concede Dr. Charyk the directorship, with Dr. Scoville as Deputy. Within this general arrangement, individual projects should be assigned specifically, e.g., OXCART to CIA, and SAMOS to the Air Force. Advance planning should be done jointly by the Director and the Deputy.

Mr. McCone specifically wished CIA to control, [REDACTED]

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[REDACTED] all security clearances for all programs within the purview of the NRP.

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Dr. Scoville's draft of 20 March 1962 was presented to the DCI for his approval with the following notation:

I have discussed this with Dr. Charyk who generally concurs and believes that it is a good working document on which to develop the specific plans for the National Reconnaissance Office. I made it clear to him that, although the document does not specify that he will be the Director, this is our intention. He concurred in the philosophy that both the Director and the Deputy Director should be involved in the advance planning and that one Agency or the other should be given primary responsibility for all approved projects. 86/

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The 20 March draft agreed on the assignment of primary responsibility for OXCART and CORONA and future truly covert satellite projects to CIA, [REDACTED]

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[REDACTED] (Responsibility for the LANYARD Project was subsequently assigned on 2 April 1962 by Dr. Charyk as follows: Technical management of all aspects including the payload to the Air Force, and covert contract administration of the payload and pre-mission planning and on-orbit operational guidance to CIA.)

The agreement signed on 2 May 1962 by the DCI, Mr. McCone, and the Deputy Secretary of Defense, Mr. Roswell L. Gilpatric, was Dr. Scoville's 20 March version as redrafted in the Pentagon.* It provided that the D/NRO would be designated by the Secretary of Defense and the Director of Central Intelligence, and would be responsible directly to them for the management and conduct of the National Reconnaissance Program. However, no provision was made in the agreement for a Deputy Director. The final paragraph stated that the Deputy Director for Research of CIA would be responsible for

*Appendix D, Tab 5.

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seeing that the participation of CIA in the agreement was carried out.

The Director, NRO, was held responsible for funding the NRP; DOD funds would be allocated on an individual basis and would appear as appropriately classified line items in the Air Force budget. CIA would be responsible for funding covert projects for which it had management responsibility. The D/NRO was charged with responsibility for all NRP contracts in accordance with its technical management responsibility, and CIA, as Executive Agent of the D/NRO, was responsible for administering procurement and contracting for covert projects assigned to CIA, and for covert contracting in support of overt projects, as necessary.

On 3 May 1962, the DCI confirmed to Mr. Gilpatric his agreement that Dr. Charyk be named D/NRO.

D. NRO Staff: Working Arrangements Initiated

Prior to scheduled meetings between Drs. Charyk and Scoville on 22 and 23 May 1962 for the purpose of arriving at mutually agreeable working arrangements for the NRO, Mr. James Cunningham, Acting Chief, DPD, recommended to Dr. Scoville that, in view of the Agency's concession in yielding the position of D/NRO to Dr. Charyk,

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and thus to the Air Force, the Agency should seriously consider seeking the Chief of Staff position in NRO lest the CIA contribution be so fully subordinated to Air Force interests that the only influence it could exert would be through the DD/R's personal relationship with Dr. Charyk. (This was not done.)

During the 22-23 May meetings, the discussions ranged widely: agreement was reached that the NRO Staff should be located in close proximity to Charyk's Pentagon office; the name "NRO" was lowered in classification from Top Secret to Secret, although the structure, mission, participants, etc., of the organization would still require the higher classification; various agencies (USAF, CIA, NSA, Navy, etc.) were to participate in the NRO Staff which would concern itself with over-all planning, monitoring, budgeting and scheduling, while day-to-day operational decisions would be made by the Program Directors; CIA would give contracting and security support to General Greer, head of the Air Force satellite program, in the Los Angeles area (and Dr. Charyk assured the CIA representatives that CIA could direct General Greer with regard to security); finally, considerable discussion was held concerning the position of Deputy Director, and Dr. Charyk

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expressed his view that under the present concept there would not be enough work to keep a Deputy Director busy. Each Program Director would carry on in the absence of the D/NRO and if an extended absence were anticipated, the D/NRO would appoint an Acting Director for the period. It was left that this would be the procedure Dr. Charyk would employ. 87/

In accordance with paragraph 3 of the 2 May 1962 agreement, that CIA would establish security policy for the NRP, including a uniform system of security control and appropriate delegations of security responsibility, Dr. Scoville on 2 June 1962 requested the CIA Director of Security, Colonel Sheffield Edwards, to initiate action to establish the proposed Security Policy Unit and the Special Security Control Center within the Office of the Director of Security in order to carry out that portion of the agreement. 88/

A meeting was held on 4 June 1962 between representatives of the National Security Agency (NSA) and NRO to settle NSA's requirements problems as they related to the NRP. Dr. Charyk stated that only USIB could validate requirements to be levied upon the NRP, either directly or through one of its committees. Since NSA was a

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25X1 member of USIB, it should present its requirements through appropriate USIB channels. NRO would require advice and consultation with NSA on means of satisfying requirements, but determination of collection programs, including devices, techniques, and schedules would rest with NRO. Dr. Charyk emphasized that [] applied to all electronic collection efforts under NRO and the TK classification would apply to all collection products and mission reports of NRO activities. 89/

An NRO group met on 8 June 1962 with representatives of Defense Intelligence Agency, Air Force Intelligence, and Eastman Kodak Company, to work out a system whereby DOD facilities could be used in conjunction with the Eastman processing center in order to expedite the processing and duplicating of community reconnaissance products. The agreement later developed by Dr. Charyk's staff and signed by Dr. Scoville for CIA on 11 August 1962 was entitled "Memorandum of Understanding Regarding Chemical Processing and Reproduction of Photography from NRP Missions."* The agreement assigned management of all covert contracts with the Eastman facilities to CIA while

*Appendix D, Tab 6.

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the facility at Westover Air Force Base was assigned to the management of the Director of Special Projects, Office of the Secretary of the Air Force (General Robert Greer).

After delays occasioned by attempts to satisfy the working level NRO Staff on the scope of a research and development program for processing at Eastman, Dr. Scoville through OSA Contracts Staff issued a contract to Eastman for work in that area. General Greer's office negotiated a similar contract, with Charyk's approval, and CIA was directed to withdraw its contract with Eastman. Dr. Scoville declined to do so, quoting the "Memorandum of Understanding" which had assigned CIA the responsibility. The matter was held in abeyance until Dr. Charyk's successor took over as D/NRO on 1 March 1963 and later ordered that the CIA R&D contract with Eastman be cancelled, and that General Greer have technical control over all NRP processing activities with CIA furnishing only covert contractual assistance. Dr. Scoville still demurred, but was overruled, and CIA then obeyed the NRO directive.*

The case for CIA acquisition of the NRO Staff Director's position was not strongly supported by Dr. Scoville or Mr. McCone and when Dr. Charyk on 23 July 1962 issued

*Appendix D, Tab 32.

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his first NRO Directive* on organization and functions for concurrence, the Director of the NRO Staff had already been selected by Dr. Charyk in the following manner: the cover unit for the NRO was assigned to the Office of Space Systems in the Office of the Secretary of the Air Force. The Director, NRO Staff, was to have the overt title of Director, Office of Space Systems. The Office of Space Systems had previously been established and staffed for the purpose of managing the Air Force satellite program, and therefore its incumbent Director, Brigadier General Richard D. Curtin, USAF, automatically became the first Director of the NRO Staff.

The D/NRO's directive also established Program A (the satellite effort under USAF management), Program B (CIA assets), and a proposed Program C (Navy assets).

The directive made the D/NRO responsible for all funding of the NRP. All covert funds were to be budgeted by the CIA, and all covert NRP contracts were to be let by CIA as Executive Agent for the D/NRO. All other NRP funds were to be budgeted in appropriately classified line items of the Air Force budget. Funds would be transferred to appropriate services and agencies on an incremental

*Appendix D, Tab 7.

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funding basis, based on specific approval of assigned NRP activities by the D/NRO.

Dr. Scoville, in giving his general concurrence to Dr. Charyk's directive, as a useful basis for initial NRO operations, anticipated that there would need to be changes in the staffing pattern over time. In the face of Dr. Charyk's obvious intention to operate without a deputy, Dr. Scoville suggested the designation of himself as Senior CIA Representative reporting directly to the D/NRO since he held responsibility toward the DCI for NRP activities across the board. The Assistant Director for Special Activities in CIA, who held immediate responsibility for management of reconnaissance activities, should be named Director, Program B. 90/

The only other point raised by Dr. Scoville related to NRO budgetary procedures. He noted to Dr. Charyk that, in view of the Agency's position as a legally separate entity from the Defense Department, the NRO budgetary procedures applying to CIA should be spelled out in more detail. He appended to his memorandum to Dr. Charyk of 29 August 1962 a proposed procedure for budgeting for the CIA portion of the NRP, the general thrust of which was a more meaningful role for CIA in the planning and defense

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of its portion of the program before Congressional Committees, as well as the apportionment of funds by the BOB to CIA in the usual manner.*

Colonel Ledford and Mr. Cunningham, of OSA, as well as others, would have preferred to make a frontal attack on the problem at that time in an effort to secure the post of Deputy Director, NRO, for the DD/R, and give the Agency a voice in the NRP commensurate with the terms of the original agreement. At a meeting held on 11 September 1962, Dr. Scoville did obtain agreement that Dr. Charyk would reverse his position and propose to Mr. Gilpatric that Scoville become DD/NRO. At the same meeting the Agency lost irretrievable ground, however, when Dr. Scoville bowed to the determination by Dr. Charyk that the satellite operations center (SOC) was to be moved from the OSA Control Center at Langley to the Pentagon as soon as a new center being prepared there was ready (three to four months hence). 91/

E. Negotiations Leading to Second Revised Agreement

Mr. McGeorge Bundy, then Special Assistant to the President for National Security Affairs, on 6 July 1962

*Appendix D, Tab 8.

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directed a memorandum to the Secretary of Defense and the Director of Central Intelligence wherein he took note of the arrangements made to date between them with regard to setting up the NRO (which had been reported to the President by the Foreign Intelligence Advisory Board), and in the same memorandum Mr. Bundy had advised

We believe that the actual structure of the documents is inadequate to support an efficient organization when the present experienced and distinguished group moves on to other tasks. We therefore recommend a continuing study of a more satisfactory, permanent, documentary basis for the NRO with particular reference to existing NSC directives with which the present NRO plan may be in conflict. 92/

1. Funding Problem

The question of controls over the funding of the CIA portion of the NRP was one of the principal areas of contention which had to be settled before further rewriting of the Agreement could proceed.

Mr. John Bross, then CIA Comptroller, was tasked to look into the NRO funding problem, and his first discovery concerned a disagreement in relation to a FY 1963 item of [] appropriated by Congress to CIA to finance covert aspects of the overhead reconnaissance program (particularly OXCART). At the instigation of DOD officials concerned with NRO, the BOB had been encouraged

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to withhold this amount from CIA on the theory that under NRP the Air Force should retain the funds and release them to the Agency from time to time in appropriate amounts to fund covert projects as approved by NRO. The OSA officers responsible for the management and funding of OXCART naturally considered this foul play. Mr. Bross recommended that the DCI take the line that NRO would review and approve the over-all budget for the NRP, including covert aspects, but that CIA should seek obligational authority from Congress and adequate funds should be provided in the CIA budget to carry out its portion of the NRP. General Carter briefed the DCI on the matter and Mr. McCone agreed that he would hold this line. 93/

Mr. McCone met with Secretary McNamara on 5 October 1962 to present a proposal for revising the NRO organization once more. The principal new features of this draft agreement* were (1) the elimination of dual reporting by the D/NRO to Defense and CIA; (2) the establishment of the National Reconnaissance Planning Group (NRPG) with the Secretary of Defense acting as Executive Agent to the NRPG; and (3) a paragraph on "Financial Management" along the lines recommended by Mr. Bross.

*Appendix D, Tab 11.

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At the 5 October 1962 meeting, the Secretary of Defense, Mr. McNamara, stated that he had always had reservations on the requirement for such an organization as NRO and did not understand why, in the long run, this kind of business could not be handled by normal intelligence organization procedures. He said that he would like to look to one organization in the Defense Department for all intelligence matters and felt that perhaps NSA and NRO should both be subordinated to DIA. Mr. McCone rebutted this suggestion on grounds that the activities of both NSA and NRO transcend strictly military intelligence and said it would be undesirable to have this subordination. He also pointed out the difficulties which DIA was having in establishing itself as a truly functional organization. 94/

With regard to Mr. McCone's views on NRO budgeting procedures, Mr. McNamara said he was interested in preserving the integrity of NRO funds and programs and felt it was essential that none of the agencies be allowed to transfer funds which had been designated and defended for NRO purposes to any non-NRO projects. Mr. McCone agreed that such transfers would have to be approved by both the Secretary of Defense and the DCI. The meeting

ended on an indefinite note, and Dr. Scoville anticipated, correctly, that Dr. Charyk would endeavor to establish internal NRO budgetary controls over the whole program, lacking a firm directive to do otherwise. 95/

Dr. Charyk returned the revised draft agreement to Mr. Gilpatric on 17 October 1962.* He had interlined his suggested revisions, principal of which was the crossing out of the entire CIA-drafted section on "Financial Management" which he found completely unacceptable. He had rewritten the section to give the NRO control over all budget formulation, presentation, and execution. He accepted the DCI's proposal relating to the NRPG and felt it was a good step and one which would satisfy the President's Board and Dr. Killian. 96/

Having reached a stalemate on financing the CIA portion of the NRP, Mr. McCone in November 1962 took his case to the Director of the Budget, Mr. David Bell, in a letter which outlined the procedures he believed should govern CIA's funding of projects assigned under the NRO Agreement. Dr. Charyk took strong exception to the effort by Mr. McCone to gain full funding control over the CIA portion of NRP funds, and said in a memorandum to Mr. Gilpatric

*Appendix D, Tab 11.

...Either the DNRO has financial control and, hence, possesses the essential management tools required or the NRO becomes a "paper concept." In Mr. McCone's proposal, its financial responsibilities appear to be limited to an initial justification to the Bureau of the Budget that the CIA and DOD requests in this area are compatible and complementary. If the NRO is to function, it must be responsible for continuous monitoring of financial and technical status of programs, it must control release of funds to programs, and it must be able to reallocate funds as necessary and desirable between programs comprising the total NRP...

...I am advised by my Comptroller that CIA is utilizing other funds to finance contractual documents under the responsibility of the NRO and that at the present time they are in a deficiency position. My Comptroller has notified the CIA Comptroller that if funds are not requested on Form 1080's by November 26th, the interim Joint Resolution Authorization will be withdrawn. The CIA may find itself in a highly vulnerable position as to violations of financial procedures for Government operations. 97/

As a result of Dr. Charyk's memorandum to Mr. Gilpatric, the latter requested a conference with Mr. McCone to iron out their differences. A series of direct conferences between them over the next three months finally resulted in a new version of the NRO Agreement.*

2. CIA/USAF Relations Deteriorate under NRO

Meanwhile, there was a great deal of dissension in the ranks, particularly on the CIA side due to the

*See Section E-4, below, p. 212.

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circumscribed role the Agency had been given in the NRP. Dr. Scoville, reporting to General Carter on current CIA/DOD relations on 21 January 1963, said the only major problem for the past six to nine months had revolved around the organization and functioning of the NRO.* He said that the organization had been almost entirely DOD-oriented and that CIA had not been consulted until after decisions were made. He said, in summary, that it was his strong conviction that the Air Force had been using the NRO as a mechanism for reducing the CIA's role in aerial reconnaissance with little consideration for the national need.

The principal complaints voiced by the operating level of the DD/R were that the D/NRO should be a full-time job, and the incumbent should not wear two hats and have divided loyalty; that the NRO Staff should act as a staff rather than involve itself in operations which were the prerogative of the various Program Directors, and that CIA should have a greater representation on the NRO Staff, particularly in the form of an Agency-appointed Deputy Director of NRO.

On the Air Force side, there was a large body of sentiment which, from the time of planning for

*Appendix D, Tab 12.

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the U-2 project, had been opposed to CIA entering the aerial reconnaissance business (largely SAC officers, but not exclusively). The fact that this sentiment had not already prevailed in the taking over of all reconnaissance by the Air Force was due to decisions made by higher authority for political reasons, and not because there had been any diminution of the anti-CIA sentiment.

The announcement early in January 1963 that Dr. Charyk was resigning his Air Force and NRO jobs was a signal that changes could be expected in the NRO, and each side became active in an attempt to better its position. On 23 January Mr. Gilpatric named Dr. Eugene G. Fubini, Deputy Director for Defense Research and Engineering, to fill the D/NRO slot temporarily, pending resolution of the NRO succession.

At a meeting on 30 January 1963 between Messrs. McCone and Gilpatric, principal points raised on the CIA side were (1) that the present agreement did not provide clear authority over reconnaissance operations; (2) procedures for programming, budgeting and management of research and development were not clear and were being handled under compromise arrangements; (3) the DCI and the PFIAB had not been kept advised, and were afraid that

a sound, forward-looking program for new and improved systems was not in the mill; (4) poor linkage existed between NRO, USIB, and DIA with regard to requirements and targeting (the NRO Staff Director had recently refused to brief members of COMOR on a new project on grounds of security); (5) the general attitude of the NRO Staff was not good—as exemplified in their telling CIA representatives that CIA was "out of the picture" and would only be informed on those NRO plans which related to CIA projects. 98/

At the 30 January 1963 meeting, a copy of the background memorandum prepared for the DCI, putting forth the above points, was left with Mr. Gilpatric, who said he agreed with the NRO program as proposed by Mr. McCone and was prepared to implement it and to have the Deputy Director of NRO, appointed by CIA, in the chain of command on an operating basis as a true deputy. He also agreed that the new D/NRO should spend more time at the job of directing the NRO than had Dr. Charyk.

At the same meeting, Mr. Gilpatric presented the name of Dr. Brockway McMillan to Mr. McCone for consideration as the next D/NRO.

3. Dr. McMillan Succeeds Dr. Charyk as D/NRO

Dr. Scoville was asked by Mr. McCone at the end of January 1963 for his views on the proposed candidate for D/NRO, and responded with regard to Dr. McMillan's suitability that he was a very competent technical individual with a rather strong systems orientation; that he might be a little weak in the area of imagination or sparking new ideas and was somewhat inflexible as well, not diverting easily from a course once he had made a decision. Dr. Scoville reiterated to the DCI previously-expressed views that it was asking the impossible of an individual to perform as an Under Secretary of the Air Force and a Director of NRO at the same time. The National Reconnaissance Program was of such overriding importance to national security that he felt its conduct should in no way be prejudiced through the making of critical decisions by a manager with divided loyalty. 99/

Mr. McCone did not raise any objection with Mr. Gilpatric over the appointment, and on 1 March 1963 Dr. McMillan was designated D/NRO. On 4 March 1963, Mr. Gilpatric informed the PFIAB of the new appointment and of the new NRO Agreement in process of execution between DOD and CIA. A copy was furnished the Board for comments.

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4. Second Revised NRO Agreement, 13 March 1963

The PFIAB included its approval of the new NRO Agreement in its 8 March 1963 memorandum* containing recommendations to the DCI and Secretary of Defense for the over-all improvement of intelligence collection. In acknowledging the Board's approval, Mr. McCone said that the new agreement was reached after due consideration of the possibility that either Defense or CIA should take full responsibility for the reconnaissance program. It had been decided that such a move was unwise because on one hand it would require relocating vast resources out of the Defense Department, and on the other hand it would involve the loss of CIA's experience and capabilities in the field of overhead reconnaissance and the advantages of security and imaginativeness it was able to provide.

Not all of the points desired by CIA were included in the final text of the agreement** signed by Messrs. McCone and Gilpatric on 13 March 1963; however, it was established that the position of Deputy Director, NRO, would be filled by the DCI with approval of the Secretary of Defense. CIA could include in its budget

*Appendix D, Tab 13.

**Appendix D, Tab 14.

presentations to the Bureau of the Budget and Congressional Committees (for informational purposes and for establishing a true overhead base) funds for those NRP tasks assigned to it and to be financed from NRP resources. An appendix to the Agreement on "Program Funding" was signed two weeks later and became a part of the Agreement.*

F. Dr. Scoville's Tour as DD/NRO

At the first meeting between Mr. McCone and Dr. McMillan subsequent to the signing of the new Agreement, Mr. McCone attributed many of the problems experienced in organizing the NRO to the deficiencies of the previous charter and said he felt the present agreement would be a more workable document. At the same meeting on 21 March 1963, Mr. McCone announced that he was nominating Dr. Scoville to be Deputy Director of NRO.

Agreement was reached between Mr. McCone and Dr. Scoville that the latter would occupy the position of DD/NRO while still serving in the capacity of DD/R. Dr. Scoville proposed that an office be set up for him near the D/NRO in the Pentagon and that he have an executive assistant and a secretary in that office full time.

*Appendix D, Tab 14.

Mr. James Cunningham, then Deputy Assistant Director, OSA, recommended that Mr. Eugene P. Kiefer of the OSA Staff be made Executive Officer to the DD/NRO to lend strength to Dr. Scoville's day-to-day participation in the activities of the NRO. Mr. Kiefer's technical and professional background and his long experience with both manned and satellite reconnaissance programs made him an ideal choice for the position.

General Carter urged that Dr. Scoville set himself up in the Pentagon promptly and "infiltrate NRO at all levels." 100/ Mr. McCone also urged, in connection with the monitoring of Project CORONA operations and the continuation of airtight procedures therefor, that more Agency people be sent to the NRO Staff. 101/

In preparing his first draft of the DD/NRO terms of reference, Dr. Scoville included the assignment of a full-time assistant for himself and means for keeping the DD/NRO fully informed and participating in all activities of NRO. Dr. McMillan and Colonel John Martin, USAF (Director of NRO Staff succeeding General Curtin), vigorously opposed Dr. Scoville's having an assistant in his NRO office and indicated they would guarantee that the DD/NRO would be constantly briefed and cut in on all major

decisions of the NRO. Dr. Scoville, with misgivings, reluctantly concurred. 102/

In the short tenure of Dr. Scoville as Deputy Director, NRO, from 21 March to 15 June 1963, little was accomplished in the way of establishing CIA's presence on the NRO Staff. In line with the DCI's assuming the security responsibility for the whole of the NRP, a senior CIA Security Officer, [] was assigned to NRO on 6 August 1962; and with the transfer of the Satellite Operations Center (SOC) to the Pentagon in April 1963,

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[] of the OSA Operations Staff was designated CIA liaison with SOC and moved to the Pentagon, later becoming the Chief of SOC.

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1. Terms of Reference, DD/NRO

As mentioned above, Dr. Scoville's first draft on 1 April 1963 of his terms of reference as DD/NRO* brought objections and a redraft by the NRO Staff Director, Colonel Martin.** The redraft was returned to Dr. Scoville with a memorandum from Dr. McMillan which said

...I intend that you shall be kept fully informed of all NRO actions which I take, as well as on

*Appendix D, Tab 15.

**Appendix D, Tab 19.

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all other aspects of NRO activities. I expect generally to consult you on matters directly related to your NRO duties, and on most other NRO matters as well. I shall be the judge in each instance as to whether consultation is practicable or appropriate. Consultation will not be a pre-condition to my taking action. I shall, of course, welcome at any time suggestions or recommendations you may have on any NRO matter.

As you are aware, the NRO has undergone considerable evolution from the Co-Director, joint CIA-DOD organization of the 6 September 1961 agreement to the single Director, single Executive Agent organization established by the 13 March 1963 agreement. This agreement specifies that the Director, NRO is directly responsible to the Secretary of Defense, as Executive Agent for the National Reconnaissance Program, and that the NRO is an operating agency of the Department of Defense. Except for guidance from the USIB on intelligence collection requirements and priorities, all guidance to the Director is from the Secretary of Defense, as Executive Agent...*

The tone of this communication and the complete omission of any reference to the DCI's NRP responsibilities (other than through USIB's setting of requirements and priorities) certainly gave fair warning to Dr. Scoville of troubles to come.

The principal objection made by Dr. Scoville to the duties and functions statement as revised by the NRO Staff was that no provision was made for DD/NRO coordination on NRO Staff papers going to the D/NRO; in other

*Appendix D, Tab 19.

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words, there was no language to assure that he would be truly in the "chain of command." He concurred in the 26 April draft, however, "as an initial attempt to define methods and procedures for carrying out the duties and functions of the Deputy Director, NRO" and made only one minor change--from "full time" occupancy of his Pentagon office when acting as D/NRO, to occupancy of that office "as required."*

The Director, NRO Staff, Colonel Martin, then circulated this version of the terms of reference paper under the heading "Method of Operation for DDNRO" on 10 May 1963, addressing it to the Director, Program B, CIA, for his "information and compliance."** General Carter, on receiving a copy of the paper, expressed his disapproval in a memorandum of 4 June to the General Counsel and to Dr. Scoville, and said that while the duties outlined had merit in some areas, in others they were entirely too specific and appeared to "denigrate the position of Deputy Director of NRO far below the clear intent of the basic NRO Agreement. Furthermore, any directive assigning duties

*Appendix D, Tab 20.

**Appendix D, Tab 22.

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to the Deputy Director, NRO, should come only and directly from Dr. McMillan and should have the prior approval of the Director of Central Intelligence, Mr. McCone."* He said the DCI intended to require the withdrawal of the 10 May paper and reissuance over McMillan's signature of a proper terms of reference.

The intended action was overtaken by the resignation of Dr. Scoville from CIA effective 14 June 1963 and in a final summarization of the NRO situation on the eve of his departure he said that there had been no change in the procedures practiced by the NRO Staff and that with very few exceptions no papers had been coordinated with the DD/NRO. He had protested to Colonel Martin who always argued that there was not enough time, despite the fact that the staff work coming out of the NRO was always extremely ponderous and delayed. Dr. Scoville recommended that Colonel Martin be given a very strong directive to improve the method of staff operations and to insure that even the minimum terms of the Agreement were lived up to and that CIA was no longer by-passed.**

*Appendix D, Tab 26.

**Appendix D, Tab 32.

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A new draft terms of reference produced by the General Counsel^{*} on 20 June 1963 at General Carter's instruction was not acceptable to Colonel Ledford who felt it was too similar to Colonel Martin's draft and listed only functions related to the DD/NRO's CIA activities rather than covering the across-the-board responsibilities he shared on behalf of the DCI for the whole NRP.**

With the departure of Dr. Scoville, Mr. Eugene P. Kiefer of the OSA Staff was accepted by Dr. McMillan as the nominee for Deputy Director, NRO, and was approved by the Secretary of Defense. On 2 July 1963 an announcement of Mr. Kiefer's appointment was issued, again over the signature of Colonel Martin rather than by the D/NRO, stating that "the Deputy D/NRO will function in accordance with the provisions of the 13 March 1963 DOD-CIA Agreement [] and is to be kept fully informed on all aspects of the NRO and all projects of the National Reconnaissance Program."*** It further added that the previous terms of reference (of 10 June) were

*Appendix D, Tab 33.

**Appendix D, Tab 34.

***Appendix D, Tab 35.

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rescinded. Thus, CIA now had a full-time representative in the DD/NRO slot, but without formal, agreed terms of reference, other than by interpretation of the 13 March 1963 Agreement.

2. Proposed NRO/JRC Agreement on Air Operations

On 15 April 1963, Dr. McMillan and the NRO Staff, in coordination with J-3 of the Joint Chiefs of Staff, but without prior consultation with CIA, submitted to Mr. Gilpatric a draft paper which purported to clarify the operational aspects of NRO in coordination with the Joint Chiefs of Staff, and posed two alternatives for accomplishing this: (1) Establish within NRO a new office having the capability to plan, evaluate, and coordinate all aircraft overflights of denied areas; or (2) establish arrangements whereby the Joint Reconnaissance Center of the JCS would serve both the NRO and the JCS, and the Chief of the JRC (Brigadier General R. D. Steakley) would serve as Deputy for Operations on the NRO Staff, responsible for supervision of both the NRO Satellite Operations Center (SOC) and the Aircraft Operations Center (AOC). Alternative 2 was recommended as being more economical and also providing a smoother working interface between NRO and JCS. The draft paper was forwarded to Dr. Scoville by the D/NRO

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with a note^{*} informing him that Dr. McMillan was planning to establish a more formal tie-in between the NRO and JCS. Dr. McMillan also included a copy of his memorandum^{*} to Mr. Gilpatric requesting that the latter discuss the proposal with the JCS. Dr. Scoville was not asked for CIA's approval or recommendations with regard to this proposal, even though it represented a basic change in the agreed NRO organizational set-up and procedures.

As might be expected, there was a loud outcry in CIA when the proposal was received there, particularly in OSA. Colonel Ledford's comments on the proposal were: (1) that McMillan gave no evidence that present organizational arrangements were inadequate with respect to capability for operational planning and analysis, and there had been no complaints from JCS/JRC with regard to the currently functioning procedures; (2) the capability which McMillan proposed to establish (or take over from the JRC) was already in being in Program B (CIA); (3) the idea that the suggested use of the JRC would require no increase in manpower was naive; and (4) in general, the plan represented duplication of existing capabilities which would not

*Appendix D, Tab 16.

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provide any more qualified or experienced personnel but simply add bureaucracy to a presently good, streamlined organization. 103/

Dr. McMillan followed up his 15 April memorandum with a further one intended to clarify the intent of the proposed JRC agreement;* however, Colonel Ledford felt the second memorandum did nothing to clarify the original proposal, and certainly did not retract or rectify certain "fallacious statements" made in the original correspondence to the Deputy Secretary of Defense. He said he thought Dr. McMillan's attention should be called to the fact that "for seven years now we have conducted clandestine overflights employing the highest calibre of personnel which the Air Force had to offer our joint, highest priority projects. I am not at all convinced that this experience...can be equalled elsewhere."**

Dr. Scoville's reply to the D/NRO was more temperately expressed: it called attention to the undesirable dual role which the JRC would play under the proposal, and suggested that coordination of overflight activities with the Joint Chiefs could be achieved in a

*Appendix D, Tab 17.

**Appendix D, Tab 18.

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simpler fashion without confusing command lines, possibly by establishing as Program E all JCS-run reconnaissance activities, with the Chief of the JRC as Director of Program E.* Dr. McMillan's answer to this was that the JRC under his plan would have strictly a staff, rather than a line, function; that he anticipated no problem with the JCS over the dual role, and that the line elements of NRO already satisfactorily established in DOD and CIA would not be affected. He urged that further comment be made quickly since the Secretary of Defense desired final concurrence by 10 June.**

Meanwhile, Dr. Scoville had on 1 June 1963 informed the DCI of what had transpired with regard to the insertion of the JRC into NRO operations*** and now the DCI and General Carter took over the action in view of the anticipated resignation and departure of Dr. Scoville. Mr. McCone's first step was to set down his understanding of his own and the USIB's responsibilities for establishing intelligence requirements and priorities to be fulfilled

*Appendix D, Tab 21.

**Appendix D, Tab 24.

***Appendix D, Tab 23.

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by aircraft or satellite overflights over denied territory.

His premise was as follows:

It is my understanding that a decision was made in the early days of the U-2 that the responsibility for the planning and the conduct of overflights over denied territory was to rest with CIA, not with Defense...Therefore before discussing any details, I want a resolution of the question by Secretary of Defense and DCI and if necessary, higher authority, as to whether responsibility for intelligence in denied territories (except for active war areas) is the responsibility of the Director of Central Intelligence or the Secretary of Defense.*

On 4 June 1963 Mr. McCone met with Deputy Secretary of Defense Gilpatric to discuss the latter's position, which had been in support of the NRO/JCS agreement. Mr. McCone reported that during the discussion he learned from Mr. Gilpatric that there was a strong feeling, expressed by General LeMay, then Chief of Staff of the Air Force, and apparently supported passively by the Secretary of Defense, Mr. McNamara, and General Maxwell Taylor, that the time had come to move all reconnaissance operations out of CIA to the Department of Defense.** Mr. Gilpatric said this was not the intent of his 31 May memorandum to the Joint Chiefs and to the D/NRO, agreeing to the proposed

*Appendix D, Tab 25.

**Appendix D, Tab 27.

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NRO/JCS agreement;* nevertheless, the sentiment existed in the DOD.

Mr. McCone had stated that, if this was the issue, he would like to settle the matter on the basis of this issue, but warned that he would oppose the take-over by Defense. Mr. Gilpatric urged him not to raise the issue, and said he felt that the President's Board, and probably the President himself, would be opposed to any such shift. He feared the raising of the issue would be interpreted as another civilian-military squabble and there were already too many of these. Mr. Gilpatric urged Mr. McCone to amend the agreement in a way that would satisfy him that there would be no misinterpretation of the CIA responsibility for carrying out covert overflight of denied territory. Mr. McCone agreed to do as Mr. Gilpatric asked.**

The General Counsel of CIA was asked to draft a memorandum which would fulfill the DCI's agreement and would suggest changes in the text of the proposal to protect CIA interests. The DDCI, General Carter, meanwhile advised Mr. McCone, with regard to the dispute over the NRO/JCS matter, as follows:

*Appendix D, Tab 24, Attachment.

**Appendix D, Tab 27.

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...you cannot place yourself in the position of "negotiating" on the new proposals, nor can you, as DCI, accept a caveat designed to protect CIA interests only. Everything in the new Gilpatric proposals is a clear downgrading of CIA activities and responsibilities, and takes away from the Director of Central Intelligence his prime responsibility for intelligence collection by any and all means. As a matter of fact, the phraseology is such that the Director of Central Intelligence is personally downgraded, in some cases by omission, in others by position. There is absolutely no question in my mind that these past and present actions indicate a direct and immediate move to get you and the CIA entirely out of the aerial reconnaissance business, and I do not think we can stand for this for another day...*

General Carter recommended that Mr. McCone tell Mr. Gilpatric that he would not accept the JRC into the NRO organization, or accept policy directives from the D/NRO, or limitations on the full Deputy responsibilities of the CIA-appointed Deputy Director of NRO. A draft letter in these terms was presented by General Carter, but Mr. McCone preferred to draft his own more mildly-worded reply, which, nevertheless, still firmly opposed the NRO/JCS proposal.** After receiving concurrence on his draft from the General Counsel*** he dispatched the letter to

*Appendix D, Tab 28.

**Appendix D, Tab 30.

***Appendix D, Tab 29.

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Mr. Gilpatric on 11 June 1963. Mr. Gilpatric's reply* dated 13 June was unrelenting in its insistence on the conclusion of an agreement with the Joint Chiefs, although he agreed it should be possible to achieve this objective with a simpler document and to that end he directed Fubini and McMillan to work up a less elaborate paper.

On 26 June 1963, Mr. McCone appeared before PFIAB and reported on CIA's views on the current organization and management of NRO. After bringing the Board up to date on NRO affairs

...The DCI indicated that he felt there were two problems in the NRO. The first was the feeling of the Air Force that it should be endowed with the full responsibility for all aerial reconnaissance, and he pointed out that the Chief of Staff of the Air Force held this view and had communicated it to the JCS and the Secretary of Defense. While the view was not approved as a Defense position, it was only natural that the Chief of Staff's views had permeated the working levels and had exacerbated the problems of NRO. The second was that of personalities. The DCI felt there had been serious differences between Charyk and Scoville, and McMillan and Scoville. The DCI noted that General Carter had personally been working on the implementation of the agreement and said he himself had discussed it in greater depth with Gilpatric and McNamara than would normally be the case at such levels...104/

The Board, particularly Dr. Edwin Land, was perturbed to learn that the NRO staff was composed almost

*Appendix D, Tab 31.

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entirely of Air Force personnel, and Mr. McCone was reminded of the Board's desire that the NRO should be a partnership.

On 8 July a new version of the NRO/JCS agreement was produced by Drs. Fubini and McMillan and a copy furnished the DCI for his comments.* Colonel Giller, then Acting DD/R, felt the new version was merely a shortened and generalized version of the original, to which CIA had taken such strong exception. The purpose was still not clear. He recommended a completely new paper be written with a clear statement of the purpose of the agreement; that the CIA Operations Center at Langley be designated the NRO Operations Center; and that only in times of actual hostilities should there be automatic transfer to the JRC of the NRO operational assets. 105/

Dr. Wheelon, then Assistant Director of Scientific Intelligence, DD/I, but shortly to move into the vacancy left by Dr. Scoville to reorganize the Directorate, commented to General Carter on the NRO/JCS proposal that, while he knew little of the background, he had been told that the JCS, with General LeMay in the lead, had proposed to take over all reconnaissance aircraft, including

*Appendix D, Tab 36.

OX CART, but that McNamara and Fubini had rejected this concept and had told JCS not to put forward such a proposal. The principal problem with the agreement in his view was the option given Secretary McNamara to transfer NRO missions to the JCS in periods of war or tension; he felt Mr. McCone should have an equal voice in any such decisions. He said

...It seems to me that this new agreement provides the tool for excluding the CIA from manned reconnaissance operations on the decision of the DOD. Of course we cannot presume that this agreement will be so exploited. However, I do wonder what we gain by placing such weapons in the hands of an organization which has found it difficult to resist using them in the past...*

Mr. James Cunningham's comments on the 8 July 1963 draft agreement with the JCS were also concerned with the underlying purpose of the agreement, which he felt had not been clearly stated. He said if the purpose was to assure that NRO and DOD missions were properly coordinated, there were already in being procedures and understandings between the NRO (Program B) and the JRC under which the JCS was kept fully aware of all overflight activities on a current basis. If the JCS concern was with high-level policy implications, the JCS could have a representative at

*Appendix D, Tab 37.

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the Special Group meetings when these topics were discussed.
In summary, he said

...This paper can only be interpreted as a further attempt by the JCS to absorb those responsibilities and prerogatives relating to operational control of reconnaissance programs now exercised by the CIA within the framework of the NRO.*

At the same time that the protracted argument over the NRO/JCS agreement was going on, other confrontations continued to take place on the question of budgeting for the CIA portion of the NRP (the CIA battle to obtain annual versus quarterly funding of projects was lost in August, 1963);** the arbitrary reduction of certain items in the CIA portion of the NRP budget by the D/NRO; and the assignment of project responsibilities by the D/NRO (e.g., TAGBOARD was a contentious item since its development was so closely bound to the CIA OXCART development, but its control was given up in October 1963 to USAF's Program D at Dr. McMillan's direction).

The next move in the NRO/JCS matter was made by General Carter in a letter to Dr. Fubini dated 21 August 1963, bringing to bear the arguments outlined by

*Appendix D, Tab 38.

**Appendix D, Tab 39, Attachment

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Messrs. Giller, Wheelon, and Cunningham, above, and putting forward a very simple, short, draft agreement which he felt would answer NRO's need for coordination with the JCS.* Another month passed before a redraft by Dr. Fubini was returned for CIA consideration.** General Carter passed it to Dr. Wheelon (who had by that time become Deputy Director for Science and Technology) recommending that he consider the draft but not be pressured into early agreement with it. Dr. Wheelon followed this advice, and took no action on the proposal. Eventually the pressure for a formal agreement between NRO and the JCS for coordinating NRO and JRC peripheral and overflight activities was dropped in favor of coordinating such activities at the National Security Council level.

On 3 January 1964 the NRO promulgated the system of monthly forecasts of NRP overflight activities to be presented to the Special Group of the National Security Council for approval in advance. (This was a continuation and formalization of the practice first imposed on CIA by the NSC under Mr. Gordon Gray in September 1960 as a result of the U-2 May Day 1960 episode, and

*Appendix D, Tab 40.

**Appendix D, Tab 42.

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continued on an ad hoc basis since then.) Procedures for the presentation of the NRP list were published by the Director of the NRO Staff on 16 April 1964. The missions under the control of the JRC were also to be presented to the Special Group on a monthly basis for approval. Thus the combined listing included CIA manned and satellite missions, Air Force manned, satellite, and drone missions, and Navy satellite missions (all under the NRP); and JRC missions, principally SAC U-2 and drone flights over Cuba and Vietnam, and certain peripheral missions. (The forecast procedure of coordination was still in effect at the end of 1970.)

G. CIA Role in Satellite Reconnaissance

1. Pre-NRO Activities: 1958-1961

Prior to the establishment of the National Reconnaissance Program there was no formal charter for CIA's participation in satellite reconnaissance. Its activities in this field resulted partly from a desire to buy into a satellite program in order to provide some assurance of fulfilling national intelligence requirements, and partly because of previous achievements of the Agency in the research and development of new and effective photographic techniques. 106/

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The Air Force had initiated studies in 1946 under a Rand Corporation contract to investigate the feasibility of using an earth satellite for reconnaissance. Early Rand proposals assumed that the satellite, once fired into orbit would be non-recoverable, but would remain in orbit for perhaps a year, returning the photographic or other data collected via a data link to a ground station. Such a proposal by Rand, called "Feed Back," was made in 1954 and was assigned to the Ballistic Missile Division in 1955. BMD's development plan under Air Force Weapons System 117-L (WS 117-L) was approved in 1956 and a contract was awarded to Lockheed for developing and testing the system. With the further advances in missile technology during the following year, re-entry of a space vehicle into the earth's atmosphere appeared to be feasible, and therefore another phase was added to WS 117-L which envisioned the launching of a two-stage photo-reconnaissance satellite into orbit; at the completion of its planned mission, a recoverable capsule containing the exposed film would be separated from the second stage of the satellite for return to earth. 107, 108/

In the development of this latter phase of WS 117-L, the Air Force plan called for a spin-stabilized

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pod containing a six-inch focal length camera, without image motion compensation, and with very short exposure time. This would require the use of fast film, resulting in grainy photography, and yielding a resolution of between 40 and 60 feet on the ground. This was not good enough for intelligence purposes. 109/

The decision was made that the Air Force would drop this portion of WS 117-L and concentrate on the long-range direct read-out system. Meanwhile, with the approval of Dr. James R. Killian, Special Assistant to the President for Science and Technology, and the cooperation of the Director of the Air Force Ballistic Missile Division, General Bernard Schriever, an interim photo-reconnaissance satellite system was developed quickly and secretly under the direction of Mr. Richard M. Bissell, Jr., and some of the members of his U-2 project staff. Some of the residual hardware and existing arrangements of the Air Force's cancelled project were used, and the DCI, Mr. Allen Dulles, approved the release of [] from his special reserve to pay for the development and production of the sophisticated photographic package required for the system. 110/

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This interim reconnaissance program, code-named CORONA, made use of a Douglas Thor missile as

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the first stage booster, with a Lockheed Agena as the second stage. The payload consisted of a 24-inch focal length camera configuration, stabilized after orbiting, and giving resolution of approximately 20 feet on the ground. The cover arrangement for the project placed CORONA under the authority of the Advanced Research Projects Agency (ARPA) and CIA, with support and participation of the Air Force through BMD. CIA had responsibility for development of the reconnaissance equipment and for management of collection requirements, security, cover, and on-orbit operations. 111/

The CORONA plan called for a one-year program with approximately 12 shots anticipated. A press conference held by Dr. Roy W. Johnson, Director of ARPA, on 3 December 1958, announced the purpose of the series of shots (designated Project DISCOVERER) as continued development of a number of systems and techniques to be employed in the operation of space vehicles. When a mapping satellite project, ARGON, was set up in cooperation with the Army Map Service in July 1959, ARPA and CIA agreed that CIA should also exercise control over that project in order to maintain maximum security. 112/ ARGON shots were worked in under cover of the DISCOVERER series.

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During the period from 1958 until the NRP was established at the end of 1961, Mr. Bissell, as CORONA Project Director, representing CIA, and Major General Osmond J. Ritland, representing the Air Force Ballistic Missile Division, had developed a loosely defined set of procedures whereby the CORONA camera payload procured by CIA was installed in the vehicle, which was furnished by the Air Force, launching took place, orbiting was guided, and recovery at sea was effected, with the aid of the Air Force and Navy. A control center operated by BMD at Palo Alto, California, had responsibility for launchings from Vandenberg Air Force Base and coordination of activities during countdown and orbit, and for triggering all facets of recovery. Lockheed Missile Division (later renamed Lockheed Missile and Space Company) was contracted by CIA to provide the services of its Systems Engineering and Test Division in pulling together all parts of the system being furnished by various contractors, and in successfully testing the completed system. This was accomplished at a secure facility in Palo Alto.* As a practical matter, the contractors' technicians were in almost

*Appendix E, Tab 5.

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complete control of the operational aspects of CORONA with BMD and CIA personnel overseeing their activities.

In the earliest days of CORONA, the day-to-day liaison between CORONA Project Headquarters (the fifth floor of the Matomic Building, 1717 H Street) and the Palo Alto center at the operating level was the responsibility of the same Operations Staff, under [redacted]

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and [redacted] which controlled the activities of the U-2 and other CIA manned overflight programs. On the BMD side, Colonel William J. Sheppard was the principal liaison officer at Headquarters, and [redacted]

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[redacted] was in charge of the BMD Palo Alto center. After CORONA became operational a liaison officer from CIA, Lieutenant Colonel Charles L. Murphy (an Air Force detailee), was sent to Palo Alto to serve as an on-site monitor and as CIA member of the Configuration Control Board (established in February 1961).

In September 1958, Mr. Bissell requested

[redacted] then Chief of the Contracts Staff, to serve as coordinating point for all CORONA activities being carried on by other units. With [redacted] departure from the Agency in June 1959, coordination of CORONA activities was reassigned to [redacted]

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then Director of the DPD Development Branch, and his Deputy, Mr. John Parangosky; Mr. Eugene P. Kiefer, Technical Adviser on the A-12 program, was also technical adviser on CORONA from its inception. Under this management, with the Bissell/Ritland overview, CORONA arrived at operational status, and after thirteen non-productive firings, finally began to produce useful intelligence with the successful retrieval of a payload on 19 August 1960.

In December 1959, the DOD reorganized the military space program to give the Air Force the prime role, returning to the services most of the projects ARPA had taken over when it was set up in 1958. The Air Force then took over the supervision of space vehicle development for joint CIA/USAF projects which had formerly been under ARPA's administration.

The prolongation through 1960-61 of CORONA after the system's capabilities were proven, and the introduction of a higher resolution stereo camera into the system, gave CIA a continuing stake in satellite reconnaissance, since the Air Force program had not yet begun to produce intelligence. (The last unsuccessful attempt to orbit a direct read-out satellite under the original Air Force reconnaissance satellite program,

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known publicly as Samos, occurred on 9 September 1961 and subsequently that program was phased out. It had involved the expenditure of many millions of dollars and had produced no usable photography.)

