11 Nov, 1954

of materiel, existing and newly built facilities at overseas bases and operational support which will probably cost more than the direct operational activities for which we have budgeted. Accordingly, I must recommend to you in the very strongest terms I can employ that we either budget ourselves for the direct cost of this project for Fiscal Year 1957 or set in motion immediately the turn over of the full control of the project to the Air Force. Only a fiscal theorist could even seriously suggest an intermediate alternative.

3. The foregoing recommendation defines the practical question that must be decided at this time. Contemplation of this practical question, however, inevitably involves thought as to what is to be the ultimate fate of AQUATONE (if it turns out to be feasible to continue the operation of this project for a number of years) or of the successor activities which surely must be contemplated if AQUATONE itself turns out to have a short life. Moreover, this question cannot be disentangled from that of the manner in which similar activities are organized and carried out within the Air Force. In short, it is hard to chart a sensible course for AQUATONE without trying to decide how all activities of this sort could best be organized within the U.S. Government.

4. Without attempting to lead you through extensive argumentation, I will summarize my own views on this matter as follows. I might say that these are concurred in by Colonel Ritland and I believe they are regarded as sensible by Colonel Berg.

a. The present dispersion of responsibility, whereby activities of the sort here under discussion are being carried on by USAFE, FEAF, SAC, and ourselves is uneconomic and involves considerable risk of duplication of effort and of inadequacy of central control. It would probably be desirable in the long run to create a single operating organization, controlled directly from Washington, which would carry out all overflight activities involving penetrations of more than a few miles in depth in peacetime. This organization could draw heavily on existing commands (and on the CIA) for support.

b. The argument against the conduct of overflights by strictly military organizations with air crews that are members of

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the Armed Services of the United States is even more powerful today than it was a year ago. Though the second Geneva Conference has demonstrated that the Russians are nearly as unyielding as ever, enough of the spirit of the first Geneva Conference is still adrift so that anything that could be identified as an overt act of military aggression would call down serious political penalties upon this country. Accordingly, if there is to be a single organization responsible for overflights, its aircrews should be civilians; it should be organized to as great an extent as feasible with civilian personnel; and its activities should be regarded as clandestine intelligence gathering operations.

c. The foregoing considerations lead me to the conclusion that the single organization here proposed should be a mixed task force, organized outside of the framework of any of the regular military services though drawing extensive support from them. On the other hand, I am inclined to believe that the Air Force should own a majority of the common stock in this organization, by contrast with the present situation in which the CIA owns the majority of the common stock in AQUATONE. In any event, however, I believe that both CIA and the Air Force should contribute personnel and support and consideration might even be given to bringing the other services in as minority stockholders.

d. One further argument in favor of some such arrangement as that here proposed is that an organization with a permanent interest in this activity would be in a position to stimulate continuing research and development. It is worth noting that with two early and unimportant exceptions the aircraft under production for AQUATONE are the first ever designed exclusively for a reconnaissance mission and, of course, are the only ones that have ever been designed to meet the requirements of altitude, range and security imposed by the contemplated mission.

5. The views advanced in the preceding paragraphs have to do with the ultimate organization (and by inference, financing) of overflight activities. Meanwhile, how is AQUATONE to be carried on for another fiscal year? The following considerations, I submit, all suggest that the present arrangement should be continued through Fiscal Year 1957 or until such time as a more permanent arrangement can be arrived at.

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a. At the present time it would be difficult if not impossible for the Air Force to take over the responsibility for AQUATONE and to carry the project on in anything approaching the present fashion. Air Force procurement procedures differ sharply from those that have been employed in this project. The Air Force is less well organized to make use of a predominantly civilian maintenance and support organization, which has been developed in this case for well considered and solid reasons. Within the Air Force an operational activity of this sort would undoubtedly be made the responsibility of SAC or of another operational command. In this way the project would become a direct military activity and the advantages of plausible denial by the military establishment and of attributability only to the civilian intelligence arm would be lost.

b. Although the present arrangement cannot be regarded as a permanent one, it will take time to evolve either the pattern proposed above, or any other arrangement that will perpetuate certain of the advantages of the present one. The surest way to encourage some sound and well-thought-through plan of overflight organizations is to maintain the status quo long enough (a) to prove (or disprove) the AQUATONE capability and (b) to allow the emergence of a carefully-thought-out plan for the longer run.

c. Regardless of these considerations, grave practical difficulties would confront a shift of responsibility as early as the summer of 1956. The end of this fiscal year will occur only two and a half months after the target date for the initiation of operations. It is vital that command channels and organizational arrangements not be disturbed at that point. Nine or twelve months later it is to be hoped that the organization conducting the project will be seasoned, its equipment accumulated and the phasing out of civilian personnel in favor of the military will be feasible (if it is then desirable). Indeed, the risks involved in a major change some nine and a half months from now are so great that I believe the shift might well be undertaken at once if it is going to have to be made so soon.

6. I am not closing my eyes to the practical problem of getting money from the Bureau of the Budget and from Congress. I would emphasize three points, however, that bear directly upon this ugly task.

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First: I believe it should be made absolutely clear to the Director of the Budget that, as stated in paragraph 2 above, the issue is not merely a financial one of which Agency shall budget for a required expenditure but is basically one of organization and ultimate responsibility. If the Bureau of the Budget recommends Air Force financing it is in fact making a recommendation about the character of and the responsibility for this project. The issue should be discussed in these terms.

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Second: It should be kept in mind at all times by all concerned that we are making a choice between

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NRO

Third: No matter how the accounts are set up, this project should be supported before the Bureau and before Congress by the Air Force and the CIA jointly and their joint support should be in such terms as to make it unmistakably clear that they are agreed on the urgency of the requirement, the size of the budget, and the organizational arrangements under which the project is being carried on. If this is done, I believe there is little bearing on purely political grounds between one choice of financing and another.

7. In the light of the above I recommend:

a. That you propose to Messrs. Quarles and Gardner that they undertake an examination of the organization of overflight reconnaissance activities, the CIA to join in their discussions insofar as CIA activities and interests are concerned, and that we endeavor to arrive, after full consideration, at a rational and orderly pattern for the longer run.

b. That, pending the outcome of such study, AQUATONE be continued under the present organizational arrangement in Fiscal Year

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BOARDS, COMMITTEES, PANELS

Science Advisory Committee - advisory to the President. (SAC)
Established under Office of Defense Mobilization by Presidential order on 20 April 1951.

Reconstituted as the President's Science Advisory Committee (PSAC) 22 November 1957 and effective 1 December 1957 was transferred to the White House.

ORGANIZATION

(TS 164363) 8 July 1957

Memo for DCI from ESO [redacted] at time of his leaving the CIA
Subj: Organization for Exploitation of Advanced Technology in Support of Critical Intelligence Problems

"1. My departure from the Agency impels me to go back and review about 15 years involvement with the problem of scientific and technical intelligence, with particular emphasis on electronics as a factor in key national security problems and to make some recommendations concerning the needs of the future in these fields.

2. In the long-term perspective of science and related scientific intelligence since the beginning of World War II, the following points should be borne in mind. The wartime developments in electronics and the application of nuclear energy were the most important scientific contributions to the winning of the war. From the end of the War until the hydrogen reaction was proven by the AEC and until August 1953 when the Soviets first demonstrated their capabilities to explode a fusion device, this field merited first priority, both in r&d and intel with respect to r&d. Electronics, particularly as related to long range navigation and bombing systems and to the r&d of missiles, ran a close second.

3. Once the Soviets demonstrated their capability to produce the reactions which are essential to the production of multi-megaton weapons, the key question became the development of delivery systems, first manned aircraft systems and then missile systems. Electronics became the single most critical technology involved in both systems.

4. The fact that our opponents in the international game [illegible] recognize the importance of electronics much better than we is indicated by a statement made by A. N. Nesneyanov, Pres. of the Academy of Sciences, USSR at the general meeting of the Academy on 26 Dec 1956. He stated, "The most important of the technical sciences, and that which requires first priority development, is radio engineering and electronics." He also said,..."as a whole, in the field of radio electronics we lag considerably behind the leading capitalist countries, especially in the realm of research which opens up new possibilities for engineering."

5. During the War, there was little American scientific-technical intelligence activity worthy of the name carried on within the intelligence organizations of the Army and Navy. American scientific-technical intelligence was largely initiated and guided by the organizations that were consumers of this critical information, i.e. the Manhattan Project, certain divisions of OSRD and the Technical Services or Bureaus of the Army and the Navy. The people in OSRD and the Services who made this effort a success during the War were almost all engineers and scientists from industry and academic life (those in the Services being Reserve Officers) who were managing programs concerned with the development and application of new weapons. The effort was well coordinated through the Committees of the Communications Board under the Joint Chiefs and various informal Service-OSRD Committees. With the end of the War and the return of most of these technical people to civil pursuits, the effort collapsed.

6. Out of the shambles of late 1945 and early 1946 came the Joint Research and Development Board and in early 1947 the Scientific Advisors to the Board reviewed

the situation of scientific and technical intelligence and made it their first priority for attention. This finding was endorsed by the policy group advising the Chairmen of the Board (Gen. Norstad and Adm. Sherman). An arrangement was then made with the Director of the Central Intelligence Group, Gen. Vandenberg, under which CIG was to establish a group to provide the Board with scientific intelligence.

7. Today, there is a tremendous effort in scientific and technical intelligence by many of the members of the intelligence community. In the field of ELINT, the Services and the Agency are operating an extensive intelligence collection program, a major coordinating mechanism and a sizeable processing center (to which we are all contributing) at a very large cost to the Government. The efficiency and results, in my opinion, judged against our wartime accomplishments, or the British effort and results, are pitiful.

8. The reason for the generally poor performance is that the United States lacks an effective mechanism for coordinating the conduct of scientific and technical intelligence operations, both in terms of scientific intelligence collection and production, and for the systematic development and application of new scientific and technical methods to general intelligence collection and production problems.

9. The Agency, as presently organized, suffers from the same lack in that there are several separate subdivisions concerned with r&d, with the application of new methods and equipments, and the efforts of many co-equal and independent organizations must be

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coordinated if an effective program is to be launched in any field.

10. The exception to this general situation in both the community and the Agency has been the Agency performance on a recent major project in which the best technical brains of the U.S. were brought to bear under a single, purposeful, effectively managed organization. This activity has had plenty of elbow room to exploit the most advanced technology in all relevant fields. Under this project the Agency in less than 18 months developed an intelligence collection system which has been of inestimable value to the community. The secret of the success of the project is in the unity and freedom of the command and in the very close coupling between three major areas - r&d, operations and the consumer requirements - with the most candid interchange between the three in order that the development of capabilities can exploit the latest in technology in direct response to stated consumer needs. Then operational capabilities and opportunities can be adjusted against requirements and new research and development on a continuing basis.

11. The potential of science and technology as an aid to intelligence operations required to meet the highest priority of national intelligence objectives can not be overestimated, and with arms inspection or other possible major changes in the situation of East versus West, continuing knowledge on the part of U.S. planners of the technological capabilities and plans of the Soviet orbit continues to increase in importance.

12. The Agency can make a unique contribution to the application of advanced technology to collecting the vital information needed to produce this intelligence. To accomplish this, however, the Agency needs to establish some sort of continuing single organization which can bring together the three key areas of intelligence activity aforementioned; i.e., requirements, r&d, and operations. This whole effort should then be supported by a continuing operations research organization (not unlike those now considered essential by the Army, Navy, Air Force and the Secretary of Defense) to apply the latest in operations analysis and research techniques to the problems that baffle us in intelligence.

13. Such an over-all organization should have wide latitude to exploit new methods such as advanced ELINT, communications intelligence, photographic, radar, infra-red, sonic or seismic and possibly other sensing systems needed to maintain surveillance of Soviet programs such as the IRBM and ICBM missile systems, the air defense system, etc.

14. An organization within the Agency to accomplish this challenging mission cannot be established as an appendage to DD/P, DD/I or DD/S. Rather it must be an independent continuing operation similar to the AQUATONE project which has demonstrated anew practices proven by the Manhattan District, our major electronics projects and most of our scientific intelligence projects during World War II.

15. Such an organization within the Agency should be headed by a Deputy Director for possibly "New Intelligence Systems". He should be either a top scientist or engineer or someone like the present Special Assistant for Policy and Coordination who understands these matters well and can be assisted by a Deputy who has the scientific and technical qualifications and is responsible for r&d and technical planning. The organization should include those parts of the current DD/I, DD/P and DD/S functions which deal with scientific-technical requirements, research and development and operations in technical intelligence collection methods.

16. The survival of the West may well rest on the Agency's ability to establish such a program and see it through to success.

[redacted] 25X1

ELINT Staff Officer

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KISTIAKOWSKY, George B.

Served as Spec Asst to Pres.(DDE) for Science and Technology
" " Chairman of Sci. Adv. Committee (SAC) at same time
15 July 1959 - 20 January 1961

6 Jan 1961 DDE letter to GBK accept his resignation eff 20 Jan 61

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Sci. Adv. Comm establ
20 Apr 1951 (Truman)
advisory to the Pres.
& to the Off of Def. Mobil.
in matters relating to
scient. R&D for defense.

Dr. James Rhyne Killian

? 9 Oct 1954, ODM established Technical Capabilities Panel
Killian named Chairman of "Surprise Attack" Committee,
by Arthur S. Fleming, ~~XXXXX~~ Director of ODM.
(check NYT, 9 Oct 54, p. 10, col. 1)

13 Jan 1956, Killian ~~xx~~ announced by DDE as head of Pres. Bd.
of Consultants on Foreign Intelligence Activities
8 Nov 1957, appointed Spec Asst to Pres. for S&T (DDE)

16 November 1957, sworn in as SA to Pres. for S&T

21 Aug 1958, named to attend the Geneva Conference on
Peaceful Uses of Atomic Energy.

7 Feb 1960 Appt.
Spring 1960 - served on Commission on National Goals (DDE)

10 Jan 1961 - Resigned from Sci. Adv. Com.

2 May 1961 - Dr. Killian named Chairman of PFIAB by JFK.
Reestablishment of PFIAB by JFK viewed as attempt to restore
confidence in CIA after U-2 and Bay of Pigs, and to ward off
attempts to establish a Congressional watch-dog committee
to oversee CIA's activities.
~~X~~

24 Apr 1963 - Resignation from PFIAB effective, Clark M.
Clifford followed him as Chairman of PFIAB.

SCIENCE PANEL SET UP

Federal Group to Study Ways to Mobilize Resources

Special to The New York Times.

WASHINGTON, Oct. 8—A panel of scientists to study more effective ways of mobilizing scientific resources in the event of an emergency is being set up by the Office of Defense Mobilization, it was announced today.

Arthur S. Flemming, head of the defense agency, said he had named James R. Killian Jr., president of the Massachusetts Institute of Technology, to head the panel.

After the panel submits its report, probably several months from now, it will be reviewed by the O. D. M. science advisory committee and Mr. Flemming and then will be submitted to the President.

The panel will be made up of engineers and scientists from universities, industry and various Federal agencies, it was added.

[The] N[ew Y]ork Times, Saturday, October [illegible], 1954.

His Republican counterpart, Senator Everett McKinley Dirksen of Illinois, in a talk yesterday at the National Press Club, spoke strongly against any move for a Congressional investigation of the agency in light of the Cuban affair and showed little enthusiasm for the "watchdog" committee idea.

If there has to be a Congressional study, he said, it should be conducted by "a few men of knowledge and discernment," representing both parties, who might make "a quiet investigation" and report to the President.

POST FOR KILLIAN CONFIRMED BY U.S.

White House Announces New [illegible] Intelligence Panel

[illegible] of Dr. [illegible] the Corporation of the Massachusetts Institute of Technology was [illegible] Andrew J. Hatcher, White House press [illegible].

The board of consultants, established [illegible] has been inactive since President Dwight Eisenhower left office. Dr. Killian will replace its former [illegible] John E. Hull (retired), former commander of the United States forces in the Far East. General Hull, it is understood, will remain as a member of the board, but the rest of the membership, which will be revised, remains uncertain.

Reactivation of the board is regarded here as part of an attempt to restore confidence in the Central Intelligence Agency and to dampen demands for closer Congressional supervision and investigation that might subject the secret [illegible]

A Senate resolution [illegible] a joint Congressional "watchdog" committee to keep the intelligence agency under permanent Congressional supervision is attracting considerable Congressional support. The measure is sponsored by Senator Eugene J. McCarthy, Democrat of Minnesota.

Several similar resolutions have been introduced in the House of Representatives. The latest was submitted today by Representative [illegible] Hiestand, Republican of California.

Mr. Hiestand said it was wrong to blame the Central Intelligence Agency alone for the "mess" of the unsuccessful rebel landings in Cuba last month. But, he added, Congress should end a situation in which the agency operates "unchecked [illegible] balance" and [illegible]

CPYRGHT

NEW YORK, SATURDAY, JANUARY [illegible]

PRESIDENT NAMES BOARD TO REVIEW U. S. INTELLIGENCE

Killian Heads Watchdog Unit That Will Check on C.I.A. and Other Agencies

By ANTHONY LEVIERO

Special to The New York Times

WASHINGTON, Jan. 13—President Eisenhower appointed a watchdog board of eight citizens today to monitor the activities of the Central Intelligence Agency and other units gathering security information.

The President acted on a recommendation of the Commission on Organization of the Executive Branch of the Government, headed by former President Herbert Hoover.

The part-time board of eight [illegible] a [illegible] proposals to [illegible] supervision [illegible] committees. The President [illegible] desired that the board [illegible] not less than once every six months for several days at a time.

Dr. James R. Killian Jr., president of [illegible] Institute of Technology, was named [illegible] of the board [illegible]

[illegible]

[illegible] the Air Force leading the first Tokyo raid of World War II; Benjamin F. Fairless, director and member of the [illegible] committee of the [illegible] States [illegible]

[illegible] United States [illegible] East and now president of the Manufacturing Chemists Association; Joseph P. Kennedy Sr., former Ambassador to Britain; Robert A. Lovett, former Secretary of Defense and Under Secretary of State, and Edward L. Ryerson, chairman of the executive committee of Inland Steel Corporation [illegible]

[illegible]

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ects and of the [illegible]

President Selects Killian To Oversee Intelligence

By WALLACE CARROLL
Special to The New York Times.

WASHINGTON, May 2—President Kennedy has selected Dr. James R. Killian Jr. to lead the permanent Presidential board that monitors the Government's foreign intelligence activities. Dr. Killian is chairman of the Corporation of the Massachusetts Institute of Technology.

The selection is the latest of a number of steps taken by President Kennedy to restore confidence in the intelligence services after last month's unsuccessful attempt to set off a counter-revolution in Cuba.

There were two developments relating to intelligence problems today on Capitol Hill:

1. The Senate Foreign Relations Committee in closed session questioned Allen W. Dulles, director of the Central Intelligence Agency, on the agency's role in the Cuban rebel landings. The committee also questioned Richard M. Bissell Jr., a deputy director who was in general charge of the Cuban operation.

2. Support increased in the Senate for a resolution introduced by Eugene McCarthy, Democrat of Minnesota, to set up a joint Congressional committee as a "watchdog" over the Government's intelligence and information programs. [illegible] Board of Advisers.

The post for which President Kennedy has selected Dr. Killian [illegible] on [illegible] by President Eisenhower to keep permanent watch over the Central Intelligence Agency and all other agencies engaged in foreign intelligence.

Dr. Killian was the board's first chairman and served from 1955 to 1958. He was succeeded by Gen. John E. Hull (retired), former commander of the United States forces in the Far East and president of the Manufacturing Chemists Association. Now he will succeed General Hull.

Other members of the board are Dr. William O. Baker, vice president for research, Bell Tele-

Continued on Page 5, Column 3

KILLIAN RECEIVES INTELLIGENCE POST

Continued From Page 1, Col. 6

phone Laboratories, Murray Hill, N. J.; Admiral Richard L. Conolly, president of Long Island University, Greenvale, L. I.; Colgate W. Darden, former Governor of Virginia, Norfolk, Va.

Also Lieut. Gen. James H. Doolittle, chairman of the board, Space Technology Laboratories, Inc., Los Angeles; Robert A. Lovett, former Secretary of Defense, New York, and Edward L. Ryerson, former chairman of the Inland Steel Company, Chicago.

Some of these members will be replaced by President Kennedy. The new board will be announced in a few days.

The board is a continuing body and is supposed to report to the President every six months. It is thus distinct from the temporary group under Gen. Maxwell D. Taylor, whom the President appointed to conduct an investigation of the intelligence activities with special reference to the Cuban landing.

President Eisenhower set up the board for two purposes.

The first was to meet criticisms of a Hoover Commission task force that found a number of administrative weaknesses in the Central Intelligence Agency.

The second was to head off just such a move in Congress as that now under way to set up a congressional "watchdog committee" over the intelligence services.

The board's principal concern was the Central Intelligence Agency, but it was also asked to keep watch on at least thirty other intelligence activities, including those conducted by the armed services, the State Department, the Atomic Energy Commission and some units of the Federal Bureau of Investigation.

Fabian Bachrach

CHIEF OF BOARD: Dr. James R. Killian Jr., to head the board monitoring the Government's foreign intelligence activities.

Eisenhower Opposed Unit

General Eisenhower was unalterably opposed to a Congressional watchdog committee. So was the Central Intelligence Agency director, Mr. Dulles.

This Presidential opposition and the personal popularity of Mr. Dulles in Congress helped to defeat a Senate resolution in 1956 to set up such a committee.

The resolution was introduced by Senator Mike Mansfield, Democrat of [illegible], who [illegible] majority leader. Mr. [illegible] [illegible] would [illegible].

The [illegible] meeting [illegible] therefore believe that President Kennedy would not object to a joint Congressional committee to keep watch on all intelligence activities.

Congressional concern over the Central Intelligence Agency arises from the fact that it is one of the few Government agencies that largely avoid Congressional scrutiny. It is also one of the agencies that by the nature of its mysterious operations can involve the United States in the most serious embarrassments and risks.

The Central Intelligence Agency was established in 1947 to gather and correlate intelligence and to conduct the kind of "subversive operations" that all great powers engage in but seldom acknowledge.

It produces, among other things, a daily intelligence digest that goes to the President every morning.

Size of Staff Secret

Its budget and the size of its staff are secret. Only a few members of Congress have an idea of how much money it receives and spends. Its headquarters staff is scattered throughout Washington in thirty or more buildings but it will eventually move into a new building almost as large as the Pentagon on the Virginia side of the Potomac.

One of its projects that became known was the development of the U-2 plane, equipped to take remarkably clear pictures of ground installations from great altitudes.

These planes were used over the Soviet Union to take pictures of rocket-launching sites and other military and industrial [illegible] United States relations [illegible] and a "summit [illegible]" in Paris [illegible] Eisenhower [illegible] Khrushchev collapsed on the very first day when one was shot down by the Soviet.

The handling of this incident involved the agency in much criticism at the time. The attempt to overthrow Premier Fidel Castro's regime in Cuba revived and increased Congressional uneasiness over the agency's activities.

BOURGUIBA DUE IN U.S.

Opens Tour Today—Will Ask Investment in Tunisia

MONTREAL, May 2 (Canadian Press) — President Habib Bourguiba made a brief visit to Montreal today near the end of his two-day visit to Canada.

At a news conference before he flew back to Ottawa, the North African leader discussed his forthcoming tour of the United States, which begins tomorrow. He said one purpose of the trip was to invite extensive American investment in Tunisia.

Mr. Bourguiba said he hoped that the investment "might be in the order of 400,000,000 dinars [$1,920,000,000] over the next ten years." [A dispatch printed in The New York Times Monday quoted Mr. Bourguiba as having said his ten-year program for economic and social development of Tunisia had a budget of $800,000,000.]

A Correction

The name of Herbert W. Mintz, a lawyer, of 217 Broadway, was misspelled in the list of lawyers admitted to practice before the United States Supreme Court, which was published yesterday in The Times.

The New York Times.
NEW YORK, SUNDAY, ... 1959
LATE CITY EDITION
U.S. Weather Bureau Report. Mostly fair and cool today, tonight. Fair and seasonable tomorrow. Temp. Range: 70–52 Yesterday: ...
SECTION ONE
TWENTY-FIVE CENTS

U.S. SCIENCE UNIT ADVISES DOUBLING E...

... Training Is Vital ... Survival of Nation

ADULT STUDY STRESSED

Killian Group Asks Higher Intellectual Content for Courses in All Fields

Harris & Ewing
PRESENTS PROPOSALS: Dr. James R. Killian Jr., head of President's Science Advisory Committee.

Eisenhower's statement and summary of report, Page 74.

By BESS FURMAN

WASHINGTON, May 23 — President Eisenhower's Science Advisory Committee recommended today that the nation's ... education be at least doubled.

In a ...-word report, "Education for the Age of Science," the committee said, "A broad base of education is needed to make America a better place in which to live—and a stronger nation more likely to survive."

The committee is headed by Dr. James R. Killian Jr., the President's Special Assistant for Science and Technology. The report was prepared by the committee's nine-member panel on science and engineering education.

The report noted that the American people were spending about 4 per cent of the Gross National Product on education—roughly $18,000,000,000 ... year.

"Doubling our current annual investment in education is ... more than ... com...

... Recalled

... the emphasis upon science in education that the President initiated in his Oklahoma City speech on Nov. 13, 1957, following the launching of the Soviet earth satellite.

But the authors of the report made clear that all education, and not merely science education, must be strengthened. There must, the report said, be higher intellectual content in high school and college courses and a modernization of textbooks if American scientists and engineers are to meet today's world competition. It opposed "frill" courses.

Moreover, the report urged science education for adults as well as high school and college students. More knowledge of science, the committee held, is essential to the making of decisions on public policy questions that will confront citizens in the next few years.

The report took issue with many ... held by educators ...

[illegible] OUTLAY IN SCHOOLS URGED

Continued From Page 1, Col. 8

taught at the expense of intellectual subjects. It held that in teacher training more stress must be placed on knowledge of subject and less on methods of teaching.

"Conversely," the report added, "we deplore those rules which exclude from secondary teaching first-class scholars solely because they lack the proper number of credits in 'education.'"

In a summary chapter, the report set forth national goals for strengthening science and engineering education in four categories: Curriculum, quality of teachers, encouragement of students, and development of intellectual leadership.

This is the gist of the committee's conclusions on particular problems:

TALENTED YOUTH:—There is no need for gifted students to take twelve years to complete public school and four years to complete college. Often two or more years can be saved. Highest priority should be given to seeking talented youths to be science teachers and leaders.

WOMEN:—"Women constitute an enormous poten[illegible] source for research, sch[illegible] and teaching which [illegible] not even begun to [illegible] should begin consciou[illegible] to assist them to ma[illegible] butions of which they [illegible] ble." Girls and wom[illegible] be brought into scien[illegible]

SCIENCE TEACH[illegible] en adequate science [illegible] has been denied sc[illegible] ers by competing [illegible] training" subjects. [illegible] ence advancing at bewilder[illegible] speed, teachers fall further [illegible] further behind. They c[illegible] helped by re[illegible] their non[illegible] tasks, in[illegible] the [illegible] giving [illegible] time to st[illegible] viding them with [illegible] teaching aids and a higher community status.

SCIENCE MAJORS — [illegible] minimum secondary school [illegible] quirements a science [illegible] should bring to college sho[illegible] be four years of English; [illegible] of science, three of one modern language, and two of social [illegible] including history.

SCIENCE IN LIBERAL ARTS—Courses are needed [illegible] help a student think his [illegible] through and appreciate [illegible] great concepts as the orig[illegible] and evolution of the univ[illegible] and of life, the nature and [illegible] havior of energy and mat[illegible] and radiation and the struct[illegible] of atoms and molecules. Su[illegible] subjects can properly engage [illegible] to 20 per cent of every col[illegible] student's time. A general ba[illegible] laureate degree should not [illegible]

[illegible] national [illegible] we are improving [illegible] education system [illegible] projects will consti[illegible] nificant fraction of [illegible] population [illegible] therefore, no escape [illegible] urgency of providing [illegible] grace and plentiful [illegible] adult education in science [illegible] planned for those who are [illegible] prepared even in the fundamentals."

The report says [illegible] adult education in science [illegible] pensive and requires [illegible] tion. More good [illegible] publications on science are needed, with their circulation [illegible]

[illegible] city [illegible] [illegible] science report- [illegible] newspapers the re- [illegible] and other [illegible] in- [illegible] on [illegible] radio [illegible] said, [illegible] needs to be done in [illegible]

[illegible] report suggests [illegible] science museums in [illegible] caravan of trailers can visit [illegible] of communities that [illegible] never be able to afford a science museum of their own.

A[illegible] education in science, the report says, is primarily a challenge for the scientists themselves, who must rid themselves of the idea that 'popularizing is evil or impossible.'

President Eisenhower made a brief statement on the report.

"As an excellent statement of educational goals and needs," he said, "I hope it will be widely read and that it will stimulate a wider understanding of the importance of excel[illegible] in [illegible] educational system."

The President placed special emphasis on one proposal— raising the standards of teachers in their communities.

"Higher salaries are the first requirement, but we need also to recognize the great importance of what teachers do and to accord them the encouragement, understanding and recognition which will help to make the teaching profession attractive to increasing numbers of first-rate people," he said.

Psychiatric Facility Dedicated

Special to The New York Times.

STOCKBRIDGE, Mass., May 23—The Austen Riggs Center this morning dedicated its [illegible] building for psychiatric research and treatment. The $872,000 structure is named [illegible] the late Dr. Austen Fox Riggs, a psychiatrist who in 1906 developed a rehabilitation program for the mentally ill.

The CIA Organizational Chart following the 1949 reorganization of the Agency indicated that scientific intelligence had advanced in priority to the extent that it ranked then as one of six "Offices" reporting through its own Assistant Director to the DCI. The Office of Scientific Intelligence constituted four staffs (Scientific Services, Administrative, Coordinating, and Production Staffs), and seven substantive branches (Biology, Physics and Electronics, Chemistry, Mathematics and Statistics, Aeronautics, Ordnance, and Navigation).

The [redacted] functions of OSI as shown in the 1949 Table of Organization were:

> As the CIA component with primary responsibility for scientific intelligence analysis, evaluation, production and presentation, the Office of Scientific Intelligence under the direction of the Assistant Director for Scientific Intelligence:
>
> 1. Prepares scientific intelligence reports and estimates designed to present and interpret the status, progress and significance of foreign scientific research and developments which affect the capabilities and potentials of all foreign nations.
>
> 2. Makes substantive review of basic scientific intelligence produced by other agencies and advises ORE /Office of Reports and Estimates/ on its adequacy for inclusion in the National Intelligence Surveys.
>
> 3. Formulates the national scientific intelligence objectives in collaboration with the IAC agencies /State, Army, Navy, Air Force, AEC, JIG/JS/ and under the guidance of the NSC.
>
> 4. Evaluates available scientific intelligence information and intelligence; assesses its adequacy, accuracy and timeliness and prepares reports of assessments for the guidance of collection, source exploitation and producing agencies to assure that all significant fields of scientific intelligence bearing on the national security are adequately covered.

5. Formulates requirements for the collection and exploitation of scientific intelligence data in order to insure receipt of materials necessary for fulfillment of production requirements.

6. In collaboration with appropriate CIA components and the IAC agencies, advises and aids in the development coordination and execution of the overall plans and policies for inter-agency scientific intelligence production.

7. Advises the Director of Central Intelligence on programs, plans, policies and procedures for the production of national scientific intelligence.

8. Assists ICAPS /Interdepartmental Coordinating and Planning Staff */ in preparation of plans, policies, and procedures for interagency scientific intelligence coordination.

The July 1950 Table of Organization added to the AD/SI's functions that of providing chairmanship and support for the Scientific Intelligence Committee (SIC) and its working committees.

The December 1950 T/O showed the addition of two Deputy Directors (Operations and Administration), but OSI and the other five "Offices" still reported directly to the DCI through the DDCI. At that time OSI consistdd of one Staff (Plans and Production) and eight Divisions. An additional function had been formalized: the provision of scientific and technical estimates, reports, and guidance to non-intelligence agencies such as the Research and Development Board, the Weapons systems Evaluation Group, and the National Security Resources Board.

* Forerunner of USIB (?)

OSI Develops

The CIA organizational chart of 15 October1947 showed Scientific Branch under the Assistant Director for Reports and Estimates, consisting of six "Groups:" Nuclear Energy, Air, Munitions, Chemistry and Biology, Electronics, and Technical. As a result of the pressures generated by high-level investigations and recommendations for improvement of scientific intelligence, the 1948 reorganization undertaken within CIA included the enlargement of the Scientific Branch through consolidation of all scientific activities at a higher organizational level as the Office of Scientific Intelligence.

External pressure of high level boards and committees

1946 (fall) CIG's Office of Research and Evaluation at the insistence of JRDB established a small Scientific Branch within the Estimates Division, which later inherited the talents of the Foreign Intelligence Branch of MED (the Nuclear Energy Group) on 28 March 1947. A year later the NEG went over to OSO of CIA which operated the Clandestine Services.

In 1948 the Hoover Commission's Eberstadt Committee expressed concern in a report to the President (on its own findings and as a result of testimony given to it by the JRDB in the persons of Dr. Vannevar Bush, Chairman, and Mr. Ralph L. Clark, Director of the Programs Division, JRDB.

Parallel with the Eberstadt Committee's review of U.S. intelligence capabilities, a group appointed by the National Security Council was also looking into the U.S. need for more and better scientific intelligence and recommended centralization and/or closer coordination among all agencies, and a strengthening of the Scientific Branch in CIA.

As a result of these pressures, when the CIA was established by the National Security Act of 1947 and began to reorganize the assets inherited from the C.I.G., ...

The NEG on 5 March 1948 was transferred to the Office of Special Operations, the clandestine side of CIA, in deference to the sensitive nature of nuclear energy operations; after OSI was established effective 1 January 1949, the NEG was returned to it as of 1 February 1949.

Check

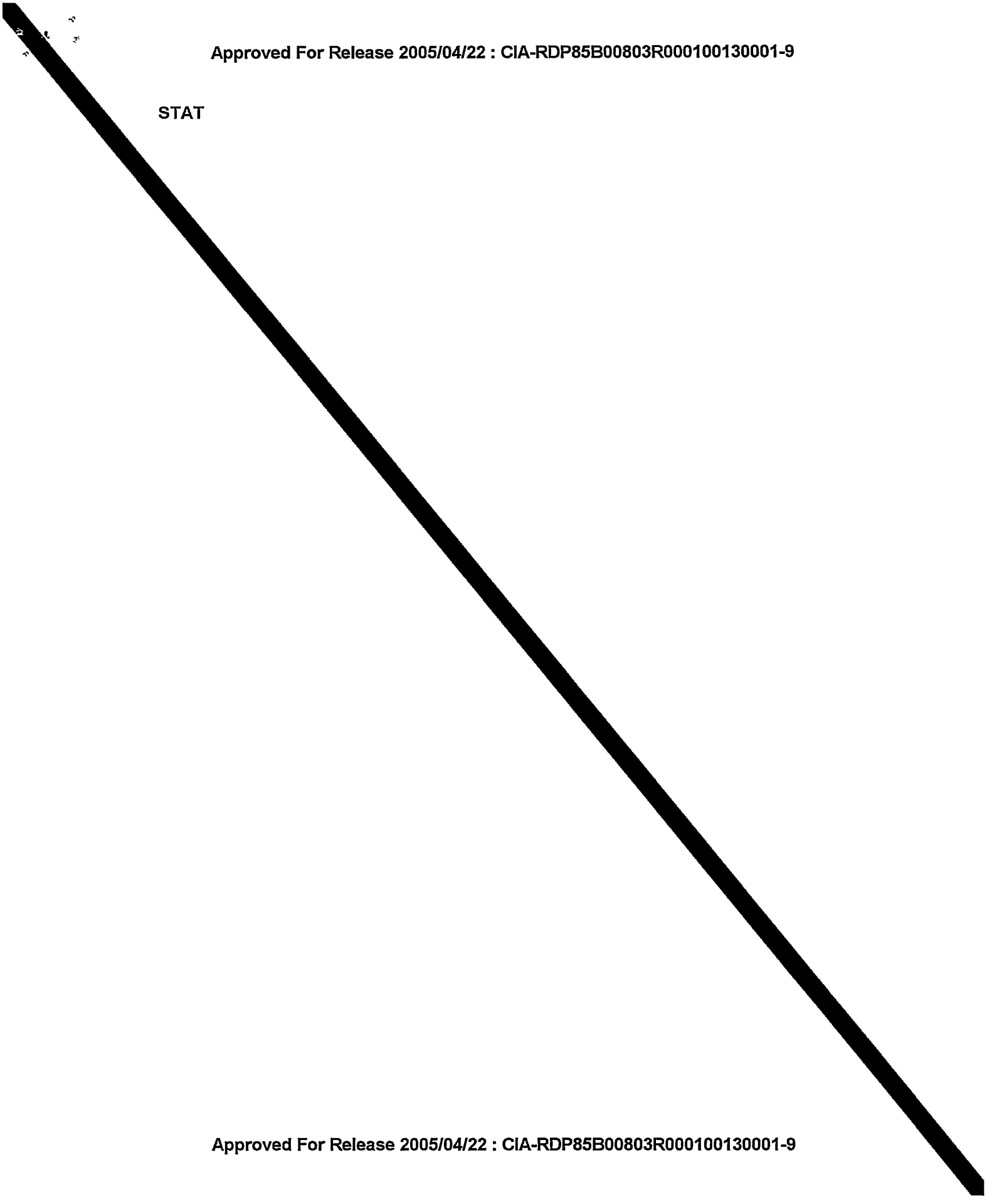
Date + order no. establishing
Scient. Br. in ORE, Estimates Div., O.C.I.G.

STAT [redacted] dated 12 May 1948, as ch/SB -

Date + order no. establishing
OSI in DD/I -

31 Dec 1948, OSI established,
under XC1, replacing Scient. Br. -
eff. 1 Jan. 1949 =

STAT



Jt. Research and Development Board re-established as Research and Development Board by PL 253, 80th Congress, 1st Session, and placed in the National Military Establishment, set up under the National Security Act of 1947; the JRDB then ceased to exist. All its records and personnel were transferred to the new RDB.

26 July 1947

The NSA of 1947 ordered that all personnel, records, and property of the C. I. G. ~~xxx~~ be transferred to the CIA, and the CIG ceased to exist. (Transfer took until August __, 1947 when CIA established.)

Atomic Energy Commission, established by Atomic Energy Act of 1946, approved 1 August 1946.

President Truman favored replacing military control over atomic energy with civilian control.

U.S. Army control of the assets of the Manhattan District of Army Engineers passed to the newly-appointed Atomic Energy Commission on 29 October 1946.

(See NYT, 29 Oct 1946, page 1, col. 6)

Approved For Release 2005/04/22 : CIA-RDP85B00803R000100130001-9

(USA/AAF)
Lt. Gen. Hoyt S. Vandenberg,/named Director of Central Intelligence 10 June 1946; returned to Army 30 Apr 1947.

RAdm. Sidney W. Souers, appointed first Director of Central Intelligence by Presidential letter (Truman) on 23 January 1946.

Approved For Release 2005/04/22 : CIA-RDP85B00803R000100130001-9

Lt. Gen.

Approved For Release 2005/04/22 : CIA-RDP85B00803R000100130001-9

National Intelligence Authority

Combined intelligence services of State, War, Navy and the White House in a manner so that the information will be available to all four for the transaction of Government business.

"Directive on Coordination of Foreign Intelligence Activities, 22 January 1946" - President Truman.

Souers appointed first DCI under the NIA, which also established the interim CIG.

The Foreign Intelligence Branch of Manhattan Engineering District (MED) transferred to C.I.G. 25 February 1947 and assigned to Scientific Branch as the Nuclear Energy Group by order of the DDCI 28 March 1947 /taken from
STAT History of OSI, [redacted] TS/(pages 3-4).
On 5 March 1948 it was reassigned to OSO, the Office which controlled the Clandestine Services of CIA.

Hillenkoetter in _____1948 agreed with Dr. Bush of RDB that the old agreement between JRDB and CIG be set aside; Bush felt the scientific intelligence furnished the Board had not been adequate and continued to push for a greater effort and better organization for producing scientific intelligence.

US Government Organization Manual 1946 First Edition

[illegible]

[illegible] — The National Intelligence Authority was established by Presidential directive of January 22, 1946. The directive designated as members of the Authority the Secretary of State, the Secretary of War, the Secretary of the Navy, and one other person to be named by the President as his personal representative.

The directive also provided for a Central Intelligence Group, to be composed of persons assigned from the Departments of State, War, and Navy, under a Director of Central Intelligence, and for an Intelligence Advisory Board consisting of the heads (or their representatives) of the principal military and civilian intelligence agencies of the Government having functions related to national security, as determined by the National Intelligence Authority.

PURPOSE.—The National Intelligence Authority was established to plan, develop, and coordinate Federal foreign intelligence activities related to the national security.

Approved.

SIDNEY W. SOUERS
Director of Central Intelligence

Office of Price Administration

Federal Office Building 1, Second and D Streets SW.
REpublic 7500

OFFICIALS

Administrator	PAUL A. PORTER
Executive Assistant to the Administrator	MAURICE W. LEE
Deputy Administrator	JAMES G. ROGERS, JR.
Assistant to the Administrator	MAX MCCULLOUGH
Assistant to the Administrator	LEON BOSCH
Assistant to the Administrator	JOSEPH A. KERSHAW
Assistant to the Administrator in charge of Price Boards	CHARLES H. ABBOTT

V. WYATT
ousing Agency

Pre-NIA

Public Papers of the Presidents: Harry S. Truman, 1945. USGPO, Washington: 1961; pp. 293-294; Special Message to the Congress Presenting a 21-Point Program for the Reconversion Period. September 6, 1945. (Item 128.)

Under Point 12. Research --

Truman asked Congress to adopt legislation for establishment of a single federal research agency which would, among other functions "Promote and support fundamental research and development projects in all matters pertaining to the defense and security of the nation." He asked the OSRD and the Research Board for National Security to continue their work in the interim.

Office of Scientific Research and Development, Dr. Vannevar Bush, Director, created within the Office for Emergency Management by Executive Order 8807, 28 June 1941, for the purpose of assuring adequate provision for research on scientific and medical problems relating to the national defense. The Manhattan Project, for one, was set up originally under OSRD during its research period, prior to the time when the Army Engineers were given the job of construction.

Most of the scientific talent available for government service during the war had returned to civilian pursuits as their wartime agencies were deactivated. Continued government employment would have meant further financial sacrifice to many of them, even had the government been organized to make use of their talents.

BACKGROUND

Scientific Intelligence - World War II to Establishment of CIA

During World War II, American scientific and technical intelligence was largely initiated and guided by the organizations that were consumers of this critical information, i.e., the Manhattan Project, certain divisions of the Office of Scientific Research and Development (OSRD), and the technical services of the Army and the Navy. The people who made these efforts successful were principally engineers and scientists from industry and the academic world, and Reserve Officers from the military services, who managed programs concerned mainly with the development and application of new weapons. Coordination of these activities was handled through various committees and boards under the Joint Chiefs of Staff, as well as informal Service/OSRD committees. With the end of the war and the return of most of the people who had served in these war-connected activities to their civil pursuits, the U.S. Government's scientific intelligence effort came near disintegration. 1/

On the initiative of the Secretaries of War and Navy, the Joint Research and Development Board (JRDB) was established 6 June 1946, with Dr. Vannevar Bush as Chairman, and with the purpose to advise the Secretaries of the Army and the Navy in fields of scientific research related to national defense. One of the first matters reviewed by this Board was the current status of scientific and technical intelligence. As a

result, the Central Intelligence Group (CIG)* under the direction of General Hoyt S. Vendenberg was asked to establish a unit under its cognizance which would provide the JRDB with scientific intelligence. With the passage of the National Security Act of 26 July 1947, this CIG unit along with all CIG's personnel, property and records was transferred to the new Central Intelligence Agency.

The first CIA Organization Chart, dated 15 October 1947, provided for a "Scientific Branch" under the Assistant Director of the Office of Reports and Estimates, who reported directly to the DCI. Functions assigned the Scientific Branch were:

> 1. As the fundamental intelligence evaluation, research, and production unit dealing with scientific matters, acts as the intelligence agency of the Research and Development Board** and of the Atomic Energy Commission and such other scientific agencies as may be assigned.
>
> 2. Formulates the National Intelligence Requirements relating to scientific matters and forwards requests for intelligence information calculated to fulfill these requirements.
>
> 3. Evaluates all available intelligence information and intelligence relating to scientific matters; assesses its adequacy, accuracy, and timeliness and utilizes it in the production of scientific intelligence in accordance with the Intelligence Production Plan.

The original Scientific Branch consisted of six "Groups" dealing principally with military fields of science: Nuclear Energy, Air, Munitions, Chemistry

---

* Established 5 Feb 46.

** Successor to JRDB.

and Biology, Electronics, and Technical Groups. The first major reorganization of CIA in 1948 advanced scientific intelligence in organizational priority to equal rank with the five other major areas of activity in which CIA was engaged. Each of the six "Offices" was headed by an Assistant Director, reporting directly to the Director of Central Intelligence. The Office of Scientific Intelligence at the time of its establishment in January 1949, was made up of four staffs (Scientific Services, Administrative, Collection, and Production Staffs), and seven substantive branches (Biology, Physics and Electronics, Chemistry, Medical, "A" Branch (for Comint exploitation), Ordnance and Navigation).

7. NARA_Howard_Cross.pdf

Original start page:	633	**Inserted note page:**	639	**Archive starts after note:**	640

Why it belongs in this release

Strong ATIC/Wright-Patterson reverse-engineering pointer: Secret “official ATIC instructions,” foreign equipment studies, YAK-23, MiG-15, ceramics/cermets, vacuum tubes, electro-hydraulic valves, radiometers, and Soviet aerospace technology.

Complete release-note text from UAP 4

2. NARA_Howard_Cross.pdf

This document is important because it shows ATIC functioning as a formal technical exploitation and analysis center for foreign aerospace and military technology. The file is marked Secret, states that the data were made part of the relevant PPS files and were considered “official ATIC instructions,” and lists technical studies involving YAK-23 systems, MiG-15 fuel pumps, ceramics and cermets, Soviet vacuum tube metallurgy, aircraft/missile electrical equipment, guided-missile mechanical equipment, air-weapons metallurgy, radiometers, X-gamma detectors, and other recovered or foreign systems. Congress and NARA should identify every PPS file, Project STORK file, contractor report, ATIC technical report, Wright-Patterson custody record, and sample-analysis record connected to Howard Cross, L. G. Whitcher, Captain Drown, Captain Allen, and ATIC foreign-technology exploitation. The key question is whether anomalous materials, propulsion components, bodies, or crash debris were ever hidden inside similar ATIC technical exploitation channels.

Source: UAP 4 - Archives Release Notes(2).docx. This note page was inserted immediately before the archive file.

SECRET

These data have been made a part of each PPS concerned, and are considered as being official ATIC instructions.

Sincerely,

Howard C. Cross

HCC:mc

Howard C. Cross

SECRET

T54-9736

14

SECRET

m. PPS-190, Aileron Boost Cylinder

Coordination copies of Technical Report 7-29-54

n. PPS-191, Evaluation of Equipment Systems (YAK-23 Fuel and Instrumentation)

Coordination copies of Technical Report on Fuel Systems 7-29-54

o. PPS-193, Foreign Status of the Fields of Ceramics and Cermets

Coordination copies of ATIC Study (USSR and Satellites) 10-1-54

p. PPS-197, Analysis of Electro-hydraulic Valve

No further Stork activity. The sub-contractor's report will be utilized at ATIC for preparation of an ATIC Technical Report.

q. PPS-116, Status of Soviet Vacuum Tube Metallurgy and Methods of Manufacture

As discussed between H. Martin and F. B. Dahle, no deadline data will be set on this report until further progress has been made on the revisions.

r. PPS-154, Development of Analog Ratios for Analysis of Vacuum Tube Production Facilities

Due date of 1 Jan 55 is not now considered realistic, however, the incomplete status of the project activity precludes establishment of new dates. This will be done as soon as possible.

s. PPS-163, Adaptability of Soviet A/C Industry to Heavy Bomber Production

Plan of action with due dates and estimated cost by Project Stork to be set up and confirmed by comment to PPS following a conference with ATIC monitor, Captain Drown.

t. PPS-198, Analysis of Radiometer FH 40 H
PPS-199, Analysis of Dosiskop X-Gamma Detector

Plan of action with due dates and estimated cost by Stork to be set up and confirmed by comment to PPS following a conference with ATIC monitor, Captain Allen.

SECRET

TS-9731

d. PPS-139, Status of Technology of A/C and Missile Electrical Equipment

Interim Report (3 cys) on USSR & Satellites 7-1-54

e. PPS-140, Status of Development & Characteristics of Aerial Photo Reconnaissance Equipment

Reports to be received as follows:

Coordination copies of study on USSR	3-1-55
Coordination copies of study on Satellites	4-15-55

f. PPS-141, Status of Technology of A/C and Guided Missiles Mechanical Equipment

Interim Report (3 cys) on USSR and Satellites 7-29-54

g. PPS-149, Foreign Status of Air Weapons Metallurgy

Reports to be received as follows:

Addendum Report on USSR (10 coordination cys)	7-1-54
Coordination copies of three studies on Satellites	8-31-54
Coordination copies of study on USSR	7-1-55

h. PPS-151, Special Purpose Coatings

Coordination copies of Report 7-29-54

i. PPS-182A (144A), Preparation of Combined Basic Studies in Elastomers & Synthetic Resins

Reports to be received as follows:

Coordination copies of study on Satellites	10-1-54
Coordination copies of study on USSR	2-1-55

j. PPS-187, Analysis of Two Hydraulic Pumps

Coordination copies of Technical Report 10-1-54

k. PPS-188, Analysis of Aileron Trim Tab Actuator

Coordination copies of Technical Report 11-15-54

l. PPS-189, Analysis of Two MIG-15 Fuel Pumps

Coordination copies of Technical Report 10-1-54

154-9756

SECRET

P. O. BOX 216 - STATION A
COLUMBUS, OHIO

June 29, 1954

This document consists of 4 pages
No. 4 of 150 copies, series A

Mr. L. G. Whitcher
Box 9248
Wright-Patterson Air Force Base
Ohio

Dear Mr. Whitcher:

Project Stork concurs with the Disposition Form, dated June 16, 1954, from ATIAW, which reschedules selected PPS's.

With some slight revisions, the text of that Disposition Form is essentially repeated in this letter, so that distribution of the information can be accomplished. In order to make the necessary adjustments in each PPS file, sufficient copies are being reproduced so that there will be copies available not only for Project Stork files but also for ATIA and ATIAW PPS folders.

Following is ATIC's and Project Stork's understanding of the results of the 15 June 54 meeting regarding the rescheduling of specific PPS's:

a. PPS-058A, Foreign Biological & Chemical Warfare Activities
PPS-114A, Foreign Atomic Energy Activities
PPS-177, Medicine, Aircrew Equipment and Meteorological Data

Continuous collection and integration of information into the TIPS on a predetermined rate of effort. No formal reports planned other than a letter report every six months describing the intelligence take for that period.

b. PPS-107, USSR A/C Instrument Manufacturing Capabilities

Coordination copies of study to be in ATIC not later than 8-31-54.

c. PPS-134, Status of Technology of A/C & Missile Instrumentation in the USSR and Other Countries

Reports to be received as follows:

Interim Report on USSR & Satellites (3 cys)	7-15-54
Coordination copies of study on USSR	12-1-54*
Coordination copies of study on Satellites	7-1-55*

*Subject to negotiation after Interim Report.

SECRET

T54-9736

between solute and solvent. The trial and error technique so prevalent in this country is going on but on a firmer basis. Since bonding energies (strength), and activation energies for creep and diffusion are all manifestations of the same basic atom-atom interaction, a correlation between these values was made with good results.

A thorough understanding of phase transformation mechanisms and kinetics provides a firmer basis for heat treating materials. The same type of thinking prevails in this field as evidenced by the large volume of good research in this field.

ADS:JKT:LLM/vh
April 11, 1952

oxygen, nitrogen, and helium. Work has been done on super-conductivity of metals, study of phase changes, and theory of elasticity (V. A. Fok).

The Mathematics Institute imeni V. A. Steklov is composed of at least three divisions: the Division of Approximate Computations, the Division of the Theory of Probability and Mathematical Statistics, and the Mechanics Division. The staff of the Institute studies various mathematical systems, relations, and methods for the purpose of application to various problems in mechanics.

In the study of the U.S.S.R. system of technical education, a series of papers have been selectively translated which provide much pertinent information on the development of the higher education system in the U.S.S.R. after World War II. This information will be correlated with that from other sources and analyzed from the standpoint of our basic metallurgical study.

As a result of a preliminary analysis of the Soviet overt literature pertaining to the various aspects of their status in the field of metallurgy several conclusions can be drawn pertaining to their philosophy in metallurgical research.

The Soviet men of science are capable and have demonstrated their capabilities in the remarkable development of Soviet technology during the last decade. The guiding thought underlying the approach to a particular problem appears to be a belief that nature is fundamentally simple and they are always striving for simplification of existing theories and correlation of existing principles. As a direct result of this the accent is on fundamental research, very closely coordinated with production necessities. When good high-temperature alloys were and are desired, they study the theory of alloying from the aspect of the distribution of electron energy levels and the bonding energies

of the Institute.

The Institute of Automatics and Telemechanics has conducted research in the dynamics and construction of automatic and telemechanic apparatus such as that for controlling the quality of manufactured items or checking the quality of finished surfaces.

The Leningrad Physico-Technical Institute, directed by A. F. Joffe, studies various problems in the field of theoretical and experimental physics such as the study of the atomic nucleus, semiconductors, and the physics of rigid bodies. The Physical Metallurgy Laboratory of the Institute has made studies in slip in crystals, mechanical twinning, residual stresses, and cleavage. The Institute has conducted fundamental studies of the crystal structure of metals. Much work has been done in the study of the mechanical properties of metals, such as notch impact sensitivity, and deformation by bending and torsion. N. N. Davidenkov is the leader in this work.

The Physics Institute imeni P. N. Lebedev conducts research of importance to metallurgy in the fields of spectral analysis of metals, the study of matter at low temperatures, and the use of vibrations in the study of metals. One work concerned the investigation of disorder-order transformation of an alloy on the basis of electrical fluctuations.

P. L. Kapitsa's Institute of Physical Problems is reported to be one of the best and most well-equipped research institutes in the U.S.S.R. This institute is working on a number of problems connected with the physical properties of solid bodies in strong magnetic fields or under conditions of low temperature. The Institute has developed new equipment for the manufacture of liquid hydrogen,

Battelle Memorial Institute

505 KING AVENUE COLUMBUS 1, OHIO

TRENDS AND PHILOSOPHY IN SOVIET METALLURGICAL RESEARCH AND DEVELOPMENT

A. D. Schwope, J. K. Thompson, and L. L. Marsh

In the study of Soviet metallurgical research institutes and their capabilities, seven additional reports have been prepared on institutes of the U.S.S.R. Academy of Sciences.

The Institute of Mechanics has conducted studies in the theory of shell (monocoque) structures, theory of elasticity and plasticity, plastic deformation and lattice structure, and various problems in dynamics such as the theory of stability of motion. A. A. Ilyushin, who is well known for his theories of plasticity, is affiliated with this institute.

The Institute of Machine Studies has conducted much work on the theoretical principles of automatic machinery. It has conducted research for determination of methods for increasing the endurance of machinery and for determining the dynamic stability of machine parts. Wear studies, as applied to engine bearings, have been conducted. Studies of photoelasticity, strength, plasticity, and creep have also been carried out, and scientists of the Institute are reported to have developed a special X-ray apparatus for studying the structure of metals at high temperatures. Ye. A. Chudakov and I. A. Oding, well known in the fields of automotive machine building and theory of plasticity respectively, are members of the staff of this institute. Chudakov is Director

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Battelle Memorial Institute

505 KING AVENUE COLUMBUS 1, OHIO

April 11, 1952

Mr. Miles E. Goll
Headquarters 1125th USAF Field
Activities Group
Box 9575
Wright-Patterson Air Force Base
Dayton, Ohio

Dear Mr. Goll:

The enclosed copy of one of our internal reports for use in preparing the March 1952 Status Report on Soviet research and development in metallurgy was requested by Mr. Strasser. This report contains advance information to be used for the basic study on metallurgy. It should be considered tentative pending completion of the report on the basic study.

We are making this information available now with the understanding that it will only be used by the ATIC Staff for their information.

Sincerely,

Howard C. Cross

Howard C. Cross

HCC:vh

Enc.

cc: Captain F. H. McGovern

Registered Mail

File 9974
PPS-020

SECRET
SECURITY INFORMATION

RESEARCH FOR INDUSTRY

STRASSER

Battelle Memorial Institute

505 KING AVENUE COLUMBUS 1, OHIO

May 27, 1952

9974
PPS-020

Dr. S. Krivobok
International Nickel Company
67 Wall Street
New York 5, New York

Dear Dr. Krivobok:

At the request of Mr. Al Strasser of Wright-Patterson Air Force Base, I am enclosing a list of articles from Russian-language journals and copies of the articles for your use.

All of the items mentioned on the list are included except Nos. 74, 283, and 286. These will be sent as soon as we can get reproductions from the Library of Congress.

Yours very truly,

Iver Igelsrud
Librarian

II/baa
Enc. (17)
cc: Mr. Al Strasser
Mr. M. E. Goll
Captain F. H. McGovern

9974
PPS-020

PROJECT STORK

PROJECT PROPOSAL SHEET
(Continuation)

COMMENTS: Comment No. 3 (Continued)

2. Project Stork suggests, therefore, that this request be assigned a separate PPS number and that a separate report be issued.

3. Project Stork further suggests that the title be modified as follows: "An Estimate of Soviet Vacuum-Tube Metallurgy Based on Technical Examinations of Soviet and Satellite Vacuum-Tube Samples and Information Readily Available From Other Sources".

4. The cost for the work outlined is estimated to be $1500. Arrangements for the preparation of the evaluation have tentatively been made with our consultant, Mr. T. H. Briggs, who has requested an extension of time to November 1, 1952.

Howard W. C. Cross 8/7/52

Security No. T52-12040-1
PPS-020
(Revision 1)

MCI Form No. 18A
(2 March 1951)

SECRET
SECURITY INFORMATION

PROJECT STORK . . . . . PROJECT PROPOSAL SHEET
(Continuation)

COMMENTS:

TO Mr. Cross FROM: ATIA DATE 25 June 52 COMMENT NO. 2

Mr. Goll/sad
57120/263D/C&D1

1. Forwarded for your consideration and comment.

2. Please notify us of your estimated date and cost of completion.

DONALD L. BOWER, Col., USAF
Chief, Technical Analysis Division
Air Technical Intelligence Center

TO: ATIC FROM: H. C. Cross DATE: July 7, 1952 COMMENT NO. 3

1. Project Stork concurs that an evaluation of Soviet vacuum-tube metallurgy, based on available information, be prepared. At the present time Project Stork does not believe that such an effort should be included in the basic aircraft-metallurgy report. This opinion is based on the following considerations:

A. Vacuum-tube metallurgy is a specialized science which is not closely associated with aircraft metallurgy. Potential claiming agencies, therefore, would not anticipate finding information of this nature in an aircraft-metallurgy report.

B. The current status of collected information on tube metallurgy is not at a stage of completion comparable with that of aircraft metallurgy. An incomplete evaluation of tube metallurgy, therefore, would compromise the aircraft-metallurgy study and detract from the value of the aircraft-metallurgy report.

C. The science of tube metallurgy includes many factors, such as tube fabrication, coatings, and electrical properties, which are not normally considered as being of direct significance in aircraft metallurgy. These factors have a direct bearing on tube metallurgy and generate special metallurgical problems not usually encountered in the metallurgy of volume-produced materials such as steel and aluminum.

Security No. T52-12040-1

PPS-020
Revision 1

MCI Form No. 18A
(2 March 1951)

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PROJECT STOR SECRET CT PROPOSAL SHEET

SECRET
AUTH: CO ATICP
BY: H. E. Martin
DATE: 20 Jun 52

TO : ATIA

DATE: 20 Jun 52

FROM : ATIAS

SUBJECT: (Secret) Status of Technology of Aircraft Metallurgy in the USSR (Revision 1)

THE PROPOSAL:

It is desired that an evaluation of Soviet vacuum tube metallurgy be included in the final report. Because of the September 15 due date of the PRS-020 final report, only a summary of existing tube materials examinations should be made. Conclusions should be based on the materials examinations.

FACTUAL DATA and REQUIREMENTS:

1. Soviet metallic vacuum tube materials examination and evaluation summary should be included in PRS-020.

2. ~~Information should be based on past materials examinations.~~ The following three pertinent reports should be used.

a. Analysis of Two Foreign Electron Tubes, by T. H. Briggs, 29 July 1949. (Enclosed; to be returned on completion of report).

b. Analysis of Fifteen Foreign Electron Tubes, by T. H. Briggs, 22 March 1950. (Enclosed for retention).

c. Analysis of Fourteen Foreign Electron Tubes, USAF Contract AF33(038)-13666, NAD No. 80189 (previously sent to Project Stork).

3. Any other Soviet electron tube reports available at Battelle at the present time should also be used.

4. The report should summarize the materials examinations as well as evaluate the materials for performance characteristics.

5. Conclusions should be drawn, if possible, as to the present state of the art in Soviet Russia and the potentialities of Soviet Russia in this field.

2 INCLOSURES:
1. Anal of Two Foreign Electron Tubes
2. Anal of 15 Foreign Electron Tubes

Nicholas Post
NICHOLAS POST
Actg Chief, Associated Equipment Branch
Technical Analysis Division

Page No.

Security No.
T52-12040

ATIC Form No. 18
(2 March 1951)

PRS-020 (Revision 1)

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SECURITY INFORMATION

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SECURITY INFORMATION

COPY

December 21, 1954

Mr. John S. Honaker
Box 9248
Wright-Patterson Air Force Base
Ohio

Dear Mr. Honaker:

We are forwarding under separate cover copies nos. 1 through 181 of Study No. 102-AE-53/4-34, "The Status of Aircraft Metallurgy in the U.S.S.R. (Research and Development)", dated November 30, 1954, covered by PPS-020. Copies Nos. 182 through 262 will be ready for transmittal when the courier next arrives.

It is our understanding that we shall not be required to reproduce Study No. 102-AE-53/6-34, "The Status of Aircraft Metallurgy in the U.S.S.R. (Summary)", the coordination copy of which we forwarded to you on February 4, 1954. Therefore, transmittal of the report covering research and development is considered to complete the requirements of PPS-020.

Sincerely,

Howard C. Cross

PPS020

COPY

8. NARA_RG330_JCS_JOIA_1946-52.pdf

Original start page:	647	**Inserted note page:**	654	**Archive starts after note:**	655

Why it belongs in this release

Strong postwar scientific exploitation pointer: Paperclip, JIOA/CIA scientific intelligence, Wright Field, LeMay, foreign scientists, secret inventions, and direct energy-conversion claims.

Complete release-note text from UAP 4

3. NARA_RG330_JCS_JOIA_1946-52.pdf

This file is valuable because it shows how the U.S. government acquired, screened, and protected foreign scientists and inventions after World War II. One striking document concerns “Employment of German Scientists - Atmosphere Heat-Energy Project,” addressed to Air Materiel Command at Wright Field, with T-2 intelligence attention, General LeMay’s immediate interest, and an agreement to bring the scientists under Paperclip while keeping their invention secret if the government wished to do so. The file also shows CIA/JIOA circulation of scientific intelligence and sanitized intelligence reports. Congress and NARA should trace every JIOA, Paperclip, Wright Field, Air Materiel Command, T-2, CIA Scientific Intelligence Committee, and Department of Defense contract file connected to foreign scientists, secret inventions, direct energy conversion, exotic propulsion, biological expertise, metallurgy, and aerospace systems. If crash retrieval or reverse engineering existed, this is the type of personnel and secrecy pipeline that would likely have supported it.

Source: UAP 4 - Archives Release Notes(2).docx. This note page was inserted immediately before the archive file.

PERSONNEL - General Nathan F. Twining

Taken 30 June 1953 by James O. Lucas, Air Force Photographer.

47256AC

CIA, Misc

SECRET

CENTRAL INTELLIGENCE AGENCY

Information Report

A DIGEST OF SOVIET MEDICAL INTELLIGENCE MATERIAL AS CONTAINED IN THE FIRST NINETY-THREE ATIS INTERROGATION REPORTS FROM GENERAL HEADQUARTERS, FAR EAST COMMAND

CIA/SI 28-51

25 August 1951

Note: This report has been coordinated with the Joint Medical Sciences Intelligence Committee.

WARNING: This document contains information affecting the national defense of the United States, within the meaning of Title 18, Sections 793 and 794, of the U. S. Code, as amended. Its transmission or revelation of its contents to or receipt by an unauthorized person is prohibited by law.

SECRET

~~SECRET~~

CENTRAL INTELLIGENCE AGENCY
WASHINGTON 25, D. C.

SANITIZED COPY
SENSITIVE INFORMATION DELETED

6 July 1951

MEMORANDUM FOR Colonel Daniel E. Ellis, USAF,
Director, Joint Intelligence Objectives Agency

SUBJECT : Information Report No. [redacted] 1.3(a)(4) C

1. With reference to your request of June 26, 1951 to Mr. Arthur H. Alexander, (reference JIOA 1024) there is attached for your attention a copy of Information Report No. [redacted] 1.3(a)(4) C

P. G. STRONG

✓CIA Misc.
Extra Copies

[redacted]

834021-1689

Paperclip files

MA. 4136

CRI-2135

CENTRAL INTELLIGENCE AGENCY

WASHINGTON 25, D. C.

12 APR 1949

MEMORANDUM FOR: DIRECTOR, JOINT INTELLIGENCE OBJECTIVES AGENCY, JOINT CHIEFS OF STAFF

SUBJECT: Project 63 (UP-103-M)

REFERENCE: JIOA Memorandum No. 902 dated 25 May 1948

1. In connection with paragraph I of reference, the Central Intelligence Agency does not believe that any further action by CINCEUR will be necessary.

2. Pertinent information from reference and its attachments has been given to the Bureau of Mines, Department of Interior, and to the National Bureau of Standards, Department of Commerce for their information, and Central Intelligence Agency has asked to be advised of action or information obtained by those agencies as a result.

R. H. Hillenkoetter

R. H. HILLENKOETTER
REAR ADMIRAL, USN
DIRECTOR OF CENTRAL INTELLIGENCE

Approved for Release
Date 7 Nov ...

FILE DIST:
CIA Top Secret
MJ-12

1412

834041-330

[redacted]

CENTRAL INTELLIGENCE AGENCY

OFFICE OF SCIENTIFIC INTELLIGENCE

Information Report

COMMUNIST PROPAGANDA CHARGING UNITED STATES WITH THE USE OF BW IN KOREA

CIA/SI 29-51

20 August 1951

WARNING

This document contains information affecting the national defense of the United States, within the meaning of Title 18, Sections 793 and 794, of the U. S. Code, as amended. Its transmission or revelation of its contents to or receipt by an unauthorized person is prohibited by law.

[redacted]

AFBIR-CO/Capt Macken/rm/6282
10 July 47

14 JUL 1947

AFBIR-CO

MEMORANDUM FOR DIRECTOR OF INTELLIGENCE, WAR DEPARTMENT GENERAL STAFF, EXPLOITATION BRANCH.

SUBJECT: Request for German Scientists.

1. It is requested that the following German scientists be contracted for the Army Air Forces, for exploitation at Wright Field:

Fritz Morhard - mechanical and electrical engineer
August Reis - physician
Max Ostenrieder - biochemist

2. A special agreement has been made with the scientists in question under which the Army Air Forces will use information on presently existing inventions which belong to the scientists for experimental and governmental purposes but will not publish such information in order to allow inventors the opportunity of commercially exploiting it later at their own risk and expense. Additional inventions which result from their Army Air Forces employment and which were developed during such employment will be retained by the Army Air Forces in accordance with standard patent policies. A separate agreement to this effect should be attached to the Paperclip project when it is signed by the three (3) scientists. Agreement should include a statement that scientists will be paid an annual sum for the use of their existing inventions during the period of their employment and as long as the information remains in a classified status. The sum to be determined by mutual agreement upon their arrival in the United States.

3. It is requested that immediate action be taken to bring these scientists to the United States without delay.

FOR THE COMMANDING GENERAL:

GEO. F. SCHULGEN
Brigadier General, U.S.A.
Chief, Air Intelligence Requirements Div.
Office of Ass't. Chief of Air Staff-2

FS-937

2-155
Encl #1

Encl 1

COPY

SECRET

WDGRD/R 231.2 Scientists, German (3 Jul 1947)

Request for Employment of German Scientists Under Paperclip.

D/I
Attn: Exploitation Sec.
Lt.Col. M.F. Cone

Res. & Dev. Div.,WDGS

3 Jul 1947
Lt.Col.Walker/72875/jld

1. The Army Air Forces agreed to the hiring of the following scientists under the Paperclip project in order to investigate their claims to new discoveries and on the recommendations of this Division:

Fritz Morhard - mechanical and electrical engineer
August Reis - physician
Max Ostenrieder - biochemist

These scientists have been in contact with General Clay's headquarters and particularly with Dr. H. K. Stephenson who will know their present location in Germany.

2. In a conference between General Harbold, AAF-2, Capt. Macken, AAF-2, and Lt. Col. Walker, this division, the Army Air Forces agreed to provide travel and other expenses involved in hiring these scientists from Army Air Forces research and development funds. General Harbold requested this office to arrange for them to be hired under a Paperclip contract and to be transported to the United States.

3. A special agreement has been made with the scientists in question under which the War Department will use information on presently existing inventions which belong to the scientists for experimental and governmental pruposes but will not pbulish such information in order to allow inventors the opportunity of commercially exploiting it later at their own risk and expense. Additional inventions which result from their War Department employment and which were developed during such employment will be retained by the War Department in accordance with standard patent policies. A separate agreement to this effect should be attached to the Paperclip project when it is signed by the three (3) scientists. Agreement should include a statement that scientists will be paid an annual sum for the use of their existing inventions during the period of their employment and as long as the information remains in a classified status.

4. In view of the great importance of the information which these scientists claim to have, it is requested that their prompt transportation to the U.S. be given top priority.

FOR THE DIRECTOR OF RESEARCH & DEVELOPMENT:

OSCAR A. BEINLEIN, Colonel, GSC
Acting Chief, Research Group

Incl 2

2-155
Incl #2

TOP SECRET

HEADQUARTERS, ARMY AIR FORCES
WASHINGTON

14 JUL 1947

SUBJECT: Employment of German Scientists - Atmosphere Heat-Energy Project.

TO : Commanding General
Air Materiel Command
Wright Field, Dayton, Ohio.
Attention: Intelligence, T-2.

1. On 1 June 1947, Headquarters, European Command informed the War Department that three Germans, Fritz Morhard, a mechanical and electrical engineer, August Reis, a physician, and Max Ostenrieder, a biochemist, claim to have invented a revolutionary method of converting heat energy from atmospheric and other sources such as atomic pile directly into electrical energy at high power levels.

2. At General Clay's instigation these scientists divulged a portion of their claim to Dr. H. K. Stephenson. They plan to pass air through a "heat generator" (design undisclosed), similar in principle to units used for heating buildings in Switzerland. The hot air passes thence to a "tube" (design undisclosed), where it is converted directly into electrical energy.

3. General LeMay, Deputy Chief of Air Staff for Research and Development, evinced an immediate interest in the project and agreed to contract the scientists for the Army Air Forces.

4. Since there were no other terms upon which the scientists would divulge their discovery, the War Department agreed to hire them under Paperclip and use their existing inventions for experimental purposes but not publish information relating to these inventions in order to allow the inventors the opportunity to exploit them later commercially at their own risk. Additional resulting inventions during the period of War Department employment are still to be retained by the War Department.

5. The War Department also agreed to pay the German scientists a fixed sum annually, the amount to be determined by both parties after the scientists have arrived in the United States, for the use of their invention or discovery for as long as the government may wish to keep the discovery secret.

TS-937

TOP SECRET

ADDRESS REPLY TO: COMMANDING GENERAL, ARMY AIR FORCES, WASHINGTON 25, D. C.

2-155-1

R+D BOARD

RG 330
STACK 190
ROW 29
COMP 5
SHELF 5
ENTRY 341A
BOX 687

TOP SECRET

Basic ltr fr Hq, AAF, to Hq, AMC dated 14 JUL 1947, subject: Employment of German Scientists - Atmosphere Heat-Energy Project.

6. Copies of the correspondence covering the requesting and contracting of these scientists are inclosed herewith.

BY COMMAND OF GENERAL SPAATZ:

Geo F Schulgen

2 Incls
1. Cy memo to DI, WDGS, dtd
2. Cy D/F fr Res. & Dev. Div. WDGS, dtd 3 July 47.

GEO. F. SCHULGEN
Brigadier General, U.S.A.
Chief, Air Intelligence Requirements Div.
Office of Ass't. Chief of Air Staff-2

TOP SECRET

TS 937

TS-AAM-12-49

TOP SECRET

THE FOREIGN SERVICE
OF THE
UNITED STATES OF AMERICA

Office of the Air Attache
American Embassy
Moscow, U.S.S.R.

23 April 1949

Colonel Howard McCoy
T-2 AMC
Wright-Patterson Air Force Base
Dayton, Ohio

Dear Colonel McCoy:

Two things have come up recently which I would like to discuss with you.

The first has to do with telephones. Sgt. Vest, our new photo technician, has informed me that Wright Field now has a telephone developed whose lines cannot be tapped. Naturally, we are interested in any such development and, if they work properly, would like to have them installed here. In this connection can you give us the following information?

a. Do these telephones work only when they do not operate through a switchboard, i.e., on a direct line?

b. Or would they work through our normal standard Embassy switchboard without the Russian operator being able to listen in?

c. Or would they operate properly through outside or city switchboards?

d. Is the cost of construction prohibitive?

e. If they are feasible for use here would it be possible to furnish us with a few sets? Along this line, Mr. Kohler, our Charge' d'Affaires has expressed an interest in having the whole Embassy (about 200 telephones) furnished with these telephones should they prove acceptable and not too costly.

The second matter concerns cameras. We have been using the German made "Robot" for the past week or two for taking pictures from the rear seat of our staff cars. Despite our whistling, singing and making all kinds of actually obvious noises, the click of the camera is still plainly audible in the automobile although the rewind systemdoesn't sound so loud since we can muffle it in our clothing. We know, after two or three of these ventures already that our chauffeur probably

TOP SECRET

TS-2041

know what's going on - you could just see his big ears bugle out every time the camera clicked. Someday we're going out with a couple of counters to click along the way and permit him to "sneak a peek" in order to possibly allay some of his suspicions. Now, to further complicate matters, our Charge' d'Affaires, Mr. Kohler, has ordered that no photography will be done by any member of the Embassy except on the premises. We are writing AFOIN about this and hope they will be able to talk the State Department into lifting this ban on photography. In that event, we will notify you but in the meanwhile how about seeing what you can do to rework another Robot (the results of the one we're using have been good) and quieten the shutter noise (click) as well as the rewind noise -particularly the former. I'm tired of having to unreel twenty feet of my neck every time I go out with this damn thing with its C-L-A-C-K that fairly rattles the teeth of the agent-chauffeur in the front seat just three feet away. I'm convinced by now that my only chance to get out of the Soviet Union is on an exchange basis with Guibechev.

All of the stuff that you sent from Wiesbaden arrived in good shape. We have not received the "Cracker-box" yet but likely because you sent it on later.

We're all set for the May Day Parade. We took pictures of a practice formation which turned off while still about four (4) miles away. We were using the Long Range with Leica attached which gave us a fair silhouette of some swept-back jet fighters. We're forwarding the negatives in the same pouch under IR-73-49. The camera sights were out of line which caused us to miss several shots. However, they were all at the same 4 mile distance away and would have given us similar silhouettes at best.

We expect about thirty (30) swept-back jets inthe May Day Parade. One of the swept-back jets trailed smoke and crashed - film had just petered out so we missed photo of the parachute jump and distant dive in.

Russell E Randall
RUSSELL E. RANDALL
Brigadier General, USAF
Air Attache

TS-2041

SECRET
AUTH: CG, ATIC
BY: W.M.Garland,
Brig Gen, USAF
DATE: 27 Feb 53

camera is very compact considering the negative size and weighs but five to six pounds. I am inclosing copies of applicable WADC reports on both the P-2 and Project Ashtray modifications which will give you necessary technical details.

The P-2 Camera is just now emerging form the production line and considerable difficulty would be encountered in setting up a field installation at this time, but I would feel justified in attempting to set up the project if you cannot utilize the larger camera installation for this purpose. This project has been designated "BLUE MOON" by the Air Technical Intelligence Center for identification purposes and should be referred to in future correspondence on this subject.

The importance of good air-to-air photographs of the Soviet prototype aircraft which may appear in Korea for service test purposes cannot be overemphasized. I think you will agree with me that next to the physical article itself, we are not likely to get more valuable intelligence material than a good photograph.

Let me have your comments on the above recommendations and any other suggestions you may care to make.

Sincerely,

W. M. GARLAND
Brigadier General, USAF
Commanding

3 Incls
1. Receipt (Uncl)
2. Rpt on Proj Ashtray (Restr)
3. Rpt on Mod of Type F-86 AC for Type P-2 Camera Installation (Uncl)

DECLASSIFIED
Authority NND 913055
By 12 NARA Date 3/6/13

Entry 279
Box 93

(11)
1/1/15

ACCESS RESTRICTED

The item identified below has been withdrawn from this file:

File Designation Metallurgy 1951
Memo

Date 11-16-51

From Garland

To Chief, ATIC, Wright-Patterson AFB

In the review of this file this item was removed because access to it is restricted. Restrictions on records in the National Archives are stated in general and specific record group restriction statements which are available for examination. The item identified above has been withdrawn because it contains:

☒ Security-Classified Information

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Date

NATIONAL ARCHIVES AND RECORDS ADMINISTRATION

NA FORM 14000 (1-86)

WITHDRAWAL NOTICE

(12)
1/15

Entry 279
Box 93

ACCESS RESTRICTED

The item identified below has been withdrawn from this file:

File Designation: Metallurgy 1951
Memo
Date: 12-11-51
From: Dunn
To: D/I HQ USAF

In the review of this file this item was removed because access to it is restricted. Restrictions on records in the National Archives are stated in general and specific record group restriction statements which are available for examination. The item identified above has been withdrawn because it contains:

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Authority

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Date

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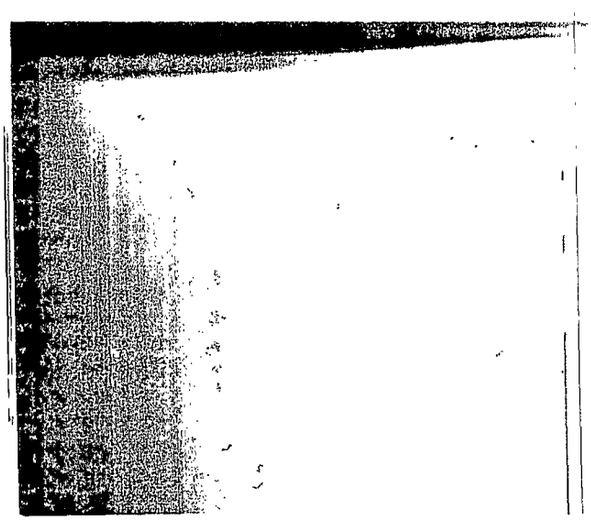
WITHDRAWAL NOTICE



COORDINATION

SECRET

SECRET
AUTH: CG, ATIC
INITIALS: MAJ P.J.NESS
DATE: 4 Dec 52

(SECRET) Requirements of ATIC for the Library of Congress

ATIC

9 DEC 1952

Maj Hasheim/amw
65372/B263C

9 DEC 1952

Attn: Lt Col Walter Shegda

1. Reference is made to inclosure No. 1 which is a list of special subjects regarding which it is desired that comprehensive bibliographies be prepared from a record of all USSR and satellite data known by the Library of Congress to exist in its files, or located in any other activities associated with the Library.

2. This list is a compilation of several lists and requirements submitted to Mr. George Pughe, Jr. of the Air Information Division.

3. Reference is also made to inclosures Nos. 2 through 6. These inclosures were forwarded to the Library of Congress only as a guide to their screening personnel, and to acquaint them with the scope of the Air Technical Intelligence Center's operations.

4. In addition to the inclosed list of subjects, the following two requirements were given the Library.

a. Abstracts of all books, digests, summaries, articles and related publications originating in foreign countries and pertaining to an overall set of subjects of interest to ATIC. These abstracts and bibliographies will be of the following subjects, all of which constitute the "requirements" of ATIC.

(1) Biographical data on foreign scientists (excluding United Kingdom, Australian and Canadian nationals) engaged in theoretical research in Aerodynamics, Thermodynamics, Airfoil Theory, Boundary Layer Theory, Hydrodynamics, Kinematics, Non-Linear and Quantum Mechanics, High Speed Thermodynamics, Physics (including Solid State, Theoretical, Electron, Gas Discharge, Optics, Crystallography, Spectrum Analysis, Nuclear, Cosmic Ray, Astrophysics, Spectroscopy), Geophysics (including Meteorology, Upper Atmosphere, Terrestrial Magnetism, Electromagnetic Propagation), and Mathematics, together with briefs of their theses, studies and findings.

(2) Biographical data on foreign scientists and engineers (excluding United Kingdom, Australian and Canadian nationals) engaged in applied research, development and/or test in the fields of Aircraft, Aircraft Equipment, Armament, Atomic Energy and Radiation, Aviation Medicine, Aeromedical Equipment, Bacteriological and Chemical Warfare, Aircraft Fuels, Lubricants and Propellants, Guided Missiles and Rockets, Metallurgy, Electronics, Chemistry, Materials and Propulsion (Aircraft Engines), together with briefs of their findings and/or reports of their accomplishments.

(3) Data on the institutions, laboratories and factories where these scientists and engineers conduct their research, development and/or test, e.g.,

DISPOSITION AUTHORITY RECORD
T52-19581

SECRET
SECURITY INFORMATION

AMC Form 8 (Rev 17 May 50) Supersedes AMC Form 8, Rev 1 Apr 48, which will be used. Air Force WPAFB-L-23 JUL 52 3600M

SECRET

SUBJECT: (SECRET) Requirements of ATIC for the Library of Congress

location, organizational structure, place in the governmental hierarchy, appropriations granted, key personnel, functions, research projects completed, underway or planned, etc., together with briefs of reports, studies or findings emanating therefrom.

(4) Data on academic institutions, to include references to technical scientific curriculums, approximate number and quality of graduates, honors bestowed, together with any reference to future assignments of these graduates.

(5) Data on any subject not listed above whenever there is an indication of its being developed by a foreign power to further that nation's ability to wage aerial warfare or whenever knowledge of a subject can be of assistance to this Center in its overall mission of evaluating foreign potential thereby preventing technological surprise.

b. The Library of Congress is requested to continue a search of newspapers and new periodicals for accounts regarding unidentified aerial objects. Translated copies of all articles, subject as above, to be forwarded to ATIC, ATTN: ATIAA-5.

5. It is further requested that each abstract (with reference to par 4a above) be typed on a reproducible master with specifications as follows:

a. Size of card to be 8 x 5.

b. Upper left hand corner and as close to top edge as possible, will contain the name of the personality, institution, subject, or facility reported on.

c. Upper center and as close to edge as possible will contain either the name of the subject reported on, specialty of the personality, function or purpose of the research facility, or specialized field of the academic institution.

d. Upper right hand corner of the personality abstract cards will contain a nationality location reference. For example R/R (Russian, located in Russian), G/A (German in Argentina).

e. The body of the card will contain the complete abstract, single spaced. When more than one card is needed per abstract, the notation "card 1 to 4", etc., will be indicated at the bottom.

f. All abstracts are to be in English translation.

SECURITY INFORMATION

OFFICIAL FILE COPY

DESIGNATE AUTHD OFFICE OF RECORD

T52-1958d

9. NARA_RG156_JCS_Guided_Missles_Committee.pdf

Original start page:	663	**Inserted note page:**	671	**Archive starts after note:**	672

Why it belongs in this release

Shows the high-level architecture for advanced aerospace secrecy: JCS, White House, Vannevar Bush, LeMay, Groves, NACA, RAND-related satellite/missile work, classification controls.

Complete release-note text from UAP 4

4. NARA_RG156_JCS_Guided_Missles_Committee.pdf

This document is a strong architecture-of-secrecy pointer. It does not mention flying saucers directly, but it shows the exact high-level scientific and military channels that would have handled advanced aerospace technologies: the White House, JCS, Vannevar Bush, Curtis LeMay, NACA, the Joint Intelligence Staff, Manhattan District/Groves, Air Materiel Command, Air Information, Guided Missiles, Research & Engineering, and classified contractor programs. It also discusses high-altitude earth-satellite vehicle programs, Glenn L. Martin and Aerojet contracts, and classification of satellite-vehicle reports. Congress and NARA should map every committee, distribution list, copy number, contractor, and classified annex in this file, then cross-reference those names with Air Force UFO, ATIC, RAND, Wright-Patterson, NACA/NASA, CIA OSI, and Joint Intelligence records. The public-release point is that by 1946-49 the government already had a classified aerospace apparatus capable of absorbing unconventional craft or propulsion discoveries into missile, satellite, radar, nuclear, or contractor compartments.

Source: UAP 4 - Archives Release Notes(2).docx. This note page was inserted immediately before the archive file.

GMC 15/1

RESTRICTED

15 March 1946

JOINT CHIEFS OF STAFF

JOINT COMMITTEE ON NEW WEAPONS AND EQUIPMENT

GUIDED MISSILES COMMITTEE

DISTRIBUTION LIST - GMC-15/1

GUIDED MISSILES CURRENT STATUS SURVEY

	COPY NO.
The White House	
The Honorable Harry S. Truman, Commander-in-Chief of the U.S. Army and Navy, The White House, Washington, D.C.	1
Fleet Admiral W.D. Leahy, Chief of Staff to the Commander-in-Chief, U.S. Army and Navy, The White House, Washington, D.C.	2
Brig. General H.H. Vaughan, Military Aide to the President, The White House, Washington, D.C.	3
JCS Committees and Agencies	
General of the Army, Dwight D. Eisenhower, Chief of Staff, U.S. Army	4
Fleet Admiral Chester W. Nimitz, Chief of Naval Operations	5
General Carl Spaatz, Commanding General, AAF	6
Brig. General Andrew J. McFarland, Secretary, CCS	7
Colonel C.H. Donnelly, Secretary, Joint Staff Planners	8
Lt. Colonel W.W. Wilcox, Secretary, Joint Logistics Plans Committee	9
Captain A. F. Grieco, USA, Secretary, Joint War Plans Committee	10
Lt. (jg) E. Starr, III, Secretary, Joint Intelligence Staff	11
Captain G.B. Myers, USN, Secretary, Joint Communications Board	51
Joint Committee on New Weapons and Equipment, JCS	
Dr. V. Bush, Director, OSRD	12
Maj. General Curtis E. LeMay, USA, CG, AAF	13
Rr. Admiral Jerauld Wright, USN, Op-34	14
Rr. Admiral L.B. Richardson, USN, Ass't Chief, BuAer	15
Brig. General W.A. Borden, USA, Director, NDD, WDSS	16
Colonel H.P. Gibson, GSC, Secretary, JNW	17
Guided Missiles Committee	
Mr. Bradley Dewey, Chairman	18
Dr. E.R. Gilliland, Deputy Chairman	19
Dr. P.M. Morse, OSRD	20
Dr. Warren Weaver, OSRD	21
Dr. J.C. Hunsaker, Chairman, NACA	22
Dr. G.W. Lewis, Director of Research, NACA	23
Maj. General G.M. Barnes, USA, Res. & Dev. Service, OCORD	24
Brig. General H. Hewett, USA, Development Service, AGF	25
Brig. General A.R. Crawford, USA, Research & Engineering Division, AC/AS-4	26
Brig. General W.L. Richardson, USA, AC/AS-3	27
Colonel R.W. Ward, G-3, WDGS	28
Colonel C.P. Summerall, G-3, WDGS	29

COPY NO.

(Guided Missiles Committee-Cont.)

Colonel J.S. Mills, NDD, WDSS 30
Colonel Gervais W. Trichel, NDD, WDSS 31
Colonel H.N. Toftoy, Res. & Dev. Service, OCOrd 32
Colonel L.E. Fellenz, G-4, WDGS 33
Colonel G.C. McDowell, G-4, WDGS 34
Lt. Colonel M.B. Lampl, Development Section, AGF 35
Captain K.H. Noble, USN, BuOrd, Re 36
Captain V.L. Pottle, USN, Op-34H 37
Captain Steadman Teller, USN, Op-601 38
Captain D.S. Fahrney, USN, BuAer, Eng. Div. 39
Captain R.S. Hatcher, USN, BuAer, Eng. Div. 40
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Commander E.C. Holtzworth, USN, BuShips, Code 420 46
Commander C.H. Gerlach, USN, BuShips, Code 424 47

National Advisory Committee for Aeronautics

Mr. J.W. Crowley, Jr., Langley Memorial Aeronautical Laboratory, Langley Field, Va., Through: Maj. D.R. Eastman, AAF Liaison Officer 48

Other Government Agencies

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War Department

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Army Air Forces

Commanding General, Army Air Forces, Washington 25, D.C.
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Commanding General, Army Air Forces, Washington 25, D.C.
Attn: AC/AS-2
Air Information Division, Library Branch 63
Executive Division, Plans & Policies Branch 64 — add Maj P.S. Moore A-2
Commanding General, Army Air Forces, Washington 25, D.C.
Attn: AC/AS-3 65
Commanding General, Army Air Forces, Washington 25, D.C.
Attn: AC/AS-3
Guided Missiles Division 66
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MINUTES OF THE THIRD MEETING
SPECIAL SUB-COMMITTEE ON HIGH ALTITUDE EARTH SATELLITE VEHICLE
RESEARCH AND DEVELOPMENT COMMITTEE

Meeting was held on 7 January 1947 at 1000, Conference Room B, Building 28, Wright Field, Dayton, Ohio.

MEMBERS PRESENT:

Colonel H. J. Sands, Jr., A.C., AMC, Chairman
Colonel O. C. Maier, A.C., AMC
Mr. J. A. Bierlein, AMC (Alternate)
Dr. H. Hall, BuAer
Lt. Commander R. P. Haviland, USNR, BuAer

STAFF OF THE SECRETARIAT:

Mr. H. L. Goda

OTHERS PRESENT:

Colonel M. Duffy, A.C., AMC
Lt. (jg) R. C. Morris, USN, BAGR-CD

1. Approval of Minutes.

The minutes of the second meeting held 24 October 1946 were approved.

2. Consideration of Action of the Research and Development Committee on Report No. 3, Subject: "Scope of Cognizance of the Special Sub-Committee on High Altitude Earth Satellite Vehicle."

The action of the Research and Development Committee was noted and concurred in.

3. Consideration of Action of Sub-Committee on Technical Information on Report No. 4, Subject: "System for Distribution of Technical Reports on High Altitude Earth Satellite Vehicle, Request for:"

The Technical Information Sub-Committee has taken no action on Report No. 4 to date. It is believed that a system of distribution of technical reports on high altitude earth satellite vehicles will be established prior to the next meeting and the adequacy of the system will be considered at such time as it is available.

4. Consideration of "Comet Report."

Dr. Hall called attention to certain recommendations in the "Comet Report" (paragraph 3 of the minutes of the second meeting) wherein it was indicated that valuable additional data on the physical structure of the upper atmosphere and the physical laws governing the flight of meteors through the upper atmosphere could be obtained by detonating shaped charges installed in V-2 missiles at predetermined intervals of the flight of the

missiles. To date the information received from the V-2 firing program by members of this Sub-Committee has failed to provide the amount of information on the physics of the upper atmosphere previously expected from the program. The lack of information on the physical structure of the upper atmosphere and the physical laws governing the flight of meteors or missiles through the upper atmosphere represents a void in the overall program and will be discussed under paragraph 7.

It was agreed that Dr. Hall and Colonel Duffy would initiate a discussion on the V-2 firing program at the next meeting of the Upper Atmosphere Research Panel.

5. Consideration of Current Projects on a High Altitude Earth Satellite Vehicle or on Component Parts Thereof.

A. BuAer Projects.

(1) At the second meeting it was agreed that the BuAer proposal to implement NOa(s) 8496 (Aerojet) to include the study of the liquefaction of hydrogen and the pumping of liquid hydrogen is necessary.

Work on this project was subsequently postponed due to a reduction in funds available for the subject program.

(2) At the second meeting it was agreed that the BuAer proposal to initiate studies on the utilization of solar radiation as a power source for operating mechanisms and equipment within the vehicle is necessary.

Work on this project was subsequently postponed due to a reduction in funds available for the subject program.

B. AAF Projects.

(1) At the second meeting it was agreed that the AAF would initiate an accurate study of rocket power plant performance at altitude (Thrust-altitude ratio of rocket meteors) which was considered.

Work on this project was subsequently postponed due to a reduction in funds.

(2) At the second meeting it was agreed to implement AAF projects at Aerojet to include studies in light metal hydrides.

Work on this project was subsequently postponed due to a reduction in funds.

6. Consideration of Proposed Projects on a High Altitude Earth Satellite Vehicle of Component Parts Thereof.

A. BuAer Projects.

(1) The Bureau of Aeronautics has requested that ONR initiate a project to investigate the theory involved in determining the drag coefficient of a missile flying through a rarefied atmosphere on the basis of laboratory measurements. This project is more fully discussed under paragraph 7A.

B. AAF Projects.

(1) The AAF has not initiated any new projects or studies since the last meeting. Douglas Aircraft Corporation is preparing a final draft of their satellite reports evaluating all the knowledge gained from studies made to date under project RAND and will include launching, maintenance and operation studies. The report will be a refinement of the original high altitude earth satellite vehicle report as a result of the detailed studies completed since the original report was written.

7. Consideration of New Studies Considered Necessary to Eliminate Voids in the Research and Development Program on High Altitude Earth Satellite Vehicle.

A. Calculation of Drag Coefficient in a Rarefield Atmosphere.

The drag coefficient is a controlling parameter in the design of an earth satellite vehicle. Calculations of the drag coefficient for current studies of an earth satellite vehicle were originally based on the fluid flow theory. However, recent estimates indicate that the true drag coefficient may be as much as one hundred times the value calculated by means of aerodynamic theory (Fluid flow theory), due to the applicability of gas kinetic effects at very high altitudes, indicating that a stable operating orbit for a satellite vehicle moving through the upper atmosphere may be as much as forth miles above that indicated by conventional theory. The magnitude of the effect of the gas kinetic theory phenomenon on a missile operating in a rarefield atmosphere is determined by the nature of the gas particle collision process that occurs. The particles may collide with the moving surface and bounce off at specular angle, or collide with the surface with exchange of energy. In any event if the gas kinetic theory is found to apply then it appears that the actual drag coefficient will be much larger than otherwise. The problem is considered to be one that is subject to attack in a physics laboratory through the use of molecular beams. Wind tunnel studies would probably prove to be inadequate since the rarefied atmospheric conditions could, in all probability, not be closely simulated.

It was agreed that the BuAer request that ONR initiate a project to investigate the laboratory theory involved in determining the drag coefficient of a missile flying through a rarefield atmosphere. (paragraph 6A-1)

B. There is no agency at present charged with the responsibility of investigating directly the characteristics of drag in rarefield atmosphere.

In view of the significance of the subject for the earth satellite vehicle, as outlined above, additional investigation to that outlined in paragraph 7A above is desirable.

It was agreed that the phase of the problem which is susceptible of investigation through direct experiments at high altitude would be assigned by the AAF to project RAND through continuation of the Comet project. This program will involve the evaluation of data obtained on the deceleration of high speed particles ejected at various V-2 altitudes by the tests of the different agencies. The AAF further agreed to insure liaison between Project RAND, the Office of Naval Research, the Applied Physics Laboratory and any other activities interested in upper atmosphere research and concerned with V-2 activities.

8. Consideration of Probable Relations of This Sub-Committee with the Joint Research and Development Board.

It was agreed that in view of the lack of information on the Joint Research and Development Board and its Supporting Committees and Panels, discussion of probable relations between this Committee and the Board be tabled until some future date when such information will be available.

9. Discussion of Proposed Recommendations from This Sub-Committee on Future Course of Joint Service Action Relating to Construction and Operations of a High Altitude Earth Satellite Vehicle.

It was agreed to table the subject discussion. It was pointed out that recommendations relating to construction and operation of a high altitude earth satellite vehicle cannot reasonably be made at this time since, as indicated in paragraph 5 certain necessary studies have been postponed due to a decrease in funds available for research and development and hence voids have been created in the overall program. A complete study has not been made; therefore, all the problems have not been uncovered and a reasonable program cannot be outlined. No proposal of a joint plan can be made until more work has been done.

10. Consideration of a Specific System of Units for All Basic Technical Studies on a High Altitude Earth Satellite Vehicle.

The general use of a certimeter-gram-second or a meter-kilogram-second system in connection with all earth satellite vehicle studies was discussed and it was the consensus of opinion that such a system would simplify the studies and simplify evaluation of studies.

11. Consideration of Memorandum dated 26 November 1946 from the Secretariat of the Aeronautical Board.

The subject letter was considered. It was agreed that the portion of Project RAND which relates to a high altitude earth satellite vehicle is being coordinated.

A report on the fuel and combustion research project at the Battelle Memorial Institute will be incorporated in the next quarterly RAND report. Current plans for the distribution of reports on basic research and studies made under RAND are to distribute the reports to all contractors cleared by both Army and Navy for guided missile reports.

12. Consideration of Letter from Dr. Lyman Spitzer, Jr., Yale University, on Tactical Considerations Relative to Terrestrial Satellites.

The subject letter was submitted to the Sub-Committee for information only. The letter was duly noted. The Sub-Committee had no comments relative to the letter.

13. Consideration of Letter from Glenn L. Martin Co. to Commander General, AMC, Wright Field, dated 9 October 1946, Subject: "Radio Research Program in High Altitude Field Strength Measurements Utilizing F.M. and Television Transmission from a B-29 Airplane."

The subject letter was considered by the Sub-Committee as a proposal for a component project in connection with guidance control of a high altitude earth satellite vehicle. It was agreed that since the range of frequencies planned is being confined to the low end of the VHF spectrum and fall in the band to be allocated for civilian exploitation, the usable data which will be realized by the Services and the applicable operating technique developed from the project would be insufficient to justify the cost of the project as pertaining to the earth satellite vehicle program. It was further agreed that the project described in the subject letter would have a direct bearing on long range navigation and should therefore be submitted to the Research and Development Committee for transmittal to AREC for consideration of the request and recommendations for action.

14. There being no further business the meeting was adjourned until the third week in March to be held in Washington, D. C.

/s/ H. J. Sands, Jr,
H. J. SANDS, JR.
Colonel, Air Corps
Chairman.

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REPORT NO. 4

AERONAUTICAL BOARD
RESEARCH AND DEVELOPMENT COMMITTEE
SPEICAL SUB-COMMITTEE ON HIGH ALTITUDE EARTH SATELLITE VEHICLE

7 January 1947.

MEMORANDUM FOR: Research and Development Committee.

SUBJECT: Radio Research Program on High Altitude Field Strength Measurements Utilizing F.M. and Television Transmission from a B-29 Airplane Proposed by Glenn L. Martin Company.

Enclosure: (A) Letter from Glenn L. Martin Company to Commanding General, AMC, dated 9 Oct. 1946, Subject: "Radio Research Program on."

1. At a meeting of the Special Sub-Committee on High Altitude Earth Satellite Vehicle held 7 January 1947 the subject was considered.

MEMBERS PRESENT:

Colonel H. J. Sands, Jr., A.C., AMC, Chairman
Colonel O. C. Maier, A.C., AMC
Mr. J. A. Bierlein, AMC
Dr. H. Hall, BuAer
Lt. Commander R. P. Haviland, USNR, BuAer

STAFF OF THE SECRETARIAT:

Mr. H. L. Goda

OTHERS PRESENT:

Colonel M. Duffy, A.C., AMC
Lt. (jg) E. C. Morris, USN, BAGR-CD

2. Problem:

To consider the subject project proposed by Glenn L. Martin Company and determine the interest of the proposal to this Sub-Committee and the benefits that could be derived from such a project as it would pertain to a high altitude earth satellite vehicle.

3. Discussion:

The proposed project has a small bearing on the high altitude earth satellite vehicle in that the subject proposal is a guidance link for a guidance relay system. It is noted, however, that the B-29 operating altitude is below the ionosphere and hence the data obtained would not be applicable to a guidance relay system in which energy must be beamed through the ionosphere. Also, the range of frequencies proposed for use is confined to the low end of the VHF spectrum whereas the Services are interested in frequencies above this band. (The band of frequencies that Glenn L. Martin Company plans to use is being allocated for civilian exploitation and will not be utilized by the Service). It is believed that the evaluation of data obtained would not be applicable to the higher frequencies in which the Services are interested nor will the correlation of the data anticipated be of direct interest to the earth satellite vehicle program.

The Glenn L. Martin Company proposal appears to have a direct bearing on long range navigation.

4. Recommended:

That the proposal embodied in enclosure (A) be referred to the Aircraft Radio and Electronics Committee for consideration and action.

/s/ H. J. Sands, Jr.
H. J. SANDS, JR.
Colonel, Air Corps
Chairman.

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THE AERONAUTICAL BOARD
WASHINGTON

30 December 1947

MEMORANDUM FOR: Members, Special Subcommittee on High Altitude Earth Satellite Vehicle of the Research and Development Committee.

SUBJECT: Minutes of the Sixth Meeting of the Special Subcommittee on High Altitude Earth Satellite Vehicle held 20 November 1947, and Report No. 8.

Forwarded herewith are copies of the subject minutes and report as prepared by the Secretariat and approved by the Chairman.

The Secretariat:

G. B. H. HALL
Captain, USN
Navy Member.

LORAN J. ANDERSON
Lt. Colonel, USAF
Acting Air Force Member.

Distribution:
Col. O. C. Maier, USAF, AMC
Lt. Col. P. E. Villars, USAF, AMC
Major J. O. Fletcher, USAF, AMC
Mr. J. A. Bierlein, AMC
Colonel H. N. Toftoy, ORD
Mr. Vincent S. Roddy, AC/AS-4
Mr. G. H. Logan, BuAer
Dr. H. Hall, BuAer
Dr. R. B. Dow, BuOrd
Mr. Joe C. Jones, AMC
Major Chas. F. Cole, AC/AS-4
Captain O. E. Wagner, USN, ONR
Lt. Comdr. R. C. Truax, USN, BuAer
Mr. F. I. Tanczos, BuOrd
Mr. J. M. Pesternack, ONR
Lt. Colonel C. H. Terhune, Jr., USAF
Commander E. W. Humphrey, USN, ONR
Mr. E. F. Sweetser, R&D Board.

CONFIDENTIAL

MINUTES OF THE SIXTH MEETING SPECIAL SUBCOMMITTEE ON HIGH ALTITUDE EARTH SATELLITE VEHICLE RESEARCH AND DEVELOPMENT COMMITTEE AERONAUTICAL BOARD

Held on 20 November 1947 at 1000, in Room 1038, Building T-7, Gravelly Point Washington, D. C.

MEMBERS PRESENT:

Colonel O. C. Maier, USAF, AMC, Chairman
Colonel H. N. Toftoy, ORD.
Lt. Colonel C. H. Terhune, Jr., USAF (Representing Mr. V. S. Roddy)
Dr. H. Hall, BuAer
Mr. J. F. Fernebock, BuAer (Representing Mr. G. H. Logan)
Mr. F. I. Tanczos, BuOrd (Representing Dr. R. B. Dow)

OTHERS PRESENT:

Commander E. W. Humphrey, USN, ONR
Lt. Commander R. C. Truax, USN, BuAer
Mr. J. M. Easternack, ONR
Mr. E. F. Sweetser, Research and Development Board

SECRETARIAT:

Mr. Herbert L. Goda, Secretary

1. Approval of Minutes.

The minutes of the fifth meeting, held 10 June 1947, were approved.

2. Consideration of Studies to Determine Maximum Practicable Mass Ratio to Which a Vehicle can be Constructed.

BuAer Contract Noa(s)8496 (Aerojet) includes studies to determine the effect of propellant density on maximum practicable mass ratio. These studies are coordinated with work underway at California Institute of Technology and, in addition, the scope of the studies will be limited to the earth satellite vehicle problem. Aerojet efforts in these studies are directed towards increasing the permissible design value for mass ratio above 0.895.

Informal discussions with Aerojet engineers have indicated that liquid hydrogen fuel is being considered with increasing favor. Based on the trend of developments to date a rocket having a gross weight of less than 30,000 pounds and capable of reaching orbiting speeds appears to be possible from both an engineering and cost point of view.

No further Subcommittee action on the subject studies is required at this time. The subject studies under Aerojet are proceeding satisfactorily, however, formal reports are not available at this time.

3. Consideration of Studies to Determine Optimum Effective Chamber Pressures for Various Combinations of Pump Efficiency and Back Pressure.

BuAer is currently supporting two contracts on general studies of power plant parameters which include the subject studies: (a) Noa(s)8566 (Aerojet) and (b) Noa(s)8540 (Reaction Motors). These studies are being coordinated with studies underway at the California Institute of Technology to insure that effective use is made of information already available.

BuAer is considering a proposal to initiate a study on optimum chamber pressures with respect to mass ratio. The objective of this proposal is to attain a more desirable mass ratio.

No further Subcommittee action is required on the subject studies at this time.

4. Consideration of Action to Implement the Proposed Evaluation of the Respective Service Programs on the Earth Satellite Vehicle and the Proposed Evaluation of the Overall Service Program as Recommended in Report No. 7 to the Research and Development Committee.

A. It was noted that Report No. 7 to the Research and Development Committee, recommending:

(1) That the Services evaluate their respective programs
(2) That a final evaluation be made to determine the relative merits of the separate programs.
(3) That the earth satellite vehicle program not be referred back to the Research and Development Board.
(4) That the general subject of astronautics be referred back to the Research and Development Board.

was approved by the Research and Development Committee and forwarded to the Aeronautical Board as Case No. 244, Report No. 2. Case No. 244, Report No. 2 was approved by the Aeronautical Board and forwarded to the Research and Development Board. It was further noted that action by the Research and Development Board on Case No. 244, Report No. 2 is expected at the next Research and Development Board Meeting.

The Air Force and BuAer members reiterated that the general objective of the current programs on the earth satellite vehicle of the respective Services is to establish the feasibility of the project based on present day materials and techniques. The prime issue between the BuAer approach to the problem and the AMC approach to the problem develops from the assumptions upon which the structural weight estimates are based. The BuAer (Glenn L. Martin) studies are based on assumptions which indicate that the structural weight of the vehicle may be kept within 10% of the overall vehicle weight. This ratio lends itself to a single stage vehicle design. The AMC studies (those phases of Rand dealing with the earth satellite vehicle) are based on assumptions which place the struc-

tural weight of the vehicle in the neighborhood of 25% of the gross weight. This ratio tends to limit design to multi-stage operations.

B. The general Subcommittee program with regard to implementing the agreements reached under Report No. 7 pertaining to evaluation of the respective Service high altitude earth satellite vehicle programs is:

(1) The Services will evaluate their respective programs. In connection with the evaluation of the Air Force program, AMC will request a brief report from Rand outlining and clarifying the basic assumptions which establish the structural weight ratio of the vehicle as being in the neighborhood of 25% of the vehicle gross weight.

Rand will be requested to submit the report by the early part of February or as soon thereafter as possible. The evaluations will be based on the parameters (a) time, (b) funds, (c) utility. It was also agreed that the evaluations would be made on estimates for a usable, flying vehicle in which the gross weights, payloads, cost and time factors of both evaluations are directly comparable. Due emphasis should be placed on the critical relationship between time and cost of these evaluations. It was agreed that these evaluations can be considered as now underway.

(2) The Chairman will designate the earliest practicable date in the month of February by which the Subcommittee can meet, subsequent to the date of receipt of the report, from Rand, referred to in paragraph B(1) above by the Air Force. The Services will have completed the evaluation of their respective studies by this date to the extent that the relative merits of the separate programs can be discussed.

(3) The procedure for final evaluation will be established at the meeting at which the individual evaluations are to be submitted.

5. Consideration of the Proposal that the Office of Naval Research Be Designated as the Coordinating Agency for the High Altitude Earth Satellite Vehicle Program.

The secret memorandum, from Head, Air Branch, ONR, to the Secretariat of the Aeronautical Board, which initiated the subject proposal, was reviewed and discussed in detail. It was the consensus of the members present that this proposal appears to involve the question of policy which is not within the cognizance of the Special Subcommittee on High Altitude Earth Satellite Vehicle. It was agreed that Report No. 8, (attached), be forwarded to the Research and Development Committee recommending the Research and Development Committee determine what further action should be taken on the proposal made by ONR.

6. Consideration of BuAer Contracts Noa(s)8376 (Glenn L. Martin) and Noa(s)8496 (Aerojet).

BuAer Contract NOa(s)8496 (Aerojet) has been initiated.

BuAer Contract Noa(s)8376 (Glenn L. Martin) has been amended to extend to 1949, without any increase in fund allocation, in order that the study may keep pace with BuAer Contract NOa(s)8496.

Mr. Fernebock reviewed the subject contracts in detail. It was noted that these contracts have been coordinated timewise with each other and close liaison between the Glenn L. Martin and Aerojet engineering groups cognizant of the subject studies is maintained.

7. A. Consideration of Aeronautical Board Memorandum, dated 22 October 1947, Subject: "NACA Representation on Subcommittees."

The subject memorandum was noted.

B. Consideration of Aeronautical Board Memorandum, dated 22 October 1947, Subject: "Adequacy of Directives for Coordination of Fiscal Year 1949 Research and Development Programs."

The action of the Research and Development Committee with respect to the subject coordination was noted. However, it was the consensus of the members that the fiscal year 1950 High Altitude Earth Satellite Vehicle Programs should be coordinated prior to the end of February in conformance with the evaluations as discussed under item 4, paragraph A(2). It was agreed that, based on these evaluations, consideration should be given to proposed budgetary recommendations at the Seventh Meeting.

8. Consideration of Classification of Programs on High Altitude Earth Satellite Vehicle.

In accordance with agreements reached at the second meeting, held 24 October 1946, the members reiterated that, in general, the classification of satellite vehicle reports should be Confidential until such time as security regulations require an increase. Colonel Maier will take such action as is necessary to complete investigation initiated by Colonel Sands as to the possibility of classifying technical reports on the subject material as Confidential rather than Secret.

9. Membership.

It was agreed that Dr. Hudson would be an entirely satisfactory alternate for Colonel Toftoy. Colonel Toftoy will forward a memorandum to the Secretariat recommending that Dr. Hudson be made the alternate member representing the Ordnance Department.

10. There being no further business, the meeting was adjourned until a date in February to be determined by the Chairman and hinging upon the receipt of the report from Rand, referred to under item 4, paragraph B(1), above.

/s/ Oscar C. Maier
OSCAR C. MAIER, Colonel, USAF
Chairman.

HLG/lo

CONFIDENTIAL REPORT NO. 8

RESEARCH AND DEVELOPMENT COMMITTEE
HIGH ALTITUDE EARTH SATELLITE SUBCOMMITTEE

20 November 1947

MEMORANDUM FOR: The Research and Development Committee of the Aeronautical Board.

SUBJECT: High Altitude Earth Satellite Vehicle, Agency for Coordination of.

Reference: (a) Secret Memo from Head, Air Branch, Office of Naval Research to Secretariat of Aeronautical Board, Subject: "Earth Satellite Vehicle - Agency for Coordination of."

1. At a meeting of the Special Subcommittee on High Altitude Earth Satellite Vehicle held 20 November 1947, consideration was given the above subject in accordance with the request from the Office of Naval Research that consideration be given to designating the Office of Naval Research the coordinating agency for the High Altitude Earth Satellite Vehicle Program, reference (a).

MEMBERS PRESENT:
Colonel O. C. Maier, USAF, AMC
Dr. H. Hall, BuAer
Colonel H. N. Toftoy, Ord. Dept.
Mr. J. F. Fernebock, BuAer, (Representing Mr. Logan)
Lt. Colonel C. H. Terhune, Jr., USAF (Representing Mr. Roddy)
Mr. F. Tanczos, BuOrd (Representing Dr. Dow)

OTHERS PRESENT:
Mr. H. L. Goda, Secretary

2. Problem:

To invite the attention of the Research and Development Committee to the ONR proposal embodied in reference (a).

3. Discussion:

The members of the Subcommittee gave detailed consideration to the recommendation that the Office of Naval Research be designated the

coordinating agency for the High Altitude Earth Satellite Vehicle Program in accordance with reference (a).

The Subcommittee has unanimously agreed that the foreseeable military value of the vehicle will probably be one of the following four possible applications: (a) Intelligence from otherwise inaccessible regions, e.g. to maintain surveillance of areas suspected of nuclear energy activity, (b) Reconnaissance for acquisition of meteorological information, (c) Relay for long range communications and air warning systems, and (d) Platform for basic scientific research.

While the items enumerated above appear to represent the most attractive functions of the earth satellite vehicle, the Subcommittee feels that the most important reason for prosecuting this development may well be from the pioneering point of view. It is quite possible, if not likely, that the most valuable uses of the earth satellite vehicle cannot be foreseen, just as the manifold uses of aircraft were not foreseen at the time of the first successful heavier than air flight.

The Air Force and Buaer studies to date give every indication that an earth satellite vehicle can be achieved under the sponsorship of a properly qualified scientific organization through an adequately financed research and development program. The vehicle studies to date have uncovered further technical and scientific problems dealing with fuels, guidance and control and launching considerations. It is reasonable to assume that a strongly emphasized vehicle program would accelerate the solution of guided missile problems in the field of high energy fuels, guidance and control and supersonic aerodynamics and provide an effectiv platform for long time scientific investigation of the upper atmosphere. The vehicle represents the first link between guided missiles and an interplanetary vehicle.

Reference (a), in recommending that ONR be designated as the coordinating agency for the vehicle program invited attention to the responsibility of the ONR to "plan, foster and encourage scientific research in recognition of its paramount importance", and to the fact that ONR is not confined in the scope of its cognizance in research and development to limited fields and interests.

The members of the Subcommittee agreed that this proposal made by ONR appears to involve a question of policy which is not within the cognizance of the Special Subcommittee on High Altitude Earth Satellite Vehicle. However, the members of the Subcommittee feel that there should ultimately be only one joint earth satellite vehicle project rather than two, as at present, and that the appropriate date for such reorganization of the program is not yet* at hand. The Subcommittee also feels that it, or a similar inter-service activity, should continue in existence for purposes of technical consideration of progress and objectives even after reorganization into a single project is accomplished.

4. Recommendation: (Unanimous)

That based on the Discussion above, the Research and Development Committee determine what further action should be taken on the proposal made by ONR (reference (a) attached).

/s/ Oscar C. Maier
OSCAR C. MAIER
Colonel, USAF, Chairman.

* It was noted that some members of the Subcommittee subscribed to the opinion that "the appropriate date for such reorganization of the program is near at hand."

/s/ H. L. Goda
H. L. GODA
Secretary.

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AFDRE-27/1
24 July 1946

MEMORANDUM FOR RECORD

SUBJECT: Guided Missile Radar Considerations

1. The urgency for satisfactory guided missile search and tracking radars may be inferred from the following quotation from MIAAF Intelligence Report No. 100-13-100, dated 21 June 1946:

"The Soviet's exploitation of the German guided missile development is evidenced by the following reports:

"a. Soviet troops methodically confiscated for shipment to Russia all equipment found in the Kaiser-Wilhelm Institute and Telefunken plant. These organizations were known to have produced component parts for guided missiles. Many of the scientists and employees of the above-mentioned establishments were taken to the USSR.

"b. At the underground establishment near Nordhausen, where the Germans assembled V-1's and A-4's, the Soviets are now reported to be constructing A-4's.

"c. German experts are reported to be working under the Soviets at the present time at Nuggebaude - Berlin Oberschoneweite, Ostender, 1-6, in East Berlin.

"d. A project on warheads for guided missiles, started by the Germans, is being continued by a Soviet research bureau in Berlin.

"e. Work on remote-control systems is being carried out in the Central Scientific Research Institution of Communications in Moscow.

****

"A German scientist now working for the United States had assistants who are believed to be in the hands of the Russians."

In addition, the Chief of Naval Operations has stated that the manufacturing facilities for submarines capable of launching two rockets per sub per day are now under Russian control. Several newspapers have reported rockets and "slow moving meteorites" over Finland and Sweden launched from "some Foreign power". It is, therefore, obvious that within a few years coastal attacks by submarine launched V-2 rockets will be possible. Any satisfactory coastal defense of the U.S. must, therefore, include radars and other defensive weapons capable of detecting improved V-2's throughout their entire flight and destroying them in flight or before launching.

2. The V-2 or A-4 missile follows a ballistic trajectory to extremely high altitudes (300 to 450,000 feet) and presents one type radar problem.

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Discussions with the Guided Missile Branch, AC/AS-4, have indicated that the V-2 rocket type missile which carries its own oxygen will never be able to go further than approximately 1,000 miles range under any conditions, whereas the ram jet powered missile which stays in the atmosphere (50,000 to 70,000 feet) to obtain lift and oxygen could easily travel several thousand miles. This type missile presents a radically different radar problem. It is, therefore, obvious that a satisfactory U.S. defense must also provide the maximum detection range on these low flying missiles. In addition to coastal defenses, our northern boundaries are in need of protection against these later type missiles or, better still, a cooperative U.S. - Canadian radar chain should be installed. These inland radars would not have to detect targets much above the atmosphere, whereas coastal sets would have to see both low and high flying targets.

3. A discussion follows of search and tracking radar considerations in detecting these targets. In order to successfully intercept and destroy a rocket or fast-moving aircraft, precise information regarding position and trajectory is required. This data must be sufficiently accurate in height, range and azimuth to direct a defending projectile to within the range of its own seeking devices and proximity fuses. Such information must be supplied by the detecting radar, or a separate tracking radar would have to be supplied for this purpose. Data from present standard low and medium frequency radars such as SCR-270, SCR-527, etc., are believed by the undersigned to be too inaccurate for this purpose. The antenna size required at these frequencies (100-200 mc) is prohibitive to get this required accuracy and fulfill other requirements described below. To date there is no known method of accurately detecting targets in height, range and azimuth beyond line-of-sight range (about 300 miles on a 60,000 ft target). From these accuracy requirements it is believed that approximately 600-1000 mc will be about the lowest frequency consistentwith physical limitations on antenna size, since they will probably have to be rotated.

4. The long range requirements means that the pulse repetition rate must be held down to approximately 200 CPS in order to allow the pulse time to travel out to the target and bounce back. Since approximately five pulses must be reflected from each target to reinforce its echo and therefore distinguish it from random noise, this places a definite limit on how fast a sharp pencil-like beam can be rotated.

5. The present radars work very satisfactorily against present large aircraft which travel at only 200 to 400 mph. Since these antennas rotate at, say, 1/2 to 4 rpm, a 400 mph target would travel only 1.7 to 13-1/3 miles during the time from one PPI scan to the next. A V-2 would travel 15 to 120 miles in this same time. This information is obviously too discontinuous for defensive or intercept purposes. To this time delay must be added the time required to transfer data to defending weapons such as AA or intercepting missiles. Since a rocket (V-2) type missile is only in flight some 6 to 8 minutes, it is essential to detect its flight as early as possible, and a

15 seconds to 2 minutes scanning delay is intolerable. Faster scanning systems are therefore imperative. It may also be inferred that no human dare be in series with the transfer of data from the detecting radar to the AA or missile control because of his additional time lag and inherent inaccuracies, as in the present plotting systems.

6. Since both rockets and ram jet missiles will in the near future travel at super sonic speeds, the maximum possible radar range (line-of-sight) will still provide less warning time than bombers under present conditions. Also, the targets will probably be much smaller than present bombers or even large fighters. However, it is believed that at least one square meter of echoing area will always be available. On this assumption of area calculated coverage patterns of the SCR-584, SK-2 Navy radar and AM/CPS-1 as compared to V-2 trajectories are shown in the inclosed curves. It is quite apparent that these coverages are totally inadequate, and it is indicated that much more radiated power and/or antenna gain will be required to get a satisfactory range. The increased power could be gained either by higher power transmitters or larger antennas. NRL has calculated that approximately 8 megawatts would be required to detect a 1 square meter target at 350 miles range while using antennas 18 ft x 35 ft at 1300 mcs.

7. So far all of these above mentioned considerations involve looking at only one target. Obviously a satisfactory defense must not be 100% occupied in looking in one direction only, while other areas remain unobserved. This fact leads to the conclusion that several antennas and transmitters must be used. We have seen that the entire hemisphere must be rapidly scanned and one beam can scan relatively slowly; therefore, many beams will be required.

8. These guided missile radars will be required to have the longest range at the lowest elevation angles where ground clutter is the most objectionable. MTI at low angles will, therefore, be a must. In order to get cancellation of stationary targets one base line or trace is stored and subtracted from the next base line or trace so that all echoes that have not moved will be cancelled out, leaving only those echoes that have moved. If the antenna is rotated appreciably from one sweep to the next, it will scan a different landscape and, of course, the echoes will not cancel out. This feature places another limitation which reduces the permissable scanning rate.

9. Summarizing the above limitations:

a. The accuracy and resolution requirements for interception and kills limit the beam height and width dimensions to very small values.

b. The long range requirements limit the maximum repetition rate and, in turn, the maximum scanning rate of any one beam.

e. Both low, high and all in between elevations must constantly be scanned.

d. 360° in azimuth must be constantly scanned.

e. The maximum line-of-sight range and small target areas require very high powered transmitters and large antennas.

f. The MTI requirement at low elevation angles further reduces the possible scanning rate.

These factors all indicate the use of many powerful transmitters with very large antennas to satisfactorily detect all intruding missiles. Once detected, the data must be instantly and automatically transferred to the defending weapons. Other observing and evaluating HQ's can then be served by means of radar relay systems so that the tactical situation of the area covered could be surveyed and evaluated by local or remote commanders. For many of these observing and evaluating purposes, several seconds or a minute time lag would not be detrimental and would materially simplify the technical problems.

1 Incl
Chart

CHARLES H. JACKSON
Radio Engineer

Memo for [illegible]

Subj: [illegible] Navy [illegible] (BTU)
Search Radar, XDQ 31 July

Memo
Subj. Suggested Radar Television Data Transmission System 8 July 46

REPORT OF "FLYING SAUCERS" IN EASTERN ZONE, GERMANY:

An ex-member of the Royal Norwegian Air Force, Mr. KJELD AAS, at present a Norwegian business man, recently visited the LEIPZIG FAIR. While there, he was in an automobile accident near WURSEN, GERMANY. After recovering from his injuries, he met a Mr. ALEX WILISCH, age approximately 26 to 28 years, Manager and evidently Owner of a small factory at GARTENSTRASSE 6, WURSEN, which produces oil filters.

Mr. WILISCH was most interested in the Norwegian businessman, and especially in being able to pass on plans for a new oil filter to British and American firms who might be interested in producing such an item. Evidently, plans concerning this have not been given to the Russians.

Mr. Wilisch also was most informative concerning activity at POLENTZ, 20 kilometers East of LEIPZIG, where he and members of his factory claim to have witnessed several exhibitions of "flying saucers" at and since the end of the war. No definite details are available at present. He also stated that FW-190's are still being produced in the Eastern Zone of GERMANY.

The British Air Attache has forwarded plans for the oil filter to the Air Ministry and is also checking on the firm supposedly owned and managed by said Mr. WILISCH. In the estimation of the British Air Attache, Mr. AAS is thoroughly reliable.

COMMENT: Mr. AAS is expecting to return to GERMANY in the Spring and no doubt will be used by the R.A.F. as a source for more information. The British Air Attache has promised to pass on to the U.S. Air Attache any information secured relative to the confirmation of the above information.

Distribution: USAFE.

DALE H. JESSEN
Major, USAF
Air Attache

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SECRET
AUTH: CO, ATIC
BY: W.M.Garland,
Brig Gen, USAF
DATE: 27 Feb 53

ATI / SSH/mlm

Colonel John V. Hearn, Jr.
Director of Intelligence
Headquarters, Fifth Air Force (Adv)
APO 970, c/o Postmaster
San Francisco, California

FEB 1953

Dear Colonel Hearn,

The action you suggest in your letter dated 27 January 1953 will be taken and the results of our investigation will be forwarded to you as soon as the data becomes available. A ERI Requesting further pertinent information on all USAF aircraft reported as operating in a hostile capacity has been initiated. This action should also assist you in making an official inquiry into the various reports you have already received.

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[illegible]
AFIR-2

It is my opinion that action should be taken to initiate a program whereby good photographs can be taken of Russian aircraft in flight. Conventional gun camera pictures, while adequate for the purpose intended, are almost always inadequate for technical intelligence purposes. It is my understanding, however, that a number of F-86A-5NA (Nos. 48-187, 48-195, 48-196, 48-246, and 48-257) aircraft were modified to incorporate the K-22 Camera and that a number of other F-86 aircraft have special camera installations. It is my recommendation that you investigate either using these aircraft or other suitably modified F-86 aircraft for the purpose of obtaining good air-to-air photos of enemy aircraft. It is entirely possible that an opportunity may present itself to photograph either the hostile F-86 type reported or a prototype Soviet aircraft as the case may be. Provided photographs with sufficient detail are available on the MIG-s currently being used, we may also pick up some details on the modifications that are undoubtably being made on this model.

In the event that it is not feasible to employ one of the larger cameras such as the K-22 or K-24 for air-to-air work let me know immediately as there is a possibility that a special project could be set up to modify a number of F-86 aircraft with the P-2 Camera with an eight inch focal length lens. For your information, the P-2 Camera is mounted in a fairing in the center of the lower leading edge of the air scoop. It uses 70 mm film, has 1/500, 1/1000, and 1/2000 shutter speeds and shoots five to six frames per second. This

File Proj Blue Book
A/R Photography
A/R Aircraft

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T53-1305-C

REPORT OF "FLYING SAUCERS" IN EASTERN ZONE, GERMANY:

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Mr. Wilisch also was most informative concerning activity at POLENTZ, 20 kilometers East of LEIPZIG, where he and members of his factory claim to have witnessed several exhibitions of "flying saucers" at and since the end of the war. No definite details are available at present. He also stated that FW-190's are still being produced in the Eastern Zone of GERMANY.

The British Air Attache has forwarded plans for the oil filter to the Air Ministry and is also checking on the firm supposedly owned and managed by said Mr. WILISCH. In the estimation of the British Air Attache, Mr. AAS is thoroughly reliable.

COMMENT: Mr. AAS is expecting to return to GERMANY in the Spring and no doubt will be used by the R.A.F. as a source for more information. The British Air Attache has promised to pass on to the U.S. Air Attache any information secured relative to the confirmation of the above information.

Distribution: USAFE.

DALE H. JENSEN
Major, USAF
Air Attache

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NO. IR-15-48 | WDGS — INTELLIGENCE REPORT | I. D. NO.

Report of "Flying Saucers" in Eastern Zone, GERMANY

Air/A, Oslo REFERENCES:

EVALUATION: C-3 DATE OF INFORMATION: 9 Dec 48 DATE OF REPORT: 10 December 1948

INCL. 0 PREPARED BY: Maj Dale H. Jensen, USAF SOURCE: British Air/A, Oslo

SUMMARY OR SID REPORT:

An ex-member of the Royal Norwegian Air Force has reported conversation with the Manager of a small factory at WURSEN, GERMANY, who passed to him plans for a new oil filter for BRITISH and AMERICAN firms; he stated they were not given to the SOVIETS.

The German informant stated that he had witnessed several exhibitions of "flying saucers" at POLENTZ, 20 kilometers East of LEIPZIG, at and since the end of the war. No definite details have been obtained concerning this information.

The Norwegian informant expects to return to GERMANY in the Spring and will probably secure more information for the British, who have promised to pass on to the U.S. Air Attache any information obtained, especially with regard to the truth of the above statements.

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NORWAY

2-5811

IR-15-48

Report of "Flying Saucers" in Eastern Zone, GERMANY

Air/A, Oslo

C-3 9 Dec 48 10 December 1948

O Maj Dale H. Jensen, USAF British Air/A, Oslo

An ex-member of the Royal Norwegian Air Force has reported conversation with the Manager of a small factory at NURSEM, GERMANY, who passed to him plans for a new oil filter for BRITISH and AMERICAN firms; he stated they were not given to the SOVIETS.

The German informant stated that he had witnessed several exhibitions of "flying saucers" at POLRNTZ, 20 kilometers East of LEIPZIG, at and since the end of the war. No definite details have been obtained concerning this information.

The Norwegian informant expects to return to GERMANY in the Spring and will probably secure more information for the British, who have promised to pass on to the U.S. Air Attache any information obtained, especially with regard to the truth of the above statements.

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cy #1

Report Date: August 15, 1943

Section 16.1 - Optical Instruments

C. NIGHT VISION DEVICES

Project Control Nos.	Liaison Officers	
	Army	Navy
AC-26		
NA-140	Col. S. L. Ritchie	Comdr. B. B. Adell
NO-103	Major L. F. Ryan	Lt.Comdr.S.S.Ballard
NS-105	Capt.J.P.AuWerter	Lt.Comdr.L.V.Berkner
OD-116	Col. F. C. Wolfe	Lt.Comdr. A. Ramsay
	Lt. Col. E. W. Chafee	Lt. Comdr. Harvey Bell
	Mr. J. E. Darr	Lt. H. London

1. Special Night Vision Devices

Background and Scope

This project was initiated for the purpose of developing special devices to be used as aids to night vision, both in aircraft and on surface vessels. Most of these devices are designed for use in the detection of targets subtending small angular widths, at low levels of light intensity.

Results to Date

The most important developments up to the present time have been the following:

a) 6 x 42 Binocular with 11° field, for use in plane-to-plane night interception. The optics in this binocular have a special wide-angle system. It is mounted in an anti-oscillation mounting which gives excellent performance in aircraft of various types. This device was tested at Wright Field in 1941, and at the A.A.F. School of Applied Tactics at Orlando, Florida, late in 1942. It has been clearly demonstrated by 10 pilots that they can fly the P-70 aircraft while looking through the glasses, that they can pick up a P-70 target plane at more than 4,000 feet on a dark night, and that they can fly the plane and overtake the target without removing their eyes from the glasses. Procurement of 1,000 units has been requested by the Army Air Forces. At present, tests of this binocular and mounting are being carried out at the Naval Air Station at Quonset Point, Rhode Island. A complete report of the performance of this mounting, in comparison with the other anti-oscillation mountings that have been developed under Section 16.1 and are also being tested at Quonset, will be available shortly.

A production model of the wide-angle night binocular is being designed under a contract with the Eastman Kodak Company. In this model an indexing mount is being developed to fit the bracket which is being designed for the P-61 aircraft.

at Northrop Aircraft, Inc., to permit quick positioning and quick removal and stowing of the glasses.

b) 6 x 42 Monocular. This has the same optical system as the binocular and is provided with the same type of anti-oscillation mounting. It is much more compact, and weighs only 3 pounds. Tests of this glass are now being made to determine its merit, relative to the binocular, for use by a pilot.

c) 10 x 50 Binocular. This is a modified Zeiss glass in an anti-oscillation mounting. It has been tested for submarine patrol, mounted in the co-pilot's position of a PBY-5A, by day, with considerable success. A wide-angle 10 x 50 optical system has been designed and constructed to give greater eye relief than in the Zeiss system.

d) Radar-Horizon-Air-Speed Sight. This device, known as the "Flight Sight", requested by the Navy, brings together by optical means radar pips, an artificial horizon, and an air-speed indicator. Light from these three instruments is rendered parallel by a single collimator and is thrown onto an unsilvered glass reflector plate. The intention is to set this reflector plate ahead of one of the objectives of a night binocular, so that a pilot, while watching a target plane, can see these three instruments faintly illuminated in red light. It is felt by Navy pilots that such an arrangement will make it possible for a pilot using the glasses to fly an aircraft for a considerable period without the need for glancing at the instrument panel. The device has just been completed in preliminary form and will probably be tested at Quonset in August.

e) Bi-Power Naval Binocular. The Navy has requested a binocular with provision for changing quickly from 6X to 30X magnification, for lookout purposes at sea. It has turned out to be impractical to combine the two powers in a single optical system of the wide-angle type, and an instrument is therefore being designed which permits two binoculars to be quickly interchanged in front of a single pair of rubber eyecups.

f) Reflex Sights to Replace Navy Mark 8 Sight. The Navy urgently requires a reflex sight which can be produced more easily than can the complex optical system of the present Mark 8 sight. A design employing a simple doublet lens and and optical path folded by two plane reflectors has been completed under the University of Rochester contract. Samples are now being constructed under a Navy contract.

g) Reflex Sight to Replace M7 Telescope for Antiaircraft Guns. The eye relief and exit pupil of the M7 Telescope are not sufficient to insure efficient operation. A promising alternative appears to lie in the substitution of a light-weight

reflex sight employing an f/3.5 lens. The greater part of the light path lies within the column which supports the sight. A reticle located at the lower part of this column, on the side opposite the observer, is illuminated by the sky, in the direction in which the gun is aimed. Light from the reticle is reflected up the column to the collimating lens by a diagonal mirror. This mirror can be turned through 90° to bring to the collimator light from a second reticle which will be artificially illuminated. Two sights are mounted on opposite sides of the gun. One (at the right) has a reticle consisting of a single vertical line, while the other (at the left) has a reticle consisting of a single horizontal line. Detailed design work has been started on this sight.

h) Schmidt Prism Erecting System. The prism erecting system proposed some years ago by Schmidt has been improved to a point where it appears to offer definite advantages. Objectionable "ghosts", which were present in the unmodified design, have been eliminated by coating the prism surfaces. The optical path within the prism system has been reduced to just four times the aperture of the prism, and thus equal to that of the conventional Porro System, largely as a result of placing the prisms almost in contact. The present design involves an off-set between the optical axes of objective and prism which amounts to one-fifth the aperture. The principal advantage of this erecting system is that the lateral dimensions are reduced considerably. Binoculars using this modified Schmidt system would be more compact than conventional binoculars which employ a Porro system. A 3X and a 6X monocular have been constructed and are being tested as a source of auxiliary magnification with a bomb sight.

i) High Efficiency Reflecting Films. Several types of high efficiency films have been developed for use in a variety of partially reflecting devices. A "sandwich" film consisting of magnesium fluoride between two layers of zinc sulphide gives an efficiency of more than 98 per cent and is extremely satisfactory.

j) Semi-Transparent Polarizing Reflecting Film. At the request of the Eastman Kodak Company, samples of polarizing reflecting films have been produced for use in a rangefinder application. These consist of six layers, alternately MgF_2 and ZnS. By cementing these films between the hypotenuse faces of two right angle prisms of glass with index = 1.69, a cube is produced which splits unpolarized light into two plane-polarized beams which emerge at right angles to one another. The efficiency can, theoretically, be above 97 per cent throughout the visible spectrum. Accurate measures have

not yet been made on the present films, but it is evident that the polarizing efficiency approaches theoretical expectations.

Plans for Further Work

The 6 x 42 binocular will be given further tests in aircraft at Quonset and on destroyers. The Bi-Power Naval Binocular will be constructed in the near future. A model of the reflex sight, intended to replace the M7 Telescope for anti-aircraft guns, will be constructed in the very near future, and will be tested at Camp Davis. Work aimed at achieving the highest possible efficiency on semi-transparent polarizing reflecting film will be continued.

NDRC Representative: Theodore Dunham, Jr.

Contractor: University of Rochester
Rochester, New York

Technical Representative: Dr. Brian O'Brien

NDRC Actions: 3/7/41, 7/18/41, 2/6/42, 9/4/42, 4/16/43

Current Contract Data: OEMsr-160, Suppl. #3
Initiated: 4/1/41
Terminates: 9/30/43

Contractor's Progress Reports

No.	Date	No.	Date
(D3) 150	12/15/41	(16.1) 4	2/1/43
(D3) 266	2/1/42	(16.1) 14	3/1/43
(D3) 319	10/23/42	(16.1) 21	3/1/43
(D3) 320	10/23/42	(16.1) 22	3/1/43
		(16.1) 23	3/1/43
		(16.1) 28	6/15/43

Current Associated Contract

OEMsr-1090

Symbol No. 2366, Eastman Kodak Company
beginning 2/1/43, terminating 8/31/43
Technical Representative: Mr. Fordyce Tuttle

Report Date: August 15, 1943

Section 16.1 - Optical Instruments

C. NIGHT VISION DEVICES

Project Control No.

AC-26

Liaison Officers

Army: Col. F. C. Wolfe
Major L. F. Ryan
Capt. J. P. AuWerter

Navy: Lt. Comdr. S.S.Ballard
Lt. Comdr. A. Ramsay
Lt. H. London

2. Special Binocular

Background and Scope

As no wide-angle 7 x 50 night glass is now manufactured in the United States, both the Navy and the Engineer Board have requested the NDRC to design such a glass which can be put into early production.

Results to Date

A design for such a binocular has been developed, based in part on the improved Erfle-type eyepiece developed at the University of Rochester. It is felt by Bausch and Lomb that, from a production point of view, it is best to use conventional Porro prisms, rather than the more complicated tapered Zeiss prisms, but, as a result, the body of the binocular must be somewhat more bulky in proportion than that of the corresponding Zeiss Deltar 8 x 40 glass. A model of the new wide-angle 7 x 50 binocular was completed early in March, and was delivered to the Bureau of Ordnance of the Navy on March 20, 1943.

As part of this contract, two fixed-focus binoculars have been constructed, using the regular production models of the 6 x 30 and 7 x 50 binoculars, with fixed-focus eyepieces substituted for the normal focusing eyepieces. It has been felt that a simplified binocular of this type might not only aid production, but also offer the advantage of being more completely sealed than is now possible. It is believed this last feature might reduce deterioration of optical parts in the tropics. A large number of observers has been used to determine the optimum focal setting. Experiments indicate that at night successive settings of focus made by the same individual will vary widely, and that it may well be best, under such circumstances, to pre-set the focus. Models of the 6 x 30 and of the 7 x 50 fixed-focus binocular have been delivered to the Bureau of Ordnance of the Navy for testing.

Plans for Further Work

The project has been completed, and a final report is being prepared.

NDRC Representative: Theodore Dunham, Jr.

Contractor: Bausch and Lomb Optical Company
Rochester, New York

Technical Representative: Dr. W. B. Rayton

NDRC Actions: 6/5/42, 3/12/43, 6/5/43

Current Contract Data: OEMsr-579, Suppl. #3
Initiated: 6/1/42
Terminates: 8/31/43

Contractor's Progress Reports

No.	Date
(D3) 280	9/8/42
(D3) 324	11/25/42

Current Associated Contract

OEMsr-160, Suppl. #3, with the University of Rochester,
beginning 4/1/41, terminating 9/30/43
Technical Representative: Dr. Brian O'Brien

Report Date: August 15, 1943

Section 16.1 - Optical Instruments

C. NIGHT VISION DEVICES

Project Control Nos.		Liaison Officers
AC-26 NS-105	Army:	Col. F. C. Wolfe Major L. F. Ryan Capt. J. P. AuWerter
	Navy:	Lt. Comdr. S. S. Ballard Lt. Comdr. A. Ramsay Lt. H. London

3. Production Model of 6x42 Anti-oscillation Mounted Binoculars

Background and Scope

In view of the decision of the Directorate of Air Defense to request procurement of 1,000 units of the anti-oscillation mounted binocular developed under Contract OEMsr-160 at the University of Rochester, it became important to develop, at the earliest possible moment, a production model of this device. The units developed at the University of Rochