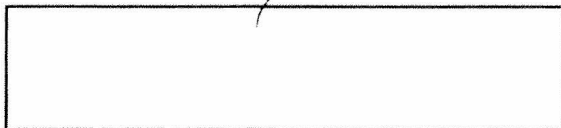


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THE DD/S&T HISTORICAL SERIES

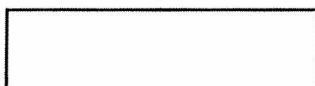
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THE DIRECTORATE FOR SCIENCE AND TECHNOLOGY  
1962-1970

VOLUME ONE CHAPTERS I-IV

*by*

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June 1972

NRO review(s)  
completed.

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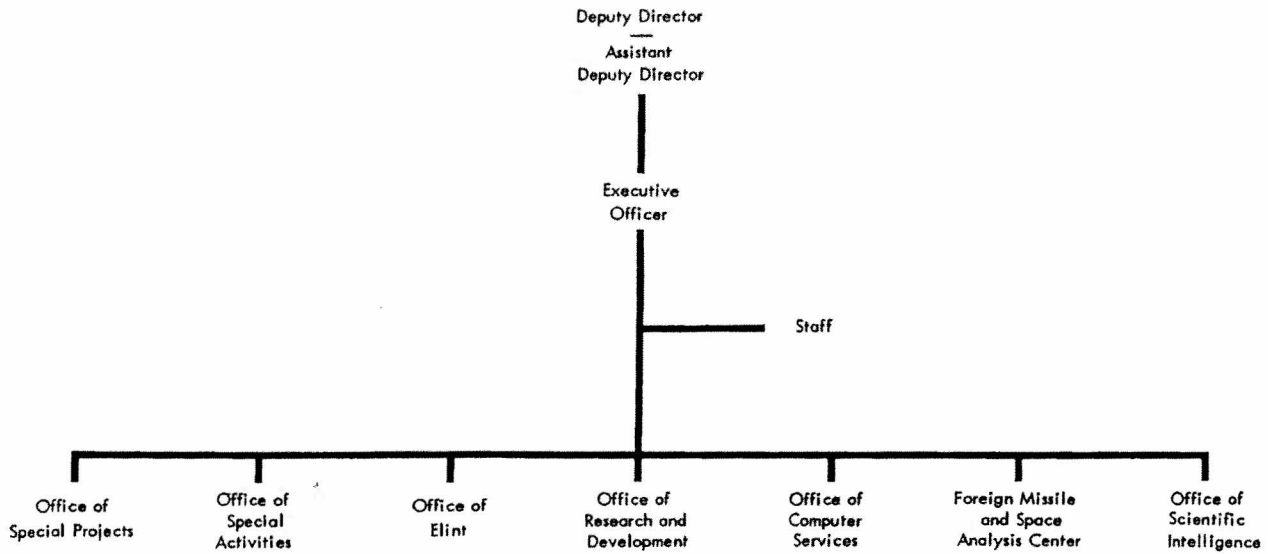
Carl E. Duckett  
Director  
Science and Technology

HISTORICAL STAFF  
CENTRAL INTELLIGENCE AGENCY

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# Directorate of Science and Technology



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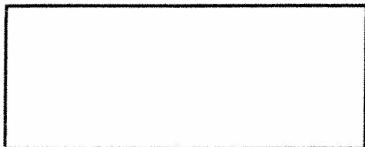
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I. Establishment of the Directorate for Research,  
February 1962

A. Background

Early U.S. efforts in the collection and analysis of scientific intelligence were principally motivated by known, or suspected, advances in technology by hostile powers, such as the "secret weapons" of Germany during World War II, and later the nuclear energy and missile developments of the Soviet Union and Red China. There was no centralized U.S. organization for these efforts until after World War II. The first such entity to be established in the wake of the demobilization of wartime agencies in the fall of 1945 was a small "Scientific Branch" which was set up in the Central Intelligence Group (CIG)\* at the request of the Joint Research and Development Board (JRDB)\*\* to satisfy the Board's scientific intelligence requirements. When the National Security Act of 1947 established the Central Intelligence Agency to replace the CIG, the JRDB continued

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\*The National Intelligence Authority, established by President Truman on 22 January 1946, included an interim Central Intelligence Group, set up to consolidate all U.S. intelligence efforts related to national security.

\*\*The Joint Research and Development Board, under the Chairmanship of Dr. Vannevar Bush, replaced the wartime Office of Scientific Research and Development. It was created by charter of the Secretaries of War and Navy on 6 June 1946 to coordinate R&D activities of interest to their departments.

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to place its requirements on the Scientific Branch, even though the unit was understaffed and not able to fulfill all the Board's needs. 1/

In 1948, two high-level investigating bodies looked into the U.S. intelligence organization: the Task Force on National Security Organization of the Hoover Commission heard testimony from the JRDB on the inadequacy of scientific intelligence and recommended greater efforts in that area; and the National Security Council's Intelligence Survey Group, chaired by Mr. Allen Dulles, looked into the same area and recommended the centralization of scientific intelligence activities and the strengthening of the Scientific Branch of CIA. As a result of pressure generated by these investigations, the Scientific Branch was enlarged and strengthened through consolidation of scientific activities and was elevated to a higher organizational level within the Agency as the Office of Scientific Intelligence (OSI), effective 1 January 1949. During its early years, OSI spent much time in contention with the military and with other CIA offices in an effort to establish its areas of responsibility. An unsuccessful effort was made to include a role for OSI in collection, as well as analysis, of scientific intelligence. Little progress was made by OSI, except in

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Elint and nuclear energy intelligence, until after 1955 when a reorganization under new leadership took place, and the U-2 photographic collection began to pay off with an attendant improvement in OSI's capabilities. 2/

The Soviet Union, meanwhile, had continued to build up its war-making potential in great haste and utmost secrecy behind the Iron Curtain. In August 1953 the announcement that the Soviet Union had exploded a hydrogen device demonstrated its capability to begin the production of multi-megaton weapons. By 1957 further Soviet technological advances included the firing of an ICBM and the launching of Sputniks I and II into orbit. CIA responded by augmenting its technical collection programs as conventional collections diminished.

During this period the influence of high-level scientific advisory groups on the U.S. intelligence process continued to be felt. In October 1954 the Office of Defense Mobilization set up a Technical Capabilities Panel (known as the "Surprise Attack Committee") under the chairmanship of Dr. James R. Killian, President of M.I.T., to study more effective ways of mobilizing scientific resources in the event of an emergency. A sub-panel of the group, headed by Dr. Edwin H. Land, President of Polaroid, was the motivating force behind the joint CIA/Air Force

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initiation of the U-2 project late in 1954. Drs. Land and Killian, and other scientific advisers at the White House level, were also instrumental in promoting CIA's participation, with the Air Force, in a photo-reconnaissance satellite program beginning in 1958.

In the late 1950's, despite the advances in technical collection programs, such as Elint and photographic reconnaissance, the U.S. Government lacked an effective central mechanism for coordinating the conduct of all scientific and technical intelligence operations, both in collection and production, and in the systematic development and application of new scientific and technical methods. CIA suffered internally from the same lack of centralized coordination of the various activities concerned with collection and analysis of scientific intelligence which had developed within the three separate directorates of the Agency. A proposal was made to CIA Director Allen Dulles in 1957 that all of CIA's scientific and technical activities be combined under a new directorate in order to ensure that the role of science in intelligence operations would receive the emphasis and priority which the current world situation demanded. 3/ Mr. Dulles was better known as a devotee of classical methods of espionage than for his interest in the increasing role of 25X1

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technology in intelligence, despite the fact that he had backed CIA participation in the U-2 program and in the first satellite reconnaissance program. (Those activities, as previously noted, had been pressed upon CIA by high-level scientific advisers.) The recommendation for a scientific directorate was also referred to Mr. Richard M. Bissell, Jr., who as Project Director for the U-2 was then completely involved in maintaining high-level political acquiescence in continuation of that program under CIA management (as opposed to Air Force take-over), and in protecting the U-2's primary mission of photography against the encroachment of the Elint people and others who wanted to make use of the U-2 capability for other purposes. Mr. Bissell preferred to keep his operation as small and tightly controlled as possible, using the minimum of staff at Headquarters Washington for direction and support, and preserving the "special project" status of the U-2 program. Thus, the idea of a large scientific directorate had small chance for internal CIA consideration in 1957. Even in 1961, when it was put forward by the new DCI as a concrete proposal, there was opposition from many quarters.

It was inevitable, however, with the advances in science and technology which were taking place on both

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sides of the Iron Curtain, and the continuing confrontation between East and West, that there would be changes in CIA's organization to meet the changing world situation.

B. Mr. McCone Establishes the Directorate for Research

On 27 September 1961, President Kennedy named Mr. John A. McCone to succeed Mr. Dulles as DCI, effective upon the latter's retirement as of 29 November 1961. Mr. McCone had a broad background of experience in engineering and had served as Director of the Atomic Energy Commission under the Eisenhower Administration. The new DCI, on taking office, immediately set in motion a review of the organizational structure and activities of CIA. The CIA Inspector General, then Mr. Lyman B. Kirkpatrick, was named Chairman of the Working Group on Organization; the other two members were  then Secretary of the President's Foreign Intelligence Advisory Board (PFIAB), and General Cortlandt V. R. Schuyler, U.S. Army, Retired, an adviser on the staff of Governor Nelson Rockefeller.

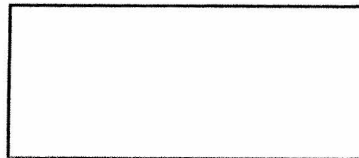
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One of the major concerns of the group was the proposal for the establishment of a new Directorate for Research, supported by Mr. McCone and by Dr. Herbert Scoville, Jr., then Assistant Director of Scientific

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Intelligence. The purpose in setting up the new research directorate, according to Mr. McCone's original concept, was

...to pull scientific and technical talents of the Agency together in one office headed by the Deputy Director (Research) and thus provide more complete intelligence and cross-fertilization of our scientific talents on the one hand, and on the other hand, create a sufficiently large "magnet" to attract and offer an opportunity and a career to new, highly-trained technical personnel. 4/

Mr. Bissell, who was then Deputy Director for Plans but who was shortly to leave that post, gave a negative response to the proposal for the new Directorate for Research. He said he believed it infeasible, as well as bad organization, to transfer responsibility for Elint and Comint collection activities out of the Clandestine Services (CS) 

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He was opposed to removing the Technical Services Division (TSD) from the CS because there must be closely unified control between development of equipment and its operational use by the CS. Lastly, he believed it was unwise to place the Assistant Director for Scientific Intelligence (AD/SI) under any superior officer other than the Deputy Director for Intelligence. Mr. Bissell agreed, after making the above exclusions, that the new Deputy

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Director should have the responsibility for advanced reconnaissance projects, perhaps the Photo Interpretation Center, and some of the larger Elint and Comint collection enterprises. However, it was not clear to him why a Deputy Director was required since he felt that a senior officer attached to the Director as an assistant for special projects could handle the advanced reconnaissance projects with the help of a small staff (in a set-up similar to that occupied by Mr. Bissell during the U-2 development). 5/

Despite this negative reaction, and before the Kirkpatrick [ ] Schuyler report was written, Mr. McCone informed the PFIAB on 22 January 1962 that he intended to create a new deputy director for technical collection under whom all of CIA's scientific activities would be brought together. Dr. Killian, then Chairman of PFIAB, at the same meeting had encouraged the DCI to maintain a scientific approach to new problems of collection, and not to allow the quality of imagination in CIA to be diminished. On 14 February 1962, Mr. McCone gave advance notice of the formation of the new directorate [ ] [ ] which announced the resignation of

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\*Appendix A, Tab 1.

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Mr. Bissell and the appointment of Mr. Richard Helms to the position of DD/P. An additional paragraph read

The organization of the DD/P is currently being studied and certain changes are contemplated. There will be created a Deputy Director for Research and Development and certain of the Research and Development functions now administered by the Deputy Director (Plans) will be transferred to that Deputy. 6/

Mr. McCone offered the new Deputy Directorship to Dr. Scoville, who accepted and immediately set to work drafting a proposal on the make-up of the new directorate. On 16 February, [redacted] an- 25X1 nouncing the establishment, effective 19 February 1962, of the Office of the DD/R and the assignment of Dr. Scoville, who was to continue to act as AD/SI during the transition period. 7/ Also on 16 February, Mr. McCone asked for a proposal designating the elements of the Development Projects Division (DPD), heir to the U-2 project, which should be transferred to DD/R and those to remain in DD/P. Between 17 and 28 February, Mr. Bissell, serving in the capacity of Acting Chief of DPD, carried out the DCI's request, reaching certain general conclusions regarding the reorganization of DPD and the establishment of the DD/R.\*\*

[redacted]

\*\*See "DD/R Components, OSA," pp. 19-24, below.

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1. DD/R Organization: Activities to be Included

Dr. Scoville's draft proposal on the organization of the DD/R recommended inclusion of three general types of scientific and technical activities: (a) research and development on technical collection and data reduction systems; (b) production of intelligence on scientific and technical capabilities of other countries; and (c) conduct of all operations using technical collection methods and of scientific and technical operations using classical agent techniques.

Specific Agency activities recommended for inclusion were: (a) the special projects component of DPD; (b) the research and development and laboratory testing component of TSD; (c) the DD/I's Office of Scientific Intelligence (OSI), including all Elint activities; (d) the Elint activities of the Office of Communications (O/C), and its research and development in Comint and agent communications; and (e) a new Career Service under the chairmanship of the DD/R to encompass scientific and technical personnel Agency-wide. 8/

Mr. Helms, then DD/P, after giving careful consideration to the advantages and disadvantages of separating the research and development function from TSD,

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in consultation with senior CS officers, recommended

that research and development activities of TSD which are performed in close support of Clandestine Services activities remain within the Clandestine Services, and that the research and development effort which is directed toward the development of systems and equipment which do not directly support Clandestine Services activities be transferred out of TSD to the Office of the DD/R. 9/

Mr. Robert Amory, Jr., then DD/I, after considering Dr. Scoville's draft, informed the DCI on 19 March 1962 that it would be undesirable and against the best interests of the Agency to move OSI from the DD/I to the DD/R for the following reasons:

a. The DD/R was being established to give two arms to the Agency's collection effort: the classical and the scientific (experience having shown that both tasks were too big for one administrator). He felt the direction of all advanced methods of intelligence data collection was a demanding task and would fully occupy the DD/R staff. The fact that more than one-third of the Agency's budget was involved in these projects, Mr. Amory felt, supported this view.

b. The assessment of a country's capabilities and possible courses of action must include scientific and technical factors along with military, economic,

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and political ones. Fusion of discipline rather than separate compartmentation was necessary to balanced, rounded intelligence, and integration must take place at all levels of analysis and production for all finished studies, estimates, and current intelligence publications.

c. Mr. Amory was opposed to lumping research and development people in with intelligence-producing scientists in the same career designation since the latter were first and foremost intelligence officers utilizing their scientific background to assist them in a process of reasoning no different from that engaged in by political scientists or economists.

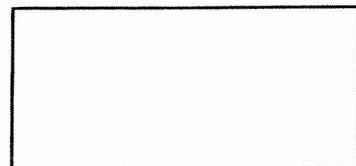
d. The Director of OSI would be in a better position to represent the Agency in questions of scientific intelligence on foreign countries' capabilities if he were not under the shadow of a senior Agency official engaged in developing and promoting particular collection systems.

e. Lastly, Mr. Amory cited the supporting views of the Kirkpatrick working group, and of the DD/I officers responsible for National Surveys and Estimates, and for Current Intelligence, all of whom agreed with him that OSI should remain where it was. 10/

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2. Kirkpatrick [ ] Schuyler Recommendations

The final report of the Working Group on Organization, issued on 6 April 1962, was in some measure overtaken by events with regard to the section on the organization of the DD/R, and stated

The Office of the Deputy Director (Research) having already been created, we now make the following recommendations as to those units which should be included under this Deputy... 11/

Units listed were the special projects staff of DPD, including necessary support elements, all Elint activities, all TSD research and development, National Photo Interpretation Center (NPIC) research and development, and certain research and development of the Office of Communications. As for OSI, although it was well understood that the DCI wished it to go over to the DD/R, the report recommended against this. Finally, calling attention to the DCI's intention to have the DD/R carry out the operational phase of certain major projects, the report underlined the likelihood that DD/R's prospective key people (scientists and technical experts) would have no professional intelligence operations experience and little background or interest in detailed operational problems, particularly security. It was suggested, therefore, that as a general rule—granted that there would be exceptions—when operations began, responsibility

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for operations should be with the DD/P, but that the DD/R should retain responsibility for seeing that the equipment he had developed continued to function properly. 12/ This suggestion was strongly opposed by Mr. Bissell during the February 1962 discussions, particularly with regard to the projects being transferred to the DD/R from the DPD.\*

Indications at that point were against the achievement of the goal set by the DCI of gathering all scientific and technical activities under the DD/R. Mr. Kirkpatrick, who was appointed to the newly-created post of Executive Director on 10 April 1962, collaborated with Dr. Scoville in trying to pull together, during April and May 1962, all agreed elements of the DD/R and draft a Headquarters Notice setting forth the DD/R's terms of reference. They were unable to reach agreement on the draft.

The Executive Director returned to Mr. McCone on 17 May 1962 with a recommendation that he accept less than his desired goal. Mr. Kirkpatrick told the DCI that, after extended discussions relative to the transfer of OSI with Dr. Ray S. Cline (who had succeeded Mr. Amory as DD/I on 23 April 1962), and with Dr. Scoville, it boiled down to the fact that Dr. Cline felt if he lost OSI he would simply

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\*See "DD/R Components, OSA," pages 19-21, below.

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have to create another OSI in order to do his job of intelligence production and estimates. The DD/R would like to have OSI not only in order to centralize scientific and technical efforts in one place but as a reservoir of talent. Dr. Scoville wanted to have all TSD research and development and felt that those items the DD/P was willing to release were "cats and dogs." Mr. Kirkpatrick said, after considerable study of the matter, that

it would appear to me preferable to allow the DD/R to grow by evolution and accretion rather than any drastic surgery on either DD/I or DD/P. I believe the DD/R has a tremendous responsibility and a burden in the two major projects for which he is now responsible. However, I believe that he should be given a high priority for borrowing or acquiring personnel, when needed, from either the DD/I or DD/P. Further, I think he should head and direct a scientific and technical career service for those individuals in the DD/I or DD/P who would prefer to belong to such a service rather than the DD/I or the DD/P career service. Finally, I would recommend that he be given authority to recruit personnel and develop his own research and development complement with a broad charter as to the areas for coverage. 13/

A month passed with no progress toward organization of the DD/R other than the establishment of a Table of Organization (T/O) for the immediate office of the DD/R. The Director of Personnel reviewed the requested staffing complement and found it in line as to positions and grades with other Agency components. A ceiling of five supergrades and eight administrative/clerical positions was requested

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and approved by the Director of Personnel and the Deputy Director for Support on 22 June 1962, the supergrades to be absorbed within the Agency ceiling and all 13 slots to be accommodated within the total FY 1963 authorization.\*

On 27 June 1962, Colonel Edward B. Giller, USAF, (formerly Deputy Chief, TSD), was appointed Assistant DD/R.\*\*

From TSD were also recruited [redacted] to be 25X1  
Dr. Scoville's secretary, and [redacted] to 25X1  
organize the DD/R Registry and serve as its Chief.

In view of lack of progress in carrying out the DCI's directive for organizing the DD/R, Dr. Scoville at the end of June reported to the DCI on the delays encountered. As a result, Mr. Kirkpatrick produced a further draft organization plan, but Dr. Scoville was not satisfied with the proposed language relating to the DD/R's research and development mission and to the transfer of funds, personnel and other assets. 25X1

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Dr. Scoville's two assistants, [redacted]  
[redacted] on 5 July 1962 presented a compromise position paper, offering an alternative to the course of action the DD/R had followed, thus far without

\*See Fig. 1, overleaf, for first T/O.

[redacted]

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success, in trying to get the DD/R into productive business. Noting that the task was not to create a wholly new function, but rather to reorganize the management of existing ones, they emphasized that freedom of action was circumscribed to an extent by Agency history, so that a distinction had to be drawn between the desirable and the possible. The tenor of their recommendations was to accept what was attainable from DD/P and get on with the work of consolidation, after which, inevitably, the question of OSI would be reopened. 14/

Dr. Scoville was, in the end, forced to accept this philosophy, since Mr. McCone chose not to join battle with the opposition. Mr. McCone said later

The reasons for the opposition appeared to me to be valid and were based primarily on the fundamental concept of organization of the intelligence establishment and specifically on the concept that the interface between DD/I and OSI, and between DD/P and TSD, was so important that to fracture it by moving these two units out from under their respective Directorships would incur great risk of impairing the fundamental missions of DD/I and DD/P, the success of which is basic to CIA's responsibility. 15/

Mr. Kirkpatrick notified the Deputy Directors and the Comptroller by memorandum of 26 July 1962 of the long-awaited  setting forth the mission and responsibilities of the DD/R. In order to avoid controversies in the future he spelled out the division of responsibilities in those areas which had

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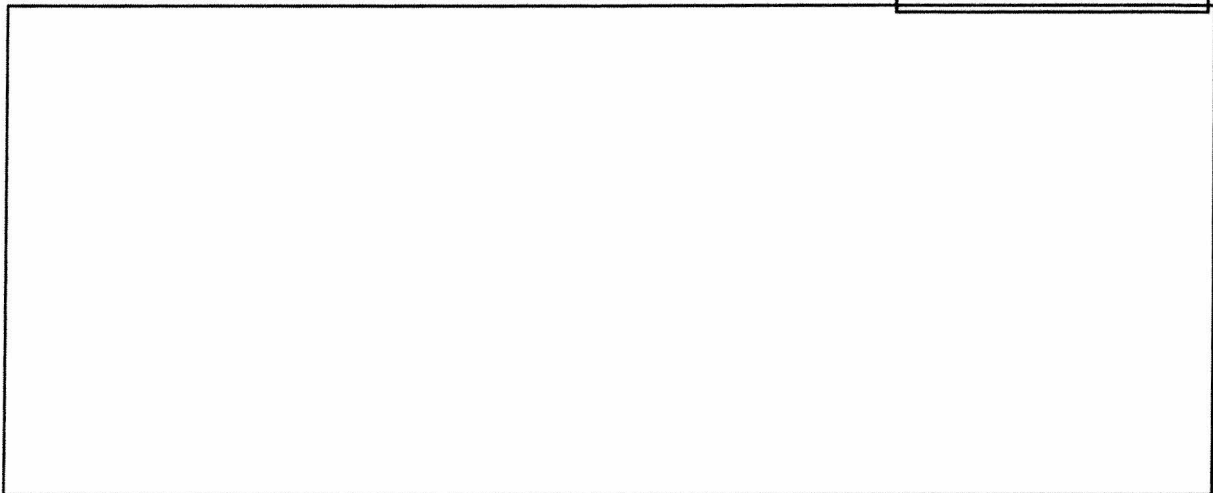
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been at issue: the DD/P would continue to carry on research and development (such as TSD's) directed primarily toward supporting agent operations; any research to support Covert Action would remain in DD/P unless specifically and mutually agreed between DD/R and DD/P; any developments achieved by DD/R adaptable to DD/P operations would be reviewed jointly on reaching the breadboard stage; DD/R would be responsible for over-all guidance of all Elint activities

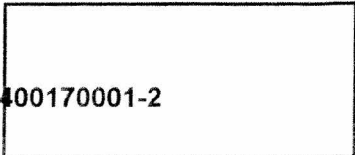
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It was recognized that in creating a new entity in any governmental organization, which by its very nature cuts across previously established jurisdictions, there would be matters at issue which must be reconciled. Mr. Kirkpatrick therefore urged that personnel in all directorates use their best diplomacy and tact in reconciling differences among themselves, with the right of final appeal to the Director's office. 16/

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3. DD/R Components

[Redacted]

stated that the mission of the Deputy Director for Research was to conduct in depth research and development in the scientific and technical fields to support intelligence collection by advanced technical means, exclusive of those research and development activities to support agent operations. It further announced the establishment of the Office of Research and Development (ORD), the Office of Elint (OEL), and the Office of Special Activities (OSA), under the jurisdiction of the DD/R.

a. Office of Special Activities (OSA)

Recommendations on the transfer of DPD elements to the DD/R, which Mr. Bissell had discussed with the Kirkpatrick task force on organization, were presented to Mr. McCone on 5 March 1962. The general conclusion was to give responsibility for specialized reconnaissance projects, including research and development and operational activities thereof, together with supporting activities to the DD/R. Air activities in support of Clandestine Services operations were to be left under DD/P [Redacted]

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[Redacted]

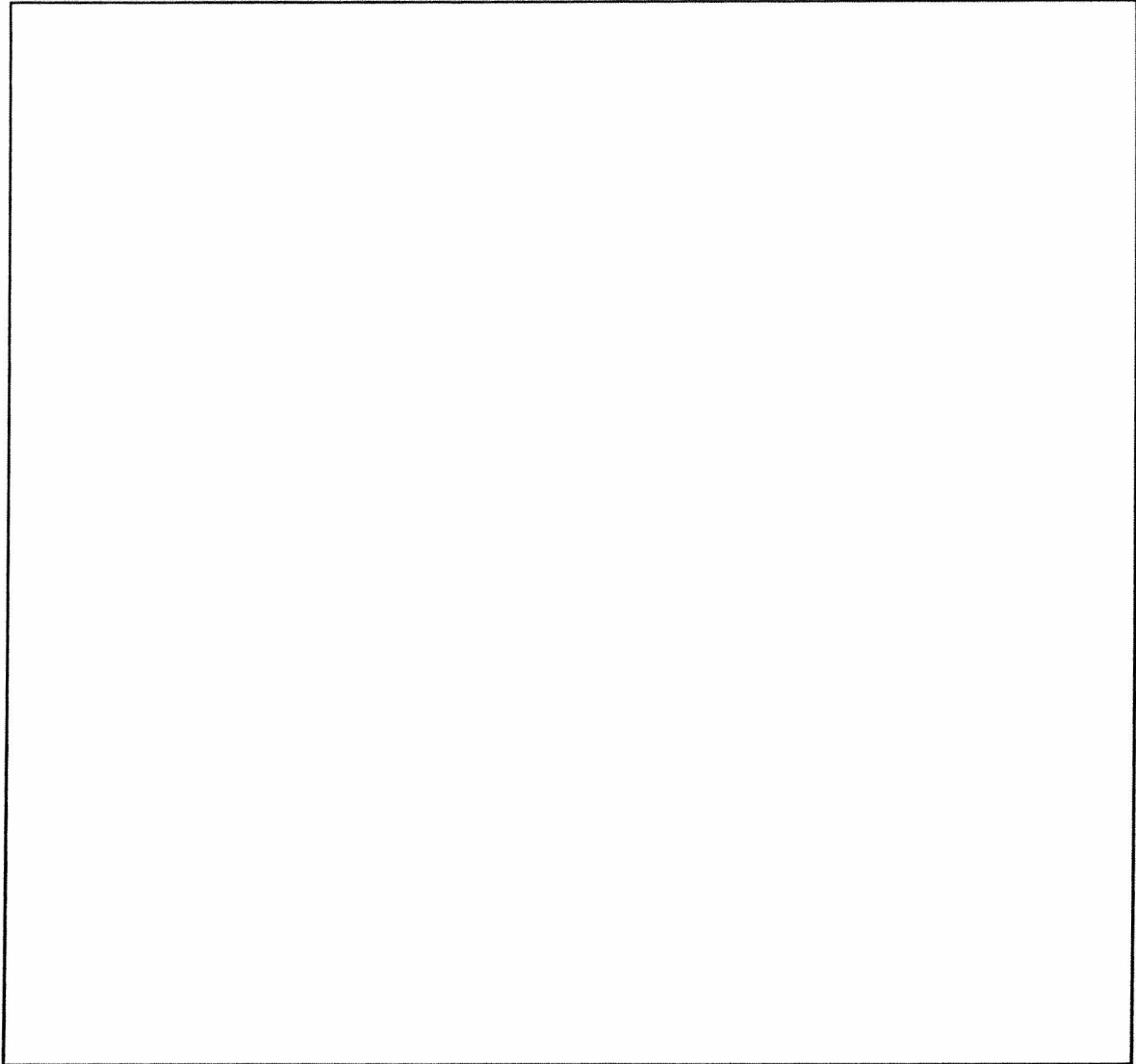
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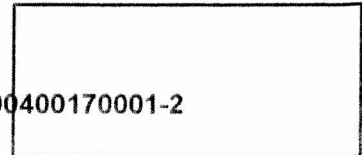


Mr. Bissell said that some believed the DD/R should have responsibility for all research and development activities having to do with aircraft and other reconnaissance systems, and the DD/P should have all operational responsibilities. He felt this unwise for it would require a complex split within the subcomponents of DPD,

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and a vastly more complex interface between the personnel and activities of the DD/R and the DD/P. For example, a man developing a more accurate cargo parachute would be responsible to one Deputy Director while the man who would be conducting the cargo drops in the field, and who might have his own ideas on how the parachute should function, would be responsible to the other Deputy Director. Mr. Bissell said that one of the great lessons learned from the U-2 project was

that the most intimate possible administrative marriage of research and development and operations is essential if the development process is to be both swift and at the same time responsive to operational needs. It is a source of vast strength in the current and past organization of DPD that developmental, support, and operational elements were brought under common command at a level well below that of a Deputy Director. This is the essence of "project" organization as distinguished from "functional" organization. 18/

The Kirkpatrick- Schuyler report recommended that the Special Projects Branch of DPD plus the necessary supporting elements, "including those projects supporting the Department of Defense in advance reconnaissance programs," be placed under the DD/R. On  was issued by the newly-appointed Deputy Director of Central Intelligence (DDCI), General Marshall S. Carter, U.S. Army, announcing

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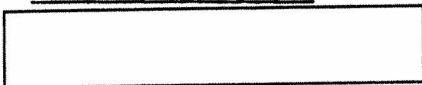
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that the transfer would be made.\* Details of this action were left to be worked out between the DD/P and the DD/R.

After two months of negotiating the precise transfer of personnel and other assets to the DD/R, the DPD continued to function as a single unit while awaiting completion of arrangements. This created an increasing lack of clarity with regard to policy and command decisions, and on 15 June 1962 Dr. Scoville wrote to the DD/P

I believe that it is highly desirable to effect at the earliest possible date a clearcut delineation between the command and policy channels of the two major activities involved. While there can be a mutual interchange of technical assistance, I am convinced that it is highly desirable that both these units begin to operate on their own. To this effect I desire that 18 June 1962 be the date on which separate command channels should be activated. Thus, it is expected that on that date air support activities will report to the DD/P while the redesignated Office of Special Activities will report to the DD/R. 19/

The desired division of command did not come about and Dr. Scoville, after turning down the DD/P's third draft proposal for a split of DPD resources, wrote to the DD/S on 28 June 1962 for assistance in obtaining the support positions required by OSA. He said he quite understood the DDP's reluctance to weaken his own structure by giving

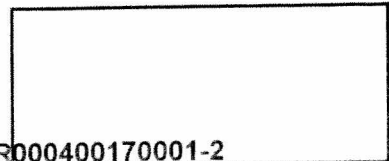


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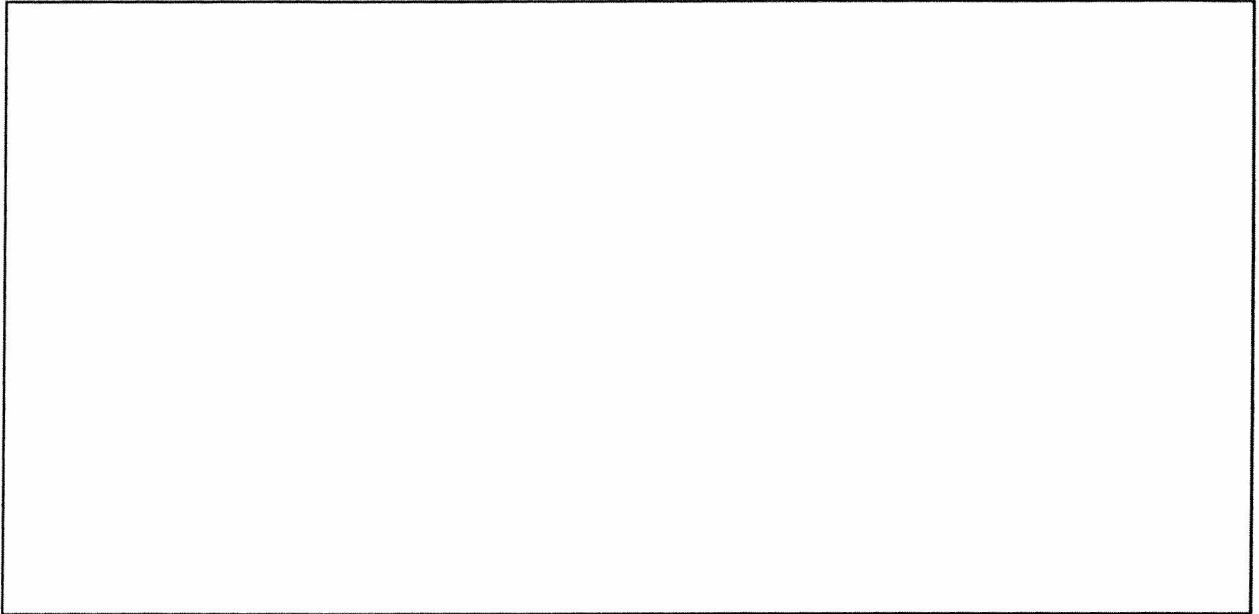




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up personnel, but the DD/R did not wish to take the  
responsibility for a critical program without the people  
to do the job. 20/

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It had taken from February to November in  
1959 to reach agreement on amalgamation of DD/P area air  
support activities with the special aerial reconnaissance  
projects under the DPD; it required from February to August  
in 1962 to reverse this organizational arrangement.

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The Chief of DPD at the time of its divi-  
sion between OSA  was Colonel Stanley W. Beerli, USAF,  
whose tour with the Agency was to finish at the end of July  
1962; therefore his Deputy, Mr. James A. Cunningham, Jr.,

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25X1 was designated Acting Assistant Director for Special Activities at the beginning of August 1962 when OSA was established. Meanwhile, a candidate was sought for the AD/SA job, which entailed the management of an organization of more than [redacted] in Headquarters and at domestic and foreign bases, as well as an equal number of contractor personnel for whom the AD/SA would have indirect administrative responsibility. The ideal individual for this job, according to Colonel Giller's recommendation, which was approved by Dr. Scoville, would be

...a relatively senior Air Force colonel or brigadier general\* having recent command experience in SAC, some familiarity with R&D problems and a previous tour in Headquarters Air Force. This officer's strong point should be the organizing and managing of a diversified and dispersed organization... 21/

The candidate proposed by the Air Force and accepted by the DD/R and DCI was Colonel Jack C. Ledford, who was designated Assistant Director for Special Activities effective 4 September 1962. At the same time Mr. Cunningham was named Deputy AD/SA. A detailed history of OSA from 1954 through 1968 is on file in the Office of the DD/S&T.

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\*Although the wisdom of placing an active duty Air Force officer in this slot has been questioned from time to time, the practice has continued up to the present (1972).

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b. Office of Elint (OEL)

The CIA Elint program, up to the time of its amalgamation under the DD/R, had been the responsibility of a number of components: Office of Scientific Intelligence, DD/I; Office of Communications, DD/S; Technical Services Division and Development Projects Division, DD/P; and several DD/P area divisions. Coordination had been effected by means of an Elint Advisory Committee and an Elint Staff Officer, but unified control was badly needed, beginning with research and continuing through collection, analysis, and feedback, in order to exploit fully and successfully this fruitful source of intelligence. Despite the number of offices involved with Elint, the turnover to DD/R of the Elint program was accomplished fairly smoothly, although it did require many months to consummate.

Mr. George C. Miller, who was slated to be the first Assistant Director for Elint (AD/EL), began the early planning for OEL from his position as Chief of the Elint and Special Projects Division of OSI in February, 1962, was officially named AD/EL effective 30 July 1962, and was largely responsible for bringing the various elements of this new office together and defining its mission. The AD/EL was charged with establishing and managing the

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Agency Elint Program; providing technical support and guidance for Agency Elint projects and analyzing and reporting the product thereof; supervising or conducting all research and development for Agency Elint and Comint activities; advising the CIA Sigint Officer in matters of Elint policy; and maintaining liaison on technical matters with the National Security Agency (NSA) and other government agencies. 22/

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[redacted] formerly of the Office of Communications, assumed the position of Deputy to Mr. Miller on 15 October 1962.

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[redacted]

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[redacted]

c. Office of Research and Development (ORD)

Unlike OSA and OEL, which were reorganized from existing activities, ORD had to be organized "from scratch"—a new organization with no existing structure, positions, or ceiling authorization. The purpose of its establishment was to make maximum use of science and technology in accomplishing CIA's mission by advancing the frontiers of knowledge in some areas and developing new concepts in the application of existing knowledge in other areas. Dr. Scoville requested as a tentative T/O for ORD a ceiling of [redacted] against which to recruit, and an authorization of [redacted] for FY 1964, all of which was approved in principle by the Acting Director, General Carter, on 9 November 1962. A recruiting program to secure well qualified candidates from the entire spectrum of scientific disciplines was begun in coordination with the CIA Office of Personnel.

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Colonel Giller was designated Acting Assistant Director for Research and Development (in addition to his position as Assistant DD/R) on 29 November 1962 in order to give leadership to the planning and organization of this new office.

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[redacted]  
[redacted] the Deputy Assistant Director of ORD

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on 9 September 1963. Colonel Giller wore two hats until his departure in May 1964, when Mr. Chapman became Acting AD/RD. (He was confirmed as Assistant Director on 19 March 1965.)

At the end of 1962, ORD was given a few of TSD's research projects (those which fell into the category of general intelligence application and which were not exclusively oriented toward the Clandestine Services' requirements). One of these was the project looking into the intelligence applications of [redacted]

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[redacted] who was in charge of this activity in TSD, moved to ORD along with that work, later becoming Chief

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of the [redacted] of ORD. The work of that division, and the others which were formed as ORD became organized, is described fully in the ORD History.

#### 4. Problems of Space and Personnel

In the latter half of 1962, while the Directorate for Research was slowly taking form, Dr. Scoville's small staff faced the problems of finding appropriate and sufficient space in the new Headquarters Building at Langley for housing its current and anticipated personnel, and recruiting, setting pay scales, and establishing a career service for scientific and other professional personnel.

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Dr. Scoville and his personal staff first occupied space in the 3-E-1400 complex at Langley; OSA was divided between two overcrowded areas on the sixth floor, B wing, and on the ground floor, E wing; OEL was spread out in several non-contiguous areas on the second and fifth floors; and ORD existed only on paper. The space situation at Langley late in 1962 was extremely tight and the DD/R's requests for more and better space were to little avail at that time, even though the priority establishment of the new Directorate had the personal interest of the Director's Office.

An inquiry by the Director's Office in mid-September 1962 concerning the fulfillment of the DD/R's support requirements brought the reply from the DD/S that work on the Directorate's T/O was moving ahead and there was no reason why progress should be held up since a tentative ceiling could be issued with later review. The transfer of personnel from other components to the DD/R and recruitment of a full complement would take months at best, possibly two years; therefore the DD/S did not concur in Dr. Scoville's position that he could not take over the existing units of his Directorate in place, or that it was impossible for him to assume his responsibilities until he got all his personnel into contiguous space.

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There were many problems and frustrations which the DD/R and those trying to support him had to cope with in order to launch the new organization; the DD/S felt, however, that with a practical and cooperative approach, the organization could move forward in an orderly manner. 23/

By the end of 1962, through the relocation of certain Agency units outside the Langley Building, more space was freed. The DD/R's priority needs were met little by little during March and April 1963, so that OSA and OEL had secure space behind barriers to cover their most pressing needs.

The recruitment program which was begun in 1962 focused attention on the need to establish grades and pay scales for the various categories of scientists required to staff the new Directorate. When the first T/O was approved in September 1962, Dr. Scoville requested of the DD/S that an improved grade structure, or special salary arrangement, be devised to enable the acquisition of the caliber of personnel needed to carry out the Agency's mission in the scientific field. He asked that the Assistant Directors for OEL, OSA, and ORD be set at supergrade GS-18, and that their Deputies be set at supergrade GS-17; that a special salary scale for hard-to-get categories be set up; and that any supergrade activities transferred to DD/R

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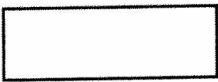
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should have their concomitant supergrade slots transferred along with the activities. 24/ Colonel White, then DD/S, acted favorably on these requests and a proposal for a special salary system covering scientific and technical personnel was developed and circulated in due course for Agency coordination. 25/ The plan was later published as

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The initial DD/R personnel ceiling approved in September 1962, and the first increase approved in mid-November 1962, are shown below.

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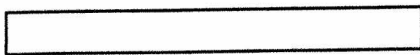
	<u>First Ceiling</u> Sept 1962	<u>New Ceiling</u> Nov 1962
O/DDR	[Redacted]	
ORD		
OEL		
OSA		

A chart showing the over-all growth in personnel for the Directorate from 1962 to 1970 can be found at Tab 2 of Appendix C, along with explanatory notes on the specific increases and decreases.

5. "R" Career Service Established

In Dr. Scoville's initial draft of activities to be assigned the DD/R he included the establishment of a scientific and technical career service, under the DD/R's

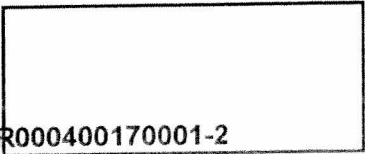
\*See pp. 35-36, below,



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chairmanship, to satisfy Agency-wide needs. On 8 May 1962 the Chief, Plans Staff, Office of Personnel, [redacted] [redacted] spelled out for the DD/R the agreed procedures governing actions on personnel assigned to the DD/R during the initial development of the Directorate, pending the establishment of an appropriate scientific and technical career service:

a. Transferees from other components would retain their Service Designations, later transferring to the "R" designation, unless otherwise agreed by the heads of the two career services.

b. Recruits from outside would be designated "UD" until their identification with the "R" Service.

c. Support positions assigned to DD/R would carry the designation of the appropriate support service.

d. Recruitment and assignment to DD/R from outside would be handled between the Executive Officer, DD/R, and the Personnel Operations Division.

e. The DD/R would approve promotions of all personnel assigned to him except those who by mutual agreement with the head of another career service were identified as permanent members of that service. 27/

Failure to achieve the transfer of all Agency scientific activities to the DD/R caused Dr. Scoville to

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reconsider the concept of an "R" Career Service and he noted to the DCI on 20 June 1962

...The proposed assignment of responsibilities contained in.../Mr. Kirkpatrick's draft/ would result in having a majority of the technical personnel in the Agency not under the command of the DD/R. OSI, TSD, and OC would each have more technical personnel than the entire DD/R. An analysis of the problems involved in carrying out a true S&T Career Service within this structure indicates that the problems would be virtually insurmountable—therefore not a practical concept. In the place of a career service, the DD/R would now recommend a watered-down career council type of arrangement which would attempt to improve the management of S&T personnel by mutual agreement between the major Agency S&T components. 28/

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The DD/R Executive Officer, [redacted]

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[redacted] drafted a proposal to establish a "Scientific and Technical Career Service Committee" with the objective of improving the Agency's capability to attract, utilize and retain qualified S&T personnel necessary to accomplish the Agency's mission. The notice was circulated for concurrence at the end of June 1962 but its approval and formalization was delayed during the struggle to get the DD/R organization off dead center. It was resubmitted for approval on 2 November 1962 and several changes recommended by the DD/P, DD/S, and DD/I were incorporated: (a) the name was changed to "Scientific and Technical Personnel Advisory Committee" in order to avoid the use of the words

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"Career Service" in its title; (b) the committee was to be advisory to the Director of Personnel who would act as Chairman rather than the DD/R; and (c) all Agency components using S&T personnel would participate.

The DD/R on 19 February 1963 issued Directorate Notice DD/R 20-1\* setting up its internal career service and outlining the administrative structure for implementing the Agency Career Program within the "R" Career Service. OSA, OEL and ORD each in turn set up its own internal career panel.

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The [redacted] establishing the Scientific and Technical Personnel Advisory Committee was finally issued on 26 March 1963 and the first meeting was held on 25 April 1963. The Director of Personnel, Emmett Echols, chaired the first meeting and representatives of the four Deputy Directors attended as members.

The first agenda item to be considered by the Committee was the Scientific Pay Schedule (SPS), which had been approved by the DDCI, General Carter. It was issued on [redacted]

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\*Appendix A, Tab 5.

[redacted]

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[redacted]

and carried the title "Management of Specially Qualified Scientific Personnel." It established a personnel management and pay administration system for personnel assigned to selected scientific positions involving (1) the planning, organizing, directing, and coordinating of major scientific programs, or (2) the planning and execution of productive research or consultation of a very high order in a specialized branch of a scientific field.

Each position under the SPS was to be designated by title and occupational code used for comparable general schedule positions but using the prefix SPS, rather than GS. Pay rates were fixed between the minimum rate of GS-16 to the rate of GS-18 (corresponding to the first four steps of GS-16, the first four steps of GS-17, and GS-18, a total of nine steps). The DDCI was authorized to establish ceilings for total SPS positions and total salary Agency-wide. Qualifications for appointment were set out along with particular responsibilities of the DDCI, the Director of Personnel, the various Deputy Directors, the Comptroller, and the S&T Personnel Advisory Committee.

The numbers of SPS and supergrade positions authorized the DD/R for Fiscal Year 1964, by Office, were as follows:

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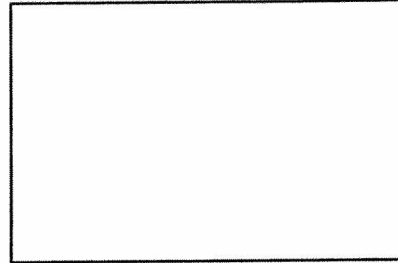
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Supergrades

SPS

O/DD/R  
OCS  
OSA  
OEL  
OSI  
ORD



As of July 1963, when the allotment of these positions became effective, the Directorate for Research was in the process of being reorganized as the Directorate for Science and Technology with two additional offices, OSI and OCS, being assigned to the DD/S&T effective 5 August 1963.\*

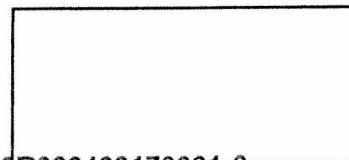
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\*Further developments in the "R" Career Service under the DD/S&T are covered in Chapter III, beginning at p. 109.

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II. The Directorate Expanded and Designated Directorate  
for Science and Technology, August 1963

A. DD/R Organization Reviewed by Mr. McCone

The frustrations encountered in the attempt to organize CIA's scientific activities under one roof, with less than the complete accord of the Agency's hierarchy, were paralleled by the trials experienced in trying to reach agreement with DOD on the respective roles of the participants in the National Reconnaissance Program (NRP). Dr. Scoville had the responsibility for both of these interlocking efforts and thus suffered a double measure of the resultant exasperations. It may be said that Dr. Scoville probably did not pursue either goal as aggressively as Mr. McCone would have desired. Some staff members believed that Dr. Scoville was "too gentlemanly" for the kind of fight which developed; others recall hearing him on numerous occasions express his frustration over the lack of support from the top in what he was trying to accomplish.

Mr. McCone's expectations with regard to his planned scientific directorate had been equally dampened by the lack of support for the plan displayed within the Plans Directorate and the Intelligence Directorate. He had stated his desires with regard to the kind of set-up

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he wanted and had left the reorganization up to the DDCI, the Executive Director, and the DD/R. At meetings with those three concerning the Research Directorate Mr. McCone continued to press for a more vigorous effort toward completion of the reorganization; however, he stopped short of issuing a directive to the DD/I and the DD/P ordering them to relinquish all scientific elements under their control to the DD/R.

On 1 October 1962, Mr. McCone in a private session with Mr. Kirkpatrick discussed the DD/R set-up at length and said he was not convinced the organization was developing along correct lines. He felt the whole CIA scientific effort was unimaginative and not sufficiently aggressive, and that it did not make its weight felt in the government. He said that in the entire time he had been Director he had never had either the DD/P or the DD/I raise scientific or technical matters with him. He was personally convinced that scientific and technical collection would surpass that by agents. 30/

Mr. McCone inquired as to the status of the scientific advisory group he had asked be set up, and was told by Mr. Kirkpatrick that since the DD/R had not succeeded in acquiring OSI and all of TSD, Dr. Scoville

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saw no immediate purpose in setting up such a group. Mr. Kirkpatrick had therefore asked  of the Director's Office, to take over the setting up of a scientific advisory board to supersede the DeFlores Committee, which then was concentrating principally on scientific applications of interest only to TSD/DD/P. Mr. McCone alluded to the fact that the White House Science Adviser had acted to reestablish the Bethe Panel to evaluate the current Soviet nuclear tests. He regretted that the Agency had failed to take the initiative and do that job. 31/

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Mr. Kirkpatrick referred to the possibility that Dr. Scoville might resign due to his frustrations, a matter which Dr. Scoville had discussed with others, but not with the Director or Mr. Kirkpatrick. Mr. McCone said that he did not care whether it was Dr. Scoville or someone else who ran the DD/R, as long as it was organized properly and the job was done correctly. He said he would not discuss the DD/R organization further with Dr. Scoville until he (Mr. McCone) had thoroughly thrashed the matter out with General Carter and Mr. Kirkpatrick. He expressed an interest in knowing why the members of his Executive Committee felt the present set-up was satisfactory, but he

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said he had no intention of conducting such a poll since it was the DDCI's responsibility to run the Agency. 32/

On 3 October 1962 Mr. Kirkpatrick met with Dr. Albert D. Wheelon, who had succeeded Dr. Scoville as Assistant Director for Scientific Intelligence on 1 July 1962, and told him that the Director was not satisfied with the organizational structure of the DD/R, but still felt that all scientific people in the Agency should be included. Dr. Wheelon said he felt that OSI at that time continued to fit more logically into the DD/I. He said, however, that if the DD/R should inherit

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the proposed Missile and Space Technical Intelligence Center\*\* then it would be more logical for OSI to come under the DD/R. He said he had suggested to Dr. Scoville that both of these activities should be within the DD/R, but had not been able to stimulate much interest on Dr. Scoville's part in pressing for their acquisition. 33/

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\*\*This proposal (known as MISTIC) later developed into CIA's Foreign Missile and Space Analysis Center (FMSAC).

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Dr. Scoville's reluctance to reach out for additional activities is understandable when one considers the difficulties he had already encountered in trying to bring together those which had received the Director's blessing.

B. PFIAB Recommendations on Technical Capabilities

Several months passed with the DD/R organizational status unchanged. Activities related to the Soviet missile build-up in Cuba took precedence over almost all other activities between September 1962 and the end of the year. In January 1963, Dr. James Killian, then Chairman of PFIAB, raised with Mr. McCone the question of progress in the organization of the Agency's scientific and technical intelligence activities, indicating that further pressure toward that end could be expected.

At the March 1963 meeting of the PFIAB, recommendations for action by the Intelligence Community to improve its capabilities across the board were given to Mr. McCone and to the Secretary of Defense. Section 13 of those recommendations related specifically to scientific and technological intelligence and because of its influence on subsequent developments in the Agency's scientific and technological activities, it is quoted here in full.

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13. Strengthening Technical Capabilities.  
The Board recommends that top priority be given to the creation, organization and exploitation of new resources of science and technology for use in intelligence activities.

Except in limited fields, of which photographic reconnaissance is one, we have merely scratched the surface in exploiting the use of science and technology for intelligence purposes.

To move ahead with an adequate program, the Board proposes the following:

(a) The creation of an organization for research and development which will couple research (basic science) done outside the intelligence community, both overt and covert, with development and engineering conducted within intelligence agencies, particularly the CIA. Institutional research, academic and industrial, must be joined to mission-oriented research.

(b) The installation of an administrative arrangement in the CIA whereby the whole spectrum of modern science and technology can be brought into contact with major programs and projects of the Agency. The present fragmentation and compartmentation of research and development in CIA severely inhibits this function.

(c) The clear vesting of these broadened responsibilities in the top technical official of the CIA, operating at the level of Deputy Director. Recasting and extending the CIA's present Office of Research may accomplish this. If it does not, alternative administrative arrangements must be devised. This technical official as we conceive his responsibilities, should have reporting to him the following groups, each managed by a competent technical leader:

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(1) Technical Requirements Group, to generate and review the technical needs of the whole CIA operation (close coordination with the Defense Intelligence Agency is implied.)

(2) Systems Engineering Group, constantly to examine technical requirements as to feasibility, cost and values, in the light of evolving knowledge and discovery.

(3) Development Group, to undertake execution of suitable, approved, systems plans. (Contracting for components, assemblies, and equipment might be a preferred mode, but this is different from the "project management" so often used now.)

(4) Field Engineering Services Group, to aid operational elements in installation, use and maintenance of new facilities. A quality control regime should be instituted to follow reliability and other performance of equipment.

(5) Behavioral Sciences Group, to augment classic roles of psychology and medicine in intelligence planning and operations. For example, professional anthropology, programmed teaching and learning and audio and visual perception might be covered. (Programmed instruction may have a particularly strong place in role playing, disguise and "foreign" operations by agents.)

(d) Formation of a few special research and development groups that may be part of a natural science division, probably coordinated with the behavioral sciences group, that cross-connects various classic disciplines in ways of primary importance to intelligence missions. Thus, studies of camouflage in plant, bird and animal systems (where it seems to be a highly developed element in survival) coupled with physical optics, radiation and spectroscopy,

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might reveal new methods of both disclosure and concealment.

(e) Actions within the DOD: (1) to emphasize research in advanced sensing systems, advanced photographic systems, and in other sophisticated areas of intelligence gathering and (2) to strengthen advanced research in the signals intelligence field, particularly to prepare for the environment in which signals intelligence must function over the course of the next ten years.

The importance of intelligence warrants a major effort to draw fully upon the most advanced science and the best scientific brains in the nation. Our scientific intelligence should be so sophisticated and advanced that it will be beyond the capabilities, if not the imagination, of our adversaries. 34/

Mr. McCone responded to the PFIAB's recommendations via the President's Special Assistant for National Security Affairs, Mr. McGeorge Bundy, on 15 April 1963. Since no specific organizational or administrative developments geared to the comprehensive concept spelled out by the PFIAB had occurred, it was deemed best to generalize about progress to date and plans for the future. Mr. McCone reported that since taking office he had given top priority to the creation, organization, and exploitation of new resources of science and technology for use in intelligence activities through the creation of a new Deputy Directorate for Research with three offices under it. He also reported with regard to future plans

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In addition, I considered the addition to the DD/R of the Office of Scientific Intelligence from the DD/I and the Technical Services Division from the DD/P, but upon strong staff advice suspended action on this for a period of observation. That period has now elapsed and I will move ahead with additional changes, starting with an intra-Agency board for staff direction of the scientific and technical effort, and giving the DD/R expanded responsibilities...35/

C. Dr. Scoville Resigns

Mr. McCone's undertaking to the PFIAB to move ahead with expanding the DD/R's responsibilities was not put into immediate action. Meanwhile, on 25 April 1963 Dr. Scoville presented Mr. McCone with a letter of resignation wherein he outlined the frustrations he had suffered in attempting to accomplish the Director's objectives. He said that with few exceptions the working components had resisted any transfer of their responsibilities or personnel to the new Directorate and that senior officials had been dilatory and indecisive in facing up to the problems of establishing a new organization within the Agency. Dr. Scoville said in his letter of resignation

While in my discussions with you, you have always indicated your belief in the original basic concept of the DD/R, the actions and statements of senior Agency officials have made it very clear that they do not agree with this concept and that no one is willing to face up to the problems of implementing it. During the year virtually none of my recommendations have been adopted. 36/

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Dr. Scoville added that, while the Deputy Directorship of the National Reconnaissance Office had been granted to CIA, he felt his own tenure in that position would be unrewarding because of the previous stormy history of the program. He therefore wished his resignation to take effect by 1 June 1963. (The date was later extended to 14 June 1963.)

Mr. McCone's choice for a successor to the DD/R soon settled upon Dr. Wheelon (then AD/SI), for whose talents the DCI had developed a high regard. Dr. Wheelon in the spring of 1963, as AD/SI, had begun to attend the Director's morning staff meetings, first in connection with preparations for the nuclear test ban treaty negotiations scheduled for July 1963. Mr. Kirkpatrick later remarked of the great input from the scientific and technical side of the house due to Wheelon's attendance at the morning meetings, and said

...I am impressed by the fact that his presence not only adds to the breadth of analysis that we receive, but I am sure also tends to keep this particular "game honest." I am impressed by the fact that we did not have that type of input before his attendance. 37/

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D. The DD/R Acquires OSI

There still remained to be settled the question of enlarging the scope of the Directorate, a matter on which Dr. Wheelon had firm ideas. Mr. McCone solicited his recommendations as to the form such a reorganization should take and, after speaking at length with a variety of people having unusual knowledge or historical perspective on the pressures against the DD/R concept, Dr. Wheelon concluded that there were two options open to the DCI: (1) Abolish the present DD/R and create a small research and development review staff which would report to the Director, and would review all programs and budgets for CIA R&D including that for joint programs such as NRP; this would require that OEL, OSA, and ORD be reintegrated into other Agency components. (Dr. Wheelon noted that he understood the DCI was not in favor of this option.) (2) Create an improved DD/R invested with authority over all research and development, including budgetary review, funding all R&D money to the DD/R for transfer to the accomplishing component (TSD, O/C, etc.); also make the DD/R the DCI's delegate in the review of all budgeting and programming for the NRP, just as Secretary McNamara delegated his responsibility to Dr. Fubini. 38/

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Assuming the DCI's preference for the second option, Dr. Wheelon said he now believed OSI should be transferred to the DD/R, although it should continue to use the DD/I as its primary channel for reporting substantive intelligence and contributing to national intelligence estimates. However, the DD/I should be relieved of management responsibility for OSI. OSI should be set in a scientific and technical environment and selection of supervisors and decisions on reorganization should be made in an atmosphere of thorough understanding of its problems and common professional experience. (Dr. Cline was at the time working on a plan to reorganize OSI which Dr. Wheelon and others felt would fragment the Agency's scientific and technical effort rather than giving it greater emphasis.) Dr. Wheelon believed that additional benefits would accrue from the transfer of OSI through joint use together with other components of the DD/R of contractors, computers, and specialized personnel. It would become easier to promote the desirable rotation of scientific personnel between analysis and development, and an organizational fusing of analysis and development would ensure prompt technical feedback from foreign developments to our own programs. 39/

The above views of Dr. Wheelon were stated in his memorandum to the DCI of 17 July 1963, on which date

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he met with Mr. McCone and General Carter. He had listed in addition the following R&D functions which he considered should be assigned to the DD/R:

1. All CIA Elint development and operations except clandestine operations.
2. All overhead reconnaissance development and operations assigned to CIA by NRO.
3. All computer development and scientific computation activities  25X1
4. Development and operation of a collection and analysis center for foreign missile and space intelligence.
5. Responsibility for basic R&D for assigned DD/R activities.
6. Responsibility for basic R&D for NPIC, DD/P, DD/S, etc., as requested, or as deemed appropriate in subsequent budget and program reviews. 40/

Thus, Dr. Wheelon at the 17 July meeting put his cards on the table by cataloguing his prerequisites for taking on the DD/R job.

A determined effort was meanwhile being made by the DD/I, Dr. Cline, to persuade the Director that the whole concept of a scientific directorate was faulty and that the DD/R should not be given any more activities,

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particularly not those of OSI. He wrote to the Director on 16 July 1963

My understanding of the DD/R concept is that creation of a new Deputy Directorate was based on three arguments:

a. Pete Scoville needed a Deputy Directorate for leverage with the Pentagon and to show the outside world that CIA takes science seriously.

b. The DCI wanted in every way to emphasize scientific inquiry into new techniques of intelligence collection.

c. Pete Scoville wanted all "scientists" to work together on the grounds that they are clubby and a "critical mass" of them makes for new ideas. 41/

Dr. Cline did not disagree with these arguments but noted that most of the scientists at work in CIA were not the inventive-engineer type but scientific intelligence analysts (such as those in OSI) who worked best in close intellectual contact with other analysts working in the economic, political, and other fields which supplement the study of foreign technology and science. He concluded that the Agency should maintain its "scientists" in three administrative compartments according to task, as currently was the case, and suggested that a new DD/R should head a small, high-quality, creative research and development staff which would operate as an idea factory rather than a line component of the Agency. 42/

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On 24 July 1963, Mr. McCone set down in a memorandum for his own use in making a decision on the expansion of the DD/R the background and developments since the establishment of the DD/R eighteen months previously. He underlined the fact that he had never been satisfied with the views expressed by the Agency's hierarchy which had the net effect of reducing the scope of the DD/R; however, the arguments had been persuasive for him to leave certain units where they were. He now wished to go forward with plans to bring the DD/R up to its original concept, but wanted to be assured that the following questions were satisfactorily answered:

a. If OSI is under DD/R, can I be absolutely sure that OSI will take directions concerning tasks envisaged by DD/I, that the support for DD/I and the Board of National Estimates and the components thereof is continuous, timely and uninterrupted under all circumstances, that there will be a proper integration of technical findings and reporting on Soviet missiles, space, nuclear weapons, etc. with corresponding economic and political opinions developed in OCI, ORR, etc., and finally that we will not have impaired the so-called "flow of information" essential to DD/I and BNE.

b. If the research and development of TSD is placed under DD/R, can DD/P always be assured of timely and adequate support in connection with their research requirements?

c. If the Automatic Data Processing Staff is pulled together as contemplated under DD/R (and this seems logical) would it break the

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line of command in all three Directorates so as to seriously disrupt the respective organizations. If such is the case, it might be that DD/R could own a small highly specialized computer planning staff that could direct the utilization of all our computer assets...

I can see great advantages to the plan. I can also see dangers after a year and a half of study (and the loss of Scoville because we refused to go this route), unless Cline, Helms and White are all aboard 100% and agree that the above questions have been satisfactorily answered. 43/

Having put these questions, Mr. McCone left to General Carter the task of persuading the Deputies to go along.

On 27 July General Carter had a meeting with Dr. Cline, who stuck adamantly to his position with regard to OSI. Later the same day he sent General Carter a memorandum in which he recorded at length his very strong views in the matter. He said that the correlation and evaluation of intelligence relating to national security must be done in an impartial and intellectually objective manner, free from operational or departmental bias. CIA's reputation had been damaged in the past by the "Bay of Pigs" charge that the Agency's operational people evaluated their own activities and product. Therefore, while the concept of a separate entity in CIA to conduct scientific and technical intelligence collection activities was valid,

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the assignment to the same entity of responsibility for evaluation and analysis of S&T data would certainly be suspect. Perhaps more important, Dr. Cline said, was the loss to the DD/I of the S&T analysis function which would sorely handicap him in the task of insuring a CIA capability for providing an objective, integrated attack on the key problems of Soviet strategic weapons development and deployment, and other S&T developments abroad, and of integrating the results with the over-all analysis of related political, military, and economic developments. 44/

General Carter knew that the die was already cast with regard to OSI and he passed Dr. Cline's memorandum to the DCI with a note recommending no general meeting to discuss its contents but suggesting Mr. McCone have a private talk with Dr. Wheelon on the future method of operation he envisaged for OSI under the new set-up, after which the DCI could better chart a course with Dr. Cline. 45/

At that point, the lines were fairly clearly drawn with regard to enlarging the DD/R:

1. The DCI, with the urging of PFIAB, wanted to reconstitute the DD/R as originally envisaged and he wanted Dr. Wheelon to run it.

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2. Dr. Wheelon was willing, given the transfer of OSI, the over-all control of R&D, a computer center, and promise of a missile intelligence center.

3. The DD/P felt TSD should retain all R&D related directly to agent operations, which was largely applications engineering and hardware development.

4. The DD/S did not oppose the centralization of computer activities, provided all users throughout the Agency were afforded the services they required.

5. The DDCI and the Executive Director, who had earlier had some qualms over enlarging the DD/R, had been won over to the McCone/Wheelon position.

Mr. Kirkpatrick, while opposed to change for change's sake, or even for the accommodation of an individual, said that he felt developments over the last year warranted the changes planned. He felt that Dr. Cline's arguments for retaining OSI were not persuasive and that the DCI could be sure that support for the DD/I under the new set-up would be continuous, timely and uninterrupted in all circumstances, and that the senior officers of the Agency had sufficient breadth, quality, and good will to ensure the success of any decision made. 46/

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At the end of July, Mr. McCone left Washington for a ten-day trip and General Carter, as Acting Director, on 5 August 1963 signed and published [redacted]

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[redacted] which stated

Effective 5 August 1963, the following organizational changes are announced:

1. The Deputy Directorate for Research is renamed the Deputy Directorate for Science and Technology.

2. The Office of Scientific Intelligence is transferred from the Deputy Director for Intelligence to the Deputy Director for Science and Technology.

3. The Automatic Data Processing Staff is renamed the Office of Computer Services and is transferred from the Deputy Director for Support to the Deputy Director for Science and Technology.

At the same time, [redacted] announced that Dr. Albert D. Wheelon was named Deputy Director for Science and Technology, and Chairman of the CIA Research and Development Review Board, and that Mr. John F. Blake was named his Executive Officer.

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A formal announcement of the reorganization and introduction of Dr. Wheelon was made by General Carter at a mass gathering of about 500 of the Directorate's staff in the Agency Auditorium.

\*Appendix A, Tab 10.

\*\*Appendix A, Tab 11.

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Dr. Cline, even though the battle to keep OSI was obviously lost, felt impelled to make a last, emotional rejoinder to the publication of the organizational change. He wrote to General Carter on 6 August saying that he was distressed to learn of the reorganization of the Agency to expand the functions of the DD/R at the expense of the DD/I analytical complex. He said he wished to put clearly on record his professional judgment that the decision taken complicated the clean assignment of responsibility for specific analytical tasks in the Agency among the several Deputy Directorates; diminished the capability of the DD/I complex to provide objective, integrated evaluations of foreign developments involving scientific and technical data intimately enmeshed with military, economic, and political data; and, in short, would prove unfortunate for CIA. 47/

In setting up the DD/S&T, there was no further withdrawal of DD/P functions (i.e., the remaining TSD research and development,  were left in place, with the expectation that there would be further discussions at a later date).

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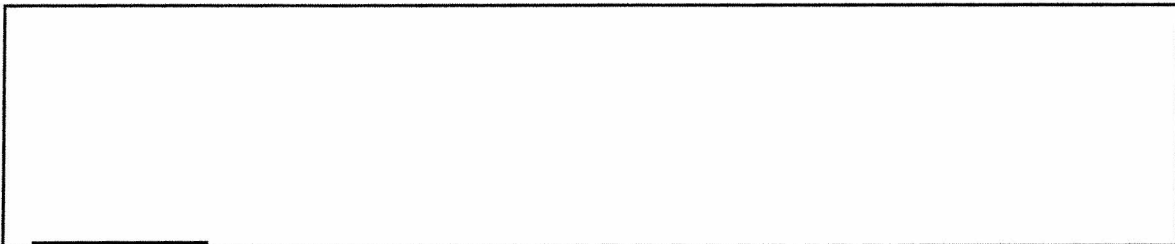
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III. Directorate Under Dr. Wheelon: August 1963 -  
September 1966


A. Background of Wheelon Appointment

Dr. Albert Dewell Wheelon received the degree of Doctor of Philosophy in Physics from the Massachusetts Institute of Technology in 1952, at the age of 23. In 1953 he became a senior member of the technical staff of the Space Technology Laboratories of Ramo-Wooldridge, the principal work of which related to the U.S. Air Force ballistic missile and space programs, and missile technical intelligence collection and analysis. Dr. Wheelon had nine years of experience with STL during which time he also lectured in Electromagnetic Theory at the University of California in Los Angeles, and served in an advisory capacity to the Guided Missiles Intelligence Committee of USIB, the Air Force Scientific Advisory Committee, and the President's Scientific Advisory Committee.

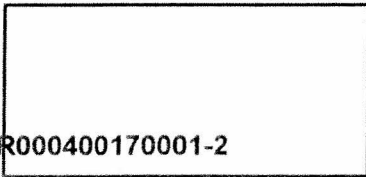
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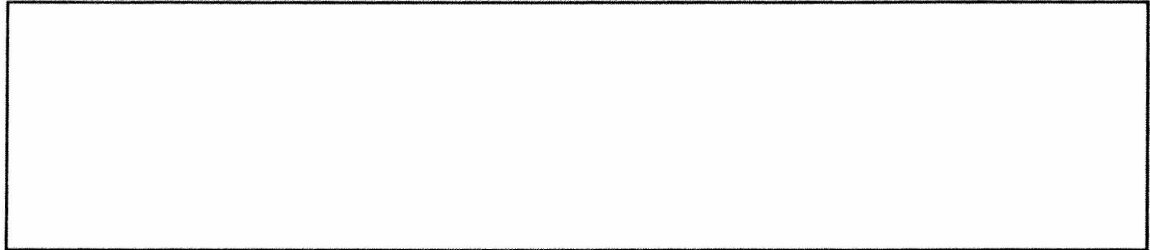
 When in February 1962 Dr. Scoville was asked by Mr. McCone to head the new Directorate for Research, Dr. Scoville, with Mr. McCone's support, persuaded

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Dr. Wheelon to take on the direction of OSI.



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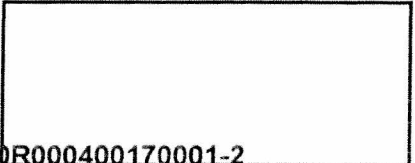
Dr. Wheelon came into OSI in June 1962 shortly after Dr. Ray Cline became Deputy Director for Intelligence. During the ensuing period of adjustment, certain differences became apparent between the two in their general orientation and method of operation, and some accommodations were made in mutual respect. At the end of four months in the position of AD/SI, Dr. Wheelon, in a conversation with Mr. Kirkpatrick, commented on Dr. Cline's brilliance and energy, but noted that the DD/I's interest in the current intelligence field was far greater than in scientific intelligence. Dr. Wheelon said he had been taken to task by the DD/I for reportedly having been a bit irascible with various DD/I staff members. Regular meetings had been instituted between Dr. Wheelon and Dr. Cline in order to keep the latter informed of what was going on in OSI. 48/

In the same conversation with Mr. Kirkpatrick Dr. Wheelon confessed that he at first had misgivings about the job, but now felt confident that he could handle it.

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He feared, however, that if he did the job as it should be done for a few years, he might have to annoy or offend a number of people and thus would not be able to continue to make a career in CIA. He had instituted quite a number of changes in OSI, particularly with regard to personnel matters. His senior supervisors were to devote at least 30% of their time to personnel, getting to know their people and what they were doing, easing out any who fell below standards of performance, and on the other hand encouraging analysts to write better reports and working to get better grades for those who performed well. 49/

In June 1963, when Dr. Scoville resigned as DD/R, Mr. McCone asked Dr. Wheelon to take on the task of directing the reorganization of the Directorate to encompass all scientific and technical activities of the Agency, as recommended by the PFIAB. When Dr. Wheelon accepted that challenge, he carried to the new job the same purpose he had followed as AD/SI--to do the job as he believed it should be done even though he might annoy or offend some people along the way. The problems he faced in organizing the Directorate are described in the preceding and following pages; i.e., the general antipathy within the Agency toward the carving out of a separate scientific directorate; budgetary stringencies; personnel problems; and the

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difficulties involved in integrating all scientific functions of CIA under one roof. In addition to these internal problems, there was a continual struggle with the Pentagon in the effort to maintain a CIA role in overhead reconnaissance within the National Reconnaissance Program.

Dr. Wheelon took on the job of Deputy Director for Science and Technology in August 1963 at the comparatively young age of 34. Among Directorate personnel who worked with him there was no lack of respect for his technical brilliance, or admiration for his energy and drive. There were some, however, who believed that his human relations on the job were in some cases unnecessarily harsh, resulting in the alienation of some staff members. This was part of the price for building up the Directorate which Dr. Wheelon had indicated he was prepared to pay.

B. DD/S&T Organization: Additional Components

A period of consolidation and build-up of the Directorate for Science and Technology took place during 1963-64, encompassing the integration into the Directorate of the newly acquired Office of Scientific Intelligence and the Office of Computer Services; the later establishment of the Foreign Missile and Space Analysis Center (FMSAC); the recruitment of qualified staff, including a number of high-level appointments to the various components

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of the Directorate; and the organization of several boards and panels to advise the DCI and the DD/S&T on scientific and technical matters.

Mr. McCone, reporting to PFIAB on the reorganization of the Directorate, wrote in September 1963

...I believe we have now created a complete and inclusive scientific and technical organizational unit, allowing for the greatest degree of cross-fertilization of the various scientific disciplines. The matter of insuring the most complete and appropriate marshalling of the Agency's competencies in this field will be kept under continuing review. 50/

1. Office of Scientific Intelligence (OSI)

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The integration of OSI into the DD/S&T was effective 5 August 1963.\* The DD/S&T acquired [redacted] on the Headquarters T/O and [redacted] personnel from DD/I. 25X1 At Mr. Cline's insistence, [redacted] were retained by DD/I 25X1 in order to man his Collection Requirements Staff. Also acquired was responsibility for administrative support along with the Chairmanships of the USIB's Guided Missile and Astronautics Intelligence Committee, Joint Atomic Energy Intelligence Committee, and Scientific Intelligence Committee. Dr. Donald F. Chamberlain, previously Chief of the Atomic, Biological and Chemical Division, OSI, was named Assistant Director, OSI, effective 22 August 1963. Dr. Karl H. Weber continued in his position as Deputy Assistant Director

\*Appendix A, Tab 10.

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for Production, OSI, and on 1 October 1963, Mr. Carl E. Duckett was appointed Deputy Assistant Director for Collection, OSI, on a temporary basis, also assuming the Chairmanship of GMAIC. He was recruited by Dr. Wheelon specifically to chair the GMAIC, as well as to head up FMSAC, once that office was established.

Dr. Chamberlain was one of those who favored the transfer of OSI to the DD/R, and he had written to Dr. Scoville in February 1962

The DD/R must seek to be an intelligence producing organization, in addition to collecting and processing raw information. To decide otherwise, it seems to me, would be a complete negation of efforts over the past years by OSI to bring collector and producer closer together... Certainly all our experience of the last several years indicates that the intelligence cycle depends on the closest integration of collector and analyst. Our experience also casts doubt on the possibility of achieving real integration except under one head. 51/

Once the transfer of OSI had taken place, the DDCI, General Carter, laid down guidelines for the working relationship between the DD/S&T and the DD/I, noting that it was essential that the organizational change which had been effected should enhance the free flow of basic intelligence information and exchange of substantive views between the two Directorates at all levels. Over-all responsibility for production and publication

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of finished intelligence and its dissemination outside of CIA was to remain with the DD/I, and while the DD/S&T carried the basic responsibility for production and publication of scientific and technological intelligence, dissemination outside of CIA would require prior DD/I coordination. The DD/I, on the other hand, had the responsibility to coordinate all finished intelligence incorporating scientific and technical material with the DD/S&T prior to its dissemination outside CIA. That directive, dated 30 October 1963, is still in effect.\*

The Inspector General's Staff made a survey of OSI in the summer of 1964 and reported with regard to OSI staff attitudes toward their removal from the DD/I

OSI is not yet over the shock of the transfer of its subordination from the DD/I to the DD/S&T. Almost without exception, OSI professionals, who volunteered comment, believe that scientific intelligence production could be carried out more effectively if OSI were within the Directorate of Intelligence. We do not think it appropriate to re-examine at this time all of the pro's and con's of OSI's location in one directorate or another. The decision to place OSI in the DD/S&T was not lightly made, and OSI has had less than a year of experience in living with its new chain of command--too little to permit a valid assessment of the soundness of its subordination. 52/

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\*Appendix A, Tab 15.

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Seventeen recommendations were made by the IG report, the majority of which related to organization, staffing, career management, and supervisory problems. Only three or four related to the quality of S&T intelligence production. A statement in the report also noted that it was too early to assess the effect of the transfer on CIA's S&T intelligence production.

OSI has continued to carry the responsibility for the production and publication of DD/S&T's intelligence information for more than six years now, and despite the earlier dissatisfaction and friction, there are now well-established working relationships with all levels of the DD/I in carrying out the important function of production of intelligence.

A detailed history of OSI from its inception through 1967, prepared by Dr. Karl H. Weber, Deputy Director, OSI, is on file in the Office of the DD/S&T.

2. Office of Computer Services (OCS)

Prior to the formation of OCS in August 1963, the Agency's computer activities, initiated in 1950, had been vested in the Automation Staff of DD/I and the Management Staff of DD/S, later being merged into the Automatic Data Processing Staff (ADPS) under the DD/S.

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ADPS was charged with establishing a computer center, using IBM 1410/1401 equipment; carrying on Project CHIVE (a joint OCR/OCS project to apply computer techniques to the upgrading of the central reference facilities of the Agency); technical supervision of the ADP Division of the Comptroller's Office; and general electronic data processing for CIA as a whole.

When the DD/R was being set up in February 1962, Colonel Giller, Assistant DD/R, reviewed the use of computers and the ADPS activities being carried out on behalf of DD/P, DD/I, and DD/S. He concluded that the DD/R had only a minor interest at that time, although if a requirement developed for a sophisticated, special purpose computer for which the Agency would finance research and development, then the DD/R should be responsible.

The Kirkpatrick-Schuyler report of April 1962 recommended that the ADPS remain under the DD/S inasmuch as it was a support mechanism, but strongly recommended that the DD/S in consultation with other Deputies concerned, direct the ADPS to pursue aggressively the objective of automation in the Agency in such a way as to ensure the ultimate compatibility of automatic data processing systems throughout the Intelligence Community.

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When Dr. Wheelon was giving consideration to taking on the job of DD/S&T in the summer of 1963, the need for computer services had already arisen in OSA in connection with satellite programming as well as in the A-12 manned aircraft project. Dr. Wheelon and Mr. McCone both believed all Agency computer assets should be consolidated into one center, and that it should be placed under the direction of the DD/S&T. At the time of the 5 August 1963 reorganization, therefore, the ADPS was transferred from the DD/S and became the Office of Computer Services. Mr. Joseph Becker was appointed as Assistant Director for Computer Services, DD/S&T, effective 16 September 1963.\*

The Automatic Data Processing Division of the Office of the Comptroller was added to OCS effective 18 November 1963. The integration of the two groups of personnel and equipment required the professional services of an outside management firm which was contracted in July 1964 to organize OCS for maximum servicing of the Agency's automatic data processing.

The outlook for increasing use of computers by CIA was forecast by Dr. Wheelon early in 1966

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\*Appendix A, Tab 13.

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in view of the requirement to analyze and evaluate increasing volumes of collected data.

...The evaluation of secret intelligence data and overt information is our principal responsibility; and is frankly the most difficult to relate to specific technologies. It involves the collation, correlation and distillation of vast quantities of raw data from all sources, covering topics which range from economics to politics and back to basic science. It is here that technology may make its greatest contribution since we are collecting raw data faster than we can adequately evaluate it, and the difference grows steadily. The solution lies somewhere in the use of computers, ADP techniques, and a better understanding of our own existing distillation process. The evaluation of increasingly large volumes of photography is just one painful example of this data explosion and indigestion problem. 53/

3. Foreign Missile and Space Analysis Center (FMSAC)

Late in 1962, Mr. McCone and members of his staff began discussions with the Department of Defense concerning the possibilities for improving the analysis and interpretation of data on foreign missiles and space activities. There was general dissatisfaction with the results currently being obtained from the various agencies involved in collection and analysis of this data. A proposal developed out of these discussions for a Missile and Space Technical Intelligence Center (MISTIC). This concept, looking toward a national capability with

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joint participation of all agencies concerned, was further discussed through the spring of 1963 by representatives of CIA, DOD, DIA, and NSA, but the jurisdictional problems involved in such a venture seemed, to some, to be insurmountable.

Mr. McCone was quite anxious that the MISTIC proposal be carried out regardless of what agency might eventually inherit the organization and he therefore, in April 1963, directed Dr. Wheelon (then AD/SI, and also Chairman of GMAIC) to pursue the matter. A proposal put forward by the AD/SI recommended that a center be operated under the DCI's authority with the purpose of providing coordinated tasking of U.S. assets for optimum performance in collection and reduction of technical data on foreign missile tests and space events, and to use the improved collection/analysis system for production of timely intelligence reports for GMAIC, USIB, and the Intelligence Community generally. In order to avoid procedural delays in setting up such a center through USIB action, it was recommended that an Executive Order be sought from highest authority.

No action was taken on the proposal for several months. Dr. Scoville resigned from the post of

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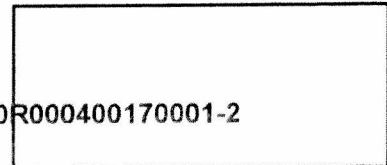
DD/R and Dr. Wheelon moved up to reorganize the Directorate. Mr. McCone meanwhile informed Under Secretary of Defense Gilpatric of the intended initiation by CIA of a missile and space intelligence center, and on 2 August Dr. Wheelon met with Dr. Eugene Fubini of Defense Research and Engineering and outlined the scaled-down CIA plan for an analysis center with complete CIA funding and technical control within its regular budget as a service of common concern to the whole Intelligence Community. 54/

The general consensus of the meeting was that CIA should establish an all-source analysis capability since this would not duplicate any activity in being but would fill an existing void. Dr. Wheelon put his understanding of the sense of the meeting in writing to Dr. Fubini on 23 August 1963: that CIA with community support would proceed incrementally in creating the missile analysis organization and that further discussion of a parallel collection function would be delayed until the analysis activity was a working reality. Mr. Carl E. Duckett was expected to enter on duty at CIA, leaving his current job as Director of Missile Intelligence at Redstone Arsenal about 1 October 1963, and would size up the task, after which further implementation would be effected. 55/

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Mr. McCone on 21 October 1963 signed the directive setting up the Foreign Missile and Space Analysis Center and on 7 November 1963 [redacted] announced the formal establishment of the Center and the appointment of Mr. Carl E. Duckett as Director of FMSAC. The appointment of Mr. David S. Brandwein of Space Technology Laboratories as Deputy Director was approved by the Executive Director on 2 December 1963.

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FMSAC became operational on a 24-hour basis on 1 March 1964 and by 1 May 1964 was operating with a staff [redacted]. Effective 25 October 1965, the missions, functions, and analytical responsibilities of the Ballistic Missiles and Space Division of OSI were transferred to FMSAC.\*\* After this merger FMSAC had a staff of approximately [redacted]

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4. Office of the DD/S&T: Staffs

The support staff under the DD/R in 1962-63 had included administrative, security, personnel, career

\*Appendix A, Tab 16.

\*\*Appendix A, Tab 39.

\*\*\*A comprehensive history of FMSAC is currently (1972) in first draft.

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and logistics personnel. The former Special Requirements Staff of DPD (consisting of the Chairman and Secretariat of the Committee on Overhead Reconnaissance, COMOR) had also been transferred to the Office of the DD/R with

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[redacted] Chairman of COMOR, being named Special Assistant (COMOR) to the DD/R. The COMOR Secretariat remained a part of the Office of the DD/S&T, also, until 1 July 1967, when the Committee was reconstituted as the Committee on Imagery Requirements and Exploitation (COMIREX) under USIB, and the Chairman and his staff were transferred to the DD/I's jurisdiction for administrative support.

The personnel authorization for the immediate Office of the DD/R had been set at [redacted] for Fiscal Years 1964-65. With the reorganization under Dr. Wheelon this number was deemed inadequate for the scope and depth of the responsibilities he had undertaken. No allowance had been made for staff officers to assist him in the guidance, coordination, planning and review of substantive activities. Advice was obtained concerning the ratios of staffs to operating components in other Directorates, and an increase of [redacted] was requested to man the following new staffs:

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a. Plans and Programs Staff, [redacted]

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[redacted] Chief. This staff was responsible for overseeing

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development of the annual budget and operating programs of the operating components, and for insuring the closest collaboration and coordination between current and proposed activities and most efficient utilization of monetary and personnel allowances. It also served as the administrative point of reference for external research components of the DD/S&T.

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b. Systems Analysis Staff, [REDACTED]

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[REDACTED] Chief. This staff consisted of a small group of highly qualified officers able to study and conduct theoretical tests on proposed technical collection devices, and to analyze failures and inadequacies in current systems and devices. It worked closely with consultants, advisers and contractors to develop new system designs. Members of this staff were active in support of the Agency's satellite reconnaissance activities and out of SAS came the nucleus of the group which later formed the Office of Special Projects. The residual SAS staff was transferred in June 1967 to the National Intelligence Programs Evaluation Staff (NIPE).

c. Action Staff, [REDACTED] Chief.

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The Action Staff was designed by Dr. Wheelon to furnish the DD/S&T a quick reaction capability for answering immediate information requests, and to represent the operating

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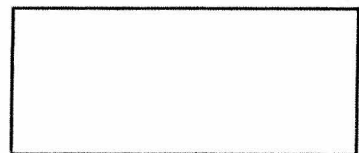
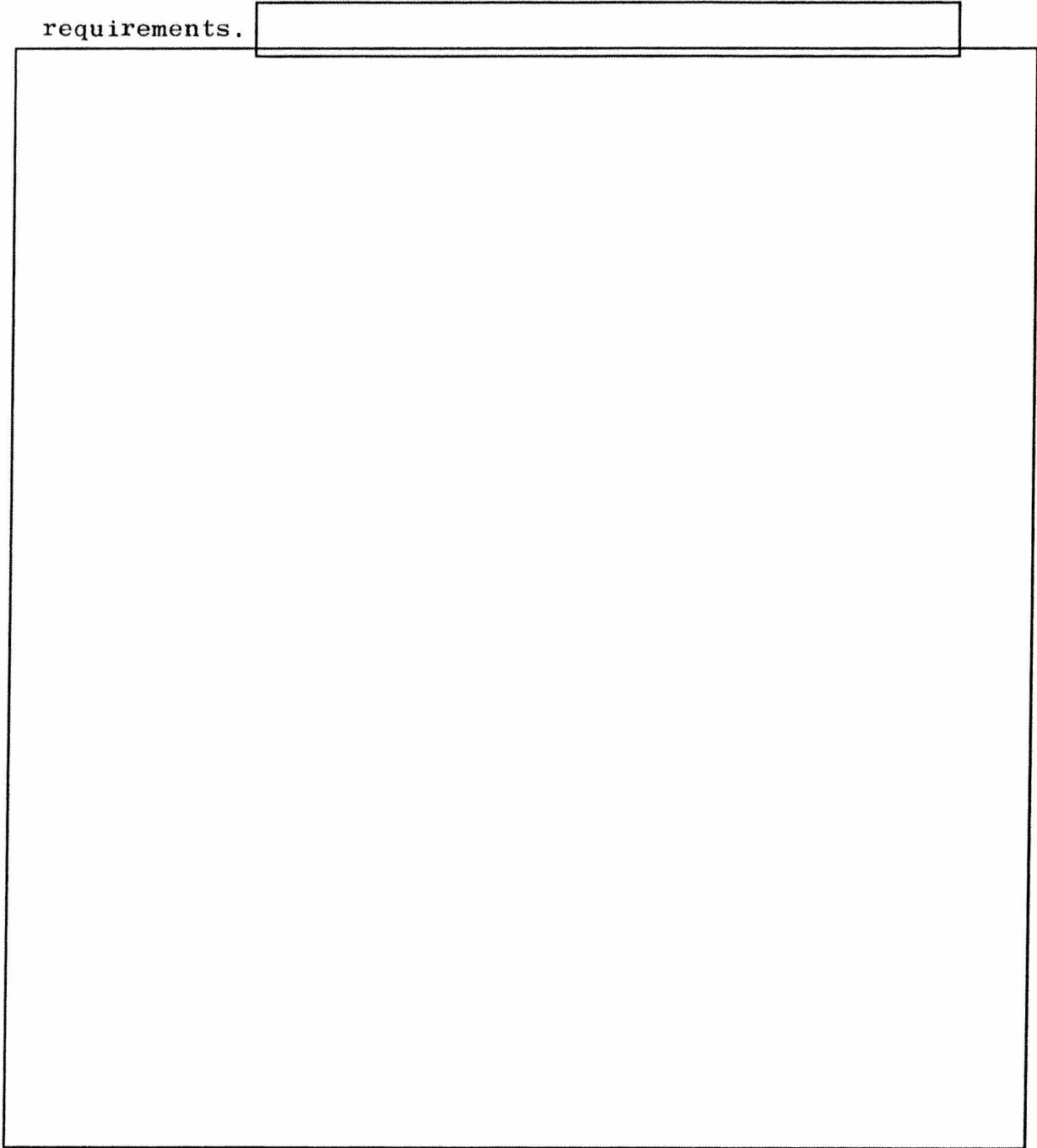
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components of DD/S&T on matters of collection and  
requirements.

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d. Spint Staff, [redacted]

Chief. On 4 November 1963, [redacted] in his capacity as CIA Sigint Officer, was transferred from the DD/I and named Special Assistant to the DD/S&T, as well as Chairman of the USIB Watch Committee.\* On 21 April 1964 the Executive Director ordered the transfer of the Agency Spint Staff to the jurisdiction of the Sigint Officer under the DD/S&T, and this was accomplished effective 9 July 1964.\*\* The Spint Staff was disestablished as of 2 February 1970 and its functions were split up among the CIA Sigint Officer, the Intelligence Requirements Staff of DD/I, and the Office of Security.\*\*\*

The organizational structure of the DD/S&T was completed at the end of 1963 insofar as acquisition or formation of new offices was concerned, and changes occurring since then have been through assignment of new projects, growth of activities in being, or internal reorganizations, such as the separation of satellite reconnaissance activities from OSA and the establishment of a separate Office to manage those activities.

\*Appendix A, Tab 18.

\*\*Appendix A, Tab 23.

\*\*\*Appendix A, Tab 61.

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5. Office of Special Projects (OSP)

The last major office to be set up under the DD/S&T, effective 15 September 1965, was the Office of Special Projects.\* Mr. John J. Crowley was named Director, and Mr. John N. McMahon was named Deputy Director. This Office, as indicated above, did not represent a new activity but resulted from the splitting away from OSA of the satellite reconnaissance activities, which had developed over the previous five years into the most prolific source of photographic intelligence information CIA had ever developed. In order to facilitate the management of the program assigned to CIA under the NRP, it was decided to compartment the two separate and distinct activities—the manned aircraft reconnaissance projects, and the unmanned satellite reconnaissance projects. This was accomplished in two stages: first, the majority of the members of the Systems Analysis Staff of the DD/S&T's Office were shifted to form the nucleus of a Special Projects Staff charged with responsibility for consolidating the various satellite-oriented activities of the Directorate into one office; second, personnel from OSA assigned to satellite

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\*Appendix A, Tab 37.

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activities, including detailees to the Pentagon and the field, were transferred to SPS and, once the new NRO Agreement of 13 August 1965 was signed, assuring CIA's role in the NRP, this combined group was reorganized as the Office of Special Projects.

An agreement was reached on 1 October 1965 governing the transfer of resources, responsibilities, and authorities from OSA to OSP, and setting out the direct support which OSA would render to OSP in the functional areas of financial operations, communications, registry and courier services, travel arrangements, logistics, and computer services. A period of adjustment was necessary before OSP could build up its capabilities to assume complete management responsibilities for all phases of the satellite reconnaissance program. 56/

The relationship of OSP to the National Reconnaissance Program, under which its projects are financed and directed, is treated in some detail in Chapter V of this history.\*

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\*See pp. 285-291, below. A separate history of OSP and its four major projects, covering CIA satellite activities from 1958 to 1970, was completed in March 1972 and is in process of being edited for publication.

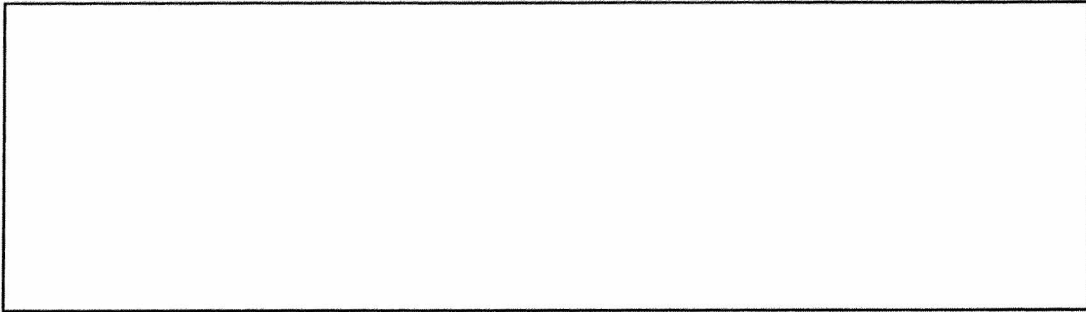
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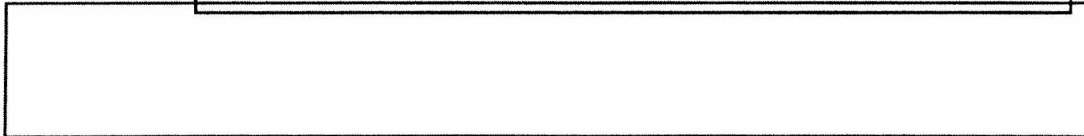
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The airborne collection activities of CIA subsequent to 1962 were blanketed under the National Reconnaissance Program and funds for their operation were budgeted through the Defense Department. While the day-to-day management of the field installations supporting these programs remained with OSA, OEL, and later OSP, the funds required to maintain them depended on the continuation of the airborne collection programs. Dr. Wheelon, from 1963 to 1966, played a vital role in preparing the justifications for these programs, and presenting them convincingly in high level briefings, making excellent use of effective graphics and other visual aids.

A short history of each of the facilities inherited by the DD/S&T, as well as those developed during Dr. Wheelon's tenure, can be found in Appendix E to this history.

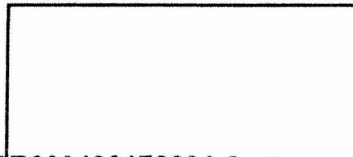
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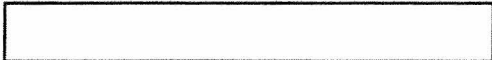
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C. Board, Committee and Panel Structure

1. Research and Development Review Board

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On 16 April 1963 

announced the establishment of a Research and Development Review Board for the purpose of reviewing and integrating research and development activities and scientific and technical efforts in the various Agency components concerned, and to ensure that all scientific and technical activities were constantly related to the broadest interpretation of the Agency's mission. The Board was also to constitute a reviewing body for the Agency's research and development effort as a whole, and was to provide an effective internal mechanism for discussion and implementation of recommendations of the Scientific Advisory Board, once that body was established.

Membership of the R&D Review Board at the time of its initial meeting on 17 May 1963 was as follows:

Deputy Director of Central Intelligence, Chairman  
Deputy Director, Research  
Chief, Technical Services Division, DD/P  
Director of Communications, DD/S  
Assistant Director for Scientific Intelligence, DD/I  
Director, National Photo Interpretation Center

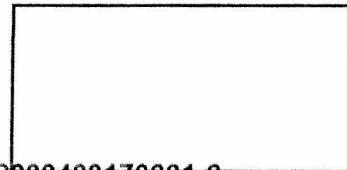
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When Dr. Wheelon was named DD/S&T in August 1963, he was also named Chairman of the Research and Development Review Board, vice the DDCI. It was Dr. Wheelon's desire that all Agency R&D should be coordinated by the DD/S&T, and he had been led to believe, in his discussions with the Executive Director in July 1963, that this would be the case. 57/ However, the other Directorates involved were anxious to retain certain of their R&D functions under their own operational or user components, and they continued to do so in the absence of any further directive to the contrary.

The Research and Development Review Board thus did not assume the role of coordinator of all CIA R&D, but acted more as an arbiter of ad hoc compromises among the various components. Central coordination of R&D was not achieved during Dr. Wheelon's tenure, but agreement was finally reached on 17 July 1967, when [redacted]

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[redacted] giving that authority to the DD/S&T.\*

The Research and Development Review Board went out of existence when the new "Coordination of Research, Development and Engineering" agreement came into effect.

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\*See Chapter IV, pp. 145-155, below.

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2. External Advisory Groups

The PFIAB's 8 March 1963 recommendations for strengthening technical capabilities in the Intelligence Community urged a major effort to draw fully upon the most advanced science and the best scientific brains in the nation. Mr. McCone had the same purpose in mind when in April 1962 he had asked for an advisory board of eminent scientists to be established to advise him; however because of the delay in carrying through the plan to bring all of the Agency's scientific activities together under the DD/R, the advisory group did not materialize until July 1963.

The formation of the Scientific Advisory Board was announced by  dated 16 July 1963. The Board was to be responsible for reviewing and advising the Director on the total scientific functions of the entire Agency, replacing the former CIA Research Board which had been responsive principally to the specialized needs of the Clandestine Services. Dr. August B. Kinzel, Vice President for Research of the Union Carbide Corporation, was appointed Chairman of the

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\*Appendix A, Tab 9.

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Board, and several other outstanding men of science and industry agreed to serve.\*

By the time the Board was organized and held its first meeting on 9 September 1963, the DD/R had been reorganized and Dr. Wheelon, as DD/S&T, became responsible for the administrative support and guidance, and for the substantive follow-up on the Board's work, as well as for the several expert panels which had been set up in 1962-63 to deal with specialized S&T problem areas, such as Soviet and Chinese Communist nuclear activities, Soviet guided missile and space developments, overhead reconnaissance, optics, and life sciences.

The end-of-the-year report to the PFIAB by Mr. McCone on 13 December 1963 made note of the Board's establishment as follows:

A most important measure recently taken to accomplish the interfacing of the U.S. storehouse of scientific knowledge and intelligence was the activation of the Agency Scientific Advisory Board. The impressive array of senior U.S. scientists who have accepted assignments on this Board are meeting at regular intervals to review our present status and needs and to offer guidance and direction. In addition to the benefits derived from Board appraisals of our approaches and activities there is a "fall-out" of suggestions and offerings by

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\*Terms of reference and membership of this Board, and other advisory groups mentioned in this Chapter will be found in Appendix F.

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each member based on his comprehensive knowledge of the state of the art across a broad frontier of scientific discoveries and developments. These ideas are fed into the administrative pipeline for further development either by referral to the Agency Research and Development Review Board or to the Office of Research and Development. 58/

Despite this optimistic report on the Advisory Board's functions, and the unquestioned scientific competence represented among its members, the Board did not contribute as greatly to advising on the formation and direction of the Agency's research and development programs as Mr. McCone and Dr. Wheelon would have desired.

Dr. Wheelon felt there was a need for a small, very senior group to provide the DCI with an integrated opinion of the Agency's R&D effort; however, only one or two of the Kinzel Board were broad gauge enough, in Dr. Wheelon's opinion, for the larger role he had in mind. The Kinzel philosophy of age diversity and high specialization in the membership of his group was more appropriate, Dr. Wheelon felt, for a technical panel and the Kinzel Board members should be contributing largely to such panels. Dr. Wheelon noted to Mr. McCone in December 1963 that

...By its own design and selection, the Kinzel Board is a mixed bag spanning all ages and

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disciplines with eight men. While each of its members is extremely competent, it is not a group to whom one can subordinate the Purcell Panel, the Hyland Panel, the Webster Panel, the Roddis Panel, the Stern Panel, or the Covert Instrumentation Panel...In order to attract the caliber of personnel necessary to give these special panels the expertise required, it is necessary that they understand in a real way that they are working directly for the DCI. The Chairman of each Panel should have considerable latitude in selecting his own members without regard to the Kinzel Board. 59/

Dr. Wheelon said he would continue to work with the Kinzel Board and the Research and Development Review Board to identify the topics needing to be covered, then form specialized panels as indicated. Once those panels were established and operating, the question of the role of the Kinzel Board would need to be settled. 60/

Consideration was given in October 1964 to enlarging the Kinzel Board and possibly extending its role to cover over-all S&T responsibilities of the whole Intelligence Community, but there was doubt among the participants as to the wisdom of such a move and as to the usefulness of such a community-wide S&T advisory group. It was left that the Board would continue under its original July 1963 charter for a second year.

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On 19 July 1965, Dr. Wheelon held a meeting of his Office Directors to discuss a proposal to restructure the set-up of S&T boards and panels advisory to the DCI. He outlined a proposed reconstitution of the existing expert advisory panels, and agreement was reached that (1) all panels would be co-equal in stature, appointed in the name of the DCI, and that there would be neither a senior board nor a senior single scientific adviser to the DCI; (2) eleven functional panels were recommended, nine relating to activities of the DD/S&T, and one each to those of the DD/P and the DD/S, as follows: 61/

DD/S&T:     Space  
              Strategic Capabilities  
              Nuclear  
              Basic Science & Technology  
              Radio Physics, Electronics  
                  and Countermeasures  
              Life Sciences  
              Optics  
              Computation and Analysis  
              Audio and Counter-Audio

DD/P/TSD:   Covert Instrumentation

DD/S/O/C:   Communications

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The Kinzel Board's tenure was allowed to lapse after two years in being, and [redacted] which had set it up [redacted] was canceled in November 1965 on the instruction of the DD/S&T. New or reconstituted panels organized by Dr. Wheelon and his staff have operated

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since 1965 under the restructured system, including: Strategic Weapons Intelligence Panel, Space Intelligence Panel, Nuclear Intelligence Panel and Science and Technology Panel. It was found in the various areas of the life sciences that a more useful means than a formal panel for obtaining the expert advice required was through individual consultations with the experts on particular and widely divergent subjects. Therefore the Life Sciences Panel ceased to meet as a formal group.

3. USIB Committees

At the time of the transfer of OSI to the DD/S&T in August 1963, guidelines laid down by the DDCI, General Carter, for changes in responsibilities due to the transfer, included the following directive with regard to the DD/S&T's relationship to USIB:

The DD/S&T will act as the immediate link between the DCI and the USIB scientific committees, GMAIC, JAEIC, and SIC, while recognizing that these committees are elements of USIB and are not subordinate to either DD/I or DD/S&T. The DD/S&T will take the initiative in preparing briefing memoranda and position papers for the DCI on matters arising out of those committees, and will coordinate such matters with the DD/I.\*

The DD/S&T acquired the Chairmanship of the Guided Missile and Astronautics Intelligence Committee

\*Appendix A, Tab 15, para. 10.

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in August 1963 when OSI was transferred from the DD/I. Dr. Wheelon had previously served as Chairman while he was AD/SI (August 1962 to October 1963) and he continued to play an active and influential role in the Committee's work, which was in the field of his own specialization. The OSI staff continued to have the major responsibility for support of the Committee on behalf of the DD/S&T until FMSAC was established. The first FMSAC Director, Mr. Carl E. Duckett, was appointed Chairman of GMAIC in October 1963 and served until October 1966, when the Chairmanship passed to the Pentagon for two years. In 1968 it reverted to the DD/S&T's control with the appointment of Mr. David S. Brandwein, the second Director of FMSAC, as Chairman.

The Chairmanship of the Joint Atomic Energy Intelligence Committee was also acquired, along with OSI, by the DD/S&T. The Nuclear Energy Division of OSI continued to be responsible for the DD/S&T's contribution to the support of the Committee's work. Dr. Chamberlain, Director of OSI, has continued to serve as Chairman of JAEIC since 1963.

The Scientific Intelligence Committee of USIB has also been supported by the OSI staff, and has

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been chaired on behalf of the DD/S&T since 1963 by Dr. Karl H. Weber, Deputy Director of OSI.

The DD/S&T's relationships with the above three USIB committees are fully described in the related appendices of the OSI History, and of the FMSAC History.

25X1 The Chairmanship of the Sigint Committee of USIB has also been a responsibility of the DD/S&T from time to time since it was transferred from the DD/I in 1965. [redacted] while Special Assistant to the DD/S&T, served as Chairman from 4 February 1965 to 20 May 1966, when both the incumbent and the position were moved to the Office of the Director. The Chairmanship reverted to the Office of the DD/S&T on 1 October 1969 with the appointment of [redacted] to succeed [redacted] 25X1

25X1 The Chairmanship and Secretariat of the Committee on Overhead Reconnaissance (COMOR), acquired by the DD/R in July 1962 from DPD (where it had first been established as an ad hoc requirements committee to support the U-2 program), passed to the DD/S&T in August 1963. [redacted] served as Chairman during all of this period and until September 1965, when [redacted] succeeded him. In July 1967, 25X1

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after Mr. Duckett became DD/S&T, COMOR was reconstituted as the Committee on Imagery Requirements and Exploitation (COMIREX), and was transferred to the aegis of the DD/I for administrative and secretariat support. Very close relations have been maintained by the DD/S&T with this Committee throughout its existence since it has been the body responsible for placing requirements against the Directorate's overhead photography collection programs, both manned and satellite.

4. White House Committees and Boards

Presidential advisory boards and committees dealing with scientific and technological activities have had a tremendous influence on the affairs of the DD/S&T, a prime example being in the very organization and composition of the Directorate, as recommended by the President's Foreign Intelligence Advisory Board.\*

The President's Science Advisory Committee (PSAC) has also tasked the DD/S&T from time to time for reports and studies of mutual concern, and has made recommendations concerning the Directorate's activities. The Land Panel of PSAC (inaugurated in July 1965) during the tenure of Dr. Wheelon as DD/S&T had a direct influence on

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\*See Chapter II, pp. 42-46, above.

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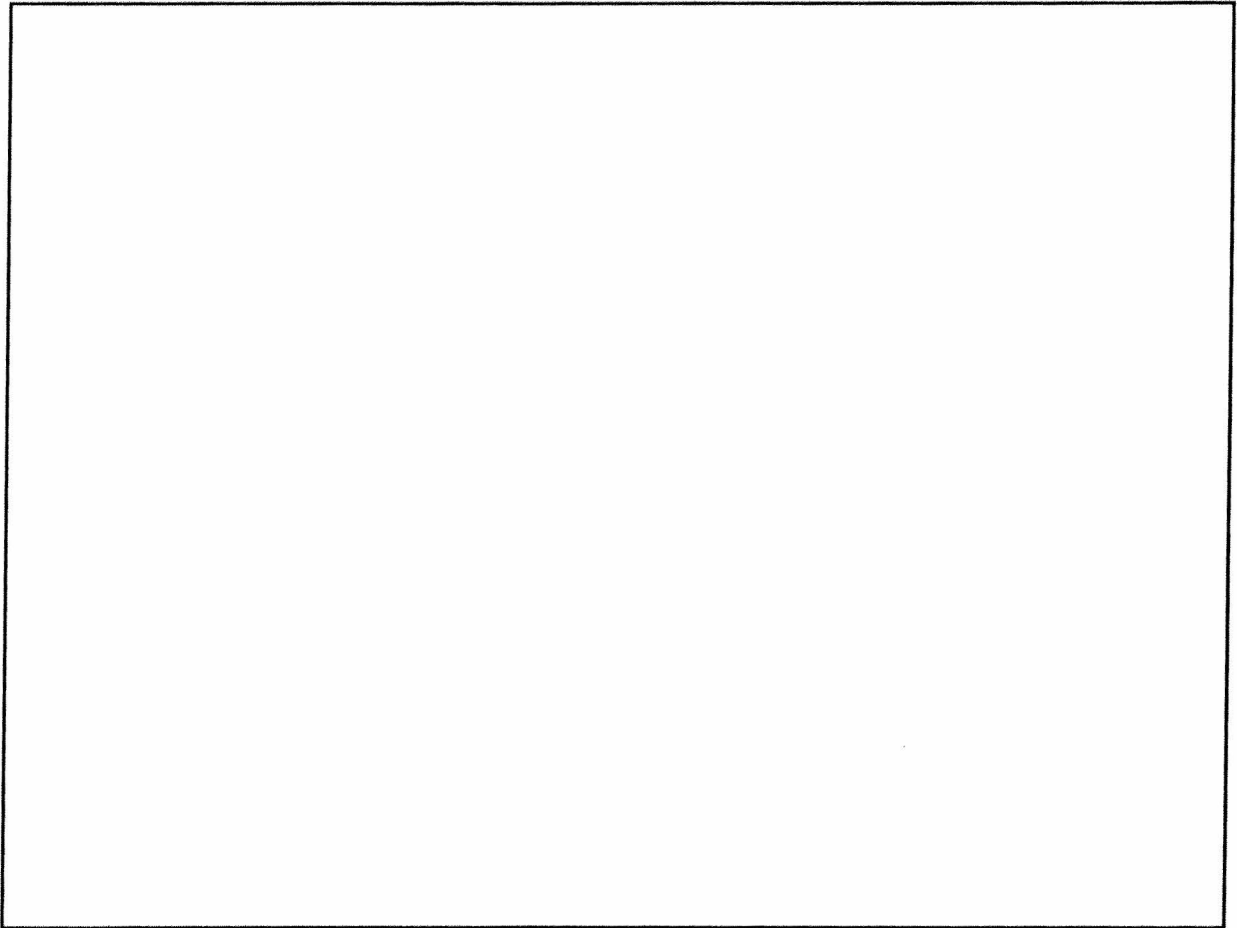
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the CIA share in the management of the satellite reconnaissance program under the NRP, which the Land Panel was set up to oversee.

The National Security Council issued a good number of directives and memoranda during Dr. Wheelon's term as DD/S&T which required his participation and that of his staff in preparing position papers and following through in some cases with programs. Notable among these were:

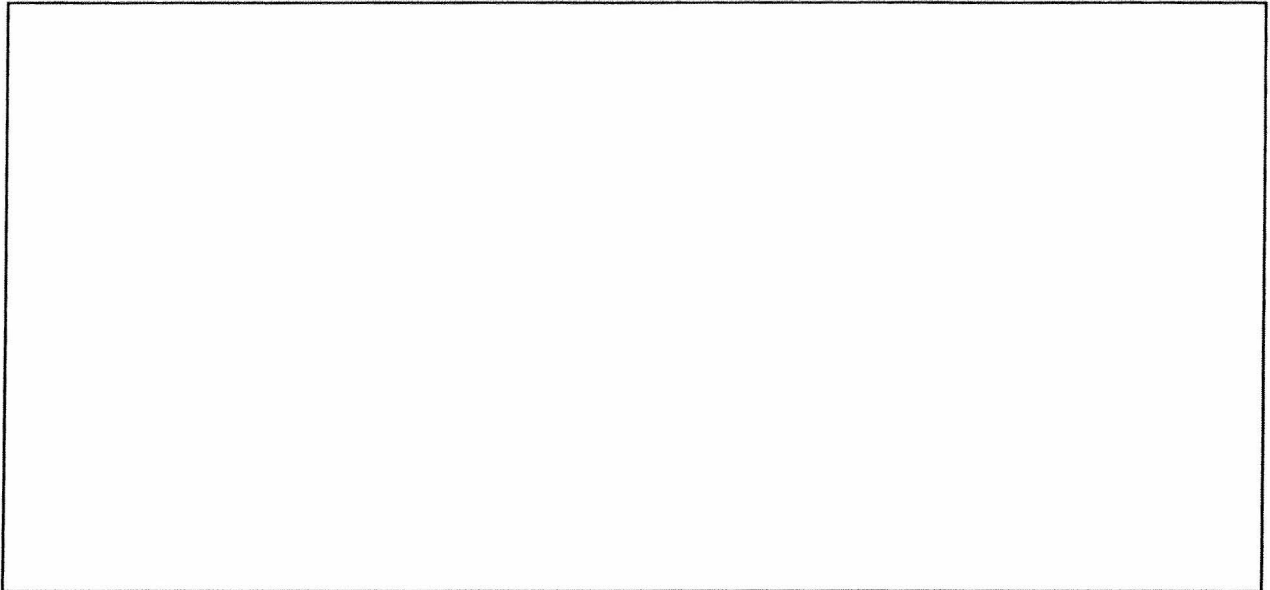
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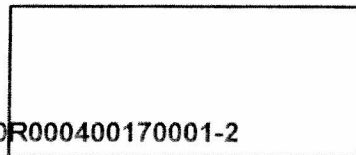


A continuing relationship between the DD/S&T and the National Security Council has been in the participation by the DD/S&T in the activities of the "Special Group" established under NSC 5412 in 1955, later called the "303 Committee," which considered and passed on the acceptability of "black" activities proposed by CIA. In this group the DD/S&T has had the responsibility to support the DCI, or to act for him when appropriate, in presenting and defending the operational overflight programs of OSA, OSP, and OEL (under the NRP) in order to gain high level approval for the actual launching of collection missions; also to recommend to the DCI the approval or disapproval of the monthly overflight schedule proposed to the 303 by the Joint Reconnaissance Center of the Joint Chiefs of Staff.

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D. Management of the Directorate Under Dr. Wheelon

1. Functional Organization: Priorities

In the first year-end report to the White House following Dr. Wheelon's appointment as DD/S&T, Mr. McCone reported to Mr. McGeorge Bundy with regard to PFIAB's recommendations of 8 March 1963 that the majority of the recommendations for strengthening the Agency's technical capabilities were now in process of being carried out. He noted that there were still many problems inherent in the recruiting of suitable top-flight scientists to man the new Directorate, including problems resulting from budgetary restrictions. 62/

Dr. Wheelon, in a 4 February 1964 memorandum to the Executive Director, pointed up the budgetary problem he was facing in trying to make assumptions for future year DD/S&T planning, and said

In FY 1964 and 1965 our planned growth is seriously interrupted and forward-looking action deferred, because of restrictive personnel and funds limitations. I appreciate that all Directorates have had similar restrictions on funds and personnel, but this becomes a more serious hurdle in a Directorate as newly organized as the DD/S&T. Unlike the old line Directorates which are restricted to doing a little less of the same thing, the DD/S&T finds itself denied the capability to get a fair start in many areas of research I feel are of the utmost importance in creating a balanced organization. 63/

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In March 1964, Dr. Wheelon reported to the DCI on current progress in manning the Directorate and included a functional chart showing the areas in which the various Offices of the DD/S&T were concentrating their efforts. He said he conceived of the product of scientific and technological intelligence as

...a continuous stream beginning with the clear understanding of the requirements, the basic research and preliminary design of collection systems, the development of those systems, their operation..., the data reduction of their results, the engineering analysis which converts scientific data into English appraisals, and finally, the estimative step which draws the estimative judgments from these analyses. 64/

He furnished the DCI an organizational chart of the Directorate as then organized, and a functional chart illustrating the various stages of the continuous process in which each Office of the Directorate carried out its functions in coordination with the others. Dr. Wheelon said that the greatest benefit of having all of these functions under the same roof was that he could "close the loop" between the various steps in the process of producing scientific and technological intelligence. (The functional and organizational charts referred to are reproduced, overleaf, Figures 2 and 3.)

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# DD/S&T FUNCTIONS

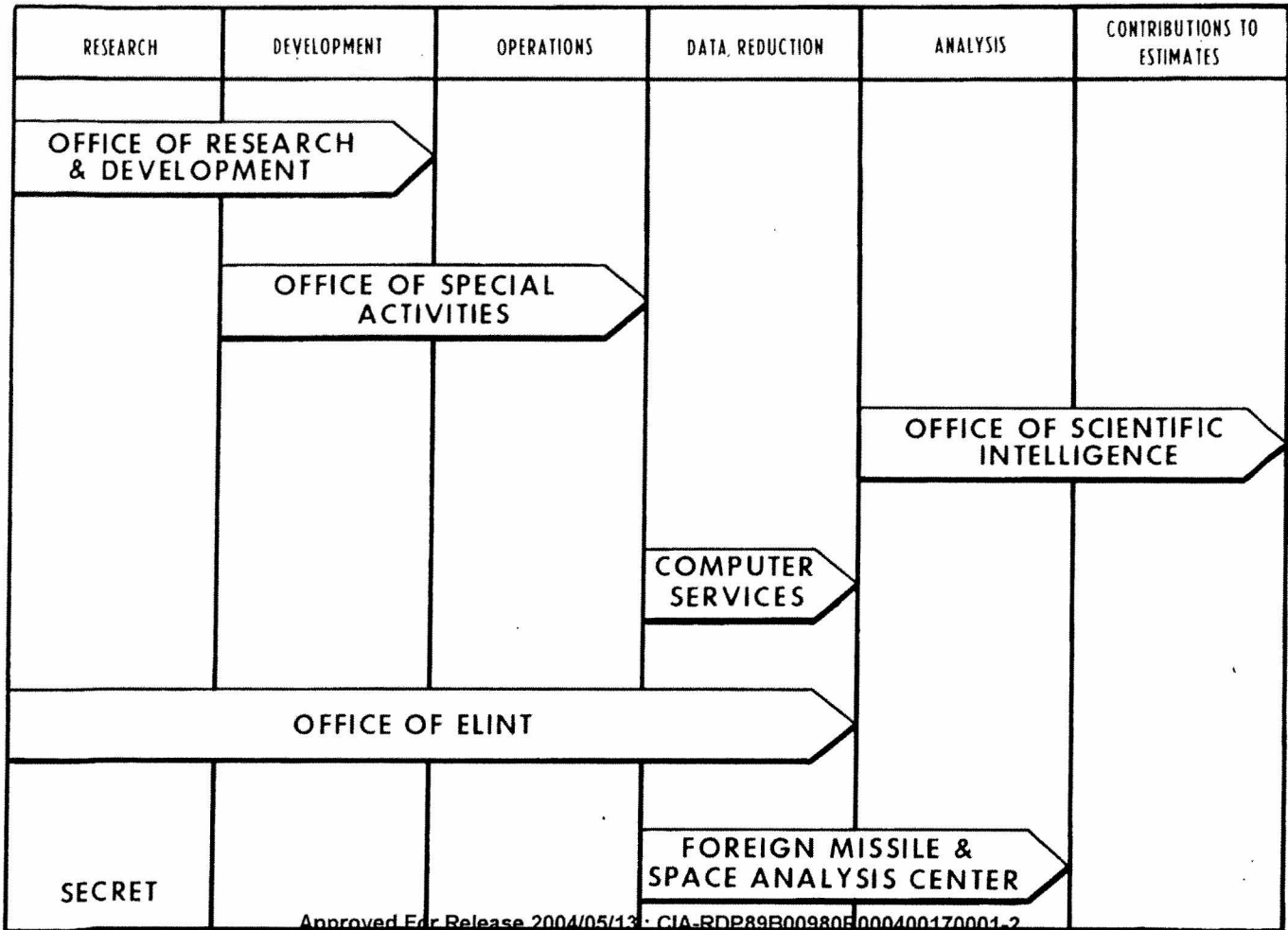
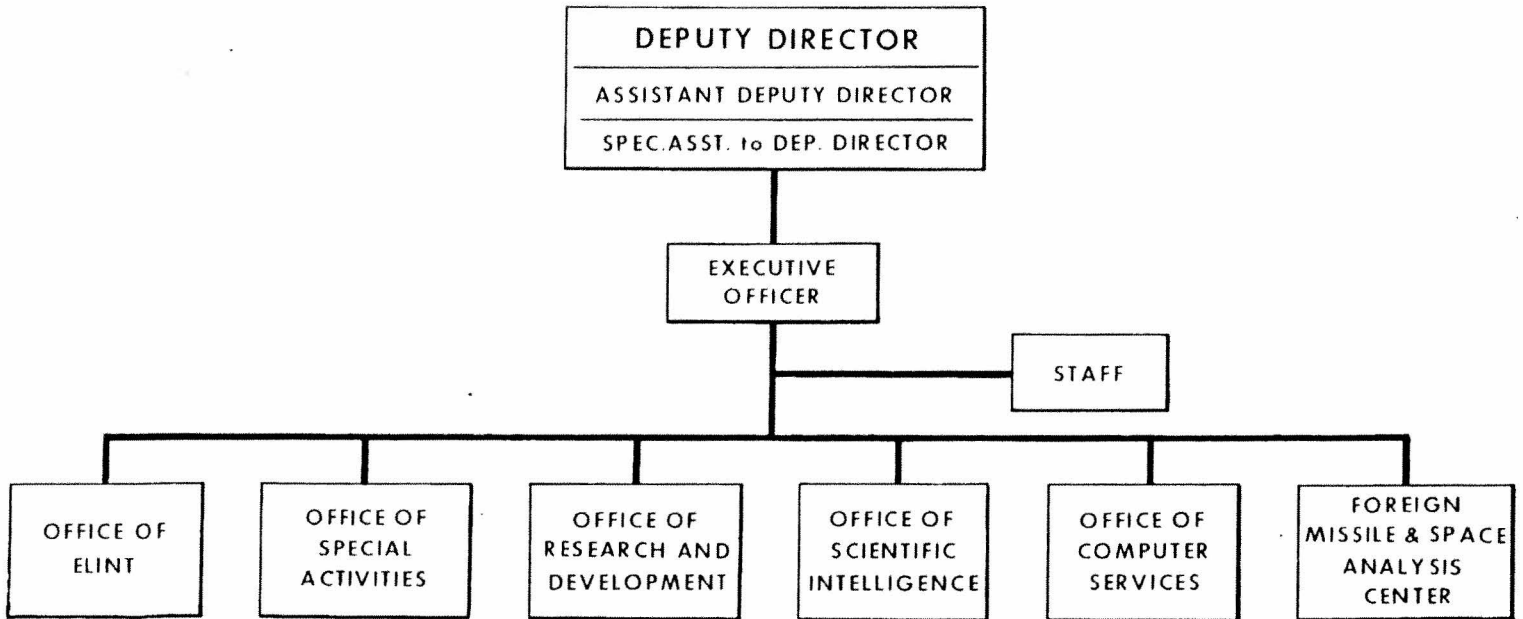


Figure 3

### DEPUTY DIRECTORATE FOR SCIENCE AND TECHNOLOGY



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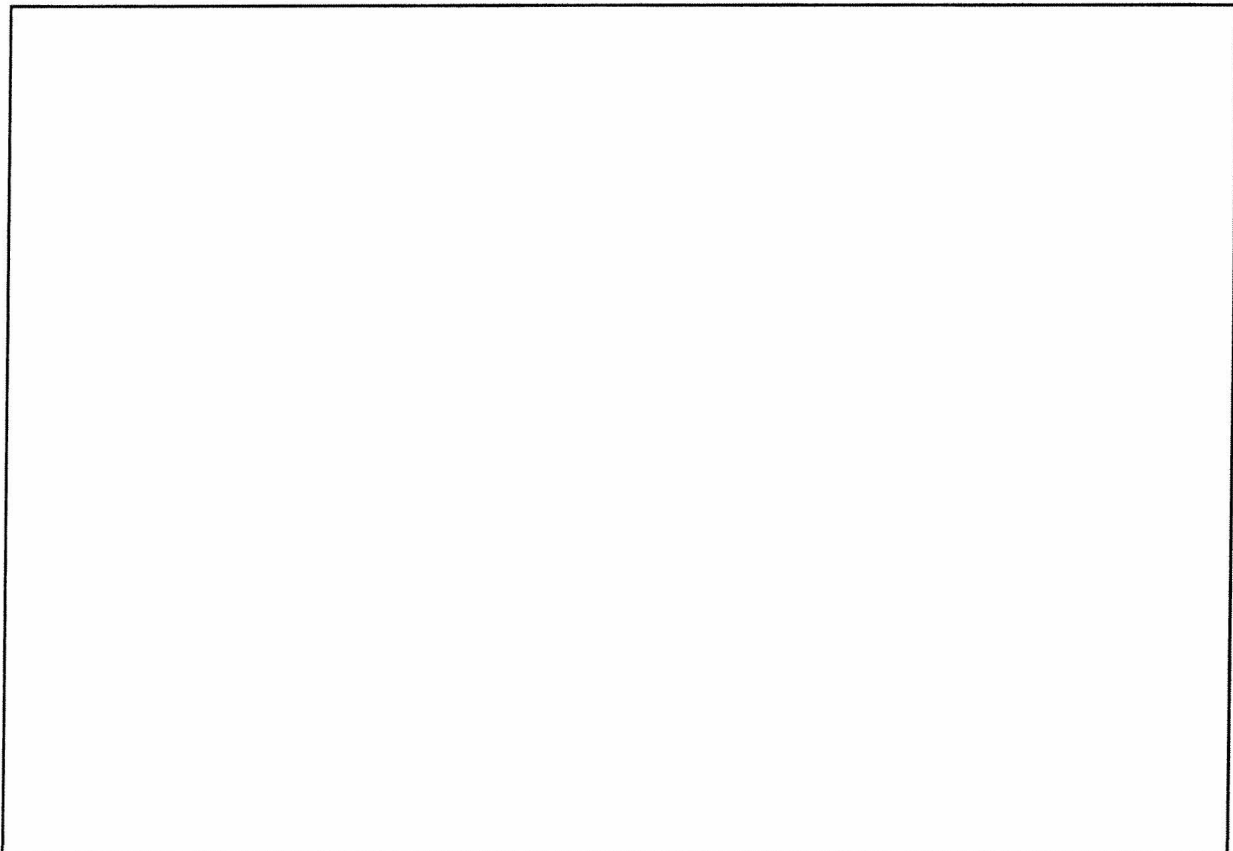
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Within the functional organization of the Directorate the establishment of priorities among the areas of activity was controlled in the first instance by the requirements levied by USIB and higher authority. Since the priority demands for intelligence in the national security area have been, and continue to be, for information on Soviet missiles, nuclear weapons, and naval build-up, and on Chinese Communist nuclear activities, the DD/S&T's production of intelligence has been aimed principally at satisfying those demands.

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Beyond those activities governed by priority requirements, the emphasis assigned by Dr. Wheelon to specific programs was necessarily subjective to a degree. Some collection operations could be precisely defined and carried out, such as the collection of information on specific Soviet missile firings. Choices among other operations had to be made on a judgment of their comparative contributions to national security, or alternately, the consequences if they were not done, keeping in mind that the operational phase of most S&T projects must be downstream from the time of decision by a number of years, and that the opposition, meanwhile, is not standing still.

As to priorities in the expenditure of his own time and effort, Dr. Wheelon gave a large portion of both to the advocacy in the NRP of CIA's research and development role in satellite reconnaissance, focusing strongly on future technical collection systems. These were high priority programs and the stakes were high. From time to time, Office Directors not associated with the NRP would become concerned at what seemed to them the undue amount of the DD/S&T's time given to NRP problems in comparison to their own. However, Dr. Wheelon was acutely aware of the importance of the work of all Offices of the Directorate.

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2. Philosophy of Management 65/

Since the Directorate for Science and Technology was a new entity in the Agency and its missions relatively unique, its management processes and practices had to be developed and implemented to serve its special needs, always with the best interests of the Agency and the Community in mind. Management tools such as computer-based reporting and systems analysis were introduced under Dr. Wheelon to ensure that complete and accurate information was available to him and his staff for monitoring project accomplishment, measuring results, and making timely and well-advised decisions.

While these management tools were being applied with varying degrees of success and modified as experience dictated, it was still vital that the Deputy Director maintain continuous and personal involvement in the whole spectrum of Directorate activities. This he accomplished through daily morning meetings with his key officers, who had previously been briefed in their own areas. Monthly reports were required of each Office, supplemented by communications and meetings on specific topics.

Within the Directorate's research and development activities, Dr. Wheelon instituted a review

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program in which quarterly critiques were held on each project underway in the Directorate. Office Directors and project officers briefed him in detail, progress and problems were fully analyzed, and follow-up actions were monitored at the Directorate level. These project reviews were later organized in accordance with the planning categories, sub-categories, and elements as set forth in the Combined Program Call (first issued in January 1966) to enable Directorate activities to be more closely aligned with established objectives.

External contract proposals were subjected to a thorough review at Office and Directorate level to relate them to requirements, and were coordinated with a view to avoiding unnecessary duplication of effort. A computer-based reporting system to provide monthly status summaries of all DD/S&T contracts was initiated. It did not reach its full utility during Dr. Wheelon's tenure, but did become a very useful management tool after two years of building a substantial base.

In the area of scientific intelligence production by OSI and FMSAC, Dr. Wheelon relied heavily on his morning meetings and the actual publications to keep current on new information and analyses, and to provide

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guidance on areas of analysis, research, or reporting which required increased or decreased emphasis. He continued to display the interest he had shown as AD/SI in improving the quality of analysis, and in weeding out non-productive people and projects.

The DD/S&T and his staff reviewed all scientific intelligence production, both Agency and external, and regular briefings by OSI and FMSAC on their proposed production programs provided Dr. Wheelon with a continuing opportunity to give direction to their efforts. The year 1964 saw an increase in publication of scientific intelligence by the Directorate, with FMSAC beginning its daily and special missile and space activity reports, and OSI initiating the Daily Surveyor and later a weekly version.

Analyses in support of National Estimates prepared by OSI and FMSAC were reviewed with Dr. Wheelon prior to USIB consideration. The Board of National Estimates, principal consumer of DD/S&T's major intelligence production, has been well satisfied with the quality and timeliness of the contributions received from the Directorate since its establishment.\*

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\*From a conversation in December 1970 between the writer and Mr. Abbott Smith, Vice Chairman, and later Chairman, of the Board of National Estimates, 1958-1970.

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The DD/S&T's operating responsibilities in the technical collection of Sigint and photographic intelligence were carried out by OSA, OSP, and OEL, and were monitored on his behalf during most of his tenure as DD/S&T by his Special Assistant, [ ] Dr. Wheelon kept fully informed on those activities through his daily meetings and frequent conversations with his Office Chiefs and [ ] A large part of his time and effort was spent in the advocacy of these programs in the various bodies concerned with the National Reconnaissance Program.\*

Reporting on his stewardship as DD/S&T to Admiral Raborn in February 1966, Dr. Wheelon wrote that there was opportunity for improvement within the Directorate, and his plan for achieving it was to apply a "closed loop" reporting and control system to the management areas of planning, organization, control and communications, so as to ensure that each operated in harmony and consistency with the other three. 66/

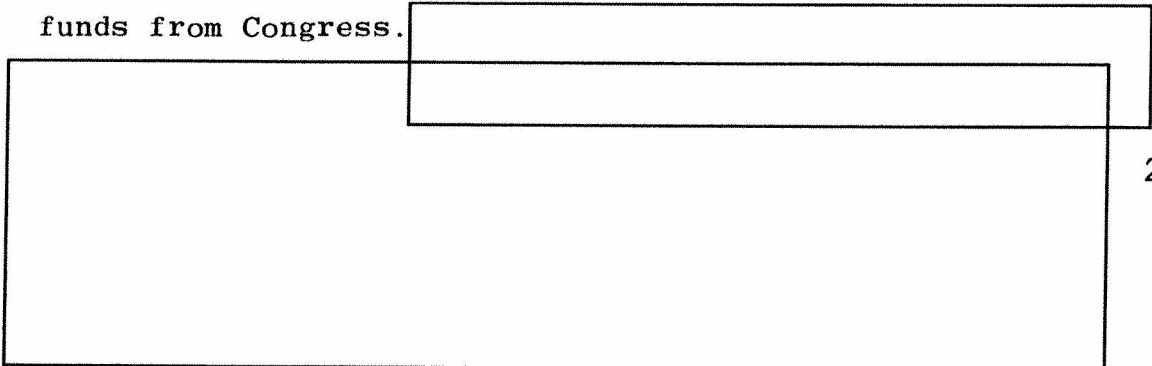
\*See Chapter V, pp. 244-290, below.

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3. Budgeting for DD/S&T Programs

Prior to the placing of all overhead reconnaissance activities under the management of the National Reconnaissance Program, CIA had budgeted for its share of these programs together with its other activities and had received obligational authority over the funds from Congress.



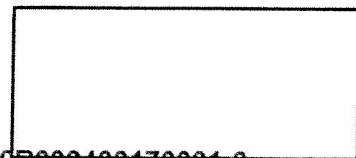
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The first Directorate of Research five-year projections (FY 1963-67) were prepared in answer to a call by the BOB and were to be used as a basis for preparing the FY 1964 budget. Two major phases in the process as outlined by the Director of the Budget were (1) a spring program review concentrating on major long-range issues, government-wide, through 1967, against which general guidelines and planning figures would be established in July; and (2) a summer and fall period of preparing and reviewing detailed budget estimates for FY 1964 in which the projections through 1967 would be used as background,

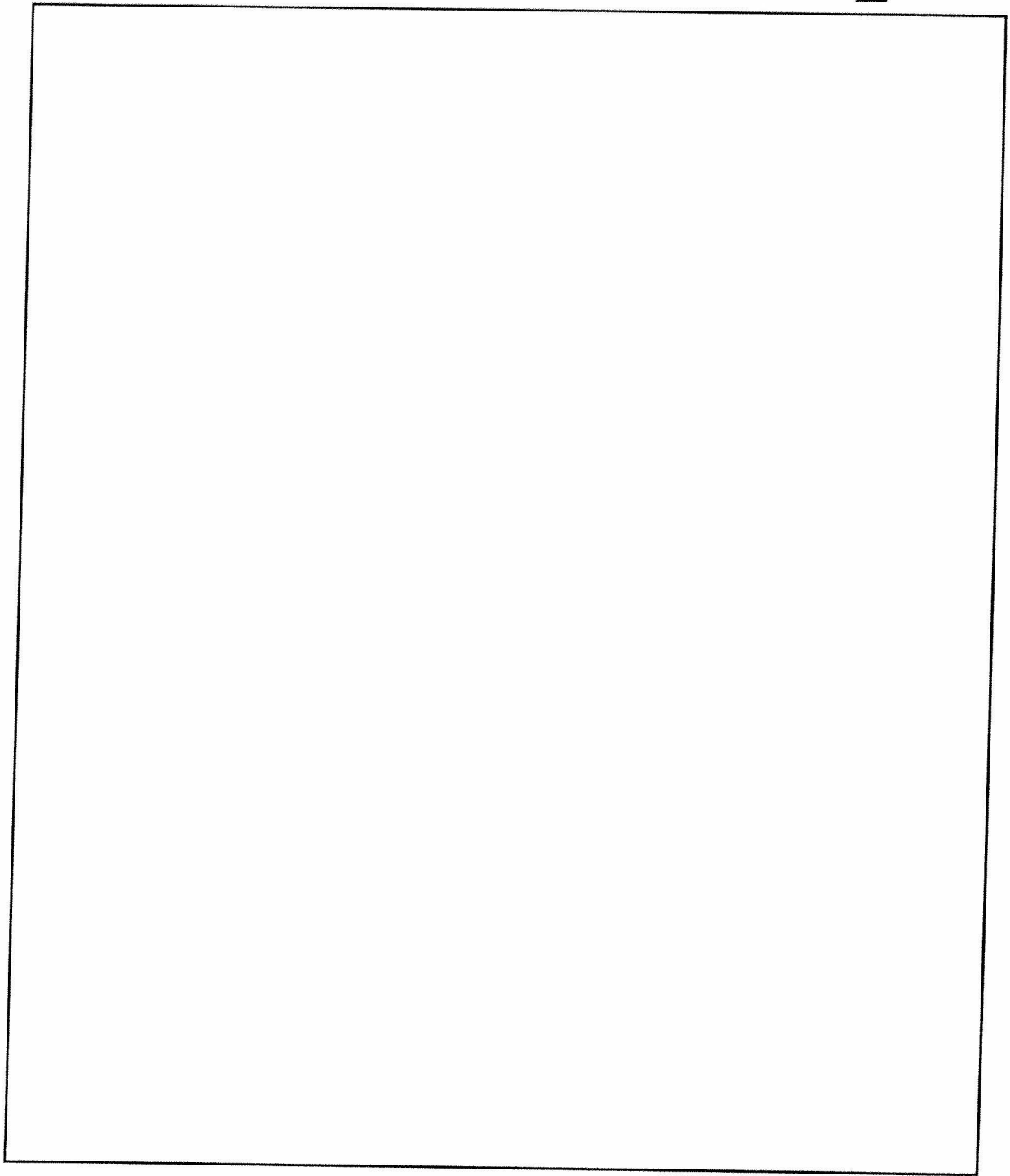
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but concentration would be on short-term decisions. 67/

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Budget hearings for FY 1965 opened with the announcement that the 1965 budget would be the tightest yet under President Johnson; that the intelligence community would be under particularly close scrutiny; and that Congress would be taking a hard and questioning look at all research and development. 68/ Dr. Wheelon, who had just begun to build up the Agency's scientific and technological capabilities, requested an increase in FY 1965 funds of approximately 50% over the Congressional budget figure. However, the budget request was cut below the Congressional submission, and an exhortation to the Executive Branch by the President in August 1964 urged improved efficiency and economy. The Office of Budget, Programs and Manpower, CIA, in the first quarter of FY 1965, instituted quarterly reporting by Directorates of economies effected, the first report being due 15 September 1964.

In January 1965, the Executive Officer of DD/S&T, Mr. Blake, told OBPAM that the DD/S&T found it extremely difficult to continue to report the accomplishment of economies. The Directorate was reaching the point of no return in trying to effect further monetary and personnel savings and still continue to discharge its responsibilities in an acceptable fashion. 69/

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A further BOB exercise in identification by each agency of programs or activities wherein budgetary reductions could be applied in order of relative priority drew the reply from the DD/S&T in June 1965 that no priorities would be listed by the DD/S&T because its activities were so closely interrelated in a "closed loop" that reductions could only be applied to reduce the scope of activities rather than by elimination of any one of the interrelated programs. 70/

Looking ahead to FY 1967 budgeting, the President in June 1965 said that all agencies of the Executive Branch must make hard choices, that program review would be a year-round affair, and that the BOB would begin program and cost effectiveness analyses in depth.

In the spring of 1966 the BOB imposed on CIA the DOD-style cycle of planning, programming and budgeting, which added a major responsibility to the DD/S&T's Plans and Programs Staff. Whereas it had formerly monitored and consolidated Office estimates into Directorate estimates, it now had to become involved in detail with each Office in defining goals, and in preparing five-year detailed programs and cost estimates. 71/ A "Planning-Programming-Budgeting Timetable" giving a graphic

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display of the sequence of events in the budgetary cycle can be found at Tab 6 of Appendix C, and shows clearly that budgeting for DD/S&T, as for all other Government entities, had become not only a year-round affair, but a day-to-day, continuous operation.

The importance of a mechanized system for obtaining the various categories of data required to satisfy the BOB was recognized in DD/S&T and the Administrative Staff was first given responsibility for developing procedures, in conjunction with OCS, for furnishing the data. This responsibility was later given to the Management Information Officer, appointed in mid-1966.\*

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In May 1966, the Comptroller system of management was adopted by DD/S&T and  as Comptroller, presented his first five-year estimates in response to the BOB requirement with the following 1967-72 levels set for DD/S&T funds and manpower:

<u>Fiscal Year</u>	
1967	
1968	
1969	
1970	
1971	
1972	

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\*See Chapter IV, pp. 158, 173.

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These estimates can be compared with actual obligations of CIA funds by the DD/S&T up to FY 1970, as shown on the chart at Tab 4 of Appendix C, in order to learn how much the estimates have been reduced by program cuts, project cancellations, etc. [redacted]

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[redacted]

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[redacted] The cancellation of OSA's A-12 project and its supporting photographic and electronic systems, (even though its principal support came from NRP), was a large factor in this reduction, but a general lowering of sights due to tight money and a BOB brake on research and development spending contributed to the leveling off of the DD/S&T's CIA-funded budget at about

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[redacted]

As indicated above, FY 1964 and succeeding years' funding of DD/S&T projects falling under the NRP has been accomplished within the over-all NRP budget, which is firmly in the hands of the NRO Comptroller. The unhappy relationship between CIA and the D/NRO and his Staff existing during the Wheelon tenure as DD/S&T had its beginning, to a large extent, in differences over money. The DD/S&T was placed in a position of having to

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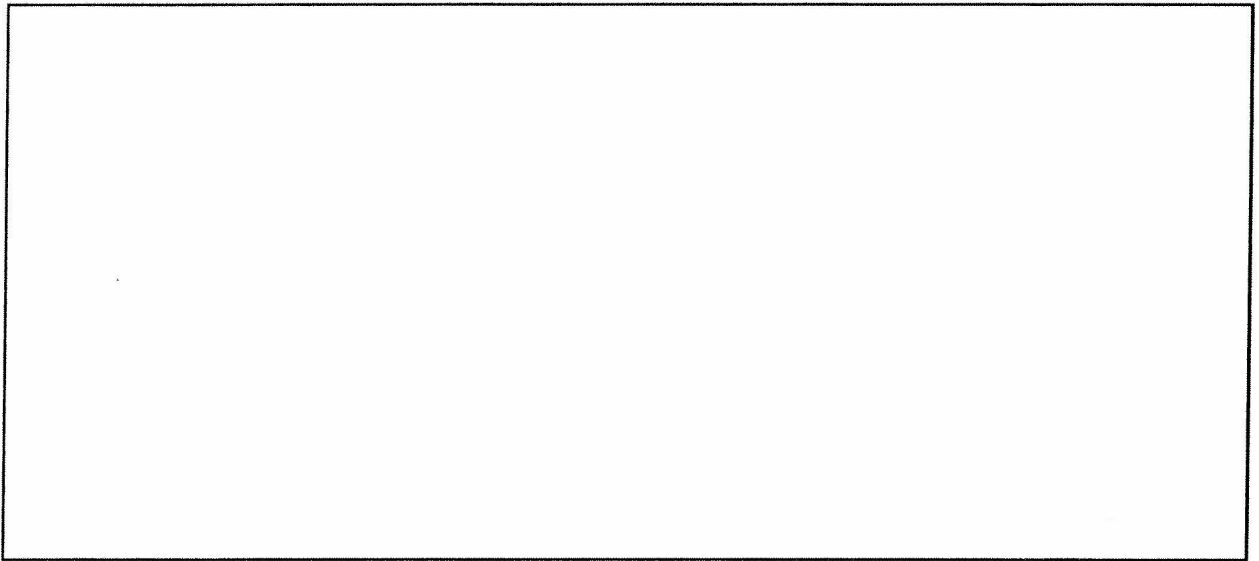
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seek funds from the Director of NRO to carry out programs for which CIA had previously budgeted and had full management responsibility. Dr. Wheelon raised the question of CIA's having budgetary control over funds to support its NRP projects several times during his tenure as DD/S&T, but he was unable to force the issue, or to loosen the grip of the DNRO and his Comptroller on the NRP purse strings.

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4. Personnel and Space

The increase in personnel of the immediate Office of the DD/S&T—by December 1963 the T/O called for a staff  necessitated additional suitable office space, estimated at about  square feet. Placing this requirement with the DD/S in December 1963, the Executive Officer,

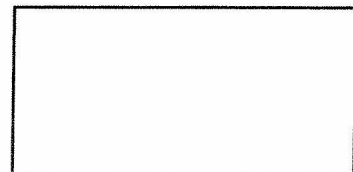
\*See Appendix C, Tab 5.

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Mr. John F. Blake, noted specific deficiencies in the DD/S&T's allotted space and said that, while not unmindful of the difficulties and expense of levying such a large requirement, the fact was that the DD/S&T could no longer conduct his daily business efficiently or securely within current space allocations. Included in the space requirement was a request for two interview rooms, a conference room, and offices for the Scientific Advisory Board which had been formally organized in September 1963. 73/

Despite the continuous pressure for space, it took almost a year to acquire sufficient suitable space for the immediate office staff of Dr. Wheelon. By December 1964, however, he and his staff were suitably ensconced in the 6-E-60 complex at Langley Headquarters, which has continued since then to be occupied by the DD/S&T. Meanwhile, during 1964, some of the more pressing needs of the Offices of the Directorate (ORD, OCS, OSA, and FMSAC) were met by small additional area allocations.

The Directorate's manpower level for FY 1965

(approved July 1964) was

[Redacted]

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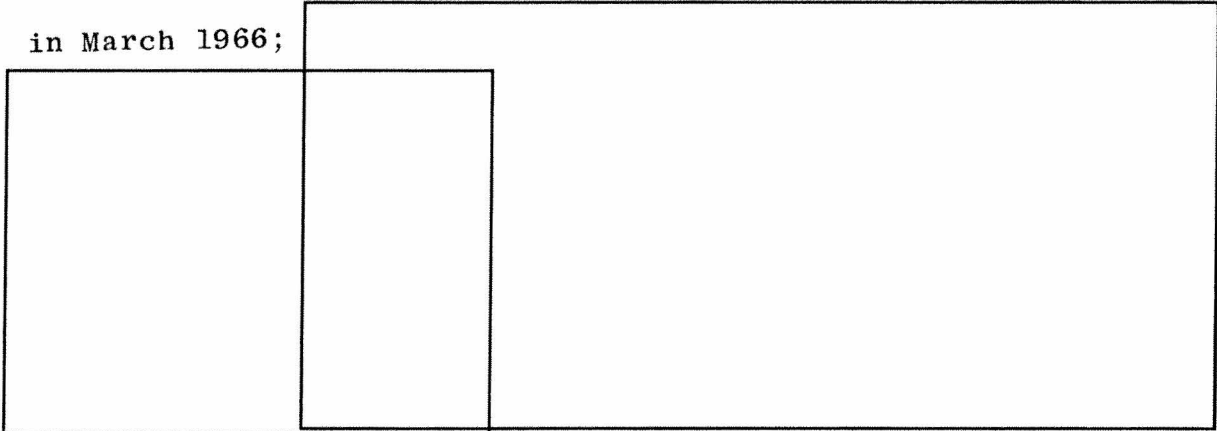
[Redacted]

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DD/S&T shows the location of all Offices of the Directorate in the Langley Headquarters as of 21 December 1964. The principal changes from that date through 1970 were the removal of ORD from Langley to the Ames Building at Rosslyn in March 1966;

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5. DD/S&T Career Service

To bring the "R" Career Service management into the DD/S&T frame of reference, a Senior Career Service Board was set up by Dr. Wheelon by direction of DD/S&T Instruction 20-1 on 25 September 1963.\* The Chairman was to be appointed by the DD/S&T to serve for a one-year period, the Assistant Directors of the five Offices were named to serve as permanent members, and

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[Redacted] was nominated by the Director of Personnel to serve in DD/S&T as Executive Secretary of the Board (non-voting). A first consideration of the

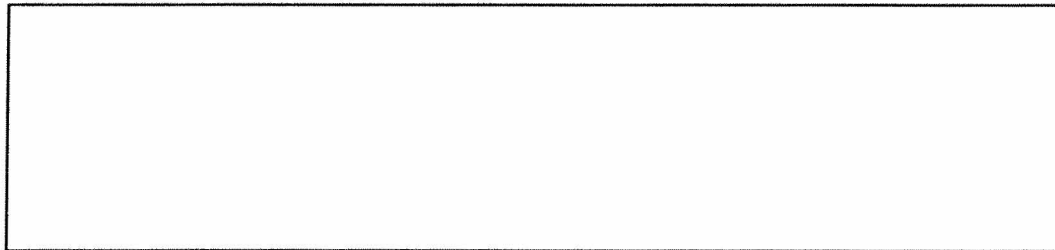
\*Appendix A, Tab 14.

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Board was to make appropriate recommendations to the DD/S&T for an administrative structure to implement the S&T Career Service Program within all elements of the Directorate. An agreed instruction outlining functional responsibilities of the Board was issued on 20 November 1963 as DD/S&T Instruction 20-2\* and later revised on 30 December 1964 to bring the Board's functions more into line with the over-all personnel policies of the Agency.\*\*



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A principal responsibility assigned to the Career Service Board was the review and recommendation with regard to assignments, transfers, and promotions in the supergrade and SPS areas. Pressure by the Bureau of the Budget to hold down numbers of supergrades throughout the government during Fiscal Years 1965 and 1966 prompted Dr. Wheelon to take over the Chairmanship of the

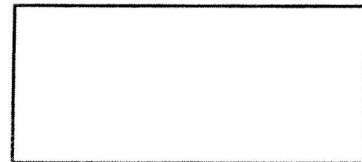
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\*Appendix A, Tab 19.

\*\*Appendix A, Tab 29.

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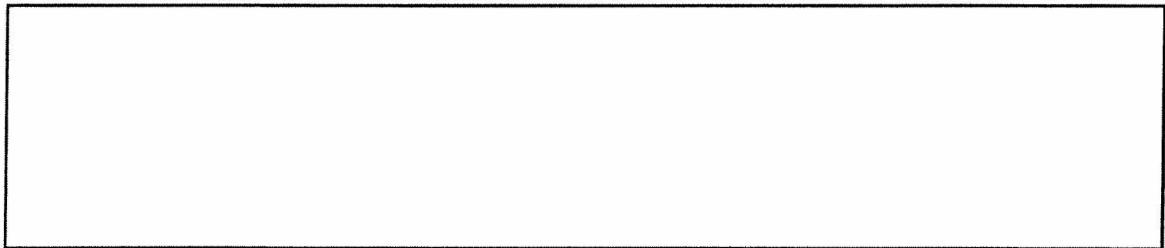
"R" Career Service Board late in December 1965 in order to give closer attention to personnel matters, particularly promotions and performances of senior officers of grades GS-15 through GS-18.

Following Dr. Wheelon's departure from the Agency, Mr. Duckett as Acting Deputy Director for Science and Technology, took the position that an Office Director should chair the Board, providing the DD/S&T the opportunity to act on recommendations of the Board without having been personally involved in the deliberations. Although the stated policy called for annual rotation of the Chairmanship among Office Directors, Dr. Chamberlain has, in fact, served as Chairman since 1 December 1966. From October 1964 to June 1970, [redacted] served as Executive Secretary. The incumbents of two positions have been added to the membership of the Board since its inception, namely in June 1968, the Executive Officer of DD/S&T, then [redacted] and in February 1970, the Assistant DD/S&T, then Dr. Donald H. Steininger.

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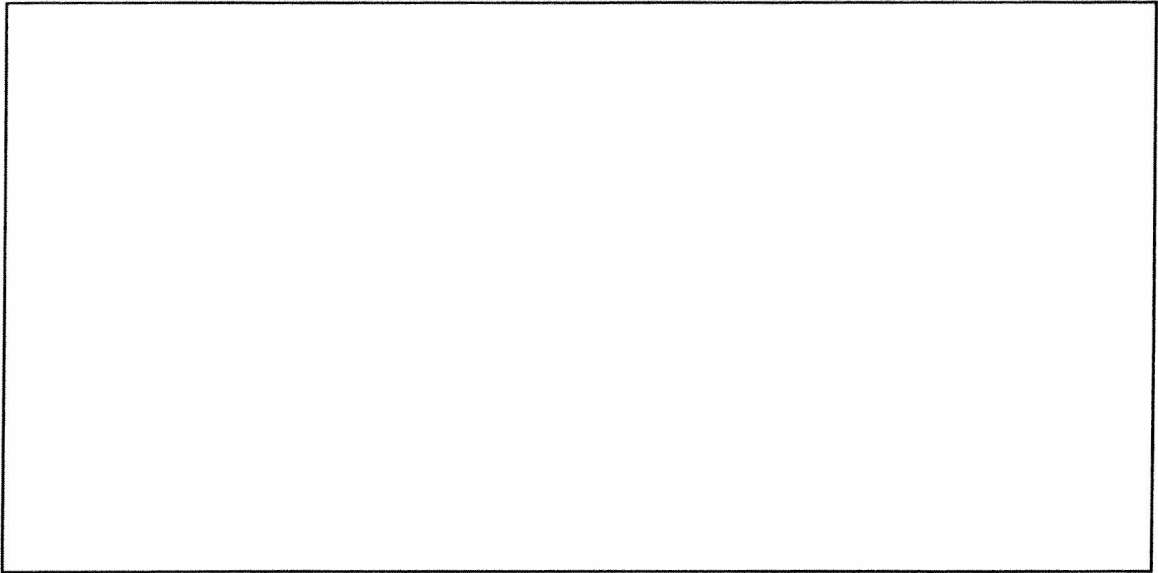


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The numbers of SPS and supergrade assignees in DD/S&T have changed since 1964 from the originally approved [redacted] supergrade slots to ceilings of [redacted] [redacted] supergrade slots for FY 1970. A chart at Appendix C, Tab 3, shows the increases in numbers of Master of Science and Doctor of Philosophy degree-holders, in the various Offices of the Directorate between 1963 and the end of 1966, and indicates the measure of effort expended in recruiting and retaining qualified scientists in the Directorate during Dr. Wheelon's tenure. [redacted]

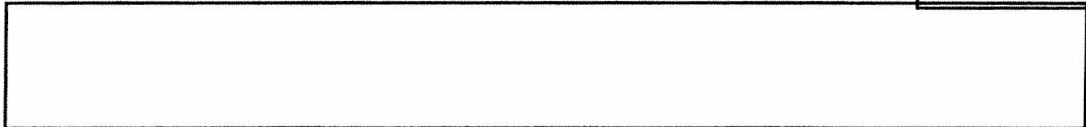
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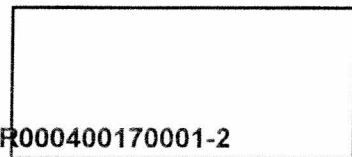
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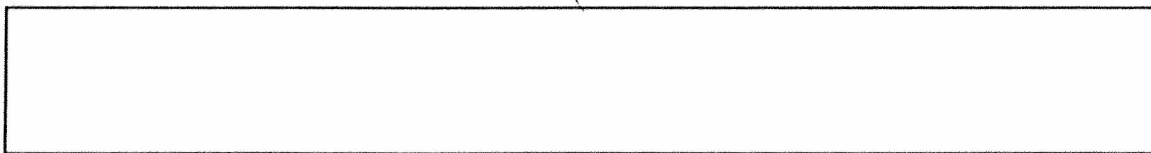
- \*Appendix A, Tab 26.
- \*\*Appendix A, Tab 41.
- \*\*\*Appendix A, Tab 59.

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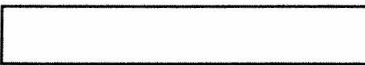


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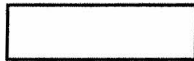
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Maximum use was made of established recruiting services of the Office of Personnel in building up the Directorate's manning complement. Special measures were also taken to attract candidates. Unlike most Agency recruiting, which aims at the college campus, Dr. Wheelon and his professional staff recruited essentially from industry. Dr. Wheelon, being well known in industry and government, was able to draw a number of highly qualified people interested in working for him. He was personally responsible for recruiting a number of men whose professional backgrounds and capabilities were known to him including, to name a few: Mr. Carl E. Duckett, to chair GMAIC and direct FMSAC:

 to act as Computer Science Adviser to OCS during its organization; and  to head the DD/S&T's Systems Analysis Staff.

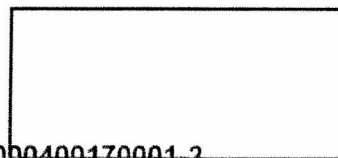
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Dr. Wheelon had an impact on the recruitment of three Offices in particular. In OCS,  was encouraged to hire a better caliber of computer personnel with emphasis on technical analysts rather than straight computer operators. A great deal of emphasis was also given by Dr. Wheelon to the technical backgrounds of the OSI analysts. This was not without its painful aspects

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since many tried and true OSI analysts had been with the Office for ten years or more and had reached relatively senior positions, even though they had little technical background. Dr. Wheelon felt OSI analysts should be technically qualified first and should learn the intelligence business on the job. OEL was also a target for the upgrading of technical personnel and a second Deputy was added to the Office to strengthen its technical base.

Dr. Wheelon's predilection for Ph.D.'s was based on the indication of the disciplined training the individual would have received. On the other hand, he fully recognized that the degree did not ensure outstanding performance, and occasionally a Ph.D. who did not measure up had to be terminated. The introduction of many high-grade officers into the Directorate was not accomplished without a certain abrasive effect in some quarters, as illustrated by the case of one employee of five years' tenure who, on resigning, presented a bill of substantial criticism against the personnel policies of the DD/S&T. Dr. Wheelon personally investigated the case and reported his findings to the DDCI with the following summary opinion:

I now feel that we have not lost a major asset, but do recognize that his statements are symptomatic of a number of people within the organization who are being upstaged in the

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professional pecking order by new talent we are bringing in. This is a price we expected to pay and my only hope is that we are not discouraging or failing to recognize really able people in the present organization. 74/

6. Relations with Staff and Office Chiefs

When Dr. Wheelon became DD/S&T, the position of Assistant DD/S&T was filled by Colonel Edward B. Giller, who had been Acting DD/R during the transition period of June and July 1963. Colonel Giller remained in that position until May 1964, when he returned to the Air Force. His principal activities in the Directorate had been on the research and development side, and he spent a large part of his efforts in helping to launch the Office of Research and Development. After Colonel Giller's departure, Dr. Wheelon, by his own choice, did not seek a replacement for the Assistant DD/S&T slot, feeling that he could operate as well, or better, without one. (The position remained vacant for two years, until in May 1966, Mr. Carl E. Duckett was moved from his job as Director of FMSAC to take over the Assistant DD/S&T slot, through action of the Director.)

In addition to the Staff Chiefs listed in III-B-4, above, and the two Special Assistants previously noted , Dr. Wheelon added to his staff a Special Assistant for Research and Development,

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[redacted] (drawn from the OEL Staff), on 15 September 1965. The very able and experienced Executive Officer, Mr. Jack Blake (who was relied upon heavily by Dr. Wheelon for his Agency expertise), rounded out the DD/S&T's immediate staff.

During the period when there was no Assistant DD/S&T (May 1964 to May 1966), [redacted] performed some of the duties of that position and, during absences of Dr. Wheelon, [redacted] was usually named the Acting DD/S&T.

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Dr. Wheelon gave forceful leadership to the Directorate in achieving its mission. He ran the Directorate with a firm hand and with extreme confidence and self-assurance. He was exceptionally effective at chairing meetings at all levels, being always firmly in command and control, bringing out the points at issue in clear, concise exposition. His ability to design and make use of charts, graphs, and other visual media, became one of the Directorate's trademarks.

Dr. Wheelon's drive and energy were seemingly boundless, and he also demanded maximum effort and the highest quality of performance from his personnel. The demands for excellence which he made on his staff,

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however, were matched by his own aggressive defense of the Directorate's prerogatives, and his energetic efforts to achieve external recognition for the Directorate's achievements. An example of the latter was his personal interest in the design and use of distinctive DD/S&T covers and formats for all of the Directorate's publications.

7. Intra-Agency Relationships

Dr. Wheelon was fortunate to have, during the organizing period of his Directorate, the strong support of the Director, Mr. McCone, and the Deputy Director, General Carter, in what he was attempting to do. He also enjoyed friendly relations with, and the support of, the Executive Director, Mr. Kirkpatrick. Mr. McCone was anxious to see a strong technological orientation introduced and carried forward in CIA. In this effort, as has been pointed out in preceding pages, he had the backing and continuous interest of the President's Foreign Intelligence Advisory Board, the membership of which at that time was rather strongly weighted on the scientific side.

The relationships of the DD/S&T with other Directorates of the Agency during Dr. Wheelon's regime were less amicable than those with the Director's Office. As noted in pages 59-60, above, Dr. Wheelon and Dr. Cline

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were at odds over the Administration of OSI when it was under the DD/I, and their differences continued after OSI was transferred from Dr. Cline's bailiwick to the DD/S&T. Almost immediately after the transfer, Dr. Wheelon, in October 1963, had occasion to rebuke Dr. Cline over what he described as "OCI raiding parties contacting their favorite analysts in OSI and by-passing the line of command, which is responsible for the substance of...OSI's contributions." 75/ He told Dr. Cline in the strongest possible terms that this must cease, and also advised Dr. Chamberlain to "let everyone in OSI know that they are not to take assignment unless you personally, or your designated officer, are in the loop and have control of the problem. I believe only in this way can we cauterize the free-wheeling tendencies of the DDI action types." 76/

In February 1964 the Assistant for Management, DD/I, and Mr. Blake reached a truce with regard to a proposed DD/I plan for standardizing printing priority indicators. Agreement was reached that DD/S&T would make a study and determine whether OSI publications would use identical priority indicators to those of DD/I, but at the same time, DD/S&T reserved the right of judgment in establishing its own printing priorities.

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In March 1964, an exchange of memoranda between Dr. Chamberlain and Dr. Otto E. Guthe, Assistant Director for Research and Reports, DD/I, sought to develop an understanding between the two principal producers of intelligence reports in the Agency with particular reference to interoffice coordination of draft reports. The analysts of each of these Offices were encouraged to coordinate with their colleagues of the other Directorate during the research and early production phases of their papers, and arrangements were made for "last look" coordinations when desired by either Office. 77/

Dr. Wheelon continued to hold the line against any real, or apparent, encroachments by the DD/I on his prerogatives. When the DD/I established his Collection Guidance Staff to assist information collection and intelligence production activities to meet the needs of the Agency and the Community, Dr. Wheelon took a dim view of its "broad charter" and insisted that it not interpose its assistance where none was needed. The services of CGS were not used to a great extent during its three years of existence by the Offices of the DD/S&T.\*

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\*See Chapter VI, pp. 308-310, below.

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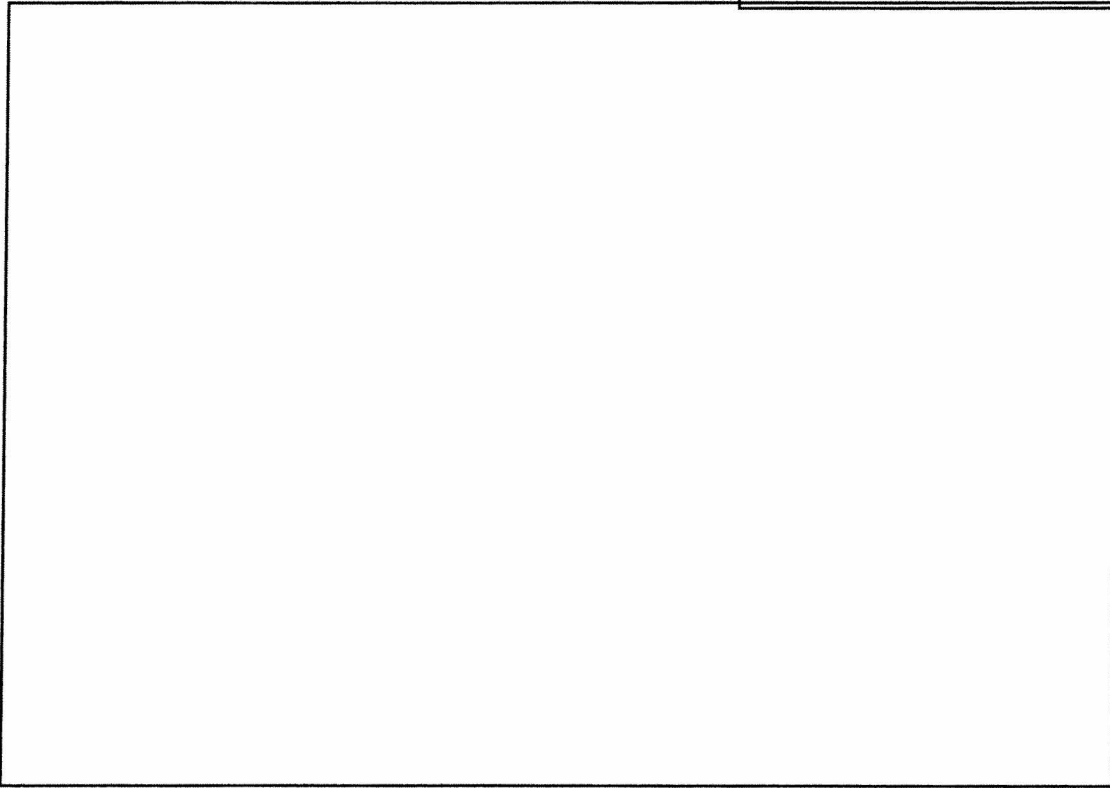
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Relationships with the DD/I smoothed out somewhat with the passage of time and the later change of leadership which took place in both Directorates during 1966, and since then have run a fairly normal course.

The DD/S&T's relationships with the Plans Directorate in the beginning developed two points of conflict: (1) the attempt to centralize all Agency R&D under the DD/S&T would have appropriated all R&D activities of the DD/P's Technical Services Division;

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\*See Chapter IV, Section E, pp. 145-155, below.

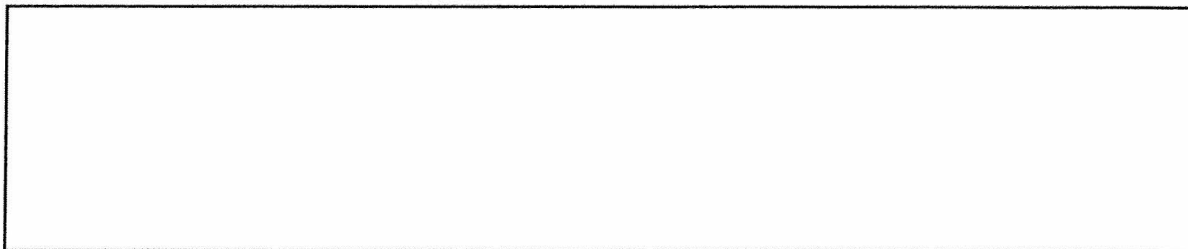
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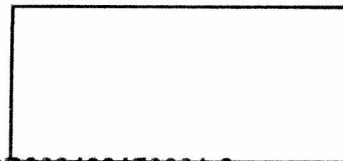
When the DD/R was being organized in 1962, the DD/S, then Colonel White, had a favorable interest in the idea of a scientific directorate and felt its purpose was valid, and that the problems involved in setting it up would be only practical ones. He later had some differences with the DD/R over the latter's demands for contiguous space for his entire organization, and felt that Dr. Scoville had become too emotional over what could be regarded as the normal frustrations involved in setting up a new organization.\*

When the Directorate was being enlarged in the summer of 1963, Colonel White did not oppose the transfer of the computer services from the DD/S to the DD/S&T, as desired by Dr. Wheelon, even though Colonel White felt that, from a functional point of view, a case could be made for insisting that these services remain in the Support Directorate. He believed that the DD/S organization, which was, perforce, big and expensive, had enough on its platter, and that possibly the new and "sexy" S&T Directorate

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\*See pages 30-31, above.

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could more readily obtain the necessary funds to bring the computer services of the Agency to a high level of accomplishment. The one stipulation of the DD/S in relinquishing the computer activities was that the DD/S&T undertake to administer this Agencywide service in an evenhanded manner. As far as this latter point was concerned, Colonel White believed that the DD/S&T had complied, even though in subsequent years there had been established small computer enclaves for special purposes here and there in the Agency. In his position as Executive Director-Comptroller he saw the possible future need to bring all computer activities under a central control for better time-sharing and programming of available equipment, in view of the costs involved, although he was aware that this would be a matter requiring considerable study.\*

The DD/S&T has had good support from the DD/S since its establishment, and only a few rough spots have developed from time to time. Some initial problems developed with the Procurement Division of the Office of Logistics regarding the backlog of procurement requests

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\*This, and the preceding, paragraph based on conversation with Colonel L. K. White, Executive Director-Comptroller, on 24 June 1971.

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early in 1964, and the failure of the DD/S&T to receive the high priority treatment its Offices expected. These matters were ironed out on an ad hoc basis while the overall procurement policies of the Agency were undergoing review, looking toward eventual decentralization of procurement, which was initiated on a small scale in 1968.\*

Communications support has continued at a high level throughout the life of the DD/S&T, maintaining the Directorate's vital communications links, through special channels, with its overseas operations, and with the contractors producing its equipment and carrying out its research and development. The Office of Security has also given the DD/S&T excellent support, particularly in the area of industrial security, where the Offices of the Directorate require a large commitment of specially trained security officers; in the support of "exotic" clearance control and procedures; and in the handling of special category documents and material in transit, such as the couriering of exposed film from operational missions from the field to processing facilities and to Headquarters. Other relationships with the Support Directorate have been of a generally routine and beneficial nature.

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\*See pp. 156-161, below.

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8. DD/S&T External Relations

a. The White House

The DD/S&T's work with White House boards and committees is summarized under III C, above. In addition to those White House groups listed there, Dr. Wheelon developed excellent rapport with Dr. Donald F. Hornig, the President's Science Adviser, appointed by President Kennedy in November 1963, and retained by President Johnson. Dr. Wheelon, between 1964 and his departure in 1966, made a point of meeting with Dr. Hornig and members of his staff on a bi-weekly basis, and in ad hoc sessions as circumstances demanded, briefing them on the Agency's complete span of S&T activities, from the technical aspects of collection systems development, to interpretation of substantive intelligence. These meetings were fruitful for both sides: it was helpful for the Science Adviser to have these full and frank discussions of S&T activities in the Intelligence Community, and it was equally useful for the DD/S&T to have a hearing at the White House level.

Besides the DD/S&T's contributions to annual and special reports by the DCI to PFIAB, and to talking papers for the DCI's use at PFIAB meetings, Dr. Wheelon's personal participation in the deliberations

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of PFIAB and PSAC during 1964-66 was almost entirely related to problems developing out of the National Reconnaissance Program. He was called on to testify before these groups and their specialized panels on all aspects of the Directorate's technical collection programs, including capabilities and technical characteristics of systems, feasibilities, and costs, and on occasion he was queried with regard to the relationships within the NRO between CIA and the Air Force. In his technical presentations he gave uniformly clear and succinct expositions, with well-marshaled facts and figures, thus gaining a reputation as a most persuasive advocate for the Agency's role in science and technology. With regard to his appearances before the PFIAB and its panels to testify on the CIA/NRO situation, he frankly and forcefully brought the problems into the open, but the net result was a widening of the breach.\*

b. Interdepartmental Relations

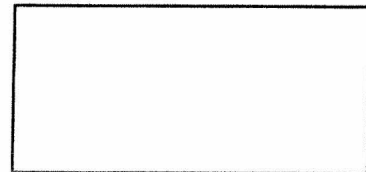
In Dr. Wheelon's relations with the Pentagon, the most frustrating problem he faced, as had also been the case with Dr. Scoville before him, and the

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\*Two very descriptive reports of such testimony by Dr. Wheelon before the PFIAB and its Baker Panel on NRO activities can be found at Tab 54 of Appendix D.

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one which overshadowed other more amicable and productive joint activities, was his struggle with the NRO, and particularly his relationship with Dr. Brockway McMillan during the latter's tour as Director of NRO. The CIA/NRO story is told in Chapter V of this history; therefore it will only be noted here that one of the most outstanding achievements of Dr. Wheelon during his term as DD/S&T was his part in helping to salvage for CIA a respectable role in the National Reconnaissance Program, particularly in the satellite reconnaissance field.

The DD/S&T's relations with DOD's National Security Agency in the collection and analysis of Elint have been strained from time to time, but generally speaking, no harm to the National Elint Program has resulted.\*

In other DOD relationships during the life of the Directorate, varying from area to area and project to project, it can be said that cooperation with Defense agencies has produced fruitful results. Over-all governmental economies have been effected by the sharing of successful research and development, the joint use of

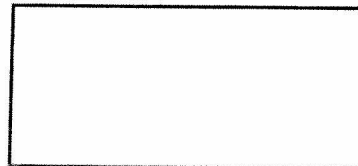
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\*See Chapter VI-C-3, "Office of Elint," and Appendix E, Tab 9, "Headquarters Elint Processing Center" for further details of this relationship.

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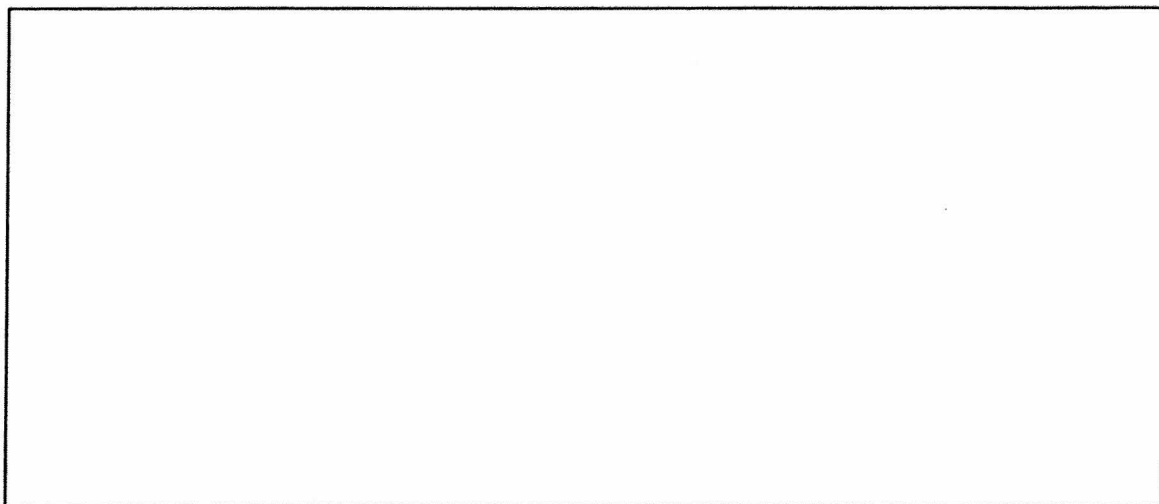
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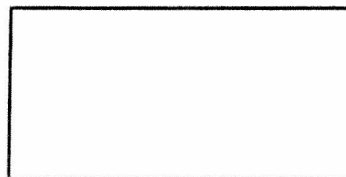
each other's facilities, and the mutual exchange of intelligence in S&T fields.



(b) FMSAC's good working relationship with the Defense Special Missile Analysis Center which was set up at Fort Meade in 1964, and particularly the improvement in FMSAC's ability to task DOD collection assets; (c) ORD's research and development coordination with DIA and ARPA and the application of ORD's research and development resources to the problems of the Defense agencies; and (d) the close DD/S&T cooperation with NASA initiated in 1963 when Dr. Wheelon was AD/SI, developing into mutual assistance agreements for analysis of intelligence data on foreign space events and technology, and for consultation on U.S. national space problems.

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c. Scientific Community

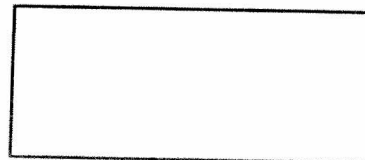
In carrying out the PFIAB's recommendation that the whole spectrum of modern science and technology be brought to bear on intelligence problems, Dr. Wheelon fostered the closest cooperation between his staff and the American scientific community, both academic and industrial. His usage of expert advisory panels has been noted above, pages 82-87. In addition, he, in coordination with the President of M.I.T., Dr. James R. Killian, organized a series of scientific discussions known as the "Boston Dinners," several of which were held at the M.I.T. Faculty Club during 1964 and 1965. Participating, besides the top staff of the DD/S&T, were outstanding men of science of the United States, such as Dr. Jerome Wiesner, Dr. Edwin H. Land, and former science adviser to President Eisenhower, Dr. George Kistiakowsky.

A series of "Dining-In's" was organized by Dr. Wheelon and held in the Director's dining room at Langley Headquarters, allowing Directorate staff to listen to invited guests from Defense and Industry and to join in round-table discussions. Symposiums were held at intervals to bring together the experts in various fields of science and technology and to explore the state-of-the-art in such

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fields as microminiaturization, lasers, and over-the-horizon radar, to name a few.

In the interest of maintaining the professionalism of the DD/S&T staff and in keeping each scientist abreast of the latest developments in his own specific field, the professional personnel of DD/S&T were encouraged by Dr. Wheelon to maintain their relationships with scientific societies and organizations and to attend appropriate conferences and seminars of a substantive nature. In accordance with this policy (which was established by DD/S&T Instruction 22-1 of 7 May 1964) such personnel were given the opportunity of attending one conference in their field each year at Agency expense.

9. Dr. Wheelon Resigns

The close personal involvement of Dr. Wheelon in the many facets of the Directorate's activities has been noted in various contexts in the preceding pages, along with an indication of the strong leadership which he exercised over the Directorate's affairs, and his zealous guardianship of his own and his Directorate's prerogatives. It could be said in retrospect, however, that his most outstanding accomplishment was in actually bringing the Directorate for Science and Technology to a viable state, with a

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staff  during a period of budgetary stringency in government and of sharp competition for available scientific talent, and with less than the wholehearted endorsement of two of the other three Directorates. A less aggressive and self-confident man would probably not have succeeded.

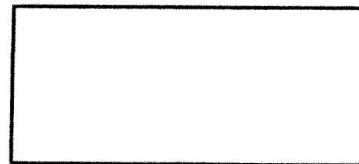
Paradoxically, the characteristics which enabled him to succeed in his undertaking were those which, on other occasions, made it difficult for some people to deal with him. He was a young man of great brilliance, but as an adversary he was known to some as an in-fighter, with no holds barred.

Dr. Wheelon tendered his resignation to the Director, Mr. Helms, in July 1966 and said that, in accordance with his promise to Mr. McCone to take the job as DD/S&T for no less than three, and no more than four, years he had decided to accept an offer from industry which he found most attractive. It was known that he kept a checklist of the things he intended to do before he considered his job complete. He had reached the end of his checklist by mid-1966 and in his letter of resignation he said he felt he had accomplished his major objective in creating a technical intelligence component for the Agency. His resignation was effective as of 23 September 1966.

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IV. Directorate Under Mr. Duckett, September 1966—1970

A. Background of Appointment\*

Mr. Duckett's appointment in May 1966 as Assistant DD/S&T, as previously noted, followed a period of two years in which Dr. Wheelon worked without an Assistant Deputy Director. When the new NRO Agreement was signed in August 1965, Dr. Wheelon indicated that he could not work under that Agreement and that he intended to resign. He did not carry through this plan right away, and it became necessary for the Director to make some changes in order to maintain the truce reached with the Pentagon and get on with carrying out the Agreement which he and Mr. Vance had signed. Dr. Wheelon was removed from the NRO arena by the transfer to [redacted] on an interim basis as of 15 September 1965, of the responsibility for CIA's NRO activities. Dr. Wheelon's departure was anticipated as being imminent, and a quiet search for a replacement was initiated by Admiral Raborn.

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Dr. Wheelon continued to stay on as DD/S&T, however, through the end of 1965 and into 1966. On 16 May 1966, just a month before Admiral Raborn resigned as DCI, [redacted] and his function as Director of Reconnaissance

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\*From a conversation between the writer and Mr. Duckett, July 1971.

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for CIA were removed from the DD/S&T's Office and transferred to the Director's Office. On the same day Mr. Duckett was appointed Assistant DD/S&T, and during the next four months until the effective date of Wheelon's resignation (23 September 1966), Mr. Duckett had the responsibility of running the Directorate for a great deal of the time while Dr. Wheelon was out of the country or on leave.

When, on Dr. Wheelon's departure from the Agency, Mr. Duckett was made Acting DD/S&T, he began a difficult period of about seven months when he had the responsibility of carrying on the affairs of the Directorate without feeling free to revamp the organization, since at any time a new Deputy Director might be appointed. He felt he should only make what decisions were critical and remedy any crisis situations, for instance with regard to personnel assignments.

The Director, then Mr. Helms, wished to confirm Mr. Duckett as Deputy Director, and in the fall of 1966 he consulted with responsible White House advisers to that end. Some opposition arose on the part of a few members of the PFIAB who believed the position must be filled by a nationally prominent scientist with a Ph.D. degree. 25X1

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Mr. Duckett had no degrees, but had more than twenty years in operational engineering and program management in the fields of radio communications, radar, electronics, and missiles. His last previous position before coming to CIA as Director of FMSAC and Chairman of GMAIC had been as Director of Missile Intelligence at the Army Missile Command, Redstone Arsenal.

Several candidates for the DD/S&T position were considered over the ensuing months but none had all the desired qualifications and was also available and willing to take on the assignment. Meanwhile, Mr. Helms, who felt satisfied that Mr. Duckett was equal to the job, made every opportunity for his exposure before the PFIAB in giving briefings on the Agency's S&T programs, and in providing technical back-up for the Director's own appearances. After a few months, the members of the Board were impressed enough with Mr. Duckett's scientific background and capabilities to withdraw their opposition, and Mr. Helms proceeded to confirm him as DD/S&T effective 20 April 1967.

B. Reorganization of Office of the DD/S&T, 1966

There was no Directorate-wide reorganization as a result of Dr. Wheelon's departure; however, the staff

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of the Office of the DD/S&T had undergone a reorganization between May and July 1966 just prior to Dr. Wheelon's leaving, and while Mr. Duckett was Assistant DD/S&T.

25X1 The DCI, Admiral Raborn, in September 1965 had appointed [redacted] to the newly-designated position of Director of Reconnaissance, CIA, in addition to his other duties which included that of Special Assistant to the DD/S&T. He was to serve as the Agency's focal point in all liaison with the NRO and to formulate, with appropriate coordination, the CIA position on all matters relating to the National Reconnaissance Program (including budgeting). In March 1966, [redacted] added to his staff 25 the position of Assistant for Financial Management to support him in coordinating budget and financial management 25X1 matters relating to the NRP.\* [redacted] was appointed to this post on 11 March 1966.

25X1 On 16 May 1966, when the DCI directed that [redacted] and his position as Director of Reconnaissance be transferred to the DCI's Office for reporting purposes,\*\* 25X1 [redacted] function was retained in the Office of the DD/S&T and, in order to centralize control over the Directorate's planning, programming, and budgeting for both

\*Appendix A, Tab 42.

\*\*Appendix A, Tab 43.



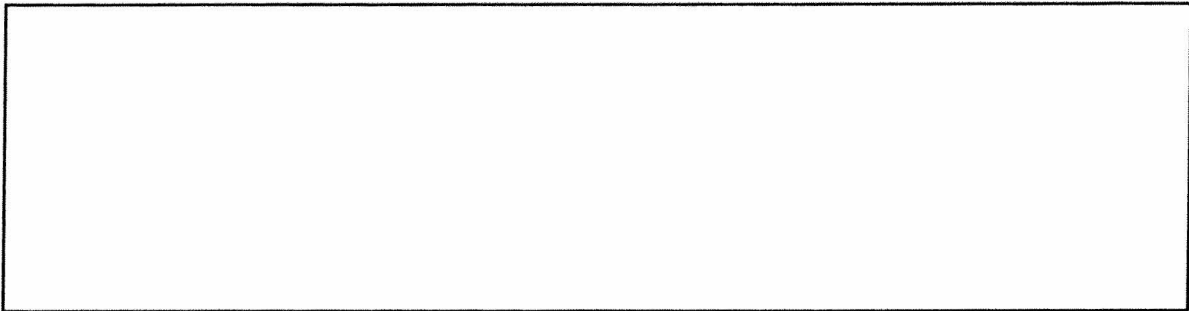
CIA-funded and NRO-funded programs, a comptroller form of management was adopted by the Directorate and [redacted] was named DD/S&T Comptroller.

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Further staff realignments proposed by the Executive Officer, [redacted] (who had succeeded Mr. Blake in December 1965), were considered and revised, and on 1 July 1966 additional staffing plans were announced, resulting in the following organization:\*

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Procurement Management Staff, [redacted]

Chief. Within both the NRP and the CIA research and development programs, substantial resources were being devoted to contract procurement activities and the point had been reached where Directorate overview was essential to ensure that, apart from substantive considerations, the best interests of the Agency and the U.S. Government were being served. The Chief of the Procurement Management Staff was made responsible for the general overview of contracting

\*Appendix A, Tab 47.

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and procurement management activities of the whole Directorate and was responsible for advising and recommending policy to ensure uniform handling of Directorate contract submissions, in coordination with the Office of Logistics and the Security Management Staff.

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Security Management Staff, [redacted] Chief. Security implications of the widespread activities and programs of DD/S&T demanded a centralized security responsibility. Domestic and foreign field activities, as well as increasing industrial relationships required the formulation of consistent security policies and procedures and over-all direction of the security activities of the individual Offices of the Directorate. Immediate goals to be pursued were the promotion of greater uniformity in personnel and physical security standards of the three compartmented systems—SI, [redacted] TKH—in which the DD/S&T was most heavily involved, and a simplification of the complex machinery for granting clearances and approvals; standardization of security approach to research and development projects to reduce special access lists; and coordination with the Office of Security to reduce the number of clearance options in dealing with contractor and consultant personnel.

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Administrative Support Staff, [redacted]

Chief. The responsibilities of the Administrative Support Chief included overview of personnel management, training, and career development under the Chief of Personnel,

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[redacted] and logistics support and planning under [redacted] Logistics Officer; also reporting to

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the Administrative Support Chief were the Registry with

[redacted] in charge, and the Graphics Section

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under [redacted]

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Intelligence Liaison Support Staff, [redacted]

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[redacted] Chief. This officer was made responsible for the continuous overview of intelligence production and for providing substantive support and coordination with other components of the Agency and other members of the Intelligence Community. He served as a focal point for intelligence requirements of the Directorate and monitored DD/S&T involvement with USIB, the National Security Council and its bodies, and the President's Foreign Intelligence Advisory Board.

All of the above staffs reported to the DD/S&T through the Executive Officer, [redacted]

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and rounding out the organization were the previously

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established Systems Analysis Staff with [redacted]

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as Chief, and the Special Assistant to the DD/S&T for R&D Coordination, [redacted]

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This organizational set-up has been retained by Mr. Duckett since he took over as DD/S&T with only a few changes. In June 1967 the Senior Executive Group, advisory to the DCI, recommended, and the DD/S&T agreed, that the Systems Analysis Staff, headed by [redacted] and consisting of three Physical Scientists (Research) and one secretary, be transferred from the Office of the DD/S&T to the National Intelligence Programs Evaluation (NIPE) Staff, attached to the Office of the Director, in order to assist that staff in its systems evaluation work, covering the entire Intelligence Community. The Design and Analysis Division of OSP was well established and staffed to carry on the Directorate's satellite systems analysis.

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Other principal changes in Mr. Duckett's immediate staff since 1967 have been: (1) [redacted]

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[redacted] named Executive Officer on 20 November 1967, following the transfer of [redacted]

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[redacted] designated Comptroller 21 January 1969, vice

\*Appendix A, Tab 54.

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[redacted] reassigned;\* and (3) Dr. Donald H. Steininger, (formerly on the staff of the White House Science Adviser, Dr. Hornig), appointed Assistant DD/S&T on 1 November 1969, succeeding Dr. Lauderdale, who resigned to take a position in industry.\*\*

C. Personnel and Training

1. Over-all Growth of Personnel

When Mr. Duckett took over as DD/S&T, the 25X1 approved personnel ceiling for FY 1967 had reached the top figure for the Directorate to that time of [redacted]. Besides the general growth Directorate-wide, a large part of the more recent increase at that time was due to the activation of an overseas A-12 detachment for operations in the Far East in 1967. The cancellation of the A-12 25X1 program in FY 1968 lowered the ceiling by about [redacted].

[redacted]

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\*Appendix A, Tab 57.

\*\*Appendix A, Tab 60.

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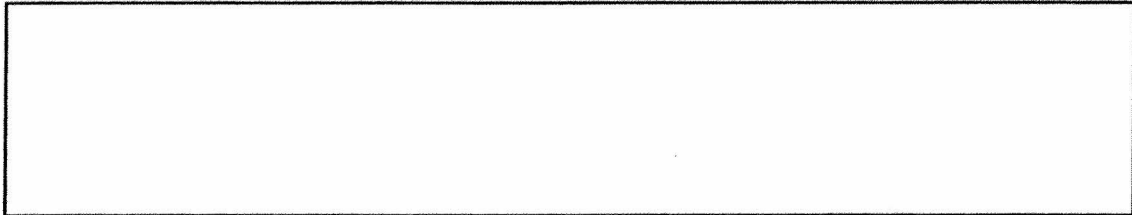
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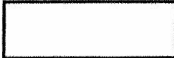
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The Agency Retirement Program has not affected the staffing of the Directorate as yet. Between September 1967 and the end of 1970, only  retirements occurred, but on an increasing scale. Routine recruitment through the Office of Personnel, and shifts within the Directorate have been adequate to fill occurring vacancies and to staff new projects.

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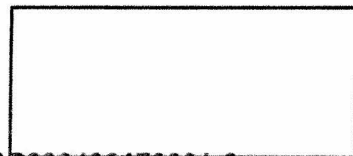
2. DD/S&T Career Development Course

Early in 1966 it became clear that S&T personnel, many of whom had been hired since 1963, required in-house training which would focus on the functions and responsibilities of DD/S&T and also provide insight into other Agency elements dealing with technology. The CIA Career Training Program could not satisfy this need and although OSI had previously established and operated a Scientific Intelligence Officers Training Program, it addressed primarily training germane to the analytical functions of OSI officers. Dr. Wheelon expressed an interest in developing a DD/S&T Career Development Course to run for a year with representation from each DD/S&T

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Office, and to begin in September 1966. Office Directors felt it would be advisable to delay the course a year, spending the interim in carefully developing goals and content of the course. Dr. Wheelon, however, held firm for beginning in 1966, and the summer months were spent in developing the course and selecting students. The program was approved by the Executive Director/Comptroller in September 1966; Dr. Wheelon had then resigned from the Agency and Mr. Carl Duckett, as Acting DD/S&T, continued to carry the program forward.

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[redacted] of OSI was selected as the first Course Director. He cooperated closely with the Office of Training in launching the first program and working out details. The [redacted] all from DD/S&T, 25X1 were relative newcomers to the Agency and were drawn from grades GS-9 through GS-13. The cost of the first course, 25X1 exclusive of salaries but including travel [redacted]

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[redacted] (which was absorbed in the DD/S&T budget). After Directorate-wide consideration of the planned curriculum, it had been decided to cut the length of the course from a full year to nine months.

Categories of study undertaken were (1) Agency orientation and background on Communism, (2) collection

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of technical information, (3) analysis of technical information, (4) systems development and deployment, (5) research and development, and (6) operations. Through various techniques (examinations, written and verbal reports, and instructor evaluations), students were graded on their performance in the course and the evaluations were recorded for purposes of future assignments. At the end of the 1966-67 course, a critique by the participants resulted in a restatement of objectives for the course and a comprehensive syllabus and structure based on the experience of the first course.

There had been four courses held by the end of 1970, the last two being shortened from nine months to five months duration as a result of experience. The second course, directed by [redacted] of OEL, added 25X1 representatives from DD/I(NPIC) and DD/S (Communications); the third course, directed by [redacted] of OSI, was 25X1 attended by the largest class to date [redacted] 25X1 students coming from the other three Directorates; the 25X1 fourth course, directed by [redacted] had [redacted] 25X1 representatives from the other Directorates.

The fourth course included visits to U.S. technical/military facilities, a special one-week Operations

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Course [ ] and a one-week visit to the Office of Communications Training Center [ ]

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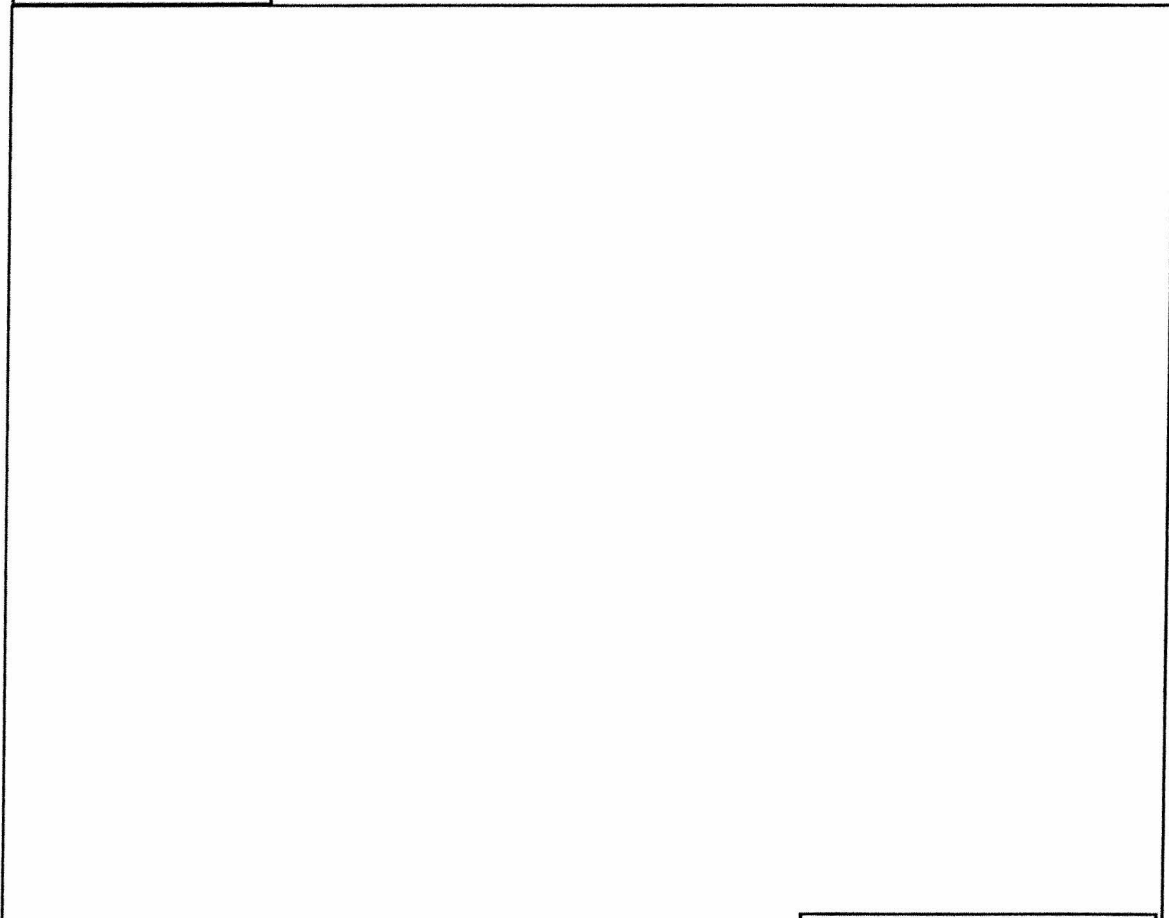
The course has proven to be of great value in familiarization for career development, uncovering talent for new positions, and improving coordination among the Offices of the Directorate, and among Directorates. At the end of 1970 a fifth course was being prepared for January-May 1971, under the direction of [ ]

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[ ]

of the ORD Analysis Division.



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[ ]

E. Coordination of Research, Development and Engineering

1. Background

After the establishment of the DD/R in 1962 and its later evolution into the DD/S&T, the question of the coordination of the total research and development activities of the Agency, particularly as between ORD/DD/S&T and TSD/DD/P, did not develop into a smooth working agreement. As pointed out in connection with the establishment of the Directorate for Science and Technology, Dr. Wheelon did not gain control over all Agency research and development. In mid-1965 when the DD/S&T draft statement of mission and functions was being circulated for Agency-wide concurrence, the R&D coordination issue again came to the fore. [REDACTED]

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[REDACTED] expressed reservations concerning language in the draft statement which he feared might allow DD/S&T to intervene in operational activities abroad, infringing on DD/P's prerogatives, particularly in the audio operations field.

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At the same time, an Inspector General's report on NPIC indicated serious technical problems and lack of coordination with other Agency technical components,

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[REDACTED] 25X1

and recommended formal program review be conducted jointly by NPIC and the technical components responsible for development of reconnaissance systems, with a timely opportunity for NPIC to contribute to systems design.

The over-all problem of R&D coordination in the Agency was then given precedence over agreement on the DD/S&T mission and functions statement. The DCI agreed with Dr. Wheelon to entertain a proposal for a draft charter putting the DD/S&T in an authoritative position over all Agency technical activity in order to simplify and strengthen the Agency's R&D efforts.

A draft proposal attempting to satisfy all parties was circulated to the Deputy Directors for comments on 21 March 1966. This draft represented efforts begun in September 1965, and encompassed approximately fourteen separate versions of the proposal. The concept of a single point of responsibility was maintained throughout all the drafts. Points of difference were reflected principally in the details of implementation, in the administrative location of the Special Assistant who would perform the day-to-day coordination, and in similar particulars.

Doubts were expressed as to whether the DD/S&T could be objective in a staff responsibility to the

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DCI for over-all R&D coordination while his own Offices pushed claims in competition with the other technical components; however, the idea of a super "Technical Director" was not seriously considered and the basic search was for a structure which was workable in terms of achieving the Agency's objectives and being acceptable to all of the Directorates.

The proposal hung fire for more than a year, from March 1966 to June 1967, during which time there was a change in Directors (Mr. Helms replaced Admiral Raborn), and Dr. Wheelon late in 1966 departed from the Agency.

An effort to regularize procedures and improve the quality of R&D work in the DD/S&T, prior to attempting to improve the over-all Agency R&D activities, led to the production, under the leadership and guidance of the Special Assistant to the DD/S&T for Research and Development,  of a Project Officers' Manual. The objective of the Manual was to provide a working aid for those officers having a direct responsibility for the initiation and monitoring of contracts for research, development, and engineering, and for studies pertaining to scientific fields, and to establish certain common procedures and common definitions of terms for

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their use. After coordination Agency-wide, the Manual was printed in early January 1967 and was put into use beginning in April 1967 by the Offices of DD/S&T. The Office of Communications, NPIC, and TSD later confirmed that their R&D project activities were generally consistent with the Manual, with certain small differences in office procedures.

In the spring of 1967, as a result of an attempt by the Office of Planning, Programming, and Budgeting to develop a coordinated R&D program for audio operations, difficulties were encountered in getting ORD and TSD to agree on the scope of their respective roles. A series of meetings was instituted by Dr. Sidney Gottlieb, Chief of TSD, to resolve problems and improve the over-all efficiency of both offices' operations in the audio field. Again it was apparent that the coordination of one segment of the Agency's R&D activities was dependent on the reaching of accord on over-all coordination of all research and development.

## 2. DD/S&T Made Coordinator of RD&E\*

The draft proposal [ ] which had languished for some 14 months, was then revived and with minor changes was forwarded to the Executive Director with

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\*This section based on conversations with the Special Assistant to DD/S&T for R&D, [ ], in January 1971.

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a covering memorandum by the DD/P and the DD/S&T outlining the current situation, endorsing the objectives of the draft notice, and concurring in a "Memorandum of Understanding" between ORD and TSD concerning their mutual technical efforts. The Notice\* was published on 17 July 1967 and promulgated the original objective, unchanged, i.e., that subsequent to centrally coordinated planning, the DD/S&T was to monitor decentralized execution of the R&D program, making use of all available Agency talent and expertise and retaining engineering support in close contact with operational elements.

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Procedures set forth in [ ] gave the DD/S&T responsibility as staff officer to the DCI for coordination of all Agency RD&E and authorized him to appoint a Special Assistant to aid him in the assignment. He was required to convene all Deputy Directors at least annually in response to the Agency Program Call.

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There was some dissatisfaction with the arrangements under [ ] on the part of TSD's officers who contended that the DD/S&T acts as both protagonist and judge, or decision-maker, in the meetings wherein RD&E

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\*Appendix A, Tab 52.

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projects are reviewed for approval, and that ORD gives TSD less than wholehearted support in the area of broad-base research which TSD is not authorized or funded to do for itself.\*

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Ad hoc arrangements prevailed for a time as procedures under [ ] were put into operation. The Special Assistant to the DD/S&T for R&D was able to report at the end of 1968 that there had been better planning, through extension of past coordination practices and the participation of the other Deputy Directors with the DD/S&T in helping to steer the R&D program. Further, there was an improvement in R&D contracting practices through the introduction of the contracting teams, and better data and management control through use of the automatic data system for monitoring contracts throughout the Agency's technical components.

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In September 1970, Mr. Carl Duckett, in his position as RD&E Coordinator, proposed to the DCI that his previously informal RD&E coordination and monitoring activities under [ ] be formalized; that a Research, Development, and Engineering Board replace the old

\*Based on a conversation between the writer and the Deputy Chief of TSD, [ ] December, 1970.

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Research and Development Review Board (which had been discontinued at the end of 1967); that membership of the new Board consist of two representatives from each Directorate, two from PPB, one from OSP, and others as might be necessary to carry out the instructions of  and that the Special Assistant to the DD/S&T for R&D should serve as Chairman. The principal task of the Board would be preparation and submission to the DD/S&T of coordinated plans and cost estimates for the Agency RD&E program, ensuring against unnecessary or wasteful duplication, and placing special emphasis on identifying gaps in the Agency's RD&E efforts.\*

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A distinction should be drawn between duplication which is unnecessary and wasteful, and that which is controlled and purposeful. The latter type is considered to be generally a wise policy in research, both basic and applied, due to the high degree of uncertainty which may be associated with any given research problem, as well as the difficulty of most researchers to remain unbiased and to maintain an open mind. An example of the latter type is the duplication by ORD of some of TSD's

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\*Appendix A, Tab 62.

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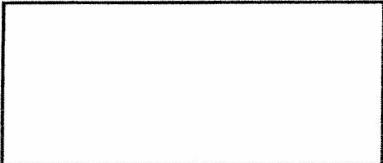
exploratory work in secret writing, which was requested by the Chief of TSD, Dr. Gottlieb, and which paid off with an operationally feasible system after the reinforcement of a "second look" by a separate research team.

Two interrelated problem areas in the Agency's RD&E program have been, and remain, matters of concern to Mr. Duckett, both as DD/S&T and as Coordinator of RD&E for the entire Agency. First, research and development requirements, Agency-wide, have continued to be so broad that they do not furnish needed guidance, and neither the Office of National Estimates nor the Office of Planning, Programming and Budgeting has been helpful in this respect during the preparation of the over-all RD&E program. The Agency has undoubtedly undertaken some work which has proven valueless, and in other instances has turned in poor performances in research or failed to maintain an ideal balance in its various efforts. Looking to the future, work was begun in 1970 on refining research and development requirements, under the leadership of the RD&E Board to the end that such poor performance will not be repeated.

The other problem area stems from budgetary restrictions which have resulted in centering the

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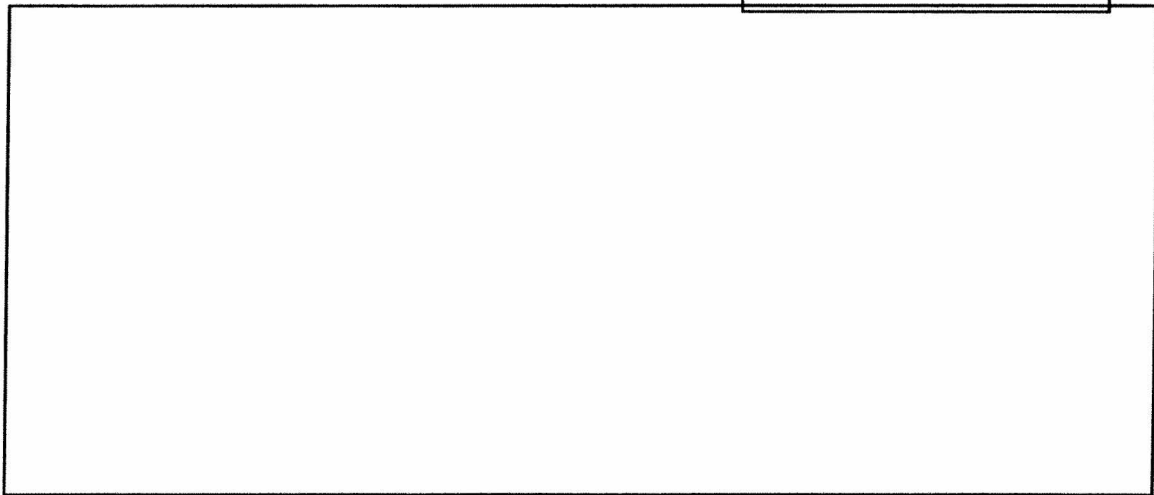
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principal RD&E efforts of the Agency on the development of operational systems to meet previously established requirements, rather than on broad-based, exploratory research, looking to scientific breakthroughs. Mr. Duckett would like to see about 80% of the RD&E budget going to the former, while 20% is given to unfettered research, not tied to requirements.

It is the judgment of DD/S&T officials concerned, using the criteria that basic research is directed toward improving the state of knowledge, and applied research is mission-oriented and has a clear relationship to the Agency's work, that there is really no basic research in the Agency's program, and very little applied research. For example, of the total Agency RD&E budgets for FY 1969 and FY 1970, amounting to

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In the case of computer research being done by ORD, it is important to consider several factors: the decision to establish and maintain the Intelligence Processing Research and Development Center (IPRD) has been hotly debated and will probably remain a questionable way of advancing the Agency's capabilities in using computers; it could be said, perhaps, that this activity is simply to put the Agency in the position to remain aware of all developments in this field; it might also be said that one purpose is to retain some particularly valuable staff employees who might otherwise resign if they could only work on mundane programs.

In summary, with regard to the DD/S&T's RD&E program, as well as the over-all Agency program, it can be said that the comparatively small amount of research sponsored by CIA from time to time is undertaken for a wide variety of reasons and purposes.

In order to compare the Directorate's total obligations for RD&E with the total Agency obligations, the figures are given below in millions of dollars for Fiscal Years 1963 through 1970.\*

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\*Figures on page 155 furnished by PPB from Congressional Budgets.

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	DD/S&T RD&E Obligations (\$Mil)	Total Agency RD&E Obligations (\$Mil)
FY 1963		
FY 1964		
FY 1965		
FY 1966		
FY 1967		
FY 1968		
FY 1969		
FY 1970		

Mr. Duckett's principal dissatisfaction as Coordinator of RD&E for the Agency is that the whole coordination process hangs on the dollar sign; that is, the principal concern is in the share of the total RD&E budget assigned to each Directorate. He believes it is much more important to be able to advise the Director that the total RD&E budget is being spent in proper balance among the areas of research open to the Agency's exploitation. (Conceivably, the question of whether all Agency RD&E should be placed under one Directorate could again be raised in the future.)

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F. Contract Management

1. DD/S&T Relations with Procurement Division

When the DD/R first came into being, the decision was made, after discussions pro and con, to leave intact the special contracting mechanism which had been developed within the Office of Special Activities (formerly DPD), beginning with the U-2 project, but to reserve its use for truly sensitive undertakings. All other contracting for the Directorate was to be handled normally through the Procurement Division of the Office of Logistics.

In February and March 1964, during consideration by the Director of Logistics and the DD/S of a proposal for restating the Agency's over-all procurement policy, DD/S&T concern was expressed over a backlog of about 44 contract negotiation requests worth about [redacted] which had not been completed, and the fear was voiced that the proposed policy might only add more complicated procedures, thus lessening even more the quick reaction capability of the DD/S&T in accomplishing his mission.

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Discussions between O/L and DD/S&T representatives resulted in agreement on simplified procedures,

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[redacted] 25X1

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with proper front office safeguards, for preparing and submitting procurement requisitions. Corrective action was also taken in scheduling and priorities to assist O/L in expediting the truly urgent procurement actions. 25X1

In July 1966 a study of the CIA procurement system by [redacted] was undertaken at the direction of the Executive Director, pursuant to an IG recommendation. The survey report recommended among other things (1) the establishment of a Contract Review Board at the DD/S level; (2) decentralization of the Agency procurement system; and (3) the establishment of a team concept for procurement based on the audit firm's favorable impression of the OSA experience. 78/

Actions taken within the DD/S&T to improve contracting procedures as a result of the survey included:

a. The addition to the immediate staff of the DD/S&T of an officer (nominated by the Director of Logistics) charged with over-all procurement management responsibilities for the Directorate.\* 25X1

b. Appointment of the Special Assistant to the DD/S&T for R&D Coordination, [redacted] as DD/S&T member of the Contract Review Board.

\*See pp. 135-136, above.

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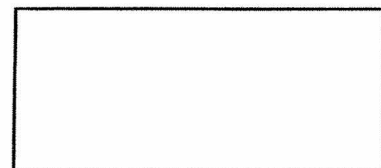
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c. The setting up of a Contract Information System within the DD/S&T Comptroller's shop. This system provided, when fully developed, for the storage, collating and retrieval of budgetary, monetary, contractual, and technical information concerning Directorate projects. This was the first system in the Agency having the capability to provide machine assistance in control of budget, projects and contracts in a systematized manner. The Management Information Officer,  was charged with providing monthly computer runs listing contract information on all DD/S&T research and development and production contracts. These listings were later augmented, with the agreement of the other offices concerned, to include R&D contract information for TSD, the Office of Communications, and NPIC.

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d. Quarterly forecasting of Agency-funded contract actions planned for the ensuing quarter was initiated by Mr. Duckett beginning in January 1967, and the DD/S&T Comptroller was charged with conducting a review by program categories, sub-categories, and elements, with the aid of computer listings furnished each Office.

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2. Team Concept Inaugurated

The recommendation made by the audit firm for a decentralized procurement system to be instituted throughout the Agency with contracting authority being delegated to each of the Deputy Directors was not received favorably by the Deputy Directors, but eventually a compromise plan was worked out whereby the Director of Logistics would appoint contracting teams from his own staff to work in each of the Directorates for a trial period.

On 4 March 1968, the OEL Contracting Team was set up to accomplish Agency-funded RD&E, external analysis, and other procurement contracting for the Offices of Elint, Computer Services, and Scientific Intelligence, and the Foreign Missile and Space Analysis Center. A senior contracting officer,  was provided by O/L, and two contract specialists and an industrial contract security officer completed the team. Contracting authority was delegated to the Team Leader subject to review by the Contract Review Board in specified cases. 79/

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Review of the Special Contract and Procurement Branch of OEL (as the contracting team was known)

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after a year's work brought a favorable appraisal by the Chairman of the Contract Review Board and the DD/S&T, and on 27 February 1969, another Contracting Team was added to operate in ORD at Rosslyn. This gave contracting team coverage to all Offices of DD/S&T. The OSA Contracts Staff continued to manage the covert procurement for sensitive projects assigned to OSA. At the time OSP broke away from OSA in September 1965, complete separation of the contracting activities of the two Offices was agreed, and delegation of special contracting authority was made to Mr. James H. McDonald, thus giving OSP its own contracting capability.

Mr. Duckett recognized three areas of concern in the DD/S&T contracting system: (1) the proliferation of contracting authority and policy throughout the Directorate; (2) the necessity for consistency in the business and security approach to contractors dealing with Directorate Offices; and (3) the necessity for economic utilization of all contracting, security, and audit personnel assigned to the Directorate. He therefore took action in February 1969 to assign to the Chief, Procurement Management Staff, then  additional duties as Senior Contracting Officer for

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Agency-funded contracts. The Director of Logistics delegated contracting authority to [redacted] who in 25X1  
turn delegated to the chiefs of the two teams. The Senior Contracting Officer is responsible for exercising policy guidance over the operations of both teams, reviewing contracts as appropriate, and assuring optimum use of team personnel. 80/

Because of the early history of total compartmentation of the special programs of OSA and OSP, their Contracting Officers have continued to receive their authority by direct delegation from the DCI. The Chief, Procurement Management Staff, however, as principal adviser to the DD/S&T on procurement, maintains liaison with the OSA and OSP Contracting Officers with a view to keeping the DD/S&T informed of all contracting policy matters.

3. Research, Development, and Analysis Contract Procedures

In the fall of 1968, during an Inspector General's survey of FMSAC, an inquiry into external research contracts was carried out, with two companies being singled out for special investigation- [redacted] 25X1

[redacted] 25X1

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In explanation of the procedures employed in coordinating the two particular contracts under IG scrutiny as well as the other research, development, and analysis contracts of the Directorate, Mr. Duckett on 3 October 1968 gave the Executive Director a full description of those procedures, which is summarized as follows. 81/

Programs requiring external contract action received their first coordination and review during the budget submission and approval, after which quarterly reviews were conducted by the DD/S&T, his Office Directors, and the project officers. Current and projected contract programs were scrutinized with the aid of Contract Information System data.

Once a technical requirement was established, consistent with the mission and within the budget of an individual office, the contractor's proposal and the office staff study supporting it were reviewed by the Office Director and submitted to the DD/S&T for approval if for more than \$25,000 in the case of research and analysis, and more than \$50,000 in the case of research and development. If over \$150,000 the action required approval of

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\*See also Section IV-G-3, "Conflict of Interest Implications," pages 168-170, below.

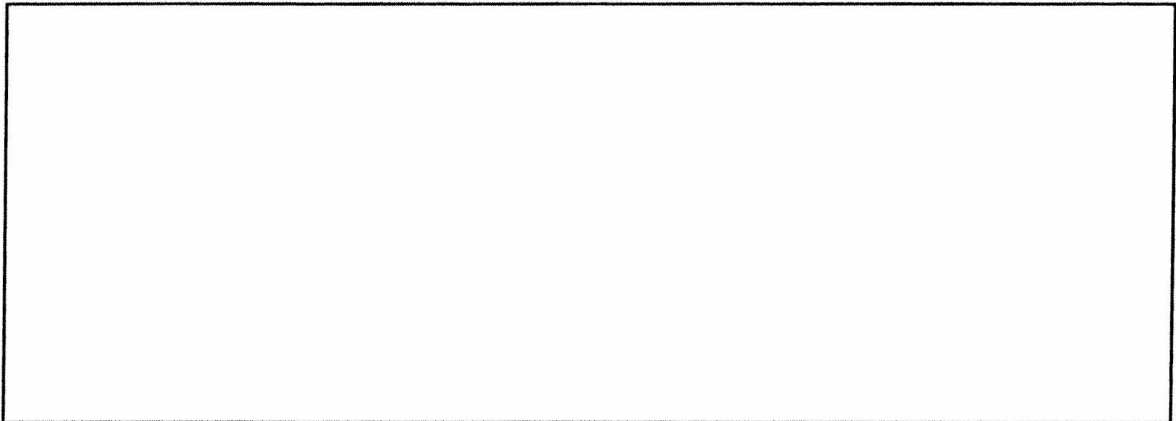
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the Executive Director, after review by the PPB. Agency-funded contracts for more than \$150,000 also required approval of the Contract Review Board. Task and change orders involving additional work were handled similarly, according to the amounts of money involved.

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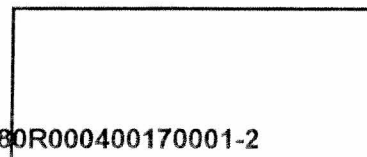
The Contract Information System in DD/S&T provided data for the recording of contractors' progress and for technical inspection reports by the project officers. It also produced exception reports when deviations from planned programs exceeded predetermined tolerances. These reports were used by the DD/S&T and his staff to monitor the contractors' progress and expenditures.

Additional coordination of DD/S&T programs was accomplished through Directorate representation on USIB panels and committees, such as GMAIC and SIC, which levy requirements on the Community and are the recipients of the finished products.

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Mr. Duckett personally attended and took an active role in the annual meetings  to review progress and plans for future tasks under their contracts. His best insight went into insuring that the tasks assigned to contractors added up to a sensible overall program. He also insisted on attendance at those meetings of his Office Directors and project officers concerned, and the contractors were represented by their senior officers, including company presidents, and the technical people involved in the work.

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The IG report following its FMSAC survey contained recommendations relating to the Directorate's contracting as follows: (1) that the DD/S&T review missile and space intelligence arrangements in the Community (including contracting) to check on duplication of effort; (2) that the General Counsel periodically review make-up of Agency advisory panels for conflict of interest implications in the light of existing contracts; (3) that the DD/S&T establish a central file of all external contracts, review contracting procedures for adequacy, and strengthen procedures for evaluating contractor performance; and (4) that FMSAC's contracts be reviewed to determine if some of the work could not be better performed in-house. 82/

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Replying to these points on 3 February 1969, Mr. Duckett (1) deferred the question of a Community-wide review in the missile and space intelligence field to the Deputy to the DCI for National Intelligence Programs Evaluation; (2) raised no objection to the General Counsel's continuous review of advisory panels, but noted that every contract entered into by the DD/S&T was reviewed by a General Counsel representative before issuance and that since 1968 all Agency-funded contracts and amendments exceeding \$150,000 were reviewed by the Contract Review Board; (3) stated that the establishment of a central file of external contracts would not ensure against duplication and that the Contract Information System and other specific measures already taken by the DD/S&T would best avoid duplication and evaluate performance of contractors; and (4) agreed that FMSAC could perform some of its contracted work in-house if given additional manpower. 83/

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G. Additional Advisory Panels Established

1. Science and Technology Panel\*

The relatively small and very senior group of scientists envisioned by Dr. Wheelon as a replacement for the Kinzel Board to advise the DCI on the over-all science and technology program of the Agency was not established during Dr. Wheelon's tenure. Such a panel did come into existence in November 1967. The initiative for its establishment was in the form of a letter dated 15 August 1967 from the DCI, Mr. Helms, addressed to prospective members of a Science and Technology Panel, requesting them to serve. This letter was originated on behalf of the DD/S&T by OSI, and set forth the purpose of the new panel which was to advise the Director on the formulation and assessment of the Agency's goals in the scientific and technological area. Dr. William Perry of Electromagnetic Systems Laboratories, who agreed to serve as Chairman, and five additional scientists, made up the initial membership. This panel, which is known familiarly as the "Perry Panel," has met on a bi-monthly basis since its first session was held 16-17 November 1968.

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\*Appendix F, Tab 12.

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It has dealt intimately with all phases of the Agency's S&T program and the DD/S&T gives great weight to its recommendations. For example, in considering the feasibility of using a particular system to satisfy a particular collection requirement, the Panel's expert judgment could be the deciding factor.

2. Strategic Intelligence Panel\*

On 6 September 1968, the Director, Mr. Helms, sent letters to a list of prospective members of a new panel to advise him on matters of Soviet objectives in strategic technological areas. The letter was originated on behalf of the DD/S&T by OSI, and received a good response from the addressees. Dr. Ruben Mettler of TRW agreed to chair the panel and eight members drawn from the scientific, political, and military communities made up the initial membership. The panel, which met first on 1 and 2 October 1968, has continued to meet several times a year since then, usually for two-day sessions, and has been a valuable source of advice to the DCI, particularly with regard to the question of U.S. capability to monitor a strategic arms limitation agreement with the Soviets.

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\*Appendix F, Tab 13.

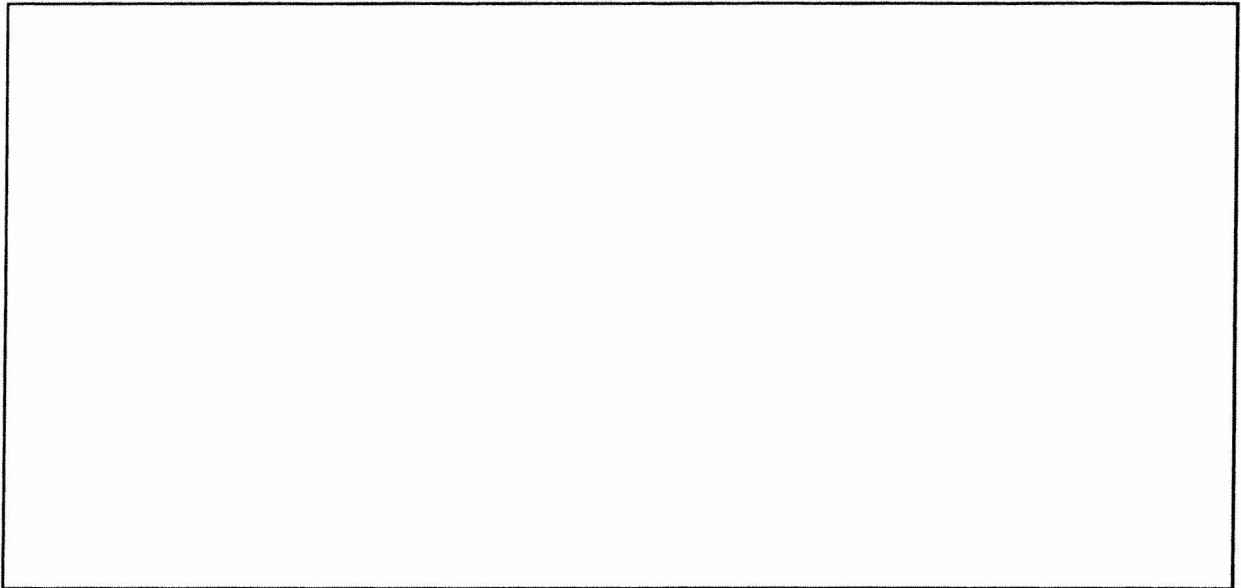
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H. Management of Directorate by Mr. Duckett

1. Philosophy of Management

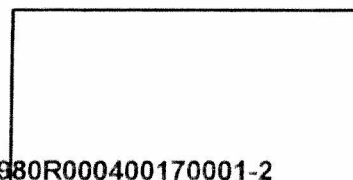
The organization which Mr. Duckett inherited was fairly well established and manned by highly skilled professional people, despite the fact that its charter for expansion had been given at a time of retrenchment within the Federal Government. The functional set-up of the Directorate, and the philosophy of intra-Directorate coordination flowing therefrom, continued to be followed by Mr. Duckett with the principal differences between his own and Dr. Wheelon's management being more in the way of style and application.

An initial difference in their methods of operation was evident in Mr. Duckett's early choice of

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an Assistant Deputy Director, and his reliance upon the A/DD/S&T to share the responsibilities for carrying on the Directorate's business. Mr. Duckett felt he needed a man who could handle the research and development and the hardware side of the business, while the DD/S&T devoted himself more fully to substantive intelligence and support to the policymakers.

The Director, Mr. Helms, agreed with Mr. Duckett that there was talent available within the Agency and therefore no need to recruit an outsider. The candidate chosen, Dr. Lloyd K. Lauderdale, had all the necessary requisites and had for the previous two years conducted a very successful development phase of  Besides R&D and systems responsibilities, Mr. Duckett assigned to his Assistant Deputy the duty of keeping tab on the Directorate's reconnaissance activities under the NRP, which duties consumed about half of Dr. Lauderdale's time. (When Dr. Steininger replaced Dr. Lauderdale in November 1969, the same relationship and division of responsibilities held good.) Mr. Duckett looked to the A/DD/S&T to be on top of all the technical details of the Directorate's programs and to keep the DD/S&T completely and

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currently knowledgeable so that he would always be in a position to back up the Director in any briefings or hearings to which he might be called.

In his management of the Directorate, Mr. Duckett feels that he has sought more advice from his Staff and Office Directors, and on a more formal basis, than Dr. Wheelon did, and, generally speaking, has made his decisions with that advice as a basis. Mr. Duckett also felt that Dr. Wheelon had a tendency to "steer the vote" of his Office Directors; for example, in his taking over the Chairmanship of the "R" Career Service Board, where he participated in the discussions of personnel actions brought before the Board, and made his own views known. Mr. Duckett did not continue this practice but made one of his Office Directors Chairman of the Board. He does not attend the Board's meetings, but acts on the recommendations which it puts forward.

Mr. Duckett has relied heavily on his regular morning staff meetings, and on the Quarterly Reviews held with each Office of the Directorate to keep himself up to date on all of the Directorate's business. The Quarterly Review also gives him the opportunity to register any doubts or disagreements on the direction in which

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any program might be proceeding, and to redirect the program if that should be necessary. The Contract Information System, using automatic data processing for controlling expenditures and fulfillment of contracts, was brought to its operational stage under Mr. Duckett as a management tool. There was some opposition and footdragging on the part of some Offices toward complying with the system; however, Mr. Duckett ordered that all Offices must cooperate and make it work. Selling the plan to the Directorate's management by giving them a clearer understanding of the plan's workings was a function of the Management Information Officer, [REDACTED]. The system, once its base was established, together with the very specific procedures followed in contract sign-off, has given Mr. Duckett a reliable means of control over the expenditure of Agency funds for external research and analysis, and other procurement.

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## 2. Priorities

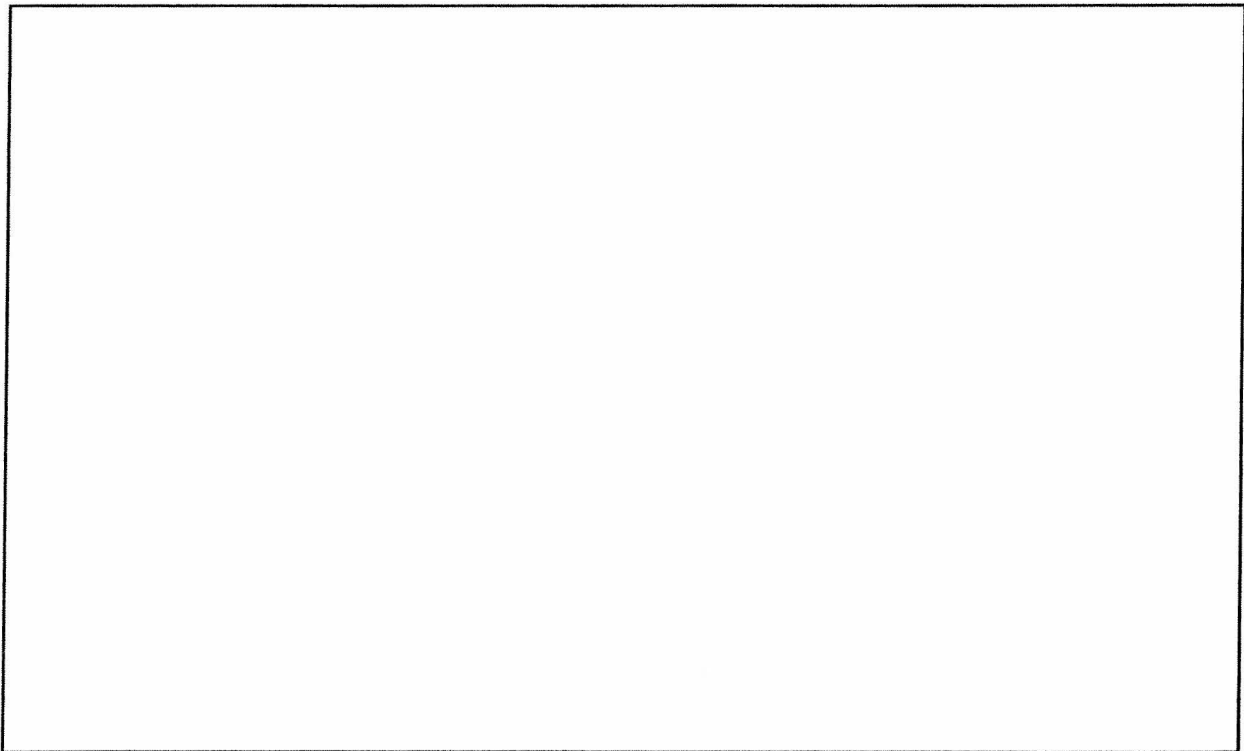
Because of the interrelationships between the functions of the Directorate's seven Offices, and the split budgeting between CIA funds and National Reconnaissance Program funds, it is difficult to keep an optimum balance of emphasis, particularly in the funding, among these

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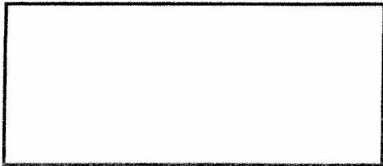
functions. The tendency, according to Mr. Duckett, has been to overspend on collection and underspend on analysis; however, this does not mean that the amount of funds awarded one Office as compared to another is a judgment of the importance of that Office's function vis-a-vis the other. For example, the sophisticated technical collection systems developed by the Directorate are very costly, and it is therefore in the nature of things that a large share of the budget must be awarded to developing, building, and operating them, as long as they are successful in meeting priority requirements.



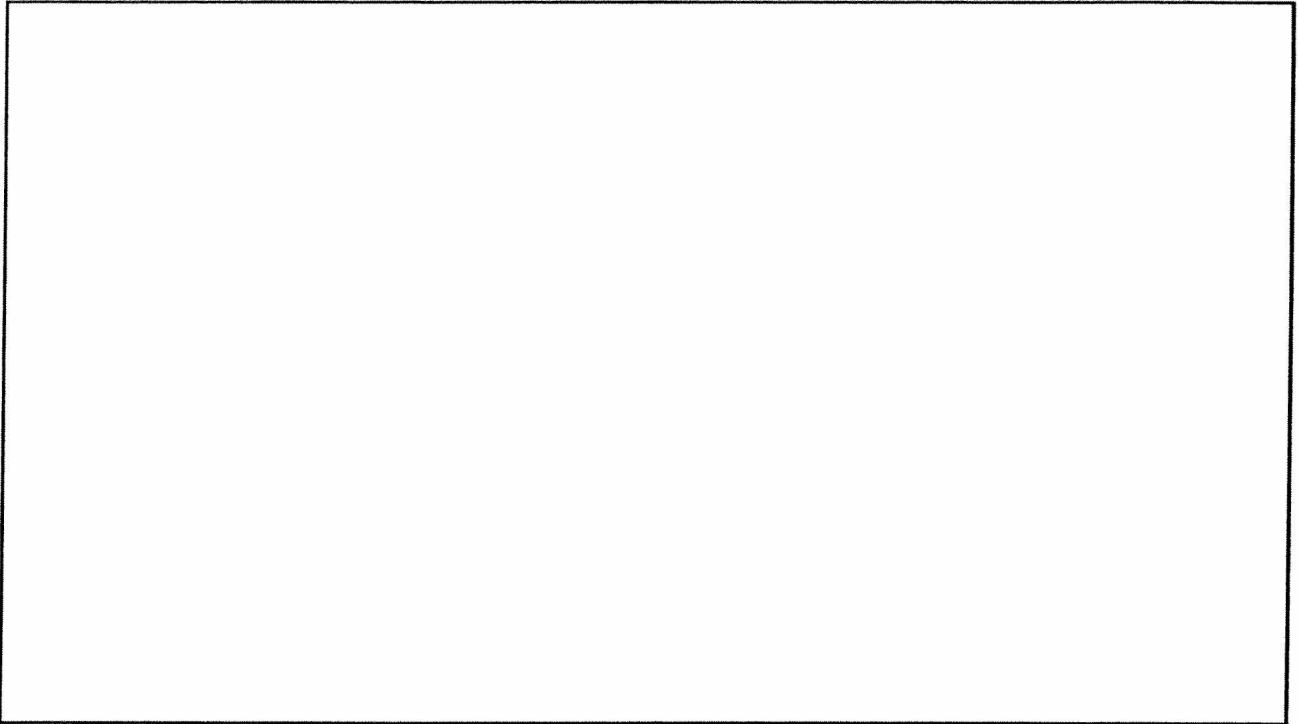
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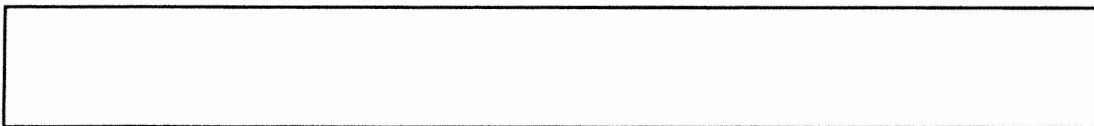
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3. Production of Intelligence

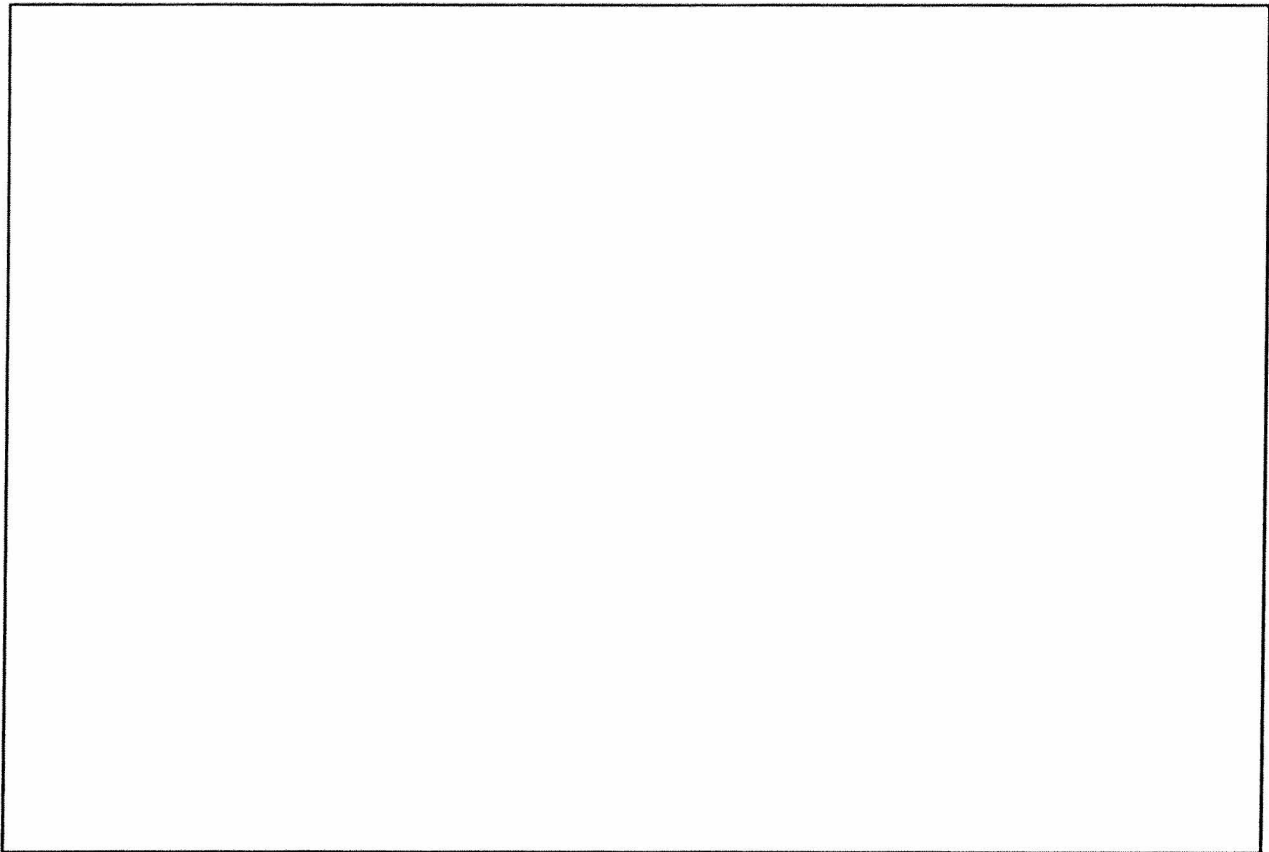
Mr. Duckett has maintained a close overview of all intelligence production, receiving a copy of every report produced by the Directorate. The quantity of production has been fairly constant over the years, up a little in some years and down in others. Fiscal Year 1969 was high, but the following year there was a drop, one factor being the heavy contribution in analyst time and effort devoted to preparation for and participation in the Strategic Arms Limitation Talks.

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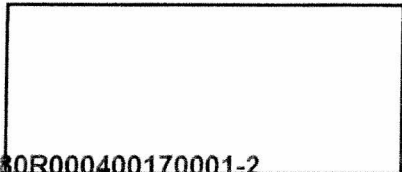


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In June 1967, OSI formed a new "Future Threats Branch" in the Physical Sciences and Engineering Division to fill the need in the Intelligence Community for attaining as much lead time as possible in identification of future Communist military threat systems and improving long-range planning for S&T intelligence collection. Initially the Branch spent its efforts largely in the evaluation of forecasting methods; it has since concentrated its attention on a computer-supported deductive methodology under an external research contract.





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The specialized publications of OSI and FMSAC continued to be produced through the 1967-70 period and contributions to the National Estimates averaged between 15 and 20 per year. Section 7 (Scientific) and 45 (Health and Sanitation) of the National Intelligence Surveys were produced by OSI and contributions to Sections 62-63 (Fuel and Power, and Minerals and Metals) were made annually. At the end of 1968, responsibility for preparation of Section 45 of the Surveys was transferred to DIA, due to OSI's manpower and funds limitations and the need to concentrate its assets on more urgent S&T developments in the USSR and China.

4. External Relations

a. Intelligence Community

In the opinion of Colonel White, Executive Director of CIA until his retirement in February 1972, a noticeable improvement occurred in the S&T Directorate's community relationships after Mr. Duckett became Deputy Director. Colonel White felt this was largely due to the fact that Mr. Duckett was a "team player" as opposed to Dr. Wheelon's more individualistic style of operation, and therefore Mr. Duckett was more acceptable to the community and had better rapport, particularly with the Pentagon.

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Mr. Duckett has relied on the Assistant DD/S&T and the CIA-appointed Deputy Director of NRO (since 1969 Dr. F. Robert Naka), for the Directorate's day-to-day participation in the NRP, but maintains complete and current knowledge of those matters in order to be able to make any decisions devolving upon him. When Mr. Helms confirmed Mr. Duckett as DD/S&T, he said that, as DCI, he did not intend to go through another "war" with NRO, and would look to Mr. Duckett to solve all his problems with Dr. Flax, the Director of NRO.

While all NRP decisions since Mr. Duckett's assumption of responsibility for CIA's role in overhead reconnaissance have not been uniformly satisfactory to CIA (e.g., the cancellation of the Agency's A-12 reconnaissance system in favor of the Air Force SR-71 in 1968), there has been a calmer air in the settling of differences and the CIA position has been on a firmer base. Mr. Helms, as a member of the NRP ExCom, has played a stronger part with increasing appreciation of the contributions of technical collection to his mission as head of the Intelligence Community. In the early days of the overhead reconnaissance program, he had considered those exotic activities as an offshoot from the Agency's normal field of operations, but by 1970 he was able

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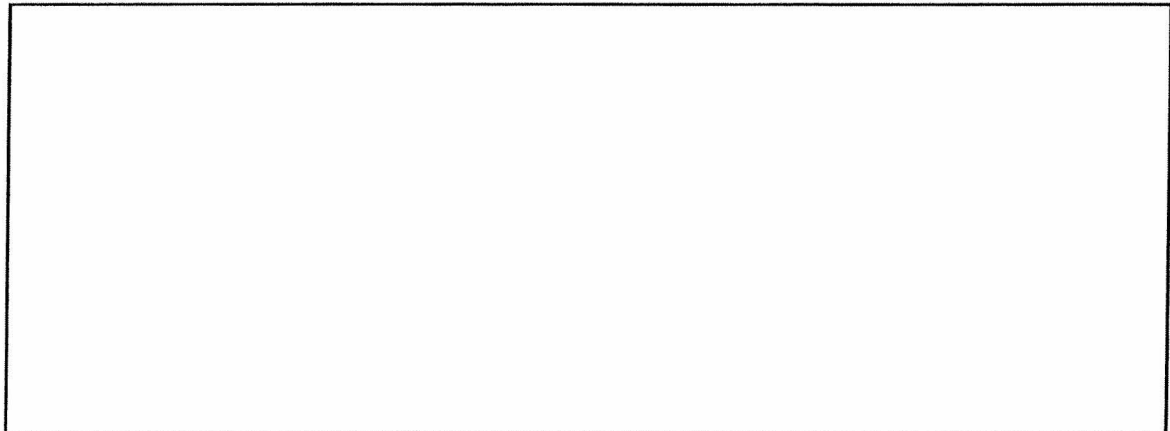
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to agree with Mr. Duckett that those activities for which the Agency had spent  of NRP funds between FY 1963 and 1970 could truly be regarded as CIA business.

The DD/S&T's relationship with the White House Science Adviser, begun during Dr. Wheelon's tenure, was continued by Mr. Duckett. He met with Dr. Hornig up to the change of Administration at the end of 1968. During the time Dr. DuBridge served as Science Adviser (8 February 1969 to 20 August 1970), the regular meetings lapsed and instead there were occasional briefings and discussions as situations arose that required them. Since August 1970 when Dr. Edward E. David, Jr., succeeded Dr. DuBridge, there have been instituted regular monthly meetings at which Mr. Duckett or Dr. Steininger bring the Science Adviser up to date on new developments and on substantive intelligence. This relationship has continued to be beneficial to both sides.

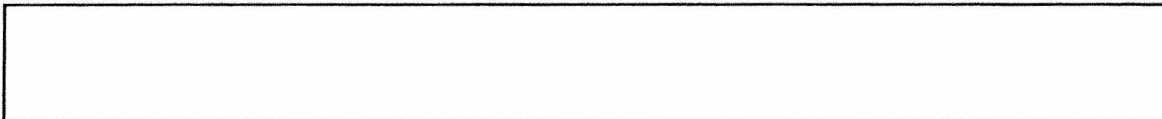
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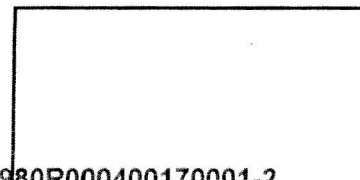
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5. Support to Policymakers

Since Mr. Helms, prior to being appointed Director of Central Intelligence, had spent the greater part of his career in "classical intelligence" work within the Clandestine Services, Mr. Duckett felt that he would need to lean heavily upon the DD/S&T for briefings on priority national security matters such as the Soviet ABM system, which currently was in the forefront of national consideration. Not having a broad scientific background, the Director would naturally be a bit uncomfortable in technical discussions of such matters as missiles, space, and nuclear energy.

Mr. Duckett therefore made it his highest personal priority to keep himself completely informed on all S&T matters in the Directorate, in the Agency, and in the Community, in order to be prepared to give the Director the support he might need. The capability for technical back-up in support of the Director, buttressed in turn by the expertise of the entire Directorate, has benefited both parties. Because of the ascendancy of science and technology in relation to intelligence and



national security, Mr. Duckett has become the most widely used of the Deputy Directors in supporting the DCI at Congressional Committee and budget hearings, NRP Executive Committee meetings, and other such forums in which matters critical to the Agency's and the Directorate's programs are discussed. The Director has developed confidence in Mr. Duckett's ability to give clear expositions on technical subjects and to give answers which take into consideration the thinking of the entire organization. In addition to supporting the DCI at such meetings, Mr. Duckett has been entrusted by the Director to carry out some missions on his behalf for the purpose of briefing and enlisting support of individual Senators and other government figures.

When Mr. Helms made the presentation of the Intelligence Medal to Dr. Wheelon on his departure from the Agency in September 1966, after he had extolled the brilliance and accomplishments of the first DD/S&T he gave a sly dig at Dr. Wheelon's propensity for erudite technological exposition by adding at the end of his speech: "And when he wanted to, he could make technical subjects understandable to non-technical people."

This remark gives a little insight into the reasons for the Director's more cordial attitude in recent

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years toward the DD/S&T. It might be said that Mr. Duckett has a facility for making technical subjects understandable to non-technical people most of the time, which doubtless has given the Director a better background for dealing with these subjects. In the current world situation, the DCI must rely heavily on science and technology, and the Agency's reconnaissance capability is very important to him. In Mr. Duckett's opinion the Director has come to rely upon the Directorate for Science and Technology as an organization capable of presenting consistently well-thought-out and defensible opinions.

Other personal priorities of Mr. Duckett have been ad hoc and sometimes unpredictable as to the amount of his time which would be monopolized. For example, he was appointed by the DCI to represent the Agency in the preparatory sessions for the Strategic Arms Limitation Talks in mid-1969, and during the balance of that year and the next he spent nearly half of his working hours in support of the SALT Working Group and its Verification Panel.

Another priority which arose in May 1969 related to the National Estimates with regard to Soviet offensive and defensive weapons. The White House

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(specifically Dr. Kissinger) felt that Soviet weapons were possibly being underestimated. A round of meetings ensued with Dr. Kissinger in which an exhaustive review was held. Mr. Duckett was heavily involved in this review and in the subsequent effort to retrieve credibility for the Estimates at the White House level.

The dissatisfaction of Dr. Kissinger, as well as of the President, in relation to the crucial estimates on Soviet offensive and defensive weapons, was that they were so watered down, in order to make it possible for all concerned to agree to their publication, that they were of little help, in the final analysis, to the policymakers.

Mr. Duckett and the DD/I, Mr. R. J. Smith, together with their advisers, worked out a new plan for writing Estimates which would give the policymakers more of a feeling for how much disagreement there was in the Intelligence Community and on what points; also, the plan gave the producing officers a greater role in the writing of the Estimates. The DCI was asked for approval, which he gave, and the 1970 Estimates for Communist offensive and defensive weapons systems followed the new plan. This made for longer and more detailed Estimates, which did

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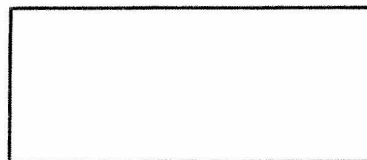
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not please everyone (particularly the Pentagon). The President and Mr. Kissinger, however, expressed their satisfaction with the new form of Estimate which they considered to be more helpful, from the policymaker's point of view, in establishing national security policy.

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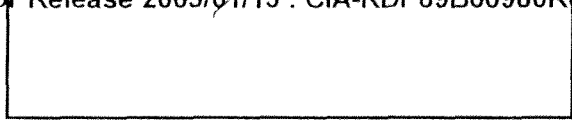


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THE DD/S&T HISTORICAL SERIES

DD/S&T-1

THE DIRECTORATE FOR SCIENCE AND TECHNOLOGY  
1962-1970

VOLUME TWO    CHAPTERS V-VI

*by*



June 1972

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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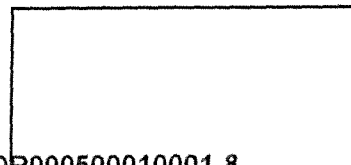
Air Force) and from CIA, but all of its air crews would be civilian and its activities would be regarded as clandestine intelligence-gathering operations. It would be set up outside the framework of any of the regular military services, although Mr. Bissell was inclined to believe that the Air Force 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

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\*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] 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]

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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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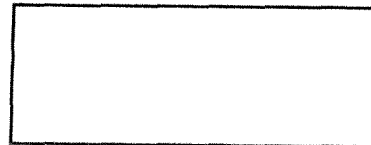
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and thus to the Air Force, the Agency should seriously consider seeking the Chief of Staff position in NRO lest the CIA contribution be so fully subordinated to Air Force interests that the only influence it could exert would be through the DD/R's 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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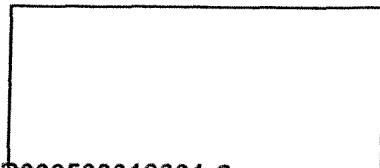
expressed his view that under the present concept there would not be enough work to keep a Deputy Director busy. Each Program Director would carry on in the absence of the D/NRO and if an extended absence were anticipated, the D/NRO would appoint an Acting Director for the period. It was left that this 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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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

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\*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

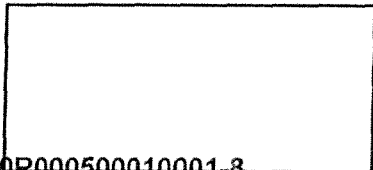
The question of controls over the funding of the CIA portion of the NRP was one of the principal areas of contention which had to be settled before further rewriting of the Agreement could proceed.

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/

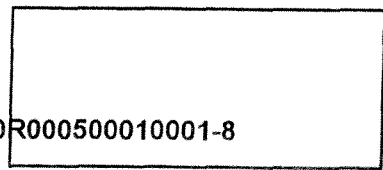
Mr. McCone met with Secretary McNamara on 5 October 1962 to present a proposal for revising the NRO organization once more. The principal new features of this draft agreement\* were (1) the elimination of dual reporting by the D/NRO to Defense and CIA; (2) the establishment of the National Reconnaissance 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.

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\*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

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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

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\*Appendix D, Tab 11.

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...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

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\*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.

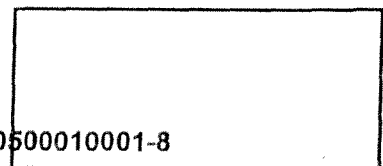
On the Air Force side, there was a large body of sentiment which, from the time of planning for

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\*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

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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.

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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

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\*Appendix D, Tab 13.

\*\*Appendix D, Tab 14.

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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.

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\*Appendix D, Tab 14.

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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

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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, [redacted] was assigned to NRO on 6 August 1962; and with the transfer of the Satellite Operations Center (SOC) to the Pentagon in April 1963, [redacted] 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

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\*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."\*

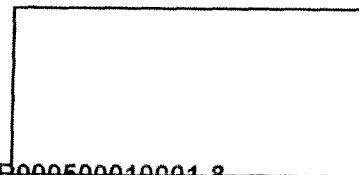
The Director, NRO Staff, Colonel Martin, then circulated this version of the terms of reference paper under the heading "Method of Operation for DDNRO" on 10 May 1963, addressing it to the Director, Program B, CIA, for his "information and compliance."\*\* General Carter, on receiving a copy of the paper, 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.\*\*

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\*Appendix D, Tab 26.

\*\*Appendix D, Tab 32.



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 [redacted] 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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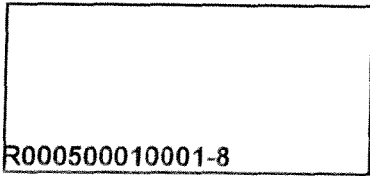
with a note\* informing him that Dr. McMillan was planning to establish a more formal tie-in between the NRO and JCS. Dr. McMillan also included a copy of his memorandum\* to Mr. Gilpatric requesting that the latter discuss the proposal with the JCS. Dr. Scoville was not asked for CIA's approval or recommendations 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

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\*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

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\*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

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\*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

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\*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.

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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.

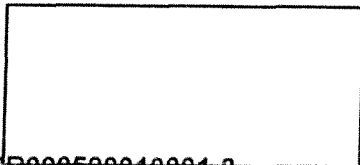
\*\*Appendix D, Tab 39, Attachment



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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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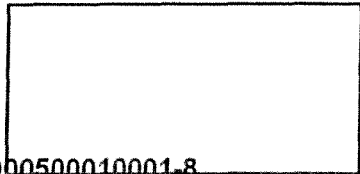
continued on an ad hoc basis since then.) Procedures for the presentation of the NRP list were published by the Director of the NRO Staff on 16 April 1964. The missions under the control of the JRC were also to be presented to the Special Group on a monthly basis for approval. Thus the combined listing 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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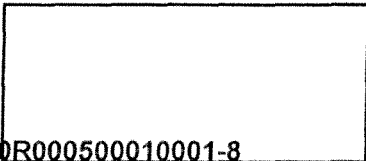
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The Air Force had initiated studies in 1946 under a Rand Corporation contract to investigate the feasibility of using an earth satellite for reconnaissance. Early Rand proposals assumed that the satellite, once fired into orbit would be non-recoverable, 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/

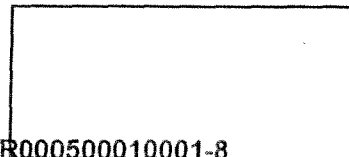
The decision was made that the Air Force would drop this portion of WS 117-L and concentrate on the long-range direct read-out system. Meanwhile, with the approval of Dr. James R. Killian, Special Assistant to the President for Science and Technology, and the cooperation of the Director of the Air Force 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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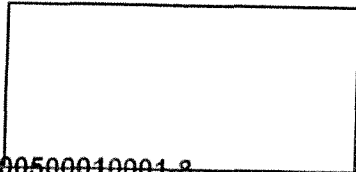
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the first stage booster, with a Lockheed Agena as the second stage. The payload consisted of a 24-inch focal length camera configuration, stabilized after orbiting, and giving resolution of approximately 20 feet on the ground. The cover arrangement 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

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\*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).

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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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[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 [redacted] had resigned from the Agency;

[redacted] had been transferred [redacted]

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

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When General Greer's staff began to take over technical direction of contracts which had been negotiated by CIA contracting officers, [redacted]

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[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 to Dr. Scoville that for the previous three or four

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\*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.

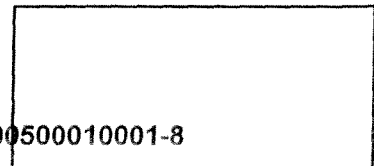
Mr. Bannerman advised the DD/S&T that to make available the authorities of the Confidential Funds Contracting Officer and the CIA Security Officer to SAFSP to be directed and utilized as General Greer saw fit represented the delegation of those authorities by

\*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 [redacted] 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 [redacted]

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\*\*Appendix D, Tab 48.

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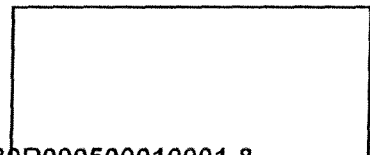
Early in March 1964 the DD/S&T received copies of cables sent by General Greer to Headquarters to the effect that SPO-162 (the SSD group of personnel assigned to support CORONA launches and retrievals) was being dissolved and its functions and personnel transferred to SPO-241 under Colonel Paul Heran, 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

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\*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.\*

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\*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

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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.

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\*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.

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\*Appendix D, Tab 52.

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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.\*

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\*Appendix D, Tab 46.

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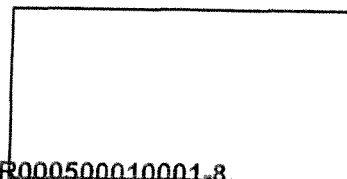
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Dr. Wheelon's reaction to this letter, and to the terms of reference of a proposed "NRP Review Committee" suggested to the DCI by Mr. Gilpatric, was expressed to Mr. McCone in a memorandum wherein Dr. Wheelon outlined what he believed to have been 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.

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\*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

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\*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

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\*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

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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

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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,

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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

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\*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.

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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

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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

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\*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 over-all 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 [redacted] 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, [redacted]

25X1 [redacted] Therefore the Office of Logistics was asked to extend [redacted] 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 [redacted]

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

\*Appendix D, Tab 57.

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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.\*

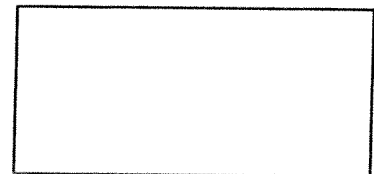
On 10 September 1964, Mr. McCone briefed the ExCom on his plans to augment the West Coast component of CIA and take over responsibility for all CIA contracting and other functions related to CORONA. There was no dissent by anyone present to continuing CIA contracting for CORONA.\*\* However, at the ExCom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

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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

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\*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 re-drafted 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

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\*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

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\*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,

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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

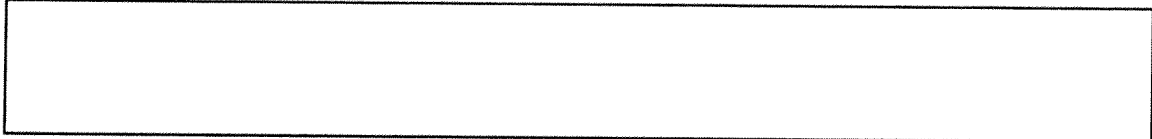
\*Appendix D, Tab 69.

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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.

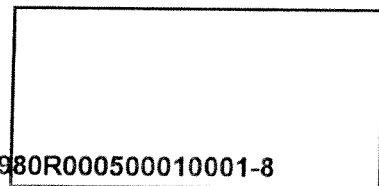
Organizational charts on the two following pages (figures 4 and 5) show the NRO's make-up and its management personnel, as well as its relationships within the Executive Branch of the Government, as of October 1965.

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.\*

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\*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. [redacted] then Chairman 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 [redacted] was not to be made a matter of contention within the NRO.\*

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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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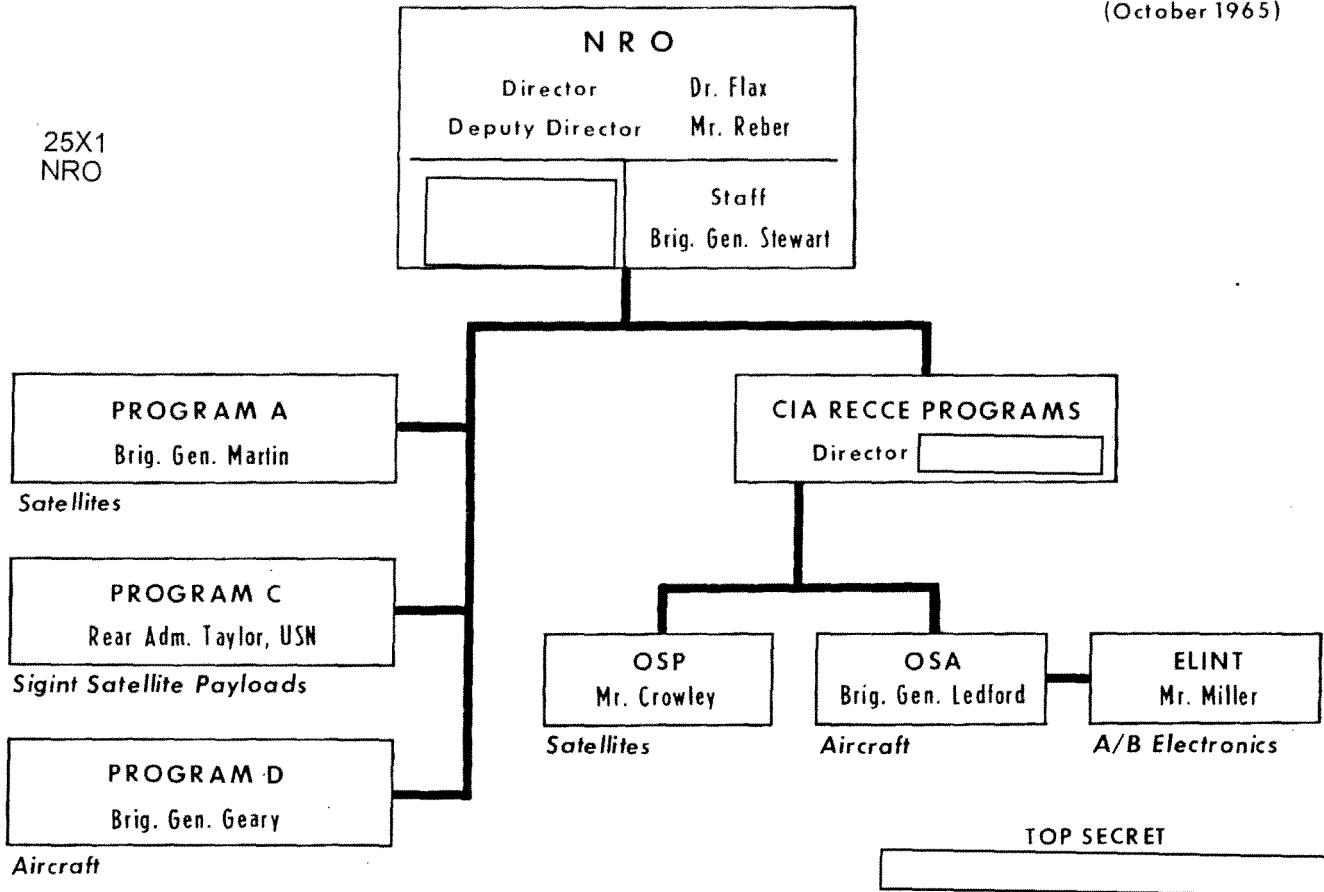
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### NATIONAL RECONNAISSANCE OFFICE

Figure 4

(October 1965)



October 1965

THE PRESIDENT

NATIONAL SECURITY COUNCIL

FOREIGN INTELLIGENCE ADVISORY BOARD

PSAC

USIB

303 COMMITTEE

- Mr. Clifford, Chairman
- Dr. Wm. Baker
- Mr. Gordon Gray
- Dr. Land
- Dr. Langer
- Dr. Long
- Mr. Murphy
- Mr. Pace
- Adm. Sides
- Gen. Taylor
- Mr. Coyne, Exec Sec

- (Panel on NRP Matters)
- Dr. Land, Chairman
  - Dr. Baker
  - Dr. Drell
  - Dr. Garwin
  - Dr. Ling
  - Dr. Puckett
  - Dr. Purcell

- Adm Raborn, DCI
- Mr. Belmont, FBI
- Mr. Brown, AEC
- Lt.Gen. Carroll, DIA
- Lt.Gen. Carter, NSA
- Mr. Hughes, State

- Mr. Bundy, WH
- Adm. Raborn, DCI
- Mr. Johnson, State
- Mr. Vance, DOD

DIRECTOR CENTRAL INTELLIGENCE  
Adm. Raborn

SECRETARY OF DEFENSE  
Mr. McNamara  
DEP. SEC. OF DEFENSE  
Mr. Vance

NRP EXECUTIVE COMMITTEE  
Mr. Vance, Dep. Sec. Def.  
Adm. Raborn, DCI  
Dr. Hornig, WH

NRO  
Director  
Dr. Flax  
Deputy Director  
Mr. Reber

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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. [redacted] 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 [redacted] 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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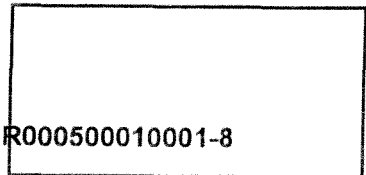
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agreement was the signal for the formal establishment of the satellite group which had been operating under the title of "Special Projects Staff, DD/S&T" as the Office of Special Projects, adding also the members of the OSA staff who had been involved 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]

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[redacted] and other projects as might be assigned.\*

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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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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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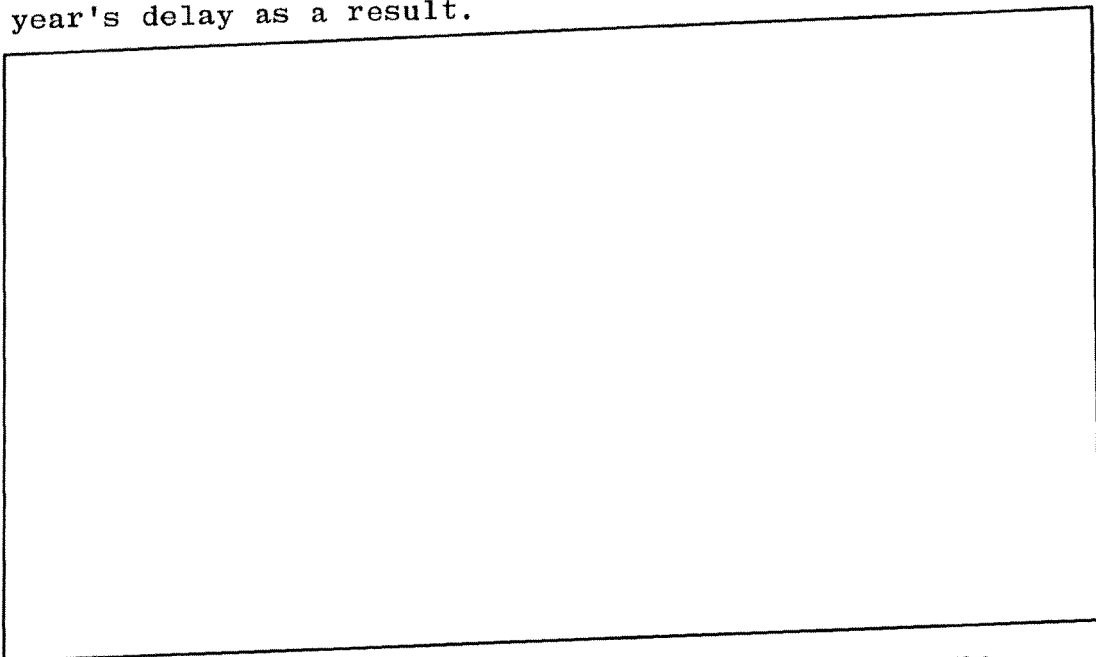
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including interface specifications. An attempt by OSP and the Director of Reconnaissance, CIA, was initiated in the spring of 1966 to obtain full responsibility for the sensor from development to full operation. This led to extended discussions; CIA 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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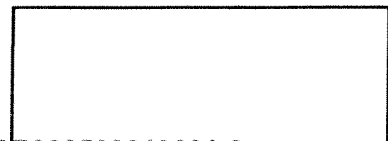


With regard to staffing of the NRO, there were still problems; however, if ten men had drawn up an organizational and staffing chart of NRO, there would no doubt have been ten different approaches to the problem. Mr. James Q. Reber, in a summary of his tour as DD/NRO, made this point and in explanation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

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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]

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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

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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

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\*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 [redacted] 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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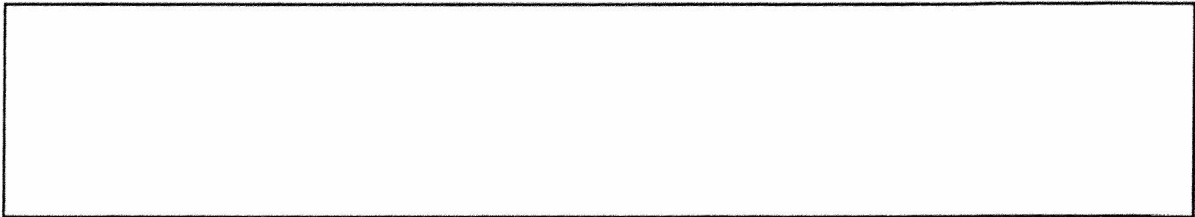
\*Appendix D, Tab 76.

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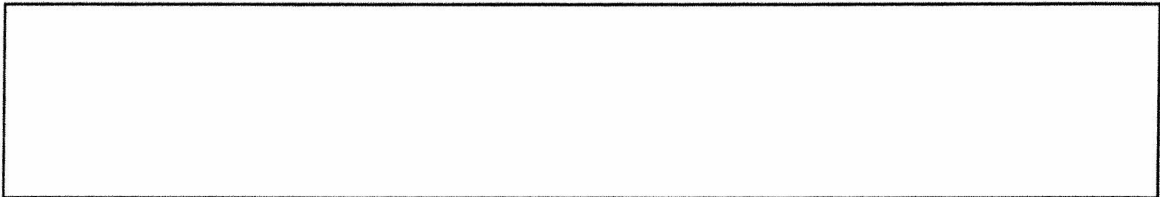


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2. Manned Reconnaissance Programs of DD/S&T

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



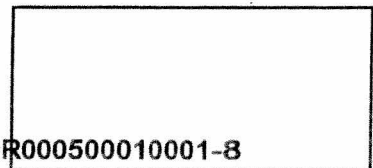
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Yeoman work was done in coverage of Cuba during the Soviet missile build-up by the Agency's U-2's through the summer of 1962 up to the discovery in October of MRBM's in Cuba, after which SAC took over the U-2 coverage of Cuba on the decision of the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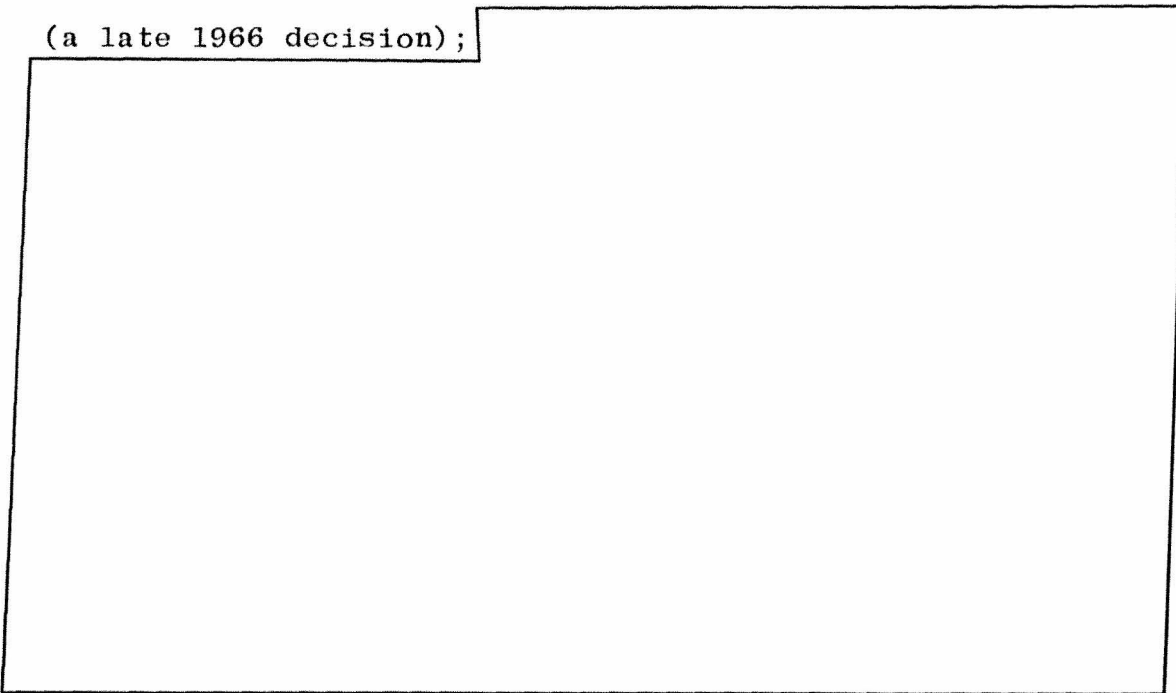


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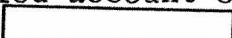
retrofitting and modernizing the existing U-2 fleet, including SAC's aircraft, of approximately twenty U-2's in 1965-1966; the eventual decision by the ExCom of NRP, in the face of the high attrition rate and the vulnerability of the current U-2 model, to purchase a new model U-2R (a late 1966 decision);

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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

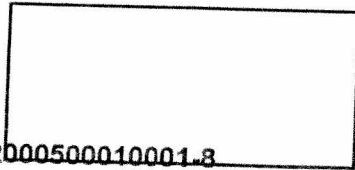
\*For a detailed account of the U-2 program, consult the OSA History, 

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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,

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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. 25)

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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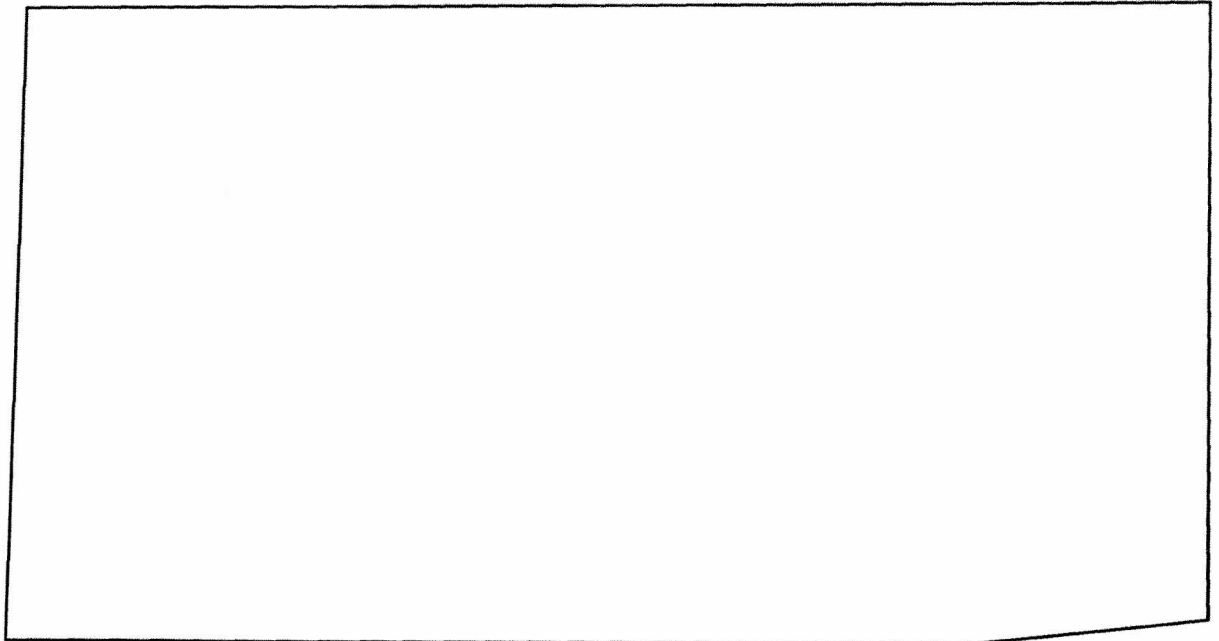
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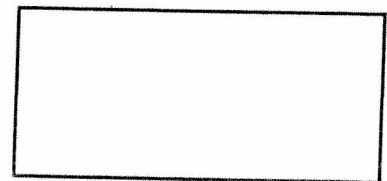
At the end of the OXCART program, nine A-12 aircraft were placed in storage at the Lockheed facility at Palmdale, California, including one launcher and one trainer. A rough estimate by Lockheed is that it would require the work of 30 men for 30 days to put one of the stored aircraft back into flying 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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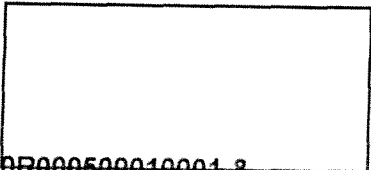
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production of equipment for use by covert agents; the National Photo Interpretation Center, and the Offices of Communications and Security have their own research and development activities oriented toward the production of equipment peculiar to their 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

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\*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.

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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 [redacted] 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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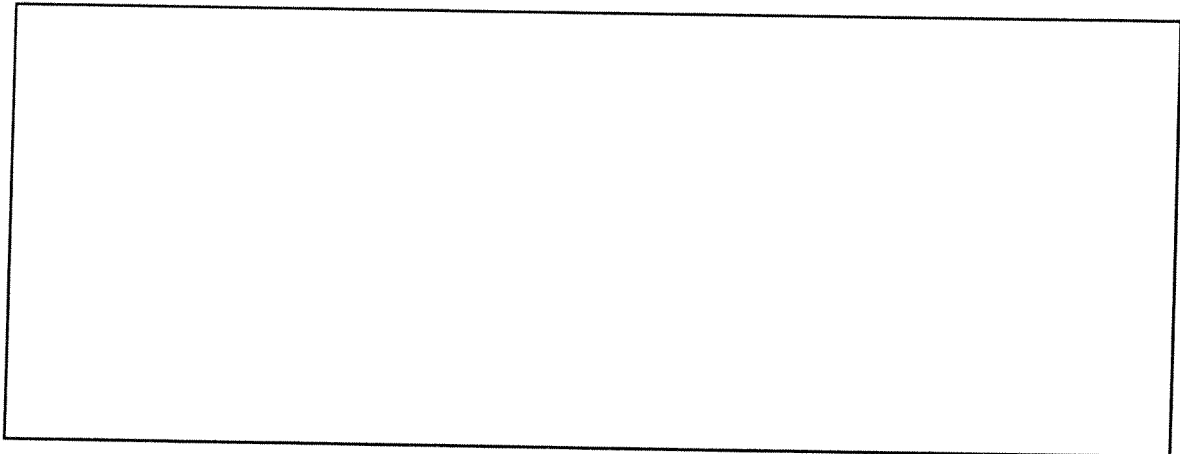
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systems have caused continuous evaluation to be made of the various systems and programs with a view to reduction or elimination of less productive ones. Increased cooperation between the collector and the producer of intelligence throughout the stages 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.

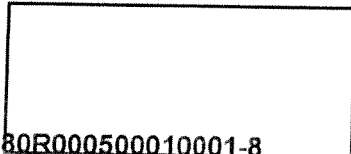
2. Directorate Tasks by Functional Category

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."



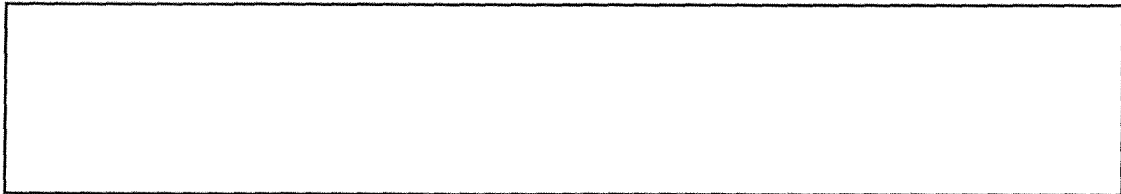
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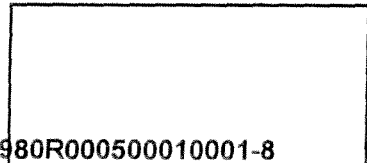
In the production of intelligence by DD/S&T both OSI and FMSAC have responsibilities, their roles being complementary, in that FMSAC covers offensive ballistic missiles and most aspects of space, whereas OSI covers all other fields of scientific and technological intelligence, including defensive and 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.

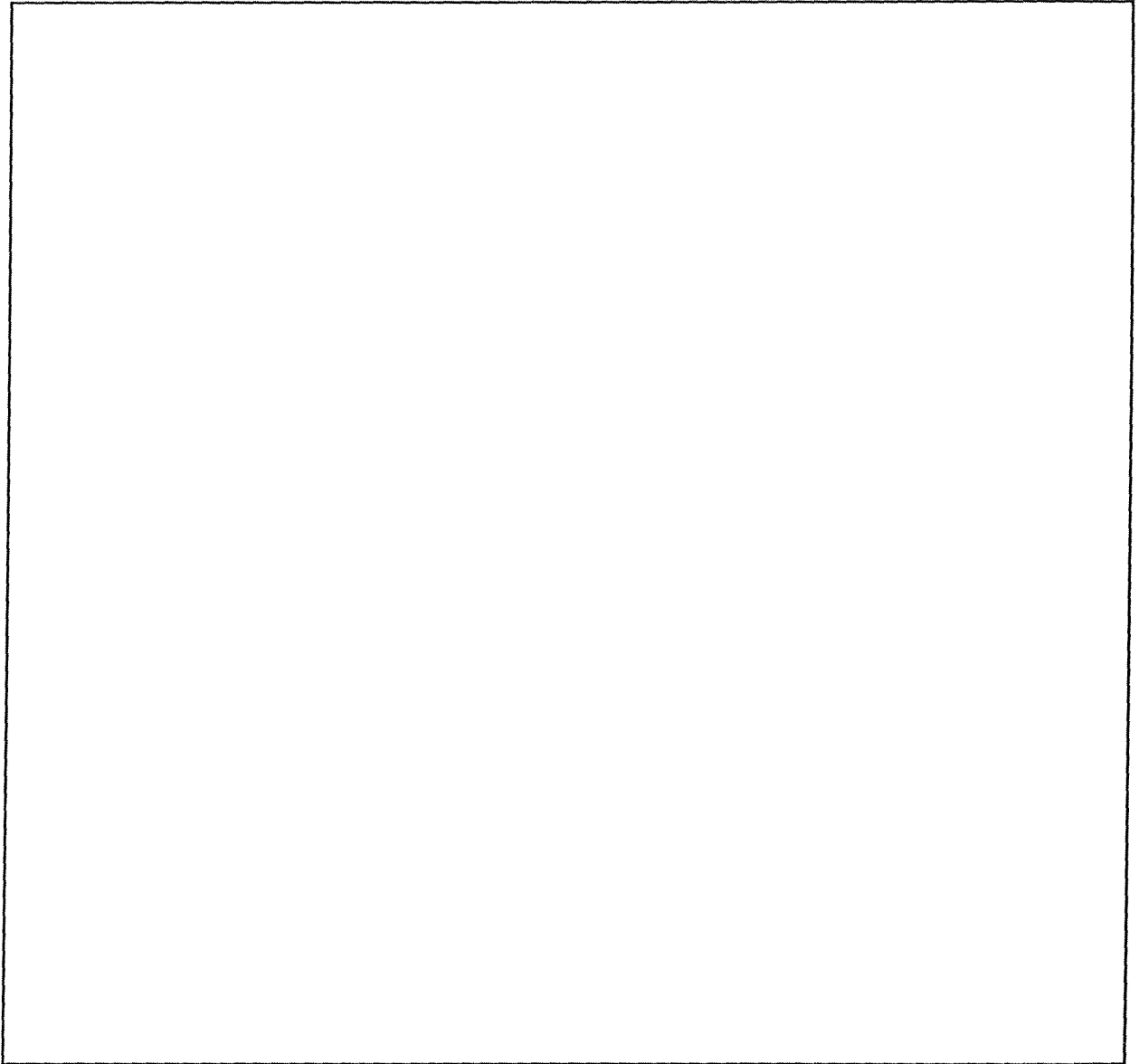
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The supersonic, Mach 3, A-12 reconnaissance system intended to follow the U-2 was shelved after one successful deployment, for the sake of economy, in mid-1968.\*

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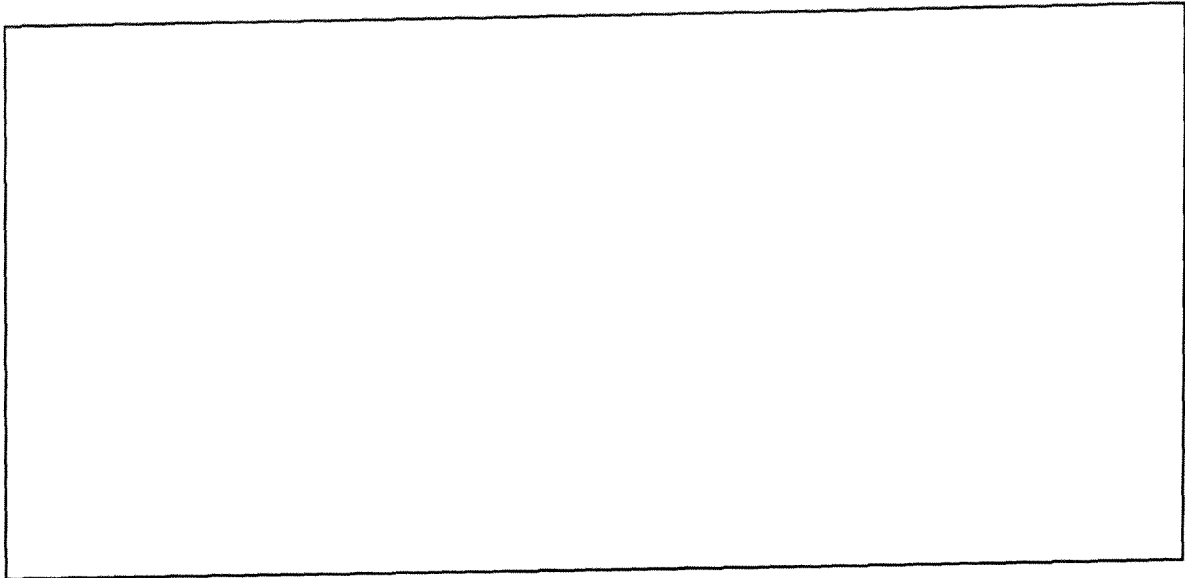
\*See pp. 295-302, above.

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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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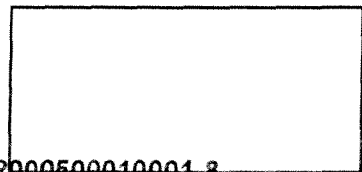
OSI

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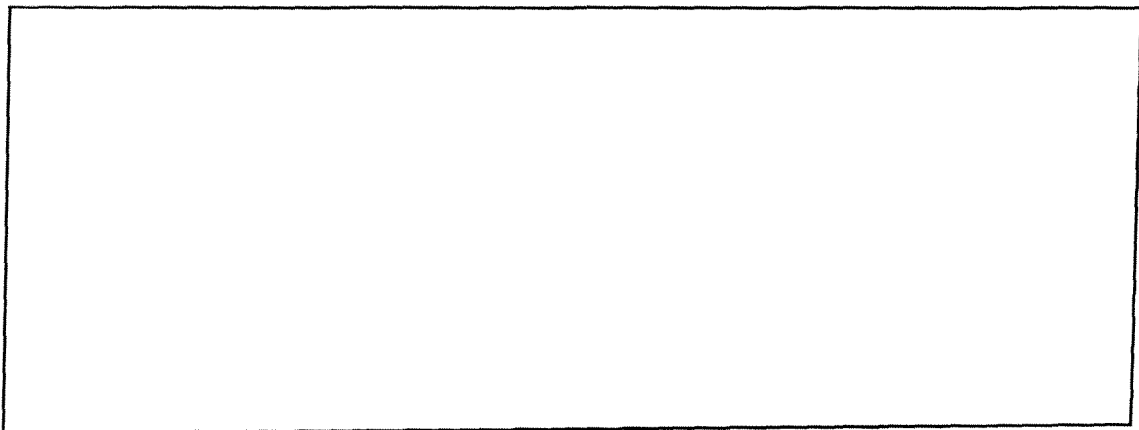
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support to OSA might be singled out as one of the best areas of cooperation over the years.

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).

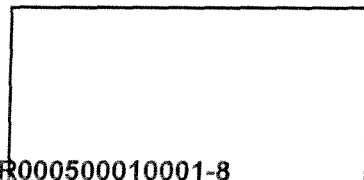


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The question has been raised in recent budgeting exercises whether the CIA should continue to operate its part of the U-2R program covertly, or whether the entire U-2R fleet should be consolidated under Air Force management. The same question was raised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

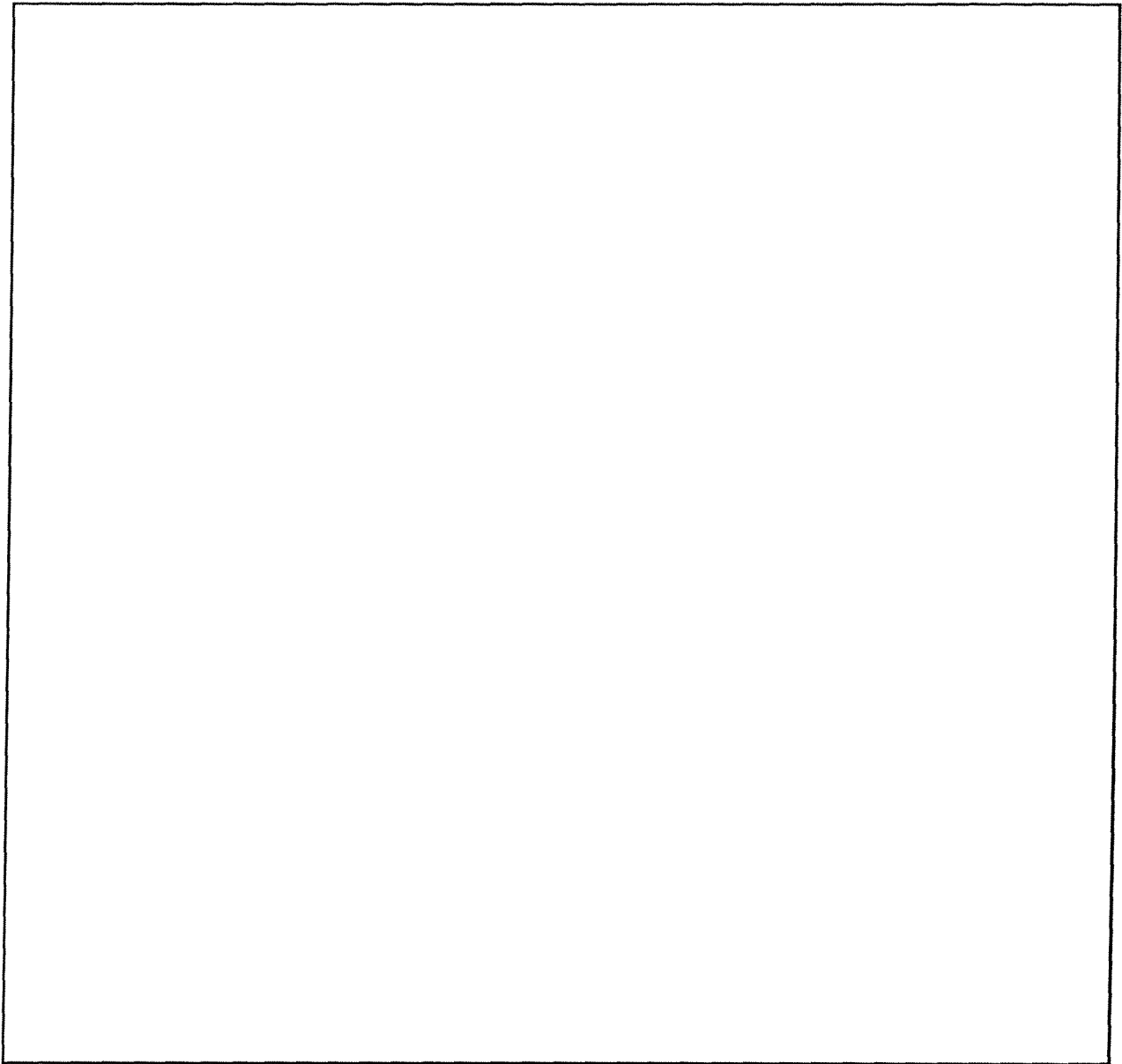
The advanced research activities of OSP are the province of its Design and Analysis Division, which has conducted intelligence requirements analyses, program definition studies, photographic satellite vulnerability analyses, and advanced technology programs in support of satellite systems development. 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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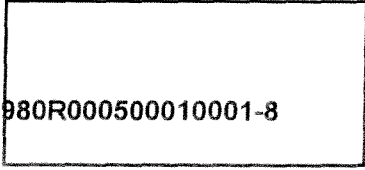


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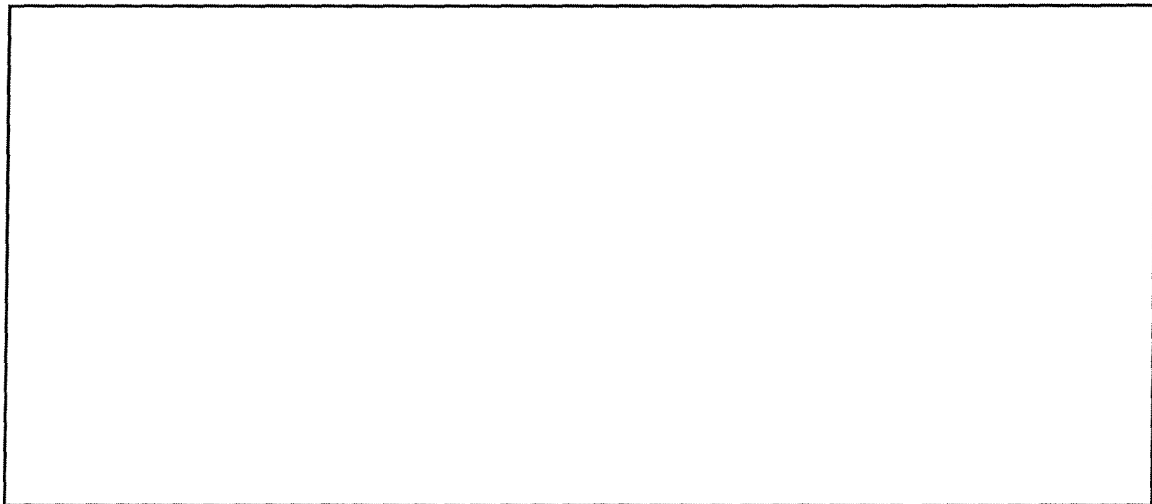
3. Office of Elint (OEL)

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



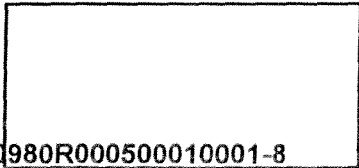
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activities under a scientific directorate was to provide electronic protection for airborne photographic collection systems—first the U-2 and then the A-12—which were operated by the Office of Special Activities. Later with the addition to the Directorate 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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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

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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,

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[REDACTED]

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[REDACTED]

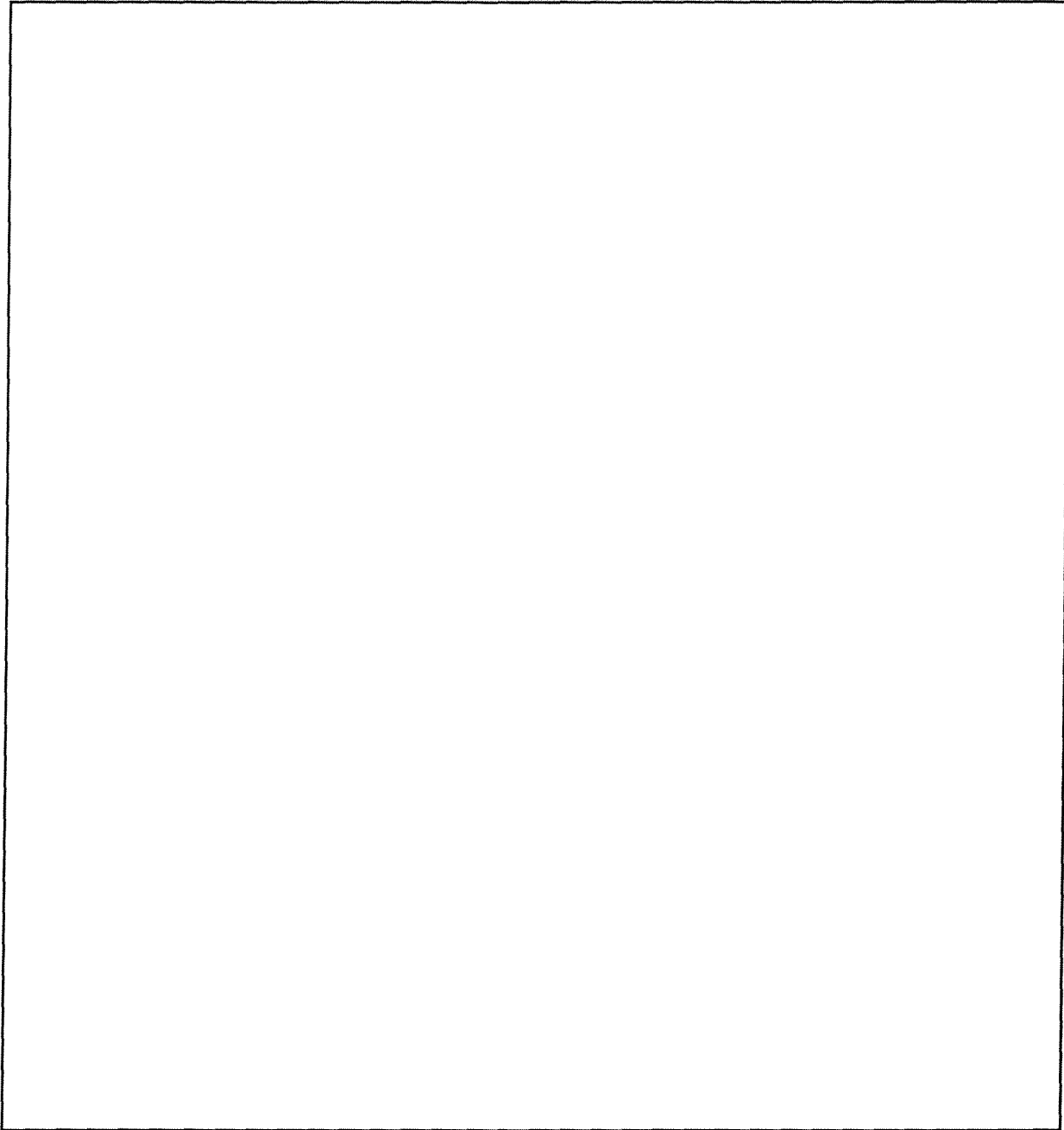
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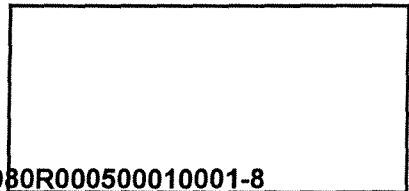


Mr. George C. Miller, who has headed the  
Office of Elint since its establishment, believes that

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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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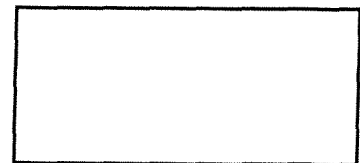
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of coordination within the DD/I complex, and a feeling for the "old school tie" among them. With the passing of time, the retirement or transfer of many older employees, and the influx of new talent, the earlier problems were mostly forgotten. The 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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[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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[redacted]

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]

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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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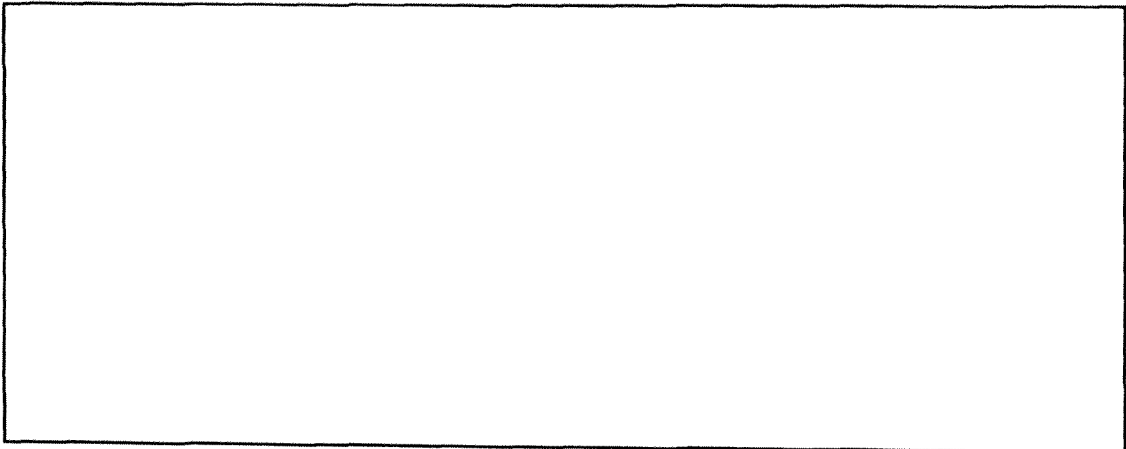
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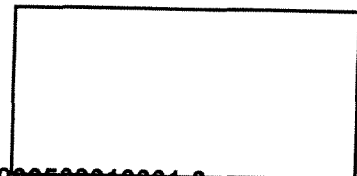


Satellite reconnaissance, whether photographic or electronic, can only give us knowledge of the results of research and development conducted years earlier.

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.\*

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\*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 [redacted] 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, [redacted]

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[redacted]

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.

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\*IBM 1401, IBM 1410, IBM 7090.

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[redacted]

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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 [ ] Some 250 computer projects were involved in OCS support to Agency customers for such functions as:

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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/

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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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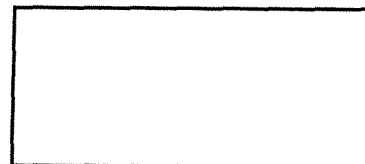
Dr. Wheelon was fortunate in obtaining the services of Mr. Carl E. Duckett, then Director of Army Missile Intelligence Activities at Redstone Arsenal, who was recruited principally to chair the GMAIC, but was given the additional job of laying plans for organizing FMSAC, and upon the formal establishment 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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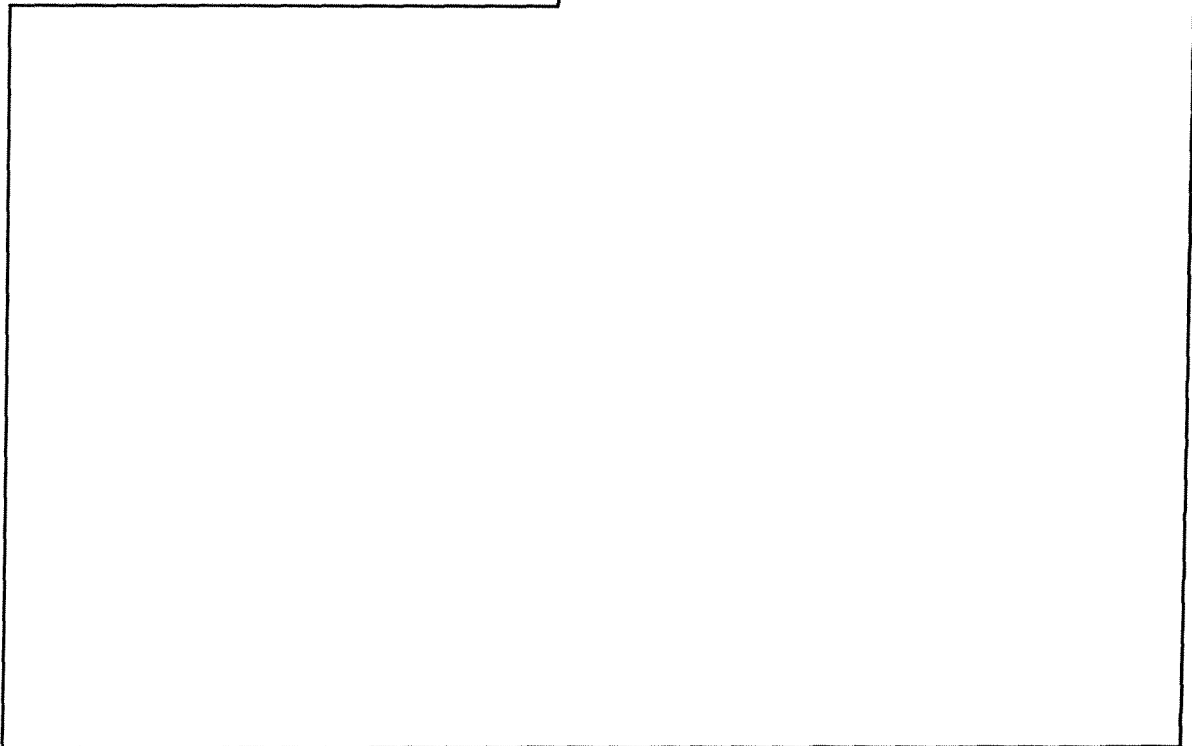
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Among the research projects being conducted in the various disciplines, some noteworthy examples of achievements to date would include:

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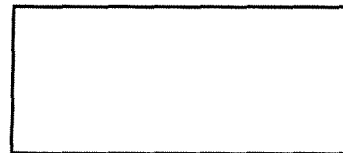
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decisions have to be made from time to time, looking five years ahead in order to preserve some equity against the future course of events.

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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SOURCE REFERENCES

- 25X1
1. [redacted] Deputy Director of Scientific Intelligence, History of OSI, 1949-68, pp. 1-4, [redacted] TS. 25X1
  2. Ibid., pp. 4-8, 16, 50-52.
  - 25X1
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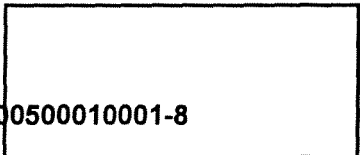
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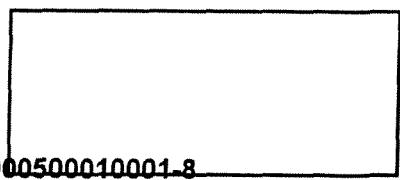
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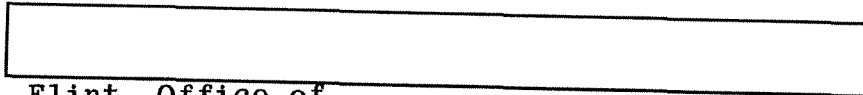
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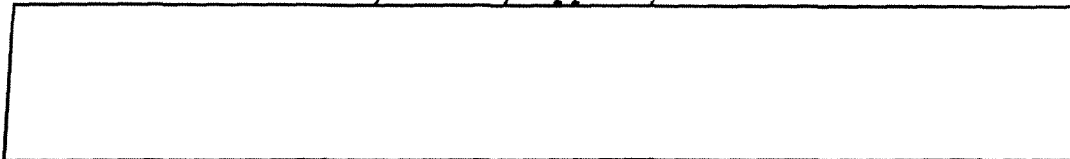
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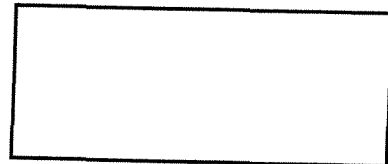
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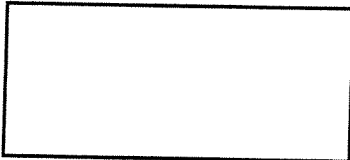
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CHRONOLOGY OF EVENTS  
IN THE HISTORY OF  
THE DIRECTORATE FOR SCIENCE AND TECHNOLOGY  
1961 - 1970

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

- 25X1 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] 25X1
- 25X1 19 February Directorate for Research established and Dr. Herbert Scoville, Jr., named as the DD/R [redacted] 16 February 1962). 25X1

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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.

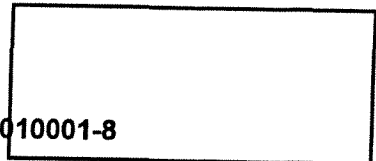
2 May NRO Agreement signed by Messrs. McCone and Gilpatric; no provision made for a CIA Deputy Director of NRO; control of funding assigned to NRO.

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] 25X1

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. 25X1

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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.

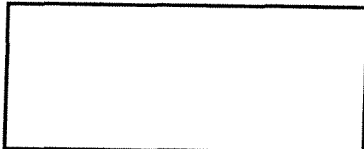
13 March Revised NRO Agreement entitled "Agreement Between the Secretary of Defense and the Director of Central Intelligence on Management of the National Reconnaissance Program" signed by Messrs. Gilpatric and McCone.

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.

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~~SECRET~~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  named Special Assistant to the DD/S&T; also to continue to serve as CIA Sigint Officer. 25X1
- 25X1 5 November  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] 25X1  
[redacted] reassigned. 25X1

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 [redacted] appointed Chief, Special Projects Staff, DD/S&T, vice Mr. Jackson Maxey, who was appointed Special Assistant to the Chief, SPS. 25X1
- 25X1 1 September [redacted] 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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SECRET

[redacted] 25X1

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.

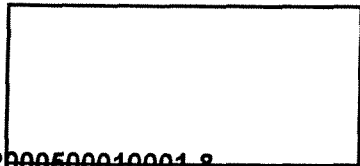
1 October Dr. Alexander Flax, Assistant Secretary of the Air Force for Research and Development, appointed D/NRO.

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.



25X1

25X1

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.

25X1 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.

25X1 Comptroller system of management established in the DD/S&T; [redacted] [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] 25X1  
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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[redacted] 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:  relieved of Director of Reconnaissance responsibility and that job canceled;  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.

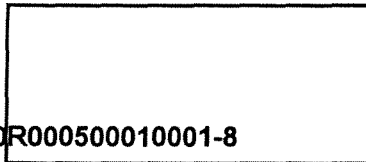
16 May

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.

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[redacted] 25X1

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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.

SECRET

[redacted] 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  
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

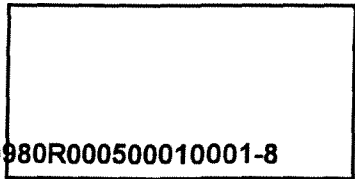
25X1 [redacted] Chief, Ground Systems Division,  
Office of Elint, DD/S&T (Formerly with NRO Staff)

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

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

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