2. CIA Role Limited Under NRO

With the establishment of NRO all resources of the Space Systems Division of the Air Force Systems Command* which were involved in full or part-time work for NRO were placed under the management of the Director of Program A, NRP, Major General Robert Greer, whose overt duty assignment was Director of Special Projects, Office of the Secretary of the Air Force (SAFSP), with duty station at the field extension office of the Secretary at El Segundo.

When General Greer took over the Air Force satellite reconnaissance programs and support of CORONA in 1962, the old leadership on the CIA side had fallen away.

Mr. Bissell and [] had resigned from the Agency;

[] had been transferred []

[] and Mr. John Parangosky was almost completely occupied with the crisis situation in the development of the A-12 engine. The Development Projects Division staff (then responsible for CORONA's direction on the CIA side)

*ARDC was reorganized in March 1961 and became Air Force Systems Command; General Ritland was named Director, SSD.

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was in a state of disorganization for most of the year 1962, during which time it was being reconstituted under the DD/R as the Office of Special Activities. Its reorganization was effective as of 30 July 1962, and on 4 September 1962 Colonel Jack C. Ledford, USAF, was named to direct it. He immediately became deeply involved in CIA's manned reconnaissance projects—the development problems of the A-12 and the U-2's coverage of the Cuban missile build-up.

Between 1958 and 1961 CORONA had established an operational pattern under the working level direction of contractor technicians, DPS/DPD personnel, and the SSD's Special Project Office 162 under Colonel Lee Battle. The latter office became a part of General Greer's over-all management responsibility as SAFSP Director. Late in 1962 General Greer began to move into the CORONA leadership void and take over the technical direction of contracts for the CORONA MURAL (stereo) and "J" (dual payload) projects, with D/NRO and NRO Staff encouragement.

By agreement between Drs. Scoville and Charyk in May 1962 (approved for CIA by General Carter on 1 September 1962), authorization was given for OSA's Contracts Staff to do covert procurement in furtherance of the objectives of the NRP. Pursuant to that agreement,

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25X1 [redacted] of the Office of Logistics was assigned
[redacted] as the Agency's resident contracting officer with General Greer at SAFSP. A CIA Industrial Security Officer, [redacted] was also
25X1 assigned to SAFSP under the terms of paragraph 3 of the NRO Agreement then in force.*

When General Greer's staff began to take over technical direction of contracts which had been negotiated by CIA contracting officers, [redacted]
25X1 [redacted] were placed in an anomalous position vis-a-vis both General Greer and the contractors, since they were outside the Air Force line of command and yet had been given responsibilities with regard to those contracts which cut across departmental boundaries. Security and contract fulfillment problems began to develop as time went by.

The OSA Contracts Staff had, throughout the U-2 and follow-on programs between 1955 and 1961, built up good relationships with the Air Force echelons with whom they had dealt; however, in January 1963 the OSA Contracts Chief, then [redacted] reported
25X1 to Dr. Scoville that for the previous three or four

*Appendix D, Tab 9.

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months there had been a lessening of the "team" spirit in relations with both Air Force and contractor personnel, particularly in relation to the satellite programs. Now OSA was often hearing first from contractor representatives of new development or of requirements being levied upon the contractors by visiting NRO staff from the Pentagon or from General Greer's office. 113/

After many requests for resolution of these problems, the situation resulted in a visit to the West Coast contractors and to General Greer by the CIA Director of Security, then Mr. Robert Bannerman, in July 1963. It developed that approximately [] contracts worth about

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[] had been issued by CIA contracting officers in support of satellite projects.* All of these contracts were at that time under the technical direction of General Greer, either having been assigned to him originally by NRO, or assumed by him with NRO consent.

Mr. Bannerman advised the DD/S&T that to make available the authorities of the Confidential Funds Contracting Officer and the CIA Security Officer to SAFSP to be directed and utilized as General Greer saw fit represented the delegation of those authorities by

*Appendix D, Tab 10 (List of NRP satellite projects).

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the DCI to another agency. The DCI had previously expressed his position that he would not so delegate his authorities. Mr. Bannerman felt the concept of separating technical direction from the normal source of authority for contracting and security was unsound and that every effort should be made to correct the situation. General Greer was aware of the possible illegalities involved and had considered the solution of turning over all "black" contracts for satellite systems to CIA.* At a meeting in August 1963, however, the decision was made that CIA procurement and security officers should not be given responsibility for "black" contracts under the Air Force's satellite program.

25X1 [] was called to Headquarters for consultation in December 1963 and, at the request of the DD/S&T, he set down his views on the situation currently existing at General Greer's SAFSP office particularly in regard to contracting.** He outlined for the DD/S&T the continuing trend towards Air Force consolidation of management control over the CORONA M and J programs and estimated that, unless immediate action was instituted by the Agency, the take-over by the Air Force would be complete in a matter of months.

*Appendix D, Tab 39 []

**Appendix D, Tab 48.

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Early in March 1964 the DD/S&T received copies of cables sent by General Greer to Headquarters to the effect that SPO-162 (the SSD group of personnel assigned to support CORONA launches and retrievals) was being dissolved and its functions and personnel transferred to SPO-241 under Colonel Paul Heran, within General Greer's immediate SAFSP organization. The significance of this action was that control of the CORONA program would be automatically transferred to General Greer and USAF's Program A, without the formality of CIA concurrence. At this point, the CORONA management question became a part of the larger issue of the viability of the NRP as a whole and the CIA role therein. In the spring of 1964, the PFIAB conducted an extensive inquiry into this issue, about which more will be written below.

3. Dr. Wheelon Enters the Fray

The steadily eroding CIA role in satellite reconnaissance prompted Mr. McCone at his morning staff meeting on 1 August 1963 to make a strong statement to the effect that CIA must get back into the satellite business, including the development of proposals for new and better systems beyond present capabilities. Colonel Giller (then Acting DD/R) immediately passed this directive to the D/SA,

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Colonel Ledford, who was nominally responsible for CORONA within Program B (CIA's NRP-assigned projects). He advised Colonel Ledford to work closely with Dr. Wheelon, who had just agreed to take on the job of organizing the Directorate for Science and Technology. 114/

To review the situation prevailing at that moment, we find that most of the frustrations which had caused the resignation of Dr. Scoville were still waiting to be faced by his successor. Dr. Wheelon had already faced up to the basic frustration, i.e., the failure of the DD/R to develop into the all-encompassing scientific and technological base which had been anticipated. He had laid out his conditions for accepting the assignment and had been assured of the transfer of OSI and the Agency's computer assets, and the promise of a missile and space analysis center. He failed to acquire control of all Agency research and development, which had to be foregone in view of the position of other Directorates. The principal remaining problems were in the area of the relations between the Agency and the NRO. Current operating arrangements established by the NRO Staff had curtailed CIA's freedom of action in its overhead reconnaissance projects: the control of funds to support these projects

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had been taken out of CIA hands and transferred to NRO; the Satellite Operations Center, which had been operating effectively in CIA's Langley Headquarters Building, was transferred (albeit with Dr. Scoville's acquiescence) to the Pentagon under the NRO Staff; the management of CORONA (which was beginning to pay off, even though still having technical problems) was about to be assumed completely by the Air Force with the D/NRO's encouragement; and research and development looking ahead to advanced reconnaissance satellite systems was not showing promise of meeting future requirements. The latter deficiency was of great concern to Mr. McCone and it was in that area that Dr. Wheelon waged one of his strongest battles for the next few years.

a. Wheelon Views on CIA/NRO Problems

Dr. Wheelon assumed the post of DD/S&T on 5 August 1963, and Mr. McCone placed on him the responsibility previously carried by General Carter and Dr. Scoville for NRO matters. On 19 August 1963 a meeting was scheduled between the DCI and Messrs. Gilpatric and McMillan to go over all NRO problems, and in preparation for that meeting Dr. Wheelon asked his staff and office chiefs to "let their hair down" and address themselves to the total relationship problem. The scheduled

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meeting was called off, but the papers prepared for it, which were quite revealing of the problem areas in management, funding, and security, were preserved in a single bundle for the DCI's background information.*

Dr. Wheelon then attempted to put the NRO problem into proper perspective by drafting a background memorandum for the DCI containing recommendations for steps which might be taken to restore and preserve the original intent of the NRP.** Under the heading "Reference Points" he listed all the factors in the problem, giving each a value of "self evident," "matter of record," or "personal conviction based on reliable secondhand reporting." Added together, these points showed (1) the deterioration of CIA's initial role in the NRP as a strong partner with the capability to develop and operate new advanced reconnaissance programs, and (2) the ascendancy of the Air Force role through the various appointments and decisions made since the NRP was established. Dr. Wheelon recommended certain drastic actions for the DCI's consideration: (1) that the responsibility for all reconnaissance operations (satellite

*Appendix D, Tab 39.

**Appendix D, Tab 41.

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and aircraft) should be transferred to CIA as Executive Agent; (2) the D/NRO should drop his claim to line authority over elements contributing to NRP; i.e., Colonel Ledford as Director of Program B would work for the DD/S&T, who would be responsible for carrying out the CIA portion of the NRP; (3) a CIA/USAF partnership should make a joint approach to conception and design of new systems after which each project would be assigned to a specific NRP contributing agency which would be responsible for contracting for and carrying on the technical management including security; (4) the Agency should cease to carry out contracting and security responsibilities for Air Force programs over which CIA had no cognizance in widely dispersed industrial plants throughout the nation; and (5) CIA should fund in its own budget all of the activities undertaken on behalf of the NRP because program control and financial control were indissolubly linked.

In summary, Dr. Wheelon's recommendations, if carried out, would entail in almost every instance going back to fight over ground which had already been fought over and either lost or compromised under the current NRO set-up. Dr. Wheelon was quite prepared to make the fight and felt that CIA had right and reason on its side and a

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capability which should not be allowed to go unused in support of the national intelligence effort. The opposition was well entrenched, however, and every inch of ground gained demanded a continuous, concerted effort on the part of those in CIA who believed that the Agency must maintain a strong role in the NRP. Such an effort was not always forthcoming in a timely and forceful manner.

b. Purcell Panel and Drell Working Group Recommendations

In the spring of 1963, Mr. McCone asked a panel of experts headed by Dr. Edward Purcell, Harvard physicist, to investigate and make recommendations on the future course for the NRP's satellite programs. The Panel met in June and July 1963 after which they presented their recommendations to the DCI. In summary, they said that CORONA should be improved to its utmost capabilities.*

General Greer's staff on the West Coast and Dr. Wheelon's staff in DD/S&T undertook separate studies looking toward such an improvement program. The proposal of the Greer group did not solve the problem for it proposed to increase peak performance but did nothing to spread the probability of obtaining peak performance

*Appendix F, Tab 6.

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for the greater percentage of the time. The CIA group, on the other hand, did an analysis of the resolution distribution of CORONA photography and found that the quality spread was much broader than anyone had expected, and was not to be accounted for by error analysis of known effects. The results of the latter study were briefed to the members of the Purcell Panel, who completely concurred in its conclusions. There was still much to be learned about the basic limitations on quality of satellite photography, particularly of the search system type.*

Messrs. McCone and Gilpatric, at a meeting on 22 October 1963, agreed that the Greer improvement proposal for CORONA should be held up and that Dr. Wheelon should meanwhile convene a research group comprised of the nation's best talent to explore the problem. 115/ The "Satellite Photography Working Group" was established with Dr. Sidney Drell, Stanford University physicist, as chairman. It met first on 13 November 1963 at NPIC where most of its work was accomplished.

newly appointed
Deputy Assistant Director of ORD, was assigned by the DD/S&T

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*Appendix D, Tab 43.

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as full-time assistant to the working group, and as he and Dr. Drell and their technical experts progressed with their investigation it became clear that this complicated, inter-related scientific problem would not be solved in a short study without the benefit of experimental results. In spite of the great effort devoted to aerial reconnaissance to date this was the first time the physics of image quality had been studied in a meaningful way. In its report, rendered 8 February 1964, the group isolated the vital factors involved and indicated the necessary further experiments which were required to reach maximum resolution continuously with the CORONA/MURAL system. 116/ Their conclusions, briefly, were (1) work should continue toward construction of an objective and quantitative measure of image quality; (2) an inflight and ground measurement program should be implemented to obtain engineering data to check on system performance in the operational environment; and (3) more emphasis should be placed on engineering passes of operational systems over properly designed domestic, ground-based targets.*

*An appendix to the ORD History contains a full account of the work of the Drell committee.

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c. CIA Participation in the NRO Staff

At the 22 October meeting mentioned above (page 250), Mr. McCone indicated his very strong belief that NRO must be so constituted, directed, managed, and staffed as to continue to be responsive to intelligence requirements, and said he wanted more CIA personnel assigned to the NRO Staff in order to make it a truly joint organization. 117/

A meeting was called for the specific purpose of discussing NRO staffing on 7 November 1963 with Dr. Wheelon, General Carter, and Mr. Bross attending for CIA, and Dr. McMillan and his Aide, Colonel Strand, for NRO. After a briefing on NRO organization, Dr. McMillan offered only three specific suggestions for slots to which CIA nominees might be appointed. In answer to a query by Dr. Wheelon as to how Mr. Eugene Kiefer, the DD/NRO, fit into the NRO structure, according to Dr. Wheelon's report

McMillan was quite candid in saying that NRO decisions were made between himself and General Martin, and readily agreed that this left Kiefer between two "do-it-yourselfers." I suggested that perhaps Kiefer ought to become the Chief of Staff when Martin leaves (summer '64), but McMillan rejected this promptly...McMillan then tabled an open preference for Air Force officers who have served with CIA as the only workable way to inject CIA thinking into NRO affairs. Carter pointed out that such officers

serve tours at CIA so as to bring flying talents to CIA and seldom develop the deep appreciation for intelligence needs that a career CIA officer would bring to the staff...

I judged this meeting to represent an all time low in NRO/CIA relations, and this view was amplified considerably by Carter and Bross. It was made abundantly clear then and later (through Kiefer) that McMillan has no intention of establishing a truly joint staff. Under the circumstances, I am most reluctant to send additional people to join Kiefer in their sterile role until a satisfactory understanding is reached on the over-all NRO problem. I am convinced that it is quite unrealistic to expect Kiefer and widely distributed and subordinated CIA staff members to create a peaceful reorientation in the face of clearly expressed Air Force intentions to dominate this field and McMillan's desire to rely on Air Force staffing.*

In early March 1964, Dr. McMillan queried Dr. Wheelon concerning Agency nominees for the three positions he had mentioned the previous November, particularly a candidate for an advanced development slot on the West Coast with General Greer. Dr. Wheelon reported that he "made little response to this except to agree that the issue had been hanging for some time."**

Dr. Wheelon later made a formal written reply concerning the filling of the three positions.

*Appendix D, Tab 45.

**Appendix D, Tab 51.

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Noting that the conversation held on 7 November 1963 on this subject had envisioned a much more broadly-based joint staffing of NRO than was represented by the three positions offered by Dr. McMillan, Dr. Wheelon added

The entire question of the NRO and its functioning is now being looked into by the PFIAB. I propose that we postpone incremental solutions to partial staffing problems until broader guidelines are supplied by the DCI and SecDef. I am sure that you are aware of our intense interest in creating a truly joint CIA/military NRO Staff and our desire to reach an early framework within which this action can be taken.*

The fashioning of the "framework" referred to by Dr. Wheelon was not achieved until August 1965 when a revised NRO agreement was signed. The assigning of CIA staff to the NRO in any significant numbers still did not result, even with the new agreement (which, incidentally, Dr. Wheelon advised the DCI not to sign since he believed it to be unworkable). It was not until late in 1966, and after Dr. Wheelon's departure from the Agency that any further nominees to the NRO Staff moved to the Pentagon, and even then only a small number—a maximum of eight or ten.

*Appendix D, Tab 52.

At the same 22 October 1963 meeting referred to above, which ranged widely over the areas of dissatisfaction on the CIA side, an agreement was reached that regularly scheduled meetings of senior officials on both sides would aid in improving policy guidance to NRO by the Secretary of Defense and the DCI. Mr. McCone made known his intention to participate personally in such meetings. A further agreement was the designation of Dr. Wheelon by the DCI, and Dr. Fubini by Secretary Gilpatric, to examine and monitor activities of NRO on behalf of their two principals. 118/

Dr. McMillan then drew up his own plans for the participation of the monitors and in a letter to Dr. Wheelon of 4 December 1963 he indicated certain restrictions he intended to place on the CIA representative's freedom of investigation.

...I recognize that there may be occasions when you may find it desirable to have NRO personnel provide you with information, briefings, or attendance at meetings. On these occasions, upon my receipt of your needs, I will take the necessary steps to insure that they are met by the appropriate NRO personnel. However, as a matter of policy, I do not expect direct tasking upon any personnel assigned to the NRO on an individual basis.*

*Appendix D, Tab 46.

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Dr. Wheelon's reaction to this letter, and to the terms of reference of a proposed "NRP Review Committee" suggested to the DCI by Mr. Gilpatric, was expressed to Mr. McCone in a memorandum wherein Dr. Wheelon outlined what he believed to have been agreed at the 22 October 1963 meeting: namely, that Messrs. McCone and Gilpatric would meet regularly to provide policy guidance to McMillan as D/NRO, and to review the over-all NRP as stock-owning directors; and Fubini and Wheelon would work with NRO more frequently at the technical level. Dr. Wheelon said the new committee proposal would subordinate Fubini and Wheelon to McMillan, when in fact the purpose of their monitoring was to provide constructive inquiry and criticism of McMillan's own programs. The new proposal also gave a very circumscribed charter to the reviewing function and did not include such things as management change procedures or investigation into the health of ongoing programs, such as CORONA, for which Dr. Wheelon felt he should be responsible to the DCI. He noted to Mr. McCone

...I believe that these deficiencies have not escaped McMillan. Being the kind of autocratic manager he is, it is understandable that he is not anxious to have a pair of overseers. However, his record to date shows that this is just what he needs and you will only negate that by signing this directive in hand. I suggest that

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you call Gilpatric back indicating that the meetings already seem to be well started and that no structuring or chartering is needed or desirable.*

Mr. McCone agreed that no further committee structuring was needed, placing confidence in the Executive Committee's capability to steer the NRO in the right direction. The proposed NRP Review Committee was not pressed further by Messrs. Gilpatric and McMillan and the whole idea of formalizing such monitoring of NRO's programs was dropped in favor of informal, ad hoc arrangements.

The fact that many meetings were held between NRO and Agency officials without agreed minutes being written, and attended by the DCI or DDCI without back-up staff present and without prior briefing on what the opposition might bring up for decision, led to much confusion and misinterpretation as to just what the DCI and/or the Secretary of Defense had agreed to. In many instances the D/NRO took action on the strength of his own interpretation of what was said at a meeting without further reference to the DCI for concurrence.

*Appendix D, Tab 47.

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4. CIA Efforts to Keep NRP Role

a. CORONA Management in Contention

During the spring and summer of 1963 the CORONA program suffered a disproportionate number of failures over successful missions due to a variety of malfunctions, some explainable and some not fully understood. In mid-November, Dr. McMillan requested Mr. McCone's approval to "clean up the mess" by transferring complete control of the CORONA program to General Greer under the Air Force's Program A. Dr. Wheelon advised strongly against relinquishing the program to the Air Force since such action, he said, gave no promise of solving the recurring problems. The program had enjoyed remarkable successes as well as failures and he believed that only a few of the total 26 mission failures suffered to date could be laid to the CIA-supervised payload. He had been disappointed in the Air Force's technical stewardship over CORONA, particularly since Colonel Worthington replaced Colonel Battle at SPO 162 in July 1963, and he was concerned over the current technical difficulties and the possibility of the cancellation of the CORONA "J" double recovery system by the D/NRO.*

*Appendix D, Tab 44.

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Dr. Wheelon felt that more vigorous CIA participation on the technical and programmatic front was required, and a return to a genuine partnership between CIA and the Air Force such as first characterized the CORONA program. CIA should establish a strong project office which would direct the camera, recovery vehicle, and payload integration contractors, and ensure that Air Force and CIA components worked closely together on a daily basis in all aspects of joint satellite programs.*

While Mr. McCone turned aside the D/NRO's attempt to remove CORONA completely from CIA control, he encouraged his staff in moving into the forward-planning areas of the NRP rather than concentrating their efforts in the fight for operational control of programs. He advised the DDCI, General Carter

With respect to CIA's activities, I think it is more important for us to exercise the forward-looking, imaginative approach to the future than to concern ourselves too much with operations. Quite naturally we do not wish to lose control of operations but the Executive Board which was set up and met last week seems to be a good step in the right direction in this regard.

What worries me is the fact that we are not moving aggressively enough on a new system that will provide a resolution approaching U-2

*Appendix D, Tab 44.

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resolution in a search system. I know that we have the study of the CORONA system under way but I believe we should be developing some concrete ideas on the next forward step. I think this is CIA's most important role in satellite photography. 119/

Dr. McMillan continued to press for General Greer to take over full control of CORONA, and Dr. Wheelon continued to counsel seeking an alternative more favorable to CIA participation.

In mid-January 1964, Dr. Fubini, playing the role of intermediary during the transition period between the resignation of Mr. Gilpatric and the appointment of Mr. Cyrus Vance, former Secretary of the Army, to the position of Deputy Secretary of Defense, put forward a specific plan for CIA participation in the satellite reconnaissance program in the following terms: that CIA be given responsibility for the development of a completely new follow-on search system to CORONA; the Air Force to get the CORONA improvement program, and all other systems; the new system which CIA developed, if successful, would later be turned over to the Air Force for operation after a few successful shots had been made.* Dr. Wheelon felt the Fubini proposal was acceptable only as a gesture of

*Appendix D, Tab 50.

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good intentions; otherwise he found it unacceptable since he felt CIA's participation should not stand or fall on the Agency's ability to identify, sell, and develop a distinct, second-generation, broad-coverage system. He preferred that the central problem, that of how to partition the satellite program, be solved by assigning responsibility for all broad-coverage (search) satellite payloads to CIA, and all high-resolution spotting systems to the Air Force, with other specialized satellite systems being the subject of negotiation as they might come along.*

A working proposal for the partition of satellite development and operations was prepared at Mr. McCone's request in line with Dr. Wheelon's philosophy, above, but the study concluded by saying that no partition of responsibilities could work effectively under the present environment in which the D/NRO had absolute budgetary control and continued to hold the view that CIA should not be in the reconnaissance business.**

(A division of responsibilities as put forward by Dr. Wheelon did eventually come about; but it

*Appendix D, Tab 50.

**Appendix D, Tab 53.

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was a year and a half before the matter could be settled by the redrafting and signing of a new NRO Agreement in August 1965. Meanwhile, at Mr. McCone's urging, Dr. Wheelon and his staff began exploratory work, outside of NRO and using CIA funds to begin with, on new systems. These unilateral CIA efforts resulted in the initiation of studies on

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Encouragement of

these activities by USIB, and subsequent initial outlay of funds by NRO—after extensive justification by DD/S&T—gave CIA reentry into the NRP with a strong research and development role. However, it was not as easily done as said, and the effort to get CIA out of the overhead reconnaissance business did not diminish appreciably while the above-described activities were going forward.)

b. PFIAB Inquiry Into NRO Workings

During the spring of 1964 a special panel of the PFIAB headed by Dr. William Baker, of the Bell

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Telephone Laboratories, made an intensive investigation of the organization, management, and operation of the National Reconnaissance Program in view of the surfacing to the PFIAB of the controversy between CIA and the NRO. The Panel heard first from Dr. McMillan and the NRO Staff their justification for the removal of CIA from the satellite reconnaissance field. On 1 and 2 April 1964, the DD/S&T, Dr. Wheelon, appeared before the Panel and then before the PFIAB, then chaired by Mr. Clark Clifford, and his testimony as reported in his own memoranda is contained in Appendix D, Tab 54. That testimony reiterated strongly the views held by Dr. Wheelon as previously described in the foregoing pages.

Recommendations resulting from the PFIAB's review of the Panel findings were transmitted by Mr. McGeorge Bundy, Special Assistant to the President, to the DCI and Secretary of Defense on 22 May 1964 with a request for comments. The Panel had recommended that the NRP be conducted as a national effort, maintained through joint endeavor of the DOD and CIA, with clearly established delineation of the roles and responsibilities of each; that fuller use be made of the potential of CIA for advanced planning and research; but that full control

over satellite reconnaissance operations be assigned to DOD (USAF). Mr. McCone replied, via Mr. Clark Clifford, on 11 June 1964, that certain of the recommendations were unacceptable to him, and he set forth his two principles for reaching agreement on the management of the National Reconnaissance Program: (1) a clear recognition of the DCI's joint responsibility with the Secretary of Defense for the development of the reconnaissance program, and (2) assurance that the capabilities of CIA, in both the operational and the research and development fields were fully utilized. He believed that the establishment of these principles was an essential prerequisite to an effective national reconnaissance program and therefore recommended that they be accepted for incorporation in a revised agreement, and that instructions be issued accordingly. 120/

Another period of stalemate ensued; the D/NRO took the opportunity meanwhile to press for the turn-over of systems engineering on CORONA to Aerospace, the Air Force's non-profit engineering organization, having taken it for granted that CORONA would be turned over fully to the Air Force. During this period, on the other hand, USIB, foreseeing urgent continuing requirements

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for coverage of critical targets, [REDACTED]

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c. Contingency Plan for Satellite Incidents

During this period the first international incident in the CORONA program developed two days after Mission 1005 was launched on 27 April 1964, when a malfunction occurred and after unsuccessfully attempting to command the vehicle through 20 May 1964, no further attempts were made. On 5 August 1964, a satellite capsule was reported found near the Venezuela-Colombia border in the Andes Mountains. Due to NRO's failure to agree to CIA's request to convene the Interdepartmental Contingency Planning Committee (ICPC), which had been set up to take care of just such emergencies, a period of confusion, conflicting instructions, and delays resulted during the attempt to recover the capsule from its discoverers, and it was seen and even photographed by a good number of local citizens and officials of Venezuela.

That incident led to the drafting of a comprehensive contingency plan for the ICPC which spelled out action to be taken by all concerned in case of an incident caused either by equipment malfunction, or of an incident arising through the deliberate act of another country

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to destroy, capture, or otherwise interfere with the operation of a U.S. satellite reconnaissance vehicle.*

d. Mr. Kiefer's Resignation as DD/NRO

On 20 July 1964, after having served for a full, frustrating year as Deputy Director of NRO, Mr. Eugene Kiefer asked for relief from his assignment, after having testified as to his experience before the Baker Panel of the PFIAB. In a memorandum addressed to General Carter, the DDCI, he said that he had not been drawn into the workings of the NRO and had been unable to make a contribution to the improvement of relations within the organization. He had appended to his request for relief a summary of his views, with copies for the information of the DCI and the D/NRO.**

In his summary, Mr. Kiefer questioned the wisdom of perpetuating the NRO as currently organized unless all concerned were willing to begin to demonstrate, in deeds as well as words, a unified understanding of why

*The text of the Contingency Plan, dated 31 March 1965, and related instructions, can be found at Tab 80 of Appendix D.

**Appendix D, Tab 56.



there was an NRO, what it should be, and how it should work. He recommended, in the national interest, a re-examination by appropriate officials of the fundamental principles behind NRO so that present inter-agency relations could be reaffirmed or modified as appropriate for current circumstances.

Mr. Kiefer's request to be relieved came as no surprise to Dr. Wheelon and others concerned with NRO affairs, some of whom had by this time come to the conclusion that the NRO concept was unworkable. Nevertheless, pressure was exerted on Mr. Kiefer by both the DDCI, General Carter, and by Dr. Fubini, to stay on and keep the Agency's franchise on the DD/NRO slot. The leverage used to persuade him was the promise that both the PFIAB and the Executive Committee of the NRP would concern themselves with upholding the joint nature of the Program.

During the next six months of Mr. Kiefer's tour as DD/NRO the main development, in his view, was a worsening of the previous situation. The antagonism between Dr. McMillan and Dr. Wheelon did not lessen and Mr. Kiefer's own utilization by Dr. McMillan remained low. In addition, he was then excluded from DD/S&T councils as well. The most useful thing he could do was to try to keep up the

morale of the few CIA people assigned to the NRO Staff. He eventually gave up the struggle and resigned effective 18 February 1965, taking a position with United Aircraft Corporation. The position of DD/NRO remained vacant after his departure until September 1965 (see page 284, below).*

e. Agency Control of CORONA Payload

The effort by Dr. McMillan to nail down control of the CORONA program by SAFSP through inserting an Aerospace Corporation contract for systems engineering was pushed aggressively in July and August 1964. At an Executive Committee (NRP) meeting on 11 August, at which no recording secretary was present and for which no agreed minutes were provided, the matter was urged upon the DCI, Mr. McCone. He registered strong dissent, while recognizing that "the majority view should prevail." Since the ExCom at that point was an ad hoc body with no established voting procedures, the constitution of a "majority view" was a moot question. Dr. McMillan, however, with no further consultation, directed the Program B Contracting Officer to cable the three CORONA payload contractors (LMSC, Itek, and GE) and to inform them that Aerospace

*From conversation with Mr. Eugene P. Kiefer, August 1970.

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would be responsible for general systems engineering and corresponding technical direction of the efforts under their contracts for CORONA. Although General Carter made a strong denial in writing to Mr. Vance saying that the DCI had not agreed to any such contractual changes, General Greer, as instructed by the D/NRO, went ahead and relieved LMSC of their SETD contract while attempting to get Lockheed to sign an agreement with the Air Force for systems integration support, subject to the insertion of Aerospace into the overall systems engineering for CORONA. Being aware of the conflict between CIA and the Air Force, Lockheed would sign with neither until the dispute over the basic management of the program was settled, although they continued to furnish required support.*

The volume of contracting activity by the OSA assignee to SAFSP [] had steadily diminished with the closing out of the LANYARD (USAF) and the ARGON (Army Map Service) satellite contracting, and in August 1964 the DD/S&T took the occasion of [] nomination to another position by the Director of Logistics to advise the D/NRO that it was not intended to replace

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*Appendix D, Tab 67, pp. 3-5.

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25X1 [] on his departure from SAFSP, which was set for October 1964.*

Mr. McCone, almost immediately thereafter, having obtained agreement from the Secretary of Defense to begin discussions looking toward a realignment of the over-all NRO structure, gave directions that a plan of action be prepared to give the Agency the capability to exercise technical direction and contract management of the CORONA program, []

25X1 [] Therefore the Office of Logistics was asked to extend [] in his current assignment and he was thus put into a holding pattern at SAFSP pending the outcome of the negotiations to regain technical direction of CORONA. 121/

Secretary Vance suggested that CIA might insert several CORONA technical people into General Greer's facility and this was considered by the DD/S&T staff in relationship to the delegation of the CORONA contracting and security responsibilities from Washington []

25X1 [] Dr. Wheelon said that if the plan

*Appendix D, Tab 57.

meant placing CIA technical people under the command of Colonel Heran in the Project 241 office at SAFSP, the DD/S&T was opposed because (1) past experience showed that the CIA people would not be allowed to participate in a meaningful way; (2) they would be assuming partial responsibility for the program while having no real influence over it; and (3) this would set a disastrous precedent for on-coming programs [REDACTED] He felt it would be preferable to bow out of CORONA altogether rather than follow this path. He recommended the alternative of putting a very senior CIA man with Greer's group who would be responsible for the entire CIA contribution to CORONA, including contracting for the payload, security of the payload, technical direction, the AP Facility at [REDACTED] (payload assembly and testing installation), and interface with the Air Force. The CIA group would be responsive to General Greer but would retain its line of command back to the DD/S&T in Washington. Success of this alternative would depend largely on the ability to give the senior CIA man a strong equity in the program and well-defined terms of reference vis-a-vis General Greer. 122/

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The interpretation placed on the DCI's remarks at the 11 August 1964 ExCom meeting by the D/NRO

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regarding the insertion of Aerospace into CORONA management was brought to General Carter's attention at an ExCom meeting on 26 August 1964, and after checking with his staff, the DDCI informed Deputy Secretary Vance by letter of 28 August that the DCI had not agreed to any change in CORONA payload contracting. That letter crossed with one from Mr. Vance to General Carter of the same date expressing the former's belief that the CORONA payload contracting should be turned over to General Greer. However, at the ExCom meeting on 1 September 1964, attended by Mr. McCone, Mr. Vance said that he was prepared to continue CORONA contracting as presently established if that was the DCI's desire. Mr. McCone said that it was.*

On 10 September 1964, Mr. McCone briefed the ExCom on his plans to augment the West Coast component of CIA and take over responsibility for all CIA contracting and other functions related to CORONA. There was no dissent by anyone present to continuing CIA contracting for CORONA.** However, at the ExCom meeting of 29 September 1964, attended by General Carter as sole CIA representative,

*Appendix D, Tab 66, pp. 1-2.

**Appendix D, Tab 66, p. 2.

CORONA contracting was again raised in a stormy session in which the Aerospace/LMSC issue was dwelt on and CIA was accused of bad faith in that and other matters. Strong exception was taken to the accusations by General Carter, who made no commitments other than to say he would look into the problems raised. 123/

Dr. McMillan on 1 October 1964 reiterated to General Carter that he wished the systems integration contract now written between LMSC and CIA to be transferred to the Air Force, and in a conversation on the same subject on 2 October 1964, General Carter told Mr. Vance that the DCI's position was that contracts previously and presently held by CIA should remain with CIA, who would augment the West Coast staff to administer the contracts. On 6 October 1964, Mr. McCone handed to Mr. Vance a firm proposal by which he planned to carry out that undertaking. It anticipated the assignment of Mr. John J. Crowley to the SAFSP office of General Greer where he would be specifically responsible for CIA activities and provide a single point of contact. Mr. Vance, acknowledging the DCI's plan on 15 October 1964, underlined the roles of General Greer, Aerospace, and the CORONA Project Director at SAFSP, Colonel Heran. There was still not a clear-cut agreement

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as to the CIA and Air Force roles, but Mr. Vance urged that the DCI proceed with his plan to put a CIA CORONA group at General Greer's office without delay.*

Efforts to arrive at a CORONA management agreement for the next two months were centered at the working levels of DD/S&T and the NRO Staff. A draft agreement which had the concurrence of the Director of the NRO Staff, General Stewart, and which gave CIA the technical direction for the CORONA payload, was tabled by General Carter at the ExCom meeting of 13 January 1965. The only reaction of Dr. McMillan to the draft, as reported by General Stewart a week or so later, was that, although he agreed with the intent of the paper, the language contained some ambiguity, and he felt the document was too important to allow any ambiguity.**

The D/NRO was informed on 15 January 1965 and again on 18 January 1965 that in view of his acceptance in principle of the CORONA management proposal, all implementation and conduct of work on CORONA payloads would be solely authorized by the CIA Contracting Officer or his representative. Dr. McMillan took no further action on the

*Appendix D, Tab 66, pp. 3-4.

**Appendix D, Tab 58.

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CORONA proposal, but instead, on 2 March 1965, reverted to the Aerospace/LMSC controversy and complained to the DDCI that enabling language had not yet been written into the CORONA contracts to give Aerospace the over-all systems engineering authority.*

Replying on 16 March 1965, General Carter pointed out the fallacy of Dr. McMillan's assumption as to CIA agreement to changes in the CORONA payload contracts, and requested that Dr. McMillan address himself to the comprehensive agreement on CORONA management, to which he had so far not responded. He reminded McMillan that the Lockheed systems integration activities had not been funded since July 1964 and that Lockheed had borne the expenses without reimbursement to the extent of 25X1 He had therefore instructed Mr. Crowley to have his contracting officer re-establish the old contract to cover Lockheed until the larger over-all CORONA problem was settled.**

For General Carter's information and use in briefing Mr. McCone, a resumé of events related to the

*Appendix D, Tab 66, p. 5.

**Appendix D, Tab 62.

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CORONA program, including the basis for CIA's claim to a proper and valid role, and examples of NRO efforts to subjugate CIA's role, was prepared by the Special Projects Staff of DD/S&T on 29 March 1965, and approved by the Acting DD/S&T, [REDACTED]

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On 20 April 1965, the President of Itek, Mr. Frank Lindsay, met with the DCI to discuss CORONA management from the camera manufacturer's viewpoint. He was told specifically by Mr. McCone that unless advised to the contrary by either himself or Mr. Vance, CIA alone would be responsible for the CORONA payload. Mr. Lindsay noted that the enabling language had not been written into the contract with Itek, and Mr. McCone directed the DD/S&T to have the contracts relating to CORONA brought into conformity with the guidance he had just given.**

Mr. McCone's resignation was effective eight days later on 28 April 1965. When briefing the new DCI, Admiral Raborn, on CORONA in June 1965, Dr. Wheelon said

In authorizing the language now incorporated in the new contracts which establishes CIA as

*Appendix D, Tab 63.

**Appendix D, Tab 67, p. 6.

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the U.S. Government agent for the CORONA payload, I have reflected the original authorization of 1958 given to this Agency, have acted in conformity with direction given to me on 20 April 1965 by the previous DCI and have attempted to protect the statutory authorities of the DCI by maintaining both technical direction as well as contract management on those contracts which are financed by his certification on the expenditure of unvouchered funds.*

H. Third Revised Agreement, 13 August 1965

1. Mr. McCone Pushes for New Agreement

The effort of Mr. McCone to obtain a realignment of the National Reconnaissance Program in order to reassert CIA's role therein was initiated coincident with the PFIAB's inquiry in the spring of 1964 and continued, in the background, while the fight to maintain CIA's control over the CORONA payload was being waged. In January 1965, Mr. McCone drafted his "Principles to Guide the Preparation of a New NRO Agreement" which, as redrafted by Dr. Wheelon on 2 February 1965, can be found at Tab 60 of Appendix D. The DCI's initial premise was that the acquisition of intelligence by overhead reconnaissance was a responsibility of the Director of Central Intelligence and the DCI in discharging his statutory duties must direct this intelligence-gathering facility

*Appendix D, Tab 67, p. 6.

toward the collection of information which he considered essential to the national security. To carry out his duties he also needed to have control and direction of the Satellite Operations Center. The DOD was the proper authority to coordinate all satellite missions, but in cases where major components of a system were assigned another agency of the Government, the DOD must recognize that procurement and technical direction of such components would be the undivided responsibility of the agency which was assigned to develop them. Lastly, the DCI together with USIB must establish the criteria for new systems on the basis of national requirements, and the DCI and the Secretary of Defense should make final judgment on what systems to pursue and which agencies should be made responsible for them.*

The case for a single agency taking over the franchise for the National Reconnaissance Program was reconsidered during this period and again eliminated in favor of some form of partnership between CIA and DOD. The form of organization had not been agreed to when Mr. McCone resigned from CIA in April 1965, and it

*Appendix D, Tab 60.

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was left for his successor, Admiral Raborn, to pursue the matter, with a large part of the negotiations falling upon the Deputy to the Director for National Intelligence Programs Evaluation, Mr. John Bross.

2. PSAC Initiates the Land Panel

The antipathy between Dr. Wheelon and Dr. McMillan had, as reported by Mr. Kiefer above, increased noticeably by the end of 1964. An added point of contention resulted when the DD/S&T's research and development efforts in the field of new satellite systems came into competition with those of the Air Force and the latter were funded in a disproportionately generous manner by the D/NRO.

Early in 1965 it was proposed by the President's Special Assistant for Science and Technology, Dr. Hornig, that the President's Scientific Advisory Committee (PSAC) set up a panel under the chairmanship of Dr. Edwin H. Land with the charter to maintain an overview of the National Reconnaissance Program, with particular interest in technical characteristics of intelligence requirements, the status of existing projects, and the adequacy of research and development programs.

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At a meeting to discuss the make-up of his panel, Dr. Land confronted Drs. Wheelon and McMillan with the dire consequences which might be expected to result unless they both turned their talents to seeking a solution to the NRP problem. He said that neither the Air Force nor CIA could hope to control all of the program—the Government would not allow it—but the present situation wherein all operating decisions were referred upward to the DCI and the Secretary of Defense because they could not be settled at lower levels was one which could not continue. He made a plea for a return to the harmonious relations of former times under Bissell and Charyk. It was pointed out by Dr. Wheelon that he, unlike Mr. Bissell, did not have his own budget and program, [REDACTED]

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At the end of the meeting, according to Dr. Wheelon's record, Dr. Land repeated his plea and asked the two men to work out a solution to the over-all problem

*Appendix D, Tab 61.

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through the settlement of [REDACTED]

Dr. Wheelon reported of his own and Dr. McMillan's reaction

...I agreed with alacrity; McMillan maintained a relative silence while agreeing briefly to do so. In all of this I had the feeling that McMillan's participation in this affair was a directed and reluctant one; one in which he saw no advantage...*

The above-described confrontation took place in February 1965, and despite Dr. Land's efforts there was little change for the better in the relationship. The Land Panel, furthermore, did not become active until July, and despite the agreement between Admiral Raborn and Secretary Vance to await a decision by the Panel on a specific search and surveillance system, Dr. McMillan was preparing to make a unilateral choice and move ahead on the basis of his own NRO Steering Group and Task Force findings when the DCI, in a note to Mr. Vance of 20 July, asked that the choice await the Panel's deliberations.**

An inconclusive meeting of the Panel on 21 July recommended an additional three months extension of efforts to define and substantiate performance claims by the three camera contractors engaged in studies [REDACTED]

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*Appendix D, Tab 61.

**Appendix D, Tab 68.

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3. Agreement Signed by Vance and Raborn

The drafting of a new NRO Agreement had meanwhile reached its final stages and, through the efforts of Mr. John Bross, was agreed to in draft the first week of August 1965 by both sides and signed in its final form on 13 August 1965 by the Deputy Secretary of Defense, Mr. Cyrus Vance, and the DCI, Admiral Raborn.*

The new agreement formalized the NRP Executive Committee (ExCom) and gave it specific responsibilities with regard to the allocation of projects and supporting funds (formerly exercised almost exclusively by the D/NRO). Admiral Raborn succeeded in limiting the membership of the ExCom to the Deputy Secretary of Defense, the DCI, and the Special Assistant to the President for Science and Technology. The D/NRO was to sit with the ExCom but as a non-voting member. It was also agreed that design requirements of the sensor payloads would be given priority in their integration into the spacecraft and reentry vehicles.

Annex A to the new agreement assigned to CIA (1) the development of the CORONA improvement program, and (2) development of the optical sensor subsystem for the new advanced general search system (once the concept and

*Appendix D, Tab 69.

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the contractors were selected). To USAF went the

The D/NRO was given responsibility for managing over-all systems development.

CIA did not succeed in getting the Satellite Operations Center returned to the DCI's management; and there was no relief from the budgetary stringencies, which the DD/S&T had to accept as a way of life.

Organizational charts on the two following pages (figures 4 and 5) show the NRO's make-up and its management personnel, as well as its relationships within the Executive Branch of the Government, as of October 1965.

a. Personnel and Organizational Changes

With the rewriting of the NRO Agreement in a form which he had testified to the PFIAB was unworkable, Dr. McMillan stepped down from the position of D/NRO effective 30 September 1965. Dr. Wheelon had advised Admiral Raborn not to sign the Agreement for the same reason, but had agreed wholeheartedly, according to his own statement, to support it if the DCI did accept it.*

*Appendix D, Tab 70, p. 1.

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Dr. McMillan was replaced by Dr. Alexander Flax, Assistant Secretary of the Air Force for Research and Development, effective 1 October 1965. Meanwhile, the DCI had on 1 September 1965 named a new Deputy Director of NRO. [] then Chair- man of COMOR, was named to fill the slot vacated by Mr. Kiefer in February 1965, and not filled in the interim. Admiral Raborn, having been informed of the manner in which Mr. Kiefer had been bypassed by the NRO Staff, advised Mr. Reber that, whereas he should not be officious, nonetheless if he at any time detected that he was being bypassed by the staff to Dr. Flax, he should put a stop to it. Dr. Flax, on the other hand, was specifically advised by higher authority in the Pentagon that he was to make the NRO work, that higher authority was not content to have the NRP as an exclusively military exercise, and that [] was not to be made a matter of contention within the NRO.*

In realigning CIA's organizational structure to support the NRP, it was decided by the DCI that all CIA reconnaissance activities would come to a management focus in the person of a Director of Reconnaissance,

*Appendix D, Tab 78.

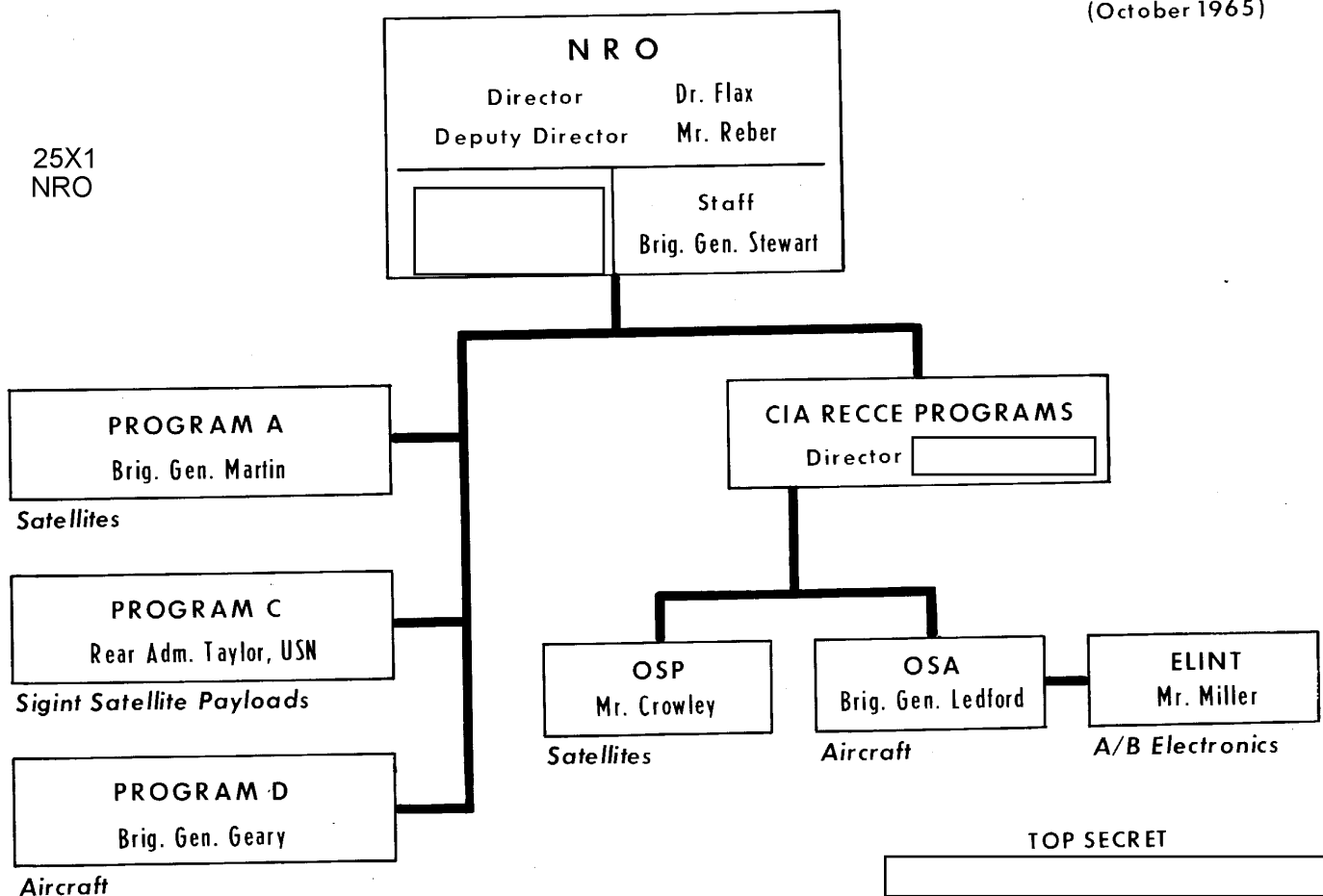
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NATIONAL RECONNAISSANCE OFFICE

Figure 4

(October 1965)



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October 1965

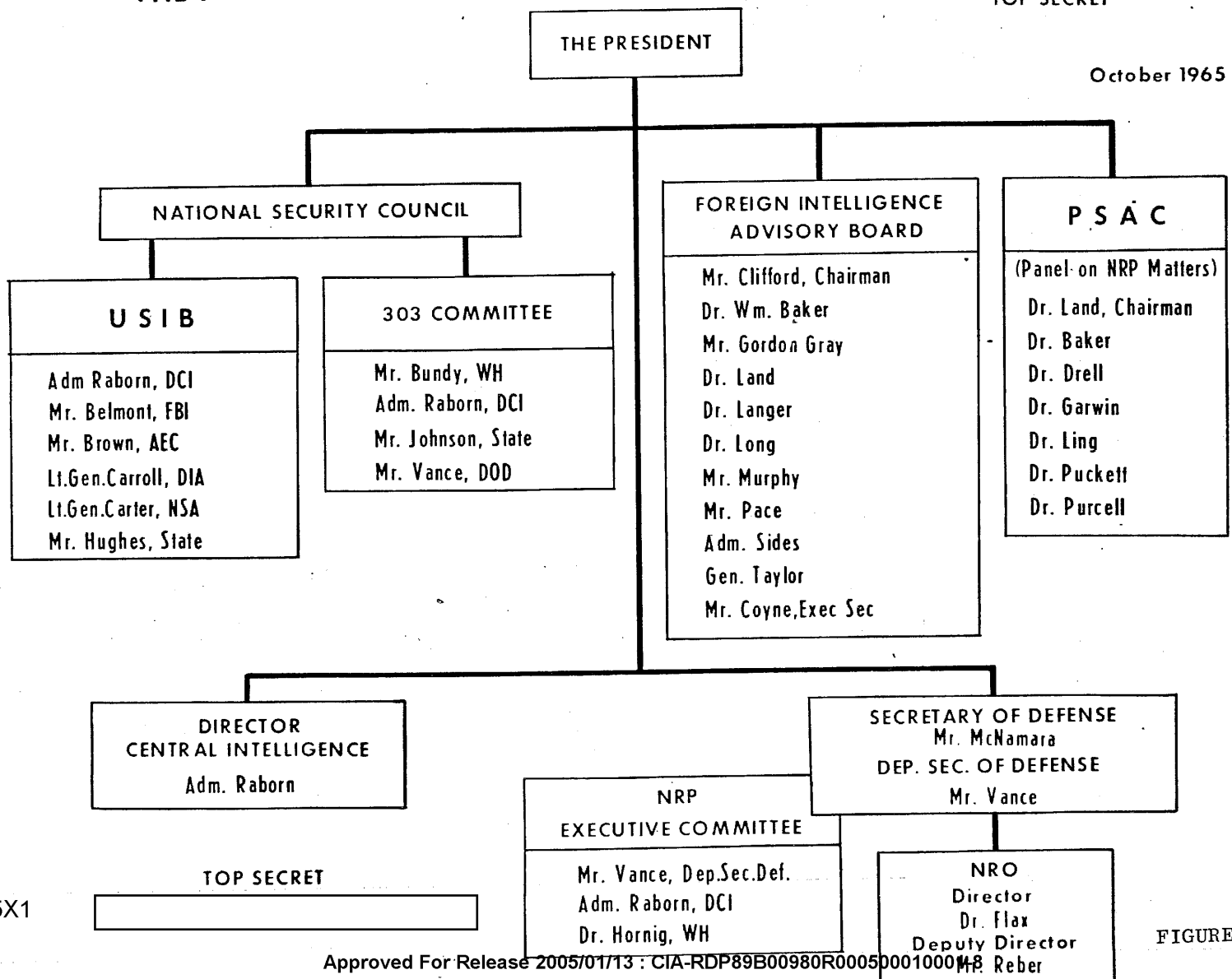


FIGURE 5

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reporting to the DD/S&T, and providing a single authoritative point of contact within the CIA for all reconnaissance programs. At the same time, the concept of a Program B manager was to be discontinued; General Ledford of OSA would then have the responsibility only for OSA's reconnaissance projects. [] was designated on 15 September 1965 to serve as Director of Reconnaissance on an interim basis.* He was later confirmed in this position and his terms of reference were spelled out in the DCI's memorandum to him of 12 January 1966.** He was to be responsible for formulating, with appropriate coordination, the CIA views and positions on all matters relating to the NRO, and to prepare Agency responses to NRO memoranda, including those relating to fiscal and budgetary matters. In support of the latter duty, on 11 March 1966 the position of Assistant for Financial Management to the Director of Reconnaissance was established, and []

[] was selected to fill the slot.***

The assignment of a positive role in the satellite reconnaissance program to CIA by the new

*Appendix D, Tab 71.

**Appendix D, Tab 73.

***Appendix D, Tab 74.

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agreement was the signal for the formal establishment of the satellite group which had been operating under the title of "Special Projects Staff, DD/S&T" as the Office of Special Projects, adding also the members of the OSA staff who had been involved in satellite operations. Headquarters Notice 1-59 of 6 October 1965 announced the establishment of OSP, effective 15 September 1965, and named as its Director Mr. John J. Crowley, and as its Deputy Director, Mr. John N. McMahon. OSP was to be responsible for CORONA, [REDACTED] 25X1 [REDACTED] and other projects as might be assigned.*

b. Partitioning of Projects

The award to CIA of the CORONA improvement program, centered about the camera modification which would provide a 20% to 30% gain in ground resolution and lower operating altitudes, required the working out of implementation procedures suggested by the OSP and NRO Staffs. Because of Dr. McMillan's opposition to the proposals being considered, Dr. Wheelon concluded that a working agreement on the continuation of CORONA should await the arrival on duty of the new D/NRO. Other

*See Chapter III-B-5, above, pp. 76-77, for additional details concerning the establishment of OSP.

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[REDACTED] 25X1

priority decisions awaiting Dr. Flax's attention were an agreement on funding the general search satellite systems under study until the Land Panel could make a final selection; the staffing of the NRO according to the new agreement; [REDACTED]

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The long struggle to reach accord on the management of the CORONA program finally succeeded when the CORONA organization and management plan was agreed on 22 June 1966, largely through the constructive efforts of Mr. John Crowley. As of 30 June 1966, all the remaining work under CORONA was contracted for by OSP, including the LMSC systems integration work at the AP Facility. OSP had taken over from OSA the contracts relating to satellite activities and two Contracting Officers, Messrs. James H. McDonald and [REDACTED] were transferred to OSP and authorization was delegated to them in October and November 1965, respectively.

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The management plan proposed for the [REDACTED] called for CIA to develop the sensor subsystem, while the Director of SAFSP, as System Project Director, was assigned over-all responsibility for the integrated engineering system,

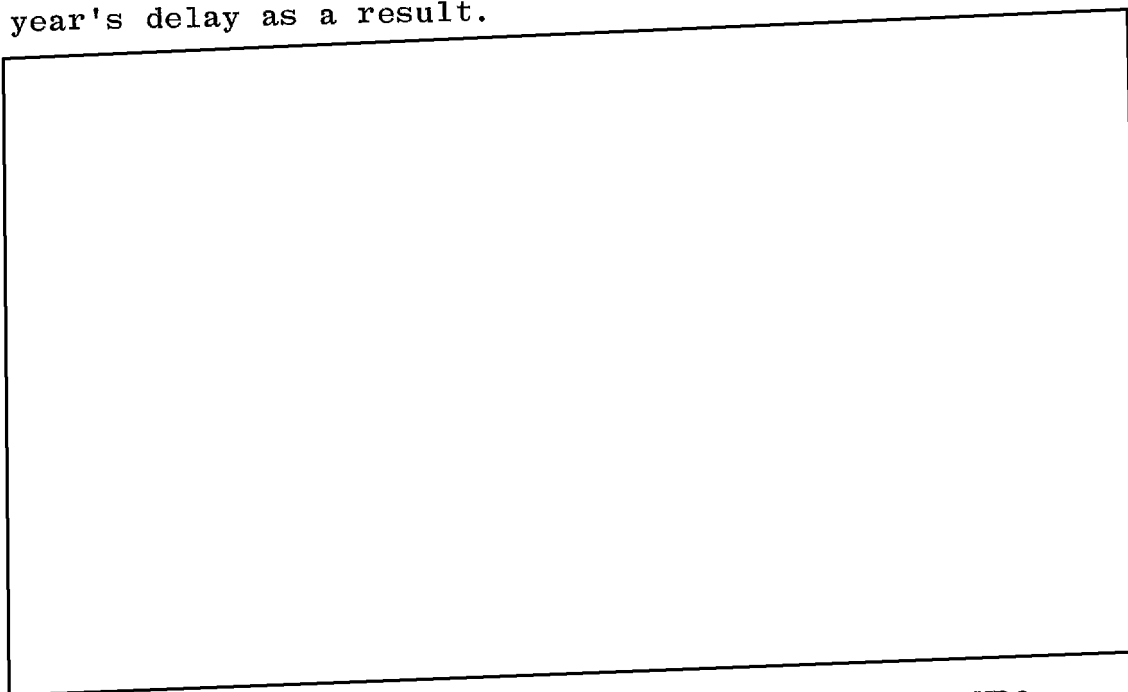
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including interface specifications. An attempt by OSP and the Director of Reconnaissance, CIA, was initiated in the spring of 1966 to obtain full responsibility for the sensor from development to full operation. This led to extended discussions; CIA did not succeed in defeating the split management concept, and the program suffered more than a year's delay as a result.

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With regard to staffing of the NRO, there were still problems; however, if ten men had drawn up an organizational and staffing chart of NRO, there would no doubt have been ten different approaches to the problem. Mr. James Q. Reber, in a summary of his tour as DD/NRO, made this point and in explanation of the

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small CIA representation on the NRO Staff (which varied from three or four, to eight or ten, at any given time), he said that Dr. Flax did not consider the strength of the NRO Staff related to a one-for-one CIA/Military representation, and, on the other hand, the DD/S&T did not wish to send any of his highly capable staff members to NRO when their services were required in his own programs.*

The Director of OSP was assigned the responsibility in April 1966 for nominating Agency employees to fulfill assignments on the NRO Staff. While he was to provide administrative support including Career Service actions, the individuals would not be in his chain of command, but would take their directions from the D/NRO.**

The signing of the new agreement and the departure of Dr. McMillan did not wash away all the troubles between CIA/DD/S&T and the NRO, since the NRO Staff was still largely made up of the same Air Force officers who were opposed to CIA's participation in the NRP in a leading role. There continued to be instances

*Appendix D, Tab 78.

**Appendix D, Tab 79.

of undercutting of CIA by the NRO Staff, and reaction, sometimes overreaction, by the CIA Staff. However, a gradual smoothing out of points of difference began to take place, and Mr. John Crowley noted with regard to this improvement

I am happy to find that we are reaching the stage of maturity where we can discuss these matters and negotiate our points of difference. I would like to add that the concept of negotiation implies an objective look at the total program. We cannot negotiate with those who say "What's mine is mine, and what's yours is negotiable." 124/

Admiral Raborn's annual report to the PFIAB rendered in January 1966 also painted a brighter picture of CIA/NRO relations, while at the same time cautioning as follows:

I do not wish to leave with you the impression that the NRO skies are completely cloudless. There is still a legacy of distrust and suspicion which cannot be completely dispelled in the short time span since the inception of the new agreement. I can, however, report my firm conviction that the present parties to the agreement are making a sincere effort to make it work...Certain pending decisions of great importance to the future of the NRP will soon put the efficacy of the new agreement to a severe test. These decisions relate to

[REDACTED] 25X1
and to a lesser degree to the CORONA improvement program. These will be hard decisions. I believe, nevertheless, that a climate now exists within the NRO which greatly enhances the prospect

that the decisions will be made in the national interest. 125/*

I. Mr. Duckett Assumes NRP Role

1. NRO Participation Revamped

NRO matters, by the time Mr. Duckett took over as Acting DD/S&T in August 1966, had, as indicated above, moved into a phase of relative calm as a result of several influences: the signing of the new NRO Agreement in August 1965 had defined more clearly the responsibilities under the NRP between CIA and the Air Force; the appointment of Mr. Sheldon as Director of Reconnaissance in September 1965, his confirmation in that position 12 January 1966, and his administrative transfer in May 1966 to the immediate Office of the Director, relieving the DD/S&T, then Dr. Wheelon, of a task which had become onerous to him; the eventual departure of Dr. McMillan from the position of D/NRO and his replacement on 1 October 1965 by Dr. Alexander Flax, a more open-minded and less autocratic arbiter of NRP affairs; the appointment of Mr. Reber as DD/NRO to keep CIA's franchise on that slot, and to exert

*For a substantive history of the development of the reconnaissance satellite projects assigned to OSP, consult the OSP History.

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a calming influence on relations between CIA and the Air Force within the NRO Staff; and the control which the Executive Committee of NRP was beginning to wield, with the added influence of White House participation therein.

On 13 January 1967, the DCI, Mr. Helms, re-assigned responsibilities relating to reconnaissance affairs by relieving [] of his activities as Director of Reconnaissance, CIA, and abolishing that position, but assigning him the task of supporting the DCI in his role as a member of the NRP ExCom. Mr. Duckett as Acting DD/S&T was designated also Director of CIA Reconnaissance Programs, and was instructed to deal with the D/NRO on the DCI's behalf in the management of CIA programs under the NRP, reporting directly to the DCI on such matters.*

Later, in November 1967, Mr. Sheldon was relieved of responsibility for supporting the DCI in NRP ExCom matters, and Mr. Duckett (having meanwhile been confirmed as DD/S&T) was assigned the duty of supporting the DCI in all matters of overhead reconnaissance policy: (a) in his role as member of the NRP ExCom; (b) in matters

*Appendix D, Tab 75.

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related to space policy; and (c) in other overhead reconnaissance matters not assigned to other Agency components, coordinating his actions and recommendations as necessary with the Agency Sigint Officer, the Deputy for National Intelligence Programs Evaluation and other Deputy Directors as appropriate.*

Even though, as indicated above, relationships between Agency and DOD officers involved in the National Reconnaissance Program had improved somewhat, CIA continued to be under pressure from various quarters to relinquish its operational role in overhead reconnaissance. Events in this sphere of activities subsequent to Mr. Duckett's designation as Director, CIA Reconnaissance Programs, are recorded in the Office Histories of OSA, OSP, and OEL. The two most outstanding developments have been (1) on the negative side, the losing fight of CIA to retain the A-12 supersonic photo reconnaissance capability, carried all the way to highest authority for a decision, which resulted in the mothballing of the A-12 aircraft in favor of the Air Force's SR-71 capability, residing with the Strategic Air Command; and (2) [REDACTED]

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*Appendix D, Tab 76.

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2. Manned Reconnaissance Programs of DD/S&T

a. Continuation of U-2 Program

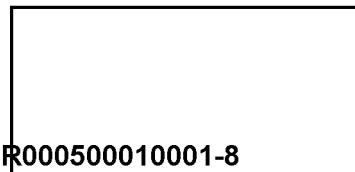
The U-2 program inherited by the DD/R, and subsequently the DD/S&T, had been consolidated into two principal operations by 1962: a domestic test, training, and holding base at Edwards Air Force Base, California, from which staging operations were conducted as required



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Yeoman work was done in coverage of Cuba during the Soviet missile build-up by the Agency's U-2's through the summer of 1962 up to the discovery in October of MRBM's in Cuba, after which SAC took over the U-2 coverage of Cuba on the decision of the Secretary of Defense, Mr. McNamara.

From the time of the blanketing of the CIA U-2 assets under the NRP, the principal events related to maintaining a contingency capability to meet all requirements levied by USIB or higher authority for overhead reconnaissance of denied territory, and included:



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retrofitting and modernizing the existing U-2 fleet, including SAC's aircraft, of approximately twenty U-2's in 1965-1966; the eventual decision by the ExCom of NRP, in the face of the high attrition rate and the vulnerability of the current U-2 model, to purchase a new model U-2R (a late 1966 decision);

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b. The A-12 Program (OXCART)

The Lockheed A-12 aircraft was designed as the follow-on to replace the U-2 when the latter became vulnerable to the improved Communist air defense. The aircraft design represented new departures in configuration and materials, and in the reduction of its radar cross

*For a detailed account of the U-2 program, consult the OSA History, [redacted]

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section. Its superiority over the U-2 was in its supersonic speed (3.2 Mach), and its altitude (85,000 feet and better). In addition the A-12 carried photographic systems of advanced design, giving better resolution than the U-2's, [REDACTED]

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[REDACTED]

The program, code-named OXCART, was initiated, with Presidential approval, in 1958 by Mr. Bissell's U-2 Project Staff, augmented with additional technical personnel. It was managed by CIA with Air Force support, and with supplementary financing by the Department of Defense, until Fiscal Year 1963 when it was blanketed under the National Reconnaissance Program budget, with CIA paying for salaries, travel and per diem of personnel assigned to the program.

The first official flight of the prototype A-12 took place on 30 April 1962, just as the NRO was beginning to operate. The total number of aircraft purchased for the program was fifteen, one of which was a trainer, and two of which were configured for launching an experimental drone (TAGBOARD), initiated under the A-12 program management, but later transferred to the Air Force.

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When the Office of Special Activities evolved, by way of the Development Projects Division, out of the original U-2 Staff in mid-1962, it continued to manage the OXCART program. Flight testing of the A-12 was delayed at the start due to non-delivery of the Pratt & Whitney J-58 engine (the first three aircraft delivered by Lockheed had to be fitted with an older model J-75 engine for initial flights). The first J-58 engines delivered gave poor performance, and in the spring of 1963 the test program was plagued with a rash of ingestions of foreign objects into engines. The first A-12 crash also occurred at that time.

The Air Force meanwhile decided to buy about 30 of the aircraft, to be configured to Air Force standards for pre-hostility and post-strike reconnaissance. Air Force versions were the YF-12A, a two-seated interceptor, and the SR-71, a two-seated strategic reconnaissance version.

The successful development of the aircraft was announced by President Johnson at a press conference on 24 February 1964—a unilateral decision by the President, after several months of discussion between CIA and Defense on whether, when, and how the disclosure should be made.

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Only the Air Force version was referred to in the public statement, and the CIA's A-12 version and its special configuration remained secret.

The continuing need to keep Cuba under surveillance in order to detect the introduction of offensive missiles there brought about discussions of whether the A-12 should be used for that job. The majority of opinion was against risking the OXCART capability before it reached its altitude and speed specifications, [REDACTED]

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[REDACTED] Some preliminary planning was done in

early 1964, however, and in August 1964 the decision was made by the DDCI, General Carter, that an operational capability against Cuba should be achieved by 5 November 1964 of Mach 2.8 and 80,000 feet altitude. With an all-out effort a limited capability was achieved by 5 November, to the extent that with two weeks notice, the A-12 could overfly Cuba; within three weeks after that date there were five aircraft and five pilots operationally ready for such a mission. This contingency plan (SKYLARK) was never put into operation.

The effort under OXCART then turned toward achieving the original specifications of the A-12

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of Mach 3.2 and maximum altitude. In 1965 contingency planning was done looking toward the A-12's use in the Far East. The maximum range had not yet been achieved and the plan was therefore to stage to an overseas base from which the A-12 would operate. The staging plan was called BLACK SHIELD and the validation flights to ready the group for such a deployment were completed [REDACTED]

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[REDACTED] in November 1965.

At the same time, the Bureau of the Budget began to question the high cost of the A-12 and SR-71 programs and recommended first that the A-12 be phased out and no more SR-71's be purchased. The Secretary of Defense declined to act on this recommendation and meanwhile the 303 Committee was approached for approval of an A-12 Far East deployment. The Committee endorsed the plan on 2 December 1965, but said plans should only include preparations for deployment, but that actual movement must await further approval sometime after 1 January 1966.

The requirement for coverage of possible Chinese Communist build-up and involvement in North Vietnam was posed by the DCI in February 1966, and the JCS supported the proposal that the A-12 stage to the Far East to cover the area photographically. Secretaries McNamara and Vance

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opposed this move at the time. The matter was argued pro and con until August 1966, at which time the President was approached, but he decided that the operation should be postponed for the time being.

In September 1966 a proposal for coverage of Cuba by the A-12 received a negative response from the 303 Committee (particularly the State Department). The Bureau of the Budget had meanwhile returned to the question of phasing out the expensive and thus far unused A-12 capability as an economy measure. This time the proposal was supported by Secretary Vance and Dr. Hornig of the White House Staff, as well as the Budget Director. The DCI, Mr. Helms, took a strong position for retaining the A-12 capability under civilian sponsorship; however the President accepted the majority recommendation and on 28 December 1966 directed the termination of the OXCART program by January 1968.

In May 1967, a requirement developed to check on the possible introduction into North Vietnam of surface-to-surface missiles, and it was proposed that a BLACK SHIELD detachment of A-12's be deployed to Kadena Air Force Base on Okinawa, from which the coverage of North Vietnam would be obtained. Presidential approval

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was given on 16 May 1967, and the detachment was airlifted to Okinawa between 17 and 19 May 1967, with [] personnel and three A-12 aircraft. The decision had been made that the SAC SR-71's would relieve the A-12 unit and take over its mission by January 1968, but the SR-71 operational readiness date slipped twice, and the A-12 group was extended at Kadena awaiting the SAC group until March 1968, with an additional three months of overlap and back-up.

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Because of the extension of the A-12's deployment to the Far East and the successful accomplishment of its mission, the DD/S&T staff felt there might be hope for a reversal of the decision to cancel the program. Efforts in that direction by the OXCART supporters did not succeed, and the decision to cancel was reaffirmed by the Secretary of Defense on 16 May 1968, and by the President on 21 May 1968.

The last BLACK SHIELD mission was flown over North Korea on 8 May 1968, and the group returned to the States in June 1968. One A-12 disappeared on an over-water test flight east of the Philippines just prior to the return of the detachment. A total of six A-12's were lost during the program, which lasted nine years and cost

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At the end of the OXCART program, nine A-12 aircraft were placed in storage at the Lockheed facility at Palmdale, California, including one launcher and one trainer. A rough estimate by Lockheed is that it would require the work of 30 men for 30 days to put one of the stored aircraft back into flying condition, with a second being readied by the end of 45 working days. None of the aircraft had been brought out of storage as of the end of 1970.*

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*This account of Project OXCART is, of course, only a thumbnail sketch; a definitive history, prepared by [redacted] can be found in the OSA History [redacted] at Chapter XX.

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VI. SUMMARY

A. Organizational Goals of the Directorate

In proposing the establishment of a scientific directorate for CIA, Mr. McCone indicated that his purpose was to pull all the scientific and technical talent of the Agency together in one office so as to provide more complete intelligence and cross-fertilization among the various scientific disciplines, while creating an environment which would draw new, highly-trained scientific personnel into the Agency to make a career, and in turn contribute their talents and training to accomplishing the Agency's mission. We have seen, in the foregoing pages, that under Dr. Wheelon's leadership the Directorate of Science and Technology was pulled together from existing and newly-constituted entities, infused with new talent, and given further responsibilities especially in the satellite reconnaissance and guided missile and space intelligence fields.

A few of the Agency's enclaves of scientific activity remain outside of the Directorate of Science and Technology, notably the Technical Services Division of the Plans Directorate, which continues to support the Clandestine Services with research, development, and

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production of equipment for use by covert agents; the National Photo Interpretation Center, and the Offices of Communications and Security have their own research and development activities oriented toward the production of equipment peculiar to their individual operations. These four offices, together with the DD/S&T, are represented on the RD&E Review Board, the mechanism under which all Agency research, development and engineering is coordinated by the DD/S&T.

The DD/S&T's assignment of functions was completed with the establishment of the Foreign Missile and Space Analysis Center early in 1964. Dr. Wheelon at that time in reporting the Directorate's progress to the DCI, depicted the principal function of the Directorate—the production of scientific and technological intelligence on a worldwide scale—as a continuous process wherein, beginning with clearly stated requirements, new collection systems were researched, developed, built, and put into operation; data were collected, processed, and analyzed; and results were published to the Intelligence Community. An additional factor, vitally necessary to the successful completion of this process, was the assurance of a share of the Community's resources, and

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establishment of priorities, sufficient to do the job assigned.

B. Mission of the Directorate

The mission of the Deputy Director for Science and Technology was first published, along with those of the Office of Elint and the Office of Special Activities on 27 March 1964. It was later revised to include his responsibilities with regard to RD&E, in October 1969. His responsibilities besides coordination of RD&E are (1) advising the DCI on S&T intelligence matters; (2) producing scientific intelligence; (3) conducting liaison with the entire scientific community on matters of science and technology relating to intelligence; and (4) managing the "R" Career Service. The most recent Mission and Functions statement for the Deputy Director and for the Offices which he is responsible for directing can be found at Tab 63 of Appendix A.*

1. Requirements

The requirements levied on the Directorate are based on National Security Council Intelligence

*OSP's Mission and Functions statement is not published for security reasons; ORD's appears in Tab 63 of Appendix A in its draft version, not having been published at the end of 1970.

Directives (NSCID's), appearing initially as a list of broad objectives, approved by USIB. From these objectives are derived all other requirement lists, whether broad in scope or of infinite detail, most of which are prepared by the special committees of USIB, such as the Committee on Imagery Requirements and Exploitation (COMIREX). The trend in recent years has been away from long "shopping lists" of requirements, which have tended toward wastefulness and diffusion of effort. Within the over-all requirements framework there are also ad hoc requirements, originating, for example, with the OSI or FMSAC analyst who has a question which must be channeled to the appropriate collection asset for an answer.

Until 1963, most of the intelligence-producing offices of DD/I had their own collection staffs which processed, controlled and set priorities for all requirements levied. Late in 1963, the DD/I, Dr. Cline, after the OSI had been transferred to the DD/S&T, decided to consolidate all DD/I collection staffs into one "Collection Guidance Staff" (CGS), which he anticipated would seek to be a useful management mechanism in assisting intelligence production and information collection activities in meeting the needs of the Agency and the Community. Dr. Wheelon

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was opposed to the broad charter proposed for the CGS and wished to ensure that it would concern itself only with certain requirement matters, as opposed to management matters properly the responsibility of other Directorates. He also felt the CGS should be recognized as a DD/I unit, not as an Agency-wide or national-level intelligence mechanism. The understanding reached with the DD/I was that the CGS should in no way interfere with analyst-collector contacts on the technical level or interpose a channel or service where none was needed on any given problem. 128/

The services of the CGS were not used to a significant extent by the DD/S&T during the three years in which it functioned within the DD/I.

A DD/S&T Collection Requirements Study Group was set up in November 1965 to review the procedures and practices employed within DD/S&T in generating, validating, placing, and following up on collection requirements. The group also developed an estimate of the quality and quantity of these requirements. The procedures employed appeared generally adequate except for DD/S&T monitoring for compatibility with DD/S&T goals. It was recommended that periodic reviews be conducted to ensure better understanding by the analyst, who generated requirements in most

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instances, of the relationship of his work to the collection effort. DD/S&T requirements originate almost entirely from OSI and FMSAC. The initiating analyst ascertains that a gap exists in the information which he must have, forwards the requirement through the Branch Chief and the Division Chief to the Collection Guidance Staff, where all requirements are consolidated. There was agreement by the Study Group that CGS does perform a useful function in placing requirements on the Intelligence Community.

In the spring of 1967, following a study of the requirements process by [] on behalf of the IG, the DDCI directed the DD/I to disband the CGS, and to set up an Information Requirements Staff (IRS) to service the needs of the intelligence-producing offices of the DD/I and the DD/S&T. The IRS is a service unit, acting as a broker of requirements between the customer for intelligence and the office which controls the collection asset. The DD/S&T has made much greater use of the services of IRS than of its predecessor, due in part to the development of better relations between the two Directorates in the latter '60s.

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During the life of the DD/S&T, budgetary constraints and rising costs of technical collection

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systems have caused continuous evaluation to be made of the various systems and programs with a view to reduction or elimination of less productive ones. Increased cooperation between the collector and the producer of intelligence throughout the stages of a given project, from planning to operations, has been necessary so as to improve the effectiveness and responsiveness of the system to the production requirements. In the cases where the collector and the producer of intelligence are both within the S&T Directorate, such cooperative action is facilitated.

2. Directorate Tasks by Functional Category

Specific tasks assigned to DD/S&T under the over-all Combined Agency Program fall under the categories of "Collection of Intelligence," "Production of Intelligence," "Information Processing and Exploitation," and "Research, Development, and Engineering."



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In the production of intelligence by DD/S&T both OSI and FMSAC have responsibilities, their roles being complementary, in that FMSAC covers offensive ballistic missiles and most aspects of space, whereas OSI covers all other fields of scientific and technological intelligence, including defensive and cruise missile systems and the biomedical and scientific aspects of space. Both FMSAC and OSI lend support to USIB committees, including administrative and secretariat support.

In-depth analysis and reporting by OSI normally represents the principal contribution to DD/S&T's production activities, although considerable effort must also be expended on current reporting of, for instance, new Soviet weapons, or the Middle East conflict. Important contributions are made to the National Estimates from time to time, including those on Soviet offensive and defensive forces, Soviet and Chinese nuclear and other advanced weapons programs.

Under the category of information processing and exploitation, there is OEL's signal processing and

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analysis activity, which assesses product quality of ongoing operations, determines hostile reaction to reconnaissance flights, and reduces data for use in intelligence analysis and reporting; and there is the central automatic data processing activity of OCS, which maintains the computer hardware and skilled personnel necessary to support the programs of the various analytical and support components not only of DD/S&T, but of the whole of CIA.

Finally, the Directorate's research, development, and engineering is conducted principally by ORD, but with participation in their own special fields by OEL, OSA, and OSP. Principal RD&E activities are in the areas of technical collection systems of all types, the processing, analysis and production of information, and in the various areas of covert action and operational support. ORD's principal responsibility is in basic and applied research plans and programs to support the intelligence process, in coordination with other RD&E offices of the Agency. Since the early days of ORD, its emphasis has been largely on collection systems; however, as of 1970 the plan was to lessen this emphasis and to increase activities in the other areas of RD&E. The Directorate's RD&E program accounts for a little more than 50% of all CIA RD&E.

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C. Status Report by Offices

The following summaries of developments within the Directorate's subordinate offices set forth a little of the philosophy behind the operations of each Office and something of the contributions of each toward fulfilling the Directorate's mission during the 1963-1970 period.

1. Office of Special Activities (OSA)

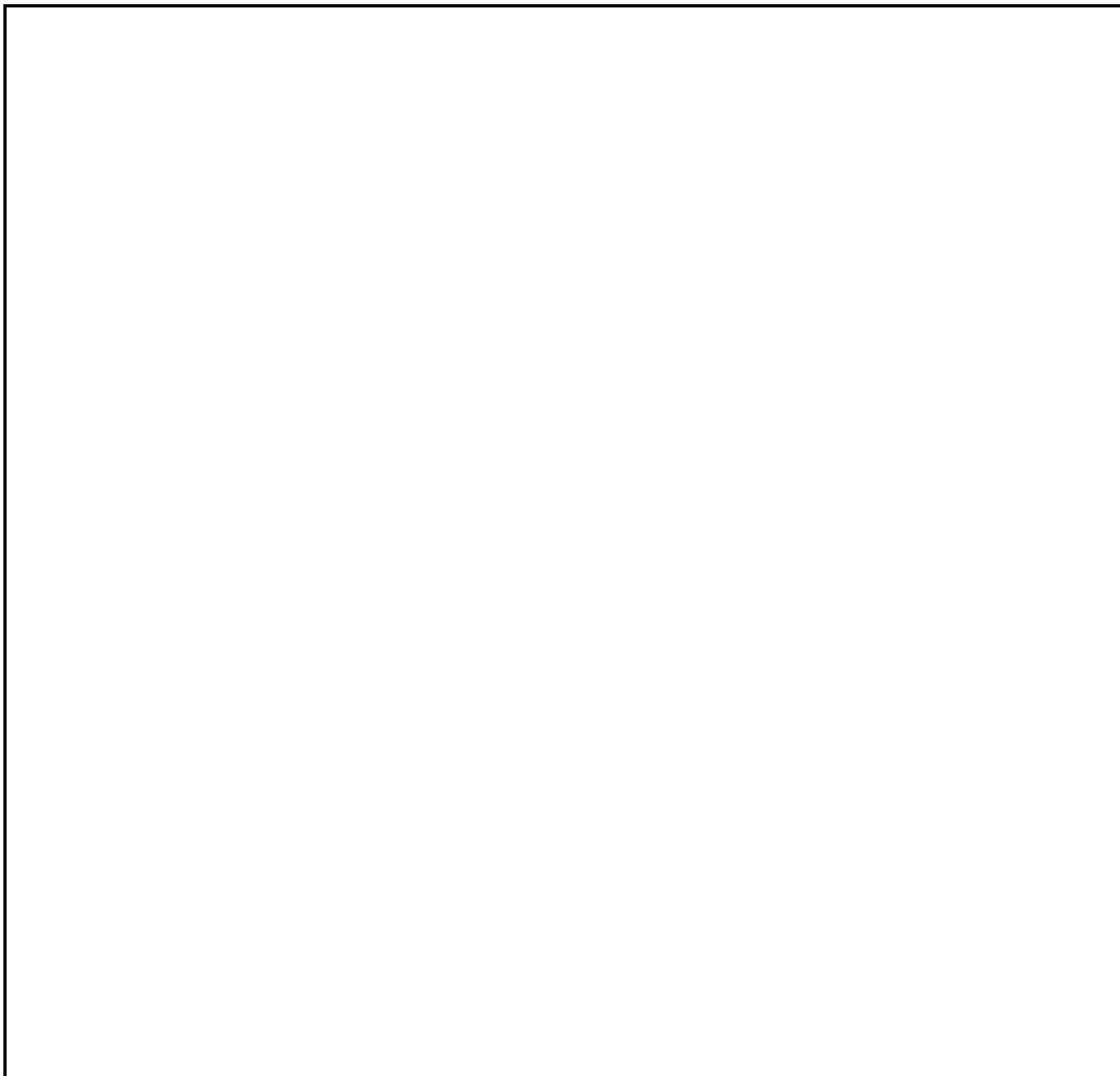
OSA was the principal operational unit of the Directorate between 1963 and September 1965 (when OSP took over management of satellite reconnaissance) and maintained the Agency's capabilities for overhead reconnaissance of all types. Subsequent to September 1965, OSA has continued to have responsibility for manned and other aerodynamic aircraft projects, most of which now fall under the National Reconnaissance Program.

OSA's mission is the technical collection of intelligence (principally photographic and Elint) with a small amount of supporting research and development. As of 1970 its NRP-supported projects had been cut to only the U-2, using the new model U-2R which was approved by the NRP Executive Committee in 1966 and phased into the program in 1969-70. It has since been used peripherally along the China Coast and over the Middle East war zone.

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The supersonic, Mach 3, A-12 reconnaissance system intended to follow the U-2 was shelved after one successful deployment, for the sake of economy, in mid-1968.*

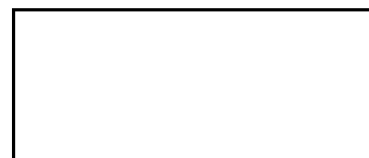
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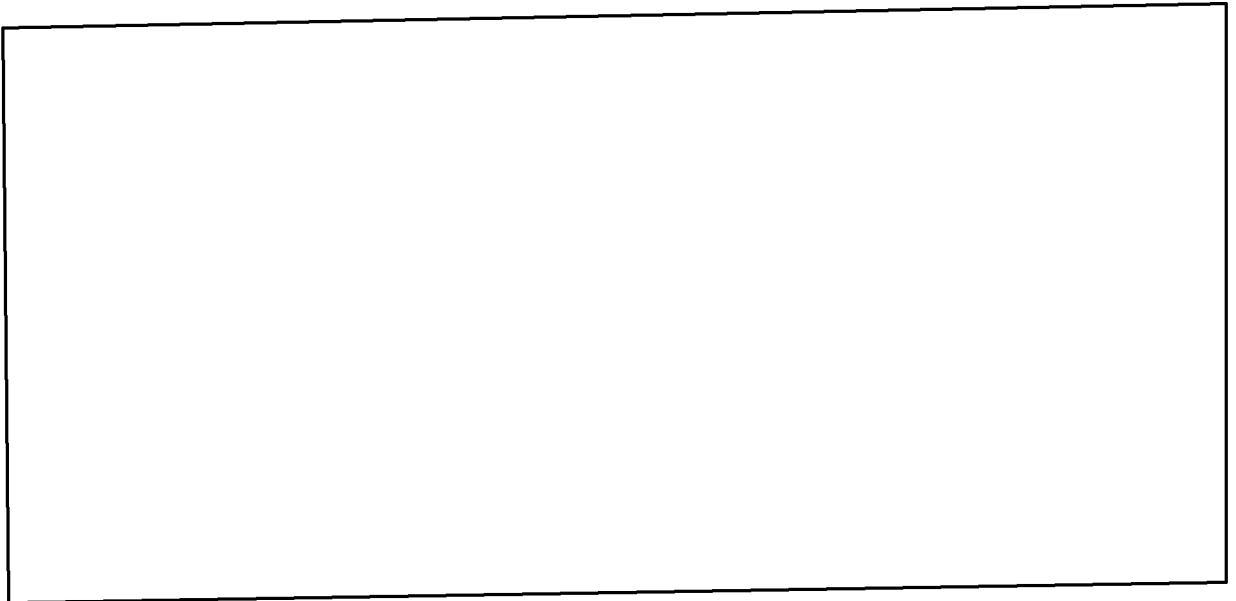
*See pp. 295-302, above.

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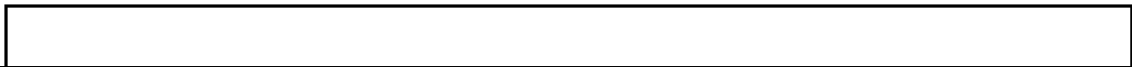


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Funds were not made available for any new aircraft research and development efforts in FY 1971 and indications were that OSA R&D programs would cease to exist.

OSA's principal liaison within DD/S&T is with

OEL



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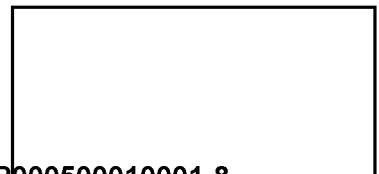
OSI

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furnishes continuous updating of its assessment of enemy threat against OSA's mission aircraft. ORD has cooperated in several joint projects and provided RD&E support when required. Day-to-day coordination of support and common use of facilities between OSA and the Air Force has been a way of life since the beginning of the joint U-2 program. This latter coordination has had its ups and downs, but on the whole has functioned exceedingly well. Air Force materiel

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support to OSA might be singled out as one of the best areas of cooperation over the years.

The only technical collection system in operation in OSA, the U-2R, was under review during 1969-70 by Defense, Budget, and CIA, who have all examined the need for its continuation. Approval of the budget request for the program for FY 1971 by highest authority indicated a reluctance to effect an economy at the expense of this only existing contingency capability to back up satellite reconnaissance by covert overflight (except over the USSR).

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The question has been raised in recent budgeting exercises whether the CIA should continue to operate its part of the U-2R program covertly, or whether the entire U-2R fleet should be consolidated under Air Force management. The same question was raised first in 1956 when the Air Force, led by Generals LeMay and Twining, and

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others, first attempted to freeze CIA out of the U-2 program in favor of SAC. At that time, and since, when the issue was raised, State and the White House have historically favored control of peacetime overflight reconnaissance by a civilian arm of the government. No doubt the issue will continue to be raised.

2. Office of Special Projects (OSP)

OSP was formally established within the Directorate in September 1965 to assume control of the satellite reconnaissance operations assigned to CIA, and to conduct advanced research looking toward improved new systems for the future, under the over-all authority of the NRP. CIA's efforts to maintain a strong role in this most productive program for technical collection of intelligence had at that time begun to achieve results through the medium of a new agreement with Defense on the division of program responsibilities.

The pioneer CORONA photographic satellite project, inherited from the former Development Projects Division (now OSA), and carried through a continuous improvement program by OSP, has continued to be the most productive asset for the technical collection program against denied areas (particularly Soviet Russia and Communist China) available to the Community. Examples of

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intelligence collection to the credit of CORONA in the late 1960's are the identification of most of the Soviet SS-9 and SS-11 missile sites, and coverage of the Soviet Northern Fleet Bases, and ballistic missile submarines.

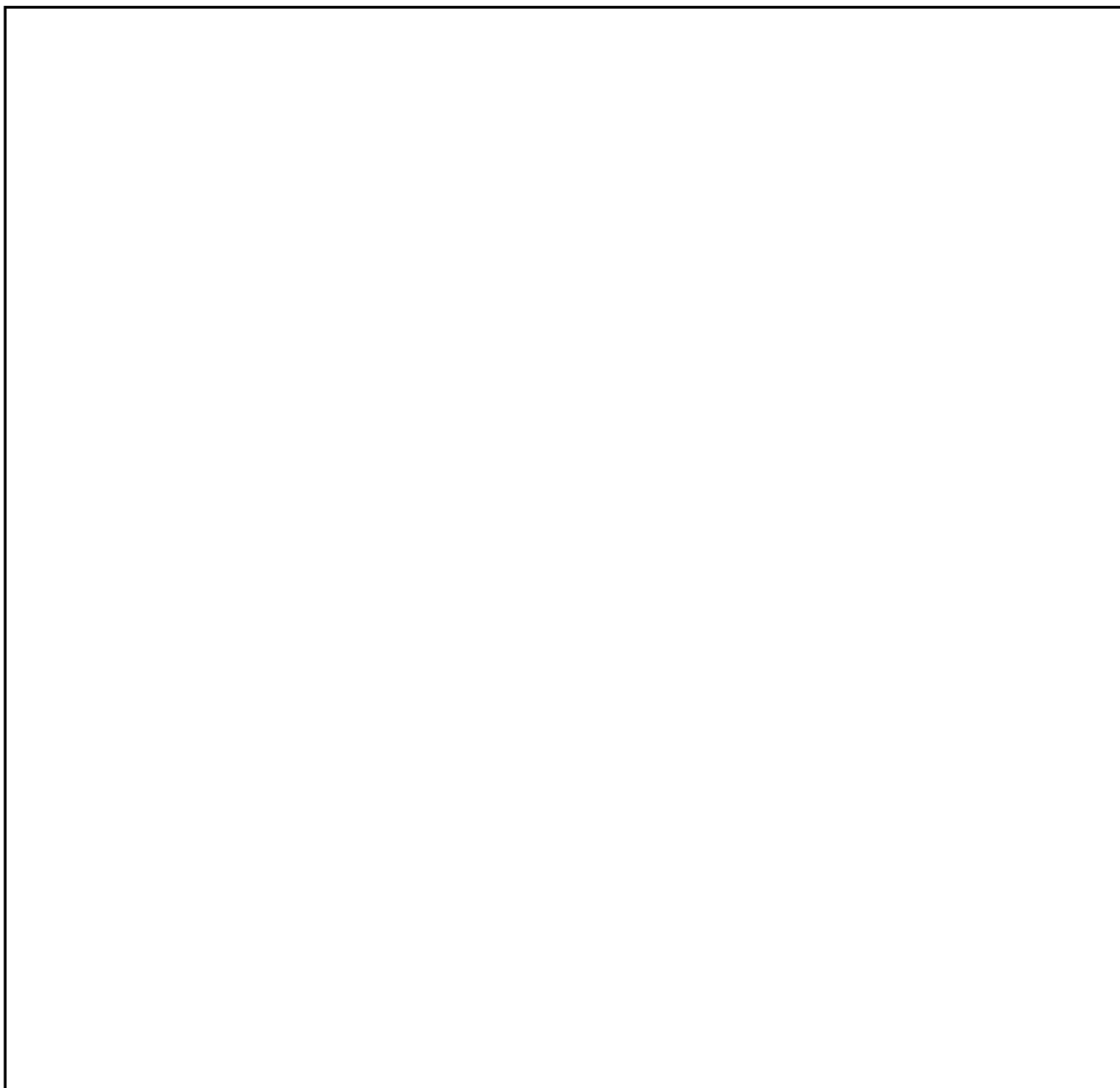
OSP was given responsibility in late 1965 for developing, processing, assembling and integrating the payload (camera system) for the follow-on search and surveillance reconnaissance system to replace CORONA. It is a larger and more sophisticated system and delays have been encountered in its development which have put the first launch almost two years behind the original schedule. At the end of 1970 several panels of technical experts found its current progress to be satisfactory. Meanwhile CORONA has been stretched out with launches programmed to provide a safe overlap.

The advanced research activities of OSP are the province of its Design and Analysis Division, which has conducted intelligence requirements analyses, program definition studies, photographic satellite vulnerability analyses, and advanced technology programs in support of satellite systems development. Two of the Division's fields of exploration which have offered promise are (1) the development of a high resolution photographic satellite

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3. Office of Elint (OEL)

In a real sense the success achieved in the CIA Elint Program has been made possible by the close co-operation of the various offices of the Directorate. One of the initial purposes in bringing together all Elint

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activities under a scientific directorate was to provide electronic protection for airborne photographic collection systems—first the U-2 and then the A-12—which were operated by the Office of Special Activities. Later with the addition to the Directorate of the Office of Scientific Intelligence, there was added the third dimension of in-depth intelligence analysis and vulnerability prediction. Thus the close relationship between OSI and OEL resulted not only in decreased vulnerability of the aircraft but also provided excellent Elint collection as a by-product of the photographic collection activities. In the same vein the addition of the Foreign Missile and Space Analysis Center to the DD/S&T resulted in the defining of requirements and feedback to OEL which made possible critical collection in missile and space Elint.

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[REDACTED]

OEL and OCS also work very closely together in data reduction and analysis aspects of the Elint operation and much mutual benefit results from this cooperation. While the day-to-day relationships with ORD are somewhat less than with other offices of the DD/S&T, numerous benefits result from research carried out by ORD. Particular mention could be made of [REDACTED]

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[REDACTED] OEL has its own research and development program, but its activities in this area are principally of an engineering nature and are carried out under contracts with various electronic industries.

The Office of Elint maintains contact with many elements of the Intelligence Community including Army, Navy, Air Force, DIA, SAC, and the NSA. The Elint activities of CIA are, [REDACTED]

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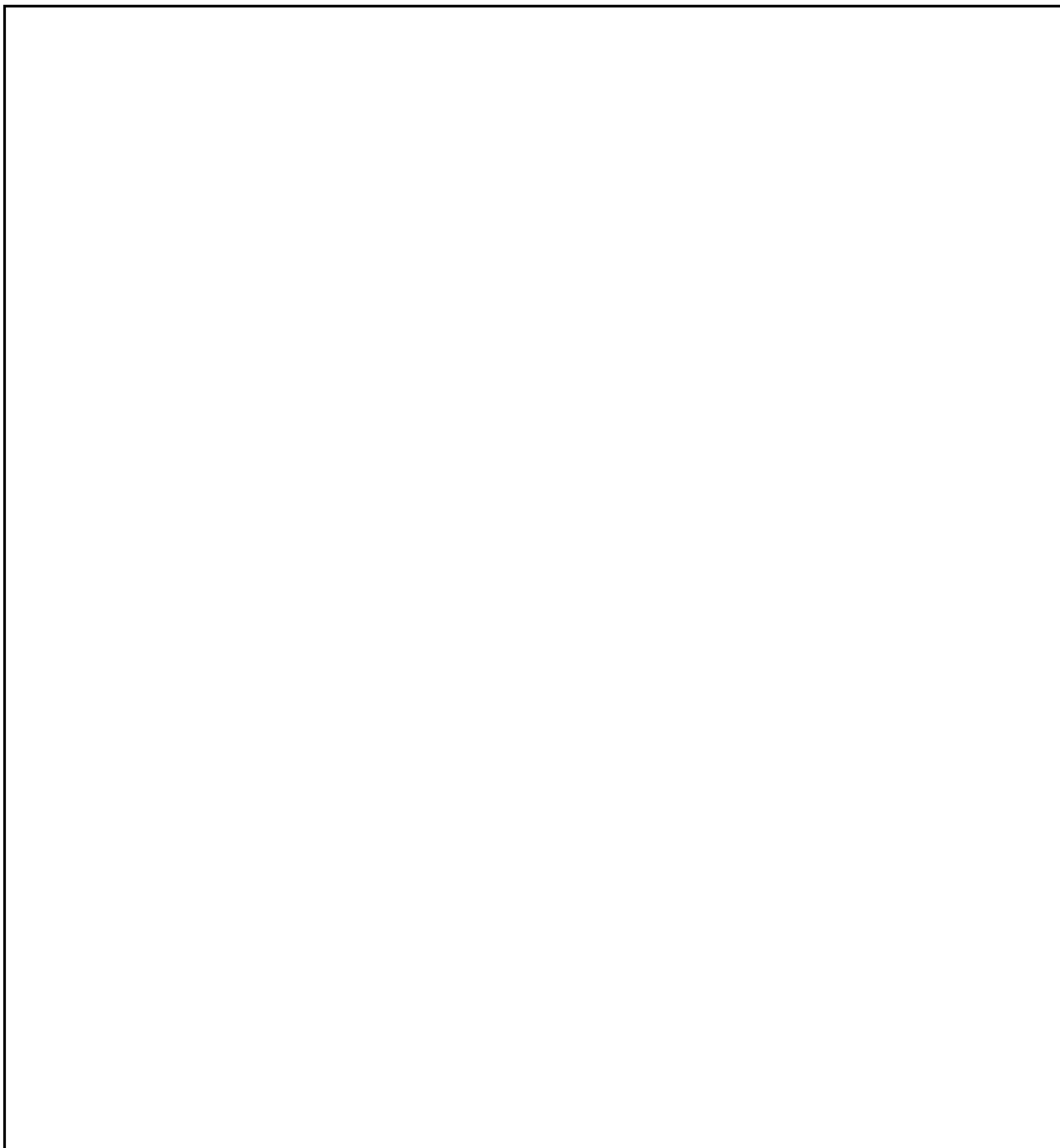
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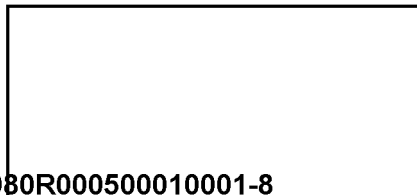


Mr. George C. Miller, who has headed the
Office of Elint since its establishment, believes that

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the close working relationships between the Agency's scientific, technical and operational units and the quality of Agency personnel involved are largely responsible for the success achieved by the Agency's Elint program. Of particular importance has been the support given by other substantive offices of the DD/S&T.

4. Office of Scientific Intelligence (OSI)

The transfer of OSI out of the DD/I complex to the DD/S&T in August 1963 was a part of the DCI's plan to gather under one roof all of the Agency's scientific activities; it was considered vital that OSI, the principal producer of scientific intelligence, should be under the same roof. Due to the DD/I's steadfast opposition, the transfer might not have been made but for the secondary motivation; i.e., the transfer was a part of the price for getting Dr. Wheelon to agree to organize the Directorate for Science and Technology.

As to the trauma among OSI personnel resulting from their separation from the DD/I, it was not so severe nor so lasting as statements by the DD/I at the time, and the IG report of a year later, would indicate. It was principally the older OSI employees who were most affected by the break in their routine pattern

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of coordination within the DD/I complex, and a feeling for the "old school tie" among them. With the passing of time, the retirement or transfer of many older employees, and the influx of new talent, the earlier problems were mostly forgotten. The more recent recruits to OSI, according to Dr. Chamberlain, the D/SI, are very strong technically and many of them have very impressive capabilities.

The instructions for coordination between the DD/S&T and the DD/I in the production and publication of intelligence which were issued in October 1963 by the DDCI, General Carter, are still being adhered to and current relations between the two Directorates are very good. Coordination is carried on in such a routine manner at the working level that scarcely ever is it necessary to refer differences to higher echelons for settlement, unless an extremely sensitive subject is involved.

The establishment by the DD/I in July 1967 of an Office of Strategic Research (OSR), to produce and publish substantive intelligence on strategic military and military-related subjects on Communist countries,

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has impinged to some extent on OSI. For example, OSR's responsibilities lead them, in the course of making judgments, to look back at research and development, whereas OSI investigates research and development up to initial production. There tends to be a slight area of overlap which requires careful coordination. OSR's failure to analyze information and produce intelligence on certain areas, for example, biological and chemical warfare, necessitates the expenditure of some OSI effort to complete estimates in those fields.

Within the DD/S&T, OSI has close cooperation with OEL [REDACTED]

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25X1 [REDACTED] with OSA particularly on the question of threat assessment against manned overflight (recently reduced since OSA's China operation has been limited to peripheral flights); and with FMSAC in constant liaison on space activities. OSI follows meteorological and navigational satellites, Soviet anti-satellite capabilities, assessment of Soviet capability in space, fuels, guidance systems, life support, and all Soviet research and development which applies to space.

The fulfillment of OSI's mission has been aided by working within the S&T complex, as noted above

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in the case of dealing directly with FMSAC on space matters and with OEL in acquiring certain desired signal intelligence, rather than having to go through the less responsive mechanism of USIB subcommittees. An additional example of inter-Directorate cooperation is in the field of biological and chemical warfare intelligence, [REDACTED]

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The DD/S&T has taken the initiative and set up an informal group under ORD leadership with OSI and DD/P representation to look for new ways of acquiring BW/CW intelligence.

Since OSI's transfer to the DD/S&T, most of the changes in emphasis in the areas of reporting have resulted from increased attention to the principal threats to U.S. national security. About 75% of the total effort of both internal and external research and analysis is focused on the USSR—anti-ballistic missiles, air defense, and anti-satellite activities; about 17% is toward Communist China; and the balance of about 8% is on the rest of the world. Several areas are covered worldwide, including nuclear proliferation, BW/CW, some medical

[REDACTED]

and

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[REDACTED] Formerly worldwide science and technology were covered, but more recently only in specialized fields; in the case of Soviet scientific research, for instance, concentration is on those areas of the greatest strategic significance.

As to the question of whether collection of data is exceeding OSI's ability to analyze and report, OSI's Director feels that his Office is able to provide analytical support commensurate with the amount of intelligence made available to its analysts in all priority areas. NPIC, for example, has a data explosion problem with the massive photographic collection generated by the satellite programs, and in some cases has only been able to identify signatures after evidence from other sources has caused a re-examination of film on hand. This kind of a situation of course inhibits OSI from timely analysis and reporting of existing coverage since it has not yet been reported to OSI.

There are, of course, areas from which little or no information is forthcoming, and there is not enough data for OSI to make reasonable judgments. Some of these are in [REDACTED]

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Satellite reconnaissance, whether photographic or electronic, can only give us knowledge of the results of research and development conducted years earlier.

OSI's ability to monitor its own performance in the production of scientific intelligence is aided by regular meetings with the USIB scientific committees, and by OSI participation in the preparation of the semi-monthly briefings for the President's Science Adviser. The Director of OSI, Dr. Chamberlain, feels that the contributions of his Office to the National Estimates under the new system of estimating established in 1970 are having more of an impact than in previous years, and, in general, the Estimates are being well received at the White House level, specifically by Dr. Kissinger.*

*See pp. 184-186, above, regarding the new system of estimating.

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5. Office of Computer Services (OCS)

On 5 August 1963, coincident with the establishment of the Directorate for Science and Technology, the Automatic Data Processing Staff was changed to the Office of Computer Services and transferred from the Directorate of Support to the DD/S&T. At that time the Office had an authorized strength of [] personnel actually on board. Three IBM computer systems* had been installed within the year. The principal projects in development in the Office of Computer Services at that time were:

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a. The design of a document/information retrieval system for the DD/I (Project CHIVE).

b. The design and implementation of special applications, e.g., trajectory analysis, Soviet defensive systems capabilities, Soviet military expenditures, []

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[]

c. A review of existent RCA 501 computer and punched card applications in the Automatic Data Processing Division/Comptroller, with the objective of optimizing these applications.

*IBM 1401, IBM 1410, IBM 7090.

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d. Analysis, design, and implementation of computer systems in the Support Directorate for Security Records Index and Name Checking, mechanization of typesetting operations in the Printing Services Division, Qualifications System for Office of Personnel, [REDACTED]

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[REDACTED]
[REDACTED]
about [REDACTED] coming from the DD/S and the balance from the DD/I.

On 18 November 1963, shortly after the establishment of OCS, the Automatic Data Processing Division was transferred from the Comptroller's Office to the Office of Computer Services. This included [REDACTED]

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[REDACTED] RCA computer equipment, a considerable amount of punched card equipment, and responsibility for on-going computer applications concerned with the "business applications" of the Agency: finance, logistics, personnel, training, security, payroll, and others.

By 1970, OCS had passed through seven years of extensive growth. Hardware and software had been converted to third generation systems* which were operating

*3 IBM 360/65's, an IBM 360/67, an RCA 70/45 and 70/35, a CDC Page Reader, and other miscellaneous equipment.

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around the clock. Eighty computer terminals were installed in various user locations within the Headquarters building. Employees had grown to [] and the budget was approximately [] 25X1
25X1 imately [] Some 250 computer projects were involved in OCS support to Agency customers for such functions as:

a. Scientific data processing for trajectory and orbital analysis, signal analysis, mathematical computations, modeling, simulation, statistical analysis, map projections, etc.

b. Intelligence file management and exploitation in substantive areas such as foreign missile and space events, ship movements, strategic research, economic research, scientific data, etc.

c. Management and administrative data processing for finance records, personnel, logistics, payroll, training, security, etc.

Top management's concern over the continued growth of ADP was evidenced by the Executive Director-Comptroller's institution of more stringent procedures for the approval of acquisitions of computer equipment and software; by studies, recommendations and procedures aimed at costing and, perhaps, charging computer users for

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the computer services they receive; and by the application of ceilings on OCS personnel and financial resources. A more modest rate of growth in OCS can probably be expected for the immediate future.

6. Foreign Missile and Space Analysis Center
(FMSAC)

CIA's initiative in establishing FMSAC resulted from general dissatisfaction with the efforts of the various Community components concerned with the analysis and interpretation of data in the missile and space field. This dissatisfaction was sharply pointed up on the CIA side on at least one occasion when Mr. McCone learned first of a Soviet space event, not from his own intelligence sources, but after the fact, through a Tass announcement picked up from the news ticker.

The first CIA plan for a "Missile and Space Technical Intelligence Center (MISTIC)" was drawn up early in 1963 before the DD/S&T came into being, and proposed to provide coordinated tasking of U.S. assets for collection and reduction of data on foreign missile and space events, as well as analysis of the data and production of intelligence on these events for GMAIC, USIB, and the Community generally. The initial plan was

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dropped in August 1963 in favor of a CIA-financed, all-source, national analysis capability to handle raw data on missile and space activities. Since such a facility did not then exist, there was no problem of duplication in furnishing this service to the Community.

Mr. McCone's directive to the DDCI instructing him to establish such a center was justified under the DCI's statutory obligation to correlate and evaluate intelligence relating to the national security under the National Security Act of 1947. Mr. McCone further noted that in his view, CIA through its Office of Scientific Intelligence, and USIB through the Guided Missile and Astronautics Committee, were not satisfactorily organized for the task, despite the fact that a considerable number of very valuable analyses and reports on Soviet missile and space activities had been produced through the years. 129/

The Department of Defense at the same time was reviewing its own activities in the missile and space intelligence area with a view to centralizing control over DOD collection and production facilities. The Director of Defense Research and Engineering, Dr. Eugene Fubini, urged that the new CIA center not duplicate current efforts being carried on elsewhere in the Community.

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FMSAC was established under the DD/S&T, pursuant to Mr. McCone's 21 October 1963 directive, and was authorized an initial T/O of [] and an operating budget of [] When officials of the Bureau of the Budget were approached with a request for CIA funding of FMSAC for FY 1965 in the amount of [] and a personnel allowance of [] they were prepared to accept the proposition that the DCI needed this capability for independent substantive assessment of a most important area of national security, but underlined the priority responsibility of the DOD in the matter of foreign missile capabilities and urged CIA to work closely with the DOD in seeking to keep duplicative analysis, particularly that under external contract, to a minimum. 130/

When the DOD, in April 1964, established its own "Defense Special Missile and Astronautics Center (D/SMAC)" the Secretary of Defense suggested to the DCI, Mr. McCone, that they form a DOD/CIA management coordination group in the missile and space field. Mr. McCone, while welcoming the establishment of a central point in DOD where FMSAC could conduct liaison, turned down the idea of another joint committee, preferring that FMSAC make its reports to USIB through the established GMAIC.

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Dr. Wheelon was fortunate in obtaining the services of Mr. Carl E. Duckett, then Director of Army Missile Intelligence Activities at Redstone Arsenal, who was recruited principally to chair the GMAIC, but was given the additional job of laying plans for organizing FMSAC, and upon the formal establishment of the Center on 7 November 1963, became its first Director.

Since the inception of FMSAC, it has continued to provide current analysis on a 24-hour basis, and to produce finished intelligence on foreign strategic weapon and space systems (except defensive weapons) and in-depth analyses on significant missile and space events. In addition it provides all-source collection support, including evaluation in terms of effectiveness of various collection systems and sensors of Agency and other Community programs tasked to collect missile and space data.

Principal intra-Directorate relations of FMSAC are with OSI, OEL, and OCS. Finished intelligence production is coordinated by FMSAC with other components of DD/S&T (principally OSI) and with DD/I. Joint planning is carried on with OCS on a continuing basis regarding ADP equipment requirements of FMSAC.

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In its efforts to provide accurate assessments FMSAC faces the problem of collection deficiencies in certain areas, e.g., new developing weapons systems, particularly in the non-Soviet area. This means that the analysts have an insufficient base of information on which to make firm judgments in those areas. Also the analytical resources of FMSAC are spread quite thinly in the non-Soviet areas, with cases where one analyst covers one or more countries. Since the Soviet Union is no longer the sole threat in the missile and space field, FMSAC and the DD/S&T must increasingly give consideration to the provision of sufficient analytical resources to cover the entire field.

7. Office of Research and Development (ORD)

In establishing an Office of Research and Development on paper in 1962, the desire of Mr. McCone and Dr. Scoville was to bring all CIA research and development activities under the DD/R, and from this nucleus build a capability to support all Agency R&D requirements in the scientific field. Recommendations of the PFIAB in March 1963 underlined the necessity for making the greatest use possible of all available industrial and academic advances in science for intelligence purposes,

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at the same time realizing great savings by contracting for the solution of problems with research institutes and laboratories who had the facilities and expert manpower available.

The initial organization of ORD was delayed by several factors: (1) the DD/P was reluctant to give over to the DD/R all of TSD's R&D responsibilities and a compromise had to be negotiated; (2) Colonel Giller, former Deputy Chief of TSD, at first wore two hats, acting as Assistant DD/R and as Acting Assistant Director for Research and Development, thus not being able to give full time to either job; and (3) after a Deputy Assistant Director for R&D, Mr. Robert M. Chapman, was recruited in September 1963, he was given special additional duties by Dr. Wheelon, such as full-time assistance to the Drell Satellite Photography Working Group, and thus he was unable to devote his immediate, full attention to the organization of the Office of Research and Development.

There was not a problem of money at first, since the ORD budget of [] had been approved, but it was necessary to develop a program under which available funds could be put into contracts for viable

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and worthwhile projects. The Kinzel Scientific Advisory Board had been organized in July 1963, and its recommendations on areas of research which would be fruitful in supporting the Agency's mission were given cognizance in ORD's programming. An organizational concept was approved by Dr. Wheelon in November 1963 under which the areas of research were first established as Optics, Physics/Chemistry, Radio Physics, and Life Sciences Division.

Not too much difficulty was encountered in recruiting scientists to man ORD, once those with the kinds of skills and background required were located, although the recruiting process was necessarily slow, in the CIA pattern, with the usual thorough security investigations and coordinated personnel actions. ORD offered an inviting new field of work to most of those approached and there were sufficient slots and opportunities for promotion. Under Mr. Chapman's basic philosophy for recruiting ORD staff, his division chiefs were advised to recruit young, bright, and versatile Ph.D.'s, and all other things being equal, to pick those who were willing to tangle with the real world, not those who would wind up as back-room theoreticians.

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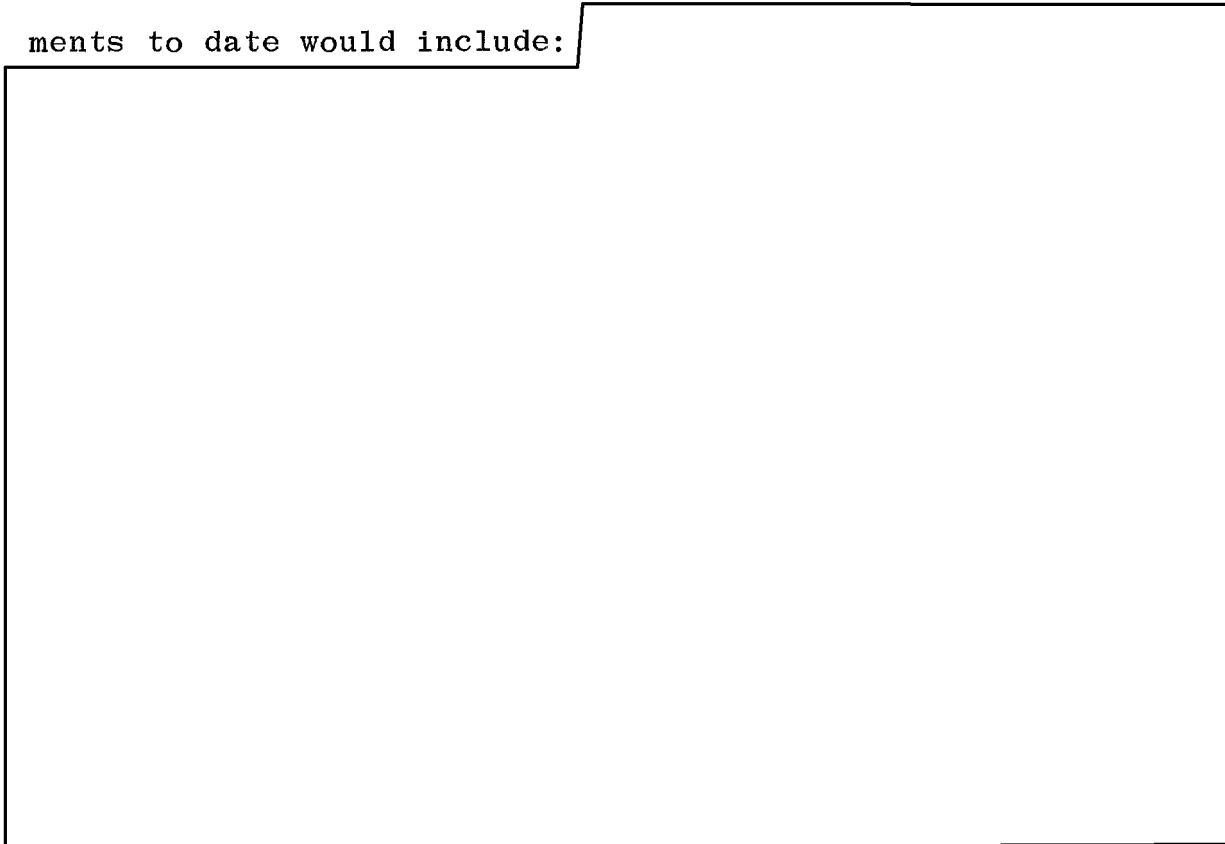
Dr. Scoville's theory of "cross fertilization" of ideas among the various scientific disciplines encompassed in the Directorate has worked well within ORD. Since approximately 80% of ORD's annual budget normally goes into external research contracts, the Director of ORD, Mr. Chapman, maintains pressure on his scientists to keep their activities from lapsing into merely the letting and monitoring of external research contracts. This is accomplished by means of constant liaison with the industrial and academic communities in scientific fields related to ORD's work, and through working closely with scientific advisory panels made up of leading American scientists. One such body, the IDA/JASON Panel, draws on the capabilities of the Institute for Defense Analyses for conducting seminars devoted to presentations and discussions of technical problems, and to deliberations, formulations of conclusions, and recommendations which are reported back to the Director of ORD.

As a result of ORD's growth since 1963 and its entry into new fields of research, its organizational set-up has been broadened to include eight divisions: Analysis, Applied Physics, Biological Sciences, Medical and Behavioral Science, Optics, Physics-Chemistry, Radio Physics, and a Special Projects Group.

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Among the research projects being conducted in the various disciplines, some noteworthy examples of achievements to date would include:

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The initial plan to bring all Agency R&D together under the ORD did not come to pass, as previously noted. There was continued resistance within the DD/P to giving up any activities which were agent-related, and so TSD has retained the final authority over the application of science and technology to the operations of the Clandestine Services. Some few other pockets of highly specialized R&D also remain outside of DD/S&T, but ORD continues to

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control more than 50% of the Agency's total R&D budget, coordination of which is now carried out under terms set forth by [] under the authority of the DD/S&T, acting in a staff capacity for the DCI.**

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As a result of the time taken to settle the division of responsibility and to coordinate overlapping activities in the research and development area, the Mission and Functions statement of ORD had still not been published in Agency Headquarters Regulations at the end of 1970, but a final draft had been agreed to by the DD/P and the DD/I, as well as the DD/S&T, in December 1970.***

There has been, and probably will continue to be, an area of indecision in R&D programming Agencywide; i.e., how much R&D should be completely tuned to satisfying immediate requirements, and how much should be devoted to innovation, looking to the future? Since it requires on the average about five years to bring a sophisticated new piece of equipment or system from research and development through production and into operation, some hard current

*Appendix A, Tab 57.

**See Chapter IV-E, pp. 145-155, above.

***Appendix A, Tab 63. (Finally published on 8 March 1971.)

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decisions have to be made from time to time, looking five years ahead in order to preserve some equity against the future course of events.

The Office of Research and Development, in arranging its priorities, must continue to select those areas of greatest relevance to its task, which in the final analysis must be to help the Director of Central Intelligence to avoid any "scientific and technological Pearl Harbors" which might occur as a result of scientific breakthroughs by our opposition, for example, in the field of weather control. One burning priority in the R&D of Technical Collection, is to develop alternatives to our far from invulnerable satellite capability. ORD must therefore continue to give priority to its efforts in the research and development relating to sensors which will lend themselves to a distant emplacement, or stand-off, collection capability.

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CHRONOLOGY OF EVENTS
IN THE HISTORY OF
THE DIRECTORATE FOR SCIENCE AND TECHNOLOGY
1961 - 1970

1961

- 6 September Initial letter of agreement on establishment of a National Reconnaissance Program signed by General C. P. Cabell, DDCI, and Mr. Roswell L. Gilpatric, Deputy Secretary of Defense.
- 29 November Mr. John A. McCone named to succeed Mr. Allen W. Dulles as DCI.
- 5 December Working Group on Organization of CIA established by Mr. McCone with the Inspector General of CIA, Mr. L. B. Kirkpatrick, as Chairman; one phase of its investigation was to study and make recommendations with regard to the establishment of a scientific directorate in the Agency.

1962

- 5 January [redacted] Secretary of PFIAB, and General Cortlandt V. R. Schuyler, U.S. Army, Retired, named to the Working Group on Organization.
- 10 January Mr. McCone's proposal for a scientific directorate opposed by Mr. R. M. Bissell, Jr., Deputy Director for Plans, in memorandum to the DCI.
- 14 January Mr. McCone announced that a Directorate for Research and Development was to be established in the near future [redacted]
- 19 February Directorate for Research established and Dr. Herbert Scoville, Jr., named as the DD/R [redacted] 16 February 1962).

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1962 cont'd

23 February Organization meeting on National Reconnaissance Office (NRO) held between Dr. Scoville and Dr. Joseph V. Charyk, Under Secretary of the Air Force.

6 March Mr. Richard Helms, Deputy Director for Plans, opposed the transfer of TSD's clandestine support activities to the DD/R.

19 March Mr. Robert Amory, Deputy Director for Intelligence, opposed the transfer of the Office of Scientific Intelligence to the DD/R.

6 April Report of the Working Group on Organization of CIA (Kirkpatrick [redacted] rendered to the DCI; included recommendations on the functions to be transferred to the DD/R. 25X1

8 April The DD/R received its first call for five-year budget projections for FY 1963-67.

10 April Mr. L. B. Kirkpatrick appointee Executive Director of CIA.

15 April Development Projects Division's special reconnaissance projects transferred to the DD/R [redacted] 16 April 1962). 25X1

23 April Dr. Ray S. Cline named DD/I vice Mr. Amory, transferred to the Bureau of the Budget.

2 May NRO Agreement signed by Messrs. McCone and Gilpatric; no provision made for a CIA Deputy Director of NRO; control of funding assigned to NRO.

3 May Appointment of Dr. Joseph V. Charyk as Director, NRO, agreed between Messrs. McCone and Gilpatric.

2 June Col. Sheffield Edwards, Director of Security, CIA, requested by the DD/R to initiate action to establish Security Policy Unit and Special Security Control Center to carry out the terms of the NRO Agreement regarding security. 25X1

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1962 cont'd

22 June	First Table of Organization for the Office of the DD/R approved by the DD/S.
27 June	Col. Edward B. Giller, Deputy Chief of TSD, appointed Assistant DD/R.
30 July	Mission of DD/R set forth; Office of Research and Development, Office of Elint, and Office of Special Activities established under the DD/R; all functions and personnel of Development Projects Division except Air Support Branch transferred to OSA.
30 July	Mr. George C. Miller named Assistant Director for Elint, DD/R.
1 August	Mr. James A. Cunningham, Jr., named Acting Assistant Director for Special Activities, DD/R.
6 August	First CIA Security Officer assigned to the NRO Staff [REDACTED]
1 September	OSA Contracts Staff authorized by Acting Director, General Marshall S. Carter, to do covert procurement in furtherance of NRP objectives.
4 September	Col. Jack C. Ledford, USAF, designated Assistant Director for Special Activities, DD/R; Mr. James A. Cunningham, Jr., named Deputy Assistant Director for Special Activities, DD/R.
11 September	Dr. Scoville requested the DD/S to set up a special salary scale for scientific personnel; the result was the Scientific Pay Schedule (SPS).
15 October	[REDACTED] Office of Communications, named Deputy Assistant Director for Elint, DD/R.

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1962 cont'd

29 November Col. Edward B. Giller named Acting Assistant Director for Research and Development, DD/R, in addition to his position as Assistant DD/R.

1963

23 January Dr. Eugene G. Fubini named as interim Director of NRO by Mr. Gilpatric, following the resignation of Dr. Charyk.

30 January Mr. Gilpatric agrees with Mr. McCone to have a CIA-appointed Deputy Director of NRO (to be approved by Secretary of Defense).

19 February "R" Career Service inaugurated and DD/R Career Service Panel established in DD/R.

1 March Dr. Brockway McMillan appointed Director of NRO by Mr. Gilpatric with Mr. McCone's agreement.

8 March The President's Foreign Intelligence Advisory Board recommended action by CIA and DOD to improve their capabilities in the scientific and technological intelligence field.

13 March Revised NRO Agreement entitled "Agreement Between the Secretary of Defense and the Director of Central Intelligence on Management of the National Reconnaissance Program" signed by Messrs. Gilpatric and McCone.

21 March Dr. Herbert Scoville, Jr. appointed DD/NRO by Mr. McCone with Mr. Gilpatric's concurrence.

26 March Scientific and Technical Personnel Advisory Committee established to advise the Director of Personnel on management of S&T personnel.

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1963 cont'd

13 April Scientific Pay Schedule (SPS) established for specially qualified scientific personnel in CIA.

15 April Purcell Panel initiated to advise the DCI on the future course of the National Reconnaissance Program; Dr. Edward Purcell of Harvard University, Chairman.

16 April Research and Development Review Board established with the DDCI as Chairman to review and integrate research and development activities and scientific and technical efforts in the various Agency components concerned.

25 April Dr. Scoville writes letter of resignation to the DCI, effective 1 June 1963 (later extended to 14 June 1963).

4 June Mr. Gilpatric requests that the DCI, Mr. McCone, not raise with higher levels the issue of CIA's responsibility for planning and conduct of overflights of denied territory for intelligence collection; Mr. McCone agreed not to raise the issue.

26 June Mr. McCone briefed the PFIAB on the conflict in the NRO between CIA and the Air Force on the CIA role in the NRP.

1 July Scientific Advisory Board established to review and advise the DCI on the total scientific functions of the Agency. Dr. Augustus B. Kinzel appointed Chairman.

2 July Mr. Eugene P. Kiefer's appointment as Deputy Director, NRO, announced by the Director of the NRO Staff.

16 July Dr. Ray S. Cline, DD/I, recommends strongly against the transfer of OSI to the DD/R.

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1963 cont'd

17 July Dr. Albert D. Wheelon, AD/SI recommends to the DCI that OSI be transferred to the DD/R and lists his other requisites for taking over as Deputy Director of an enlarged DD/R.

1 August Mr. McCone directs the DD/R to develop proposals for new and better satellite systems.

2 August CIA plan for establishing an analysis center for foreign missile and space intelligence was discussed with Defense Department by Dr. Wheelon.

5 August Deputy Directorate for Research renamed Deputy Directorate for Science and Technology; OSI transferred from DD/I to the DD/S&T; Automatic Data Processing Staff renamed Office of Computer Services and transferred from DD/S to DD/S&T.

Dr. Albert D. Wheelon named Deputy Director for Science and Technology, and Chairman of the Research and Development Review Board, vice the DDCI; Mr. John F. Blake named Executive Officer, DD/S&T.

22 August Dr. Donald F. Chamberlain named Assistant Director for Scientific Intelligence, and to continue as Chairman of the Joint Atomic Energy Intelligence Committee of USIB; [redacted] confirmed as Deputy Assistant Director for Scientific Intelligence (Production), and to continue as Chairman of the Scientific Intelligence Committee of USIB.

9 September [redacted] appointed as Deputy Assistant Director for Research and Development, DD/S&T. 25X1

16 September Mr. Joseph Becker appointed Assistant Director for Computer Services, DD/S&T.

- 6 -

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1963 cont'd

25 September DD/S&T Career Service Board Established; Chairman to be appointed by DD/S&T and hold the chair for one year.

1 October Mr. Carl E. Duckett appointed Deputy Assistant Director for Scientific Intelligence (Collection), and Chairman of the Guided Missile and Astronautics Intelligence Committee of USIB.

21 October Mr. McCone issued a directive for the setting up of the Foreign Missile and Space Analysis Center under the DD/S&T.

30 October Guidelines for relationships between the DD/I and the DD/S&T with regard to the transfer of OSI to the DD/S&T issued by the DDCI, Gen. Carter.

4 November [redacted] named Special Assistant to the DD/S&T; also to continue to serve as CIA Sigint Officer.

5 November [redacted] also named Chairman of the USIB Watch Committee vice the DDCI.

7 November The Foreign Missile and Space Analysis Center (FMSAC) established; Mr. Carl E. Duckett named Director.

8 November Dr. Wheelon designated by the DCI as monitor of NRO activities on the DCI's behalf.

13 November Satellite Photography Working Group, with Dr. Sidney Drell as Chairman, convened by the DD/S&T to explore problems of the CORONA improvement program.

18 November Automatic Data Processing Division transferred from the Office of the Comptroller to OCS/DD/S&T.

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1963 cont'd

2 December Mr. David S. Brandwein, formerly with Space Technology Laboratories, appointed Deputy Director, FMSAC.

1964

27 March Mission and functions of the DD/S&T published [redacted]

25X1

21 April Executive Director ordered the transfer of the Agency Spint Staff to the jurisdiction of the Sigint Officer under the DD/S&T (to be effective 9 July 1964).

4 May Mr. Robert M. Chapman named Acting Assistant Director for Research and Development, DD/S&T, vice Col. Giller, reassigned to the Air Force.

9 September [redacted] appointed Deputy Assistant Director for Computer Services, DD/S&T.

25X1

28 September [redacted] assigned as Career Management Officer and Senior Training Officer, DD/S&T, vice [redacted] [redacted] reassigned.

25X1

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1965

13 January The DDCI, Gen. Carter, tabled a draft agreement at the NRP ExCom meeting giving CIA technical direction of the CORONA satellite payload.

16 February Dr. Edwin Land, as a member of the President's Scientific Advisory Committee, made a plea for accord between CIA and the Air Force in the NRP in the national interest.

18 February Mr. Eugene P. Kiefer resigned as Deputy Director, NRO.

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1965 cont'd

26 February	Mission and functions statements for DD/S&T Staff Units issued.	
3 March	Dr. Max S. Oldham designated Chief, Systems Analysis Staff, Office of the DD/S&T.	
11 March	Mr. Robert M. Chapman appointed Assistant Director for Research and Development, DD/S&T.	
31 March	Contingency Plan for Satellite Reconnaissance promulgated by the D/NRO to cover all accidents or incidents relating thereto.	
19 June	Strategic Weapons Intelligence Panel established to advise the DCI on foreign strategic weapons programs; the Panel was dissolved in September 1967.	
27 July	The DD/S&T Office heads' titles were changed from "Assistant Directors" to "Deputy Directors."	
13 August	New NRO Agreement signed by the DCI, Admiral William F. Raborn, and the Deputy Secretary of Defense, Mr. Cyrus Vance; the Executive Committee (EXCOM) was formalized, and projects were partitioned giving CIA a firm role.	
20 August	 appointed Chief, Special Projects Staff, DD/S&T, vice Mr. Jackson Maxey, who was appointed Special Assistant to the Chief, SPS.	25X1
1 September	 formerly Chairman of COMOR, appointed as Deputy Director, NRO, by Admiral Raborn.	
13 September	Space Intelligence Panel established to advise the DCI on Soviet and other foreign space activities; Dr. Simon Ramo, Chairman.	

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1965 cont'd

15 September Office of Special Projects established, taking over satellite responsibilities from Special Projects Staff and OSA, DD/S&T; Mr. John J. Crowley named Director of Special Projects; Mr. John N. McMahon named Deputy Director of Special Projects.

[redacted] named Director of Reconnaissance for CIA by the DCI, Admiral Raborn, at the Director's Morning Staff Meeting. (Interim assignment.)

25X1

[redacted] named Special Assistant to the DD/S&T by Dr. Wheelon.

25X1

30 September Dr. Brockway McMillan resigned from his position as Director of NRO, and as Under Secretary of the Air Force.

1 October Dr. Alexander Flax, Assistant Secretary of the Air Force for Research and Development, appointed D/NRO.

1 October Agreement signed between OSP and OSA on the transfer of resources, responsibilities, and authorities regarding CIA satellite reconnaissance programs.

6 October [redacted] designated Special Assistant to the DD/S&T (COMOR), vice [redacted] reassigned to NRO.

25X1

25 October Ballistic Missiles and Space Division of OSI combined with FMSAC. Mr. Duckett and Mr. Brandwein to continue as Director and Deputy Director of FMSAC.

8 November Nuclear Intelligence Panel established to advise the DCI, evaluating information from all sources on foreign nuclear activities; Mr. Louis H. Roddis, Jr., Chairman.

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1965 cont'd

6 December

[redacted] appointed Executive Officer, DD/S&T, vice John F. Blake, appointed Deputy Director of Logistics.

25X1

22 December

The DD/S&T, Dr. Wheelon, assumed Chairmanship of the DD/S&T Career Service Board.

1966

12 January

Terms of Reference of the Director of Reconnaissance, CIA, [redacted] spelled out by the DCI, Admiral Raborn.

25X1

31 January

[redacted]

25X1

11 March

Assistant to Director of Reconnaissance for Financial Management established to assist Mr. Sheldon with NRO budgeting; [redacted] designated as incumbent.

25X1

19 April

The Director of Special Projects charged with responsibility for nominating CIA assignees to NRO Staff, and for their administrative support during their tour of duty with NRO.

16 May

[redacted] relieved of responsibilities as Special Assistant to the DD/S&T and appointed Special Assistant to the DCI with duties as Chairman of the USIB Watch Committee; CIA Sigint Officer; and Director of Reconnaissance, CIA.

Mr. Carl E. Duckett appointed Assistant DD/S&T; Mr. David S. Brandwein appointed Director, FMSAC, vice Mr. Duckett.

Comptroller system of management established in the DD/S&T; [redacted] named Comptroller, DD/S&T.

25X1

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1966 cont'd

18 May [redacted] appointed Deputy Director for Computer Services. 25X1

1 June Mr. Charles A. Briggs appointed Director for Computer Services, vice Mr. Becker, reassigned as Special Assistant to the Executive Director.

25X1

[redacted] appointed Deputy Director for Elint.

1 July Staff reorganization in the Office of the DD/S&T resulting in the following pattern: Executive Officer, [redacted] 25X1

Comptroller, [redacted]

Chief, Budget Branch, [redacted]
Chief, Plans and Programs Branch, [redacted]

[redacted] Chief, Management Information Branch, [redacted] 25X1

Chief, Procurement Management Staff, [redacted] 25X1

Chief, Security Management Staff, [redacted] 25X1

Chief, Administrative Support Staff, [redacted] 25X1

Chief, Intelligence Liaison and Support Staff, [redacted] 25X1

1 August Col. Paul N. Bacalis, USAF, appointed Director of Special Activities, DD/S&T, vice Brig. Gen. Jack C. Ledford, reassigned to USAF.

Mr. John Parangosky appointed Deputy Director for Special Activities, vice Mr. James A. Cunningham, Jr., reassigned as Special Assistant to the DD/S&T.

[redacted] formerly Deputy Director for Technology, OSA, appointed Director for Technology vice Mr. Parangosky. 25X1

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25X1

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1966 cont'd

18 August



25X1

23 September

Dr. A. D. Wheelon's resignation as DD/S&T was effective this date. (His letter of resignation to the DCI was dated two months previously.)

26 September

Mr. Carl E. Duckett appointed Acting DD/S&T, vice Dr. Wheelon.

11 October

Executive Director/Comptroller approved the setting up of a DD/S&T Career Development Course.

28 October

Mr. Duckett appointed Dr. Chamberlain Chairman of the DD/S&T Career Service Board.

28 December

The White House directed the termination of the A-12 manned reconnaissance program by OSA/DD/S&T.

1967

13 January

The DCI (Mr. Helms) reassigned responsibility for reconnaissance activities: [redacted] relieved of Director of Reconnaissance responsibility and that job canceled; [redacted] to support the DCI in the EXCOM of the NRP; Mr. Duckett to deal with the NRO on the DCI's behalf in the management of CIA's NRP assignments.

25X1

25X1

20 April

Mr. Carl E. Duckett confirmed as Deputy Director for Science and Technology.

16 May

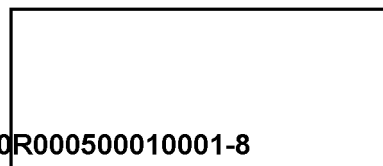
White House approval received for A-12 deployment to Okinawa for coverage of North Vietnam.

5 June

Dr. Lloyd K. Lauderdale appointed Assistant DD/S&T.

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25X1

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1967

30 June Systems Analysis Staff residual personnel transferred to the National Intelligence Programs Evaluation Staff from the Office of the DD/S&T.

1 July Committee on Imagery Requirements and Exploitation established. COMOR staff withdrawn from Office of the DD/S&T and joined with the Targets Branch of the disestablished Collection Guidance Staff to form the staff of the Chairman of COMIREX. The DD/I assumed administrative responsibility for COMIREX from that date.

17 July Procedures for Coordination of Research, Development and Engineering by the DD/S&T published [redacted] 25X1

15 August Science and Technology Panel established to advise the DCI on the formulation and assessment of CIA's goals in the field of science and technology; Dr. William Perry, Chairman.

9 November Mr. Duckett, as DD/S&T, given full responsibility by the DCI for supporting him in all matters relating to overhead reconnaissance.

20 November [redacted] appointed Executive Officer, DD/S&T, vice [redacted] Acting. 25X1 25X1

1968

4 March First Contracting Team set up in OEL/DD/S&T to do procurement contracting for OEL, OCS, OSI, and FMSAC.

21 May Cancellation of the A-12 program reaffirmed by President Johnson after the six month extension covering the deployment to cover North Vietnam; close-out date 30 June 1968.

SECRET

1968 cont'd

12 July [redacted] USAF designated Director for Special Activities, DD/S&T, vice Brig. Gen. Paul N. Bacalis, reassigned to USAF. 25X1

6 September Strategic Intelligence Panel established to advise the DCI on Soviet objectives in strategic technical areas; Dr. Ruben Mettler, Chairman.

7 November [redacted] appointed Deputy Director, FMSAC. 25X1

1969

21 January [redacted] designated Comptroller, DD/S&T, vice [redacted] reassigned. 25X1

27 February Second Contracting Team set up in ORD, to do procurement contracting for ORD.

3 September [redacted] designated Chief, Security Management Staff, DD/S&T. 25X1

25X1 1 October [redacted] named Chairman of the Sigint Committee, vice Mr. Sheldon.

6 October [redacted] named DD/SA vice Mr. John Parangosky reassigned. 25X1

1 November Dr. Donald H. Steininger appointed Assistant DD/S&T, vice Dr. Lauderdale, who resigned as of 21 March 1969.

1970

9 January [redacted] retirement effective. 25X1

2 February Spint Staff, DD/S&T dissolved; functions separated and assumed by Sigint Officer, Chief Intelligence Requirements Staff, and Director of Security, respectively.

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25X1

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Persons Consulted in the Preparation
of This History *

Dr. Donald F. Chamberlain, Director, Office of Scientific
Intelligence, DD/S&T

Mr. Robert M. Chapman, Director, Office of Research and
Development, DD/S&T

Mr. Carl E. Duckett, Deputy Director for Science and
Technology

25X1 [redacted] National Intelligence Programs Evaluation
Staff, O/DCI

25X1 [redacted] Office of Special Activities, DD/S&T

25X1 [redacted] Analysis Division, ORD, DD/S&T
[redacted] Chief, Intelligence Liaison Support
Staff, O/DD/S&T

Mr. Eugene P. Kiefer, Formerly Deputy Director, NRO

25X1 [redacted] Deputy Chief, Technical Services
Division, DD/P

25X1 [redacted] Chief, Contract Management Staff,
DD/S&T

Mr. John N. McMahon, Deputy Director, Office of Elint,
(Formerly Deputy Director, Office of Special
Projects, DD/S&T)

Mr. George C. Miller, Director of Elint, DD/S&T

Mr. John Parangosky, Director, Special Project Staff,
DD/S&T

25X1 [redacted] Chief, Ground Systems Division,
Office of Elint, DD/S&T (Formerly with NRO Staff)

25X1 [redacted] Former Deputy Director, NRO;
Chairman, Sigint Committee, O/DD/S&T

25X1 [redacted] Chief, Plans and Programs Branch,
Office of Elint, DD/S&T

25X1

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25X1

[REDACTED] Special Assistant to the
DD/S&T for Research and Development

25X1

[REDACTED] Deputy Director, Office of Special
Activities, DD/S&T

Mr. Abbott Smith, Chairman of the Board of National
Estimates

25X1

[REDACTED] Executive Officer, Foreign Missile
and Space Analysis Center, DD/S&T

Dr. Donald H. Steininger, Assistant Deputy Director for
Science and Technology

Dr. Karl H. Weber, Deputy Director, Office of Scientific
Intelligence, DD/S&T

Col. Lawrence K. White, Executive Director/Comptroller,
CIA

25X1

[REDACTED] Chief, Administrative Support
Staff, O/DD/S&T

*Titles used herein are those held by the individuals at
the time they were consulted for this History, between
March 1970 and July 1971.

25X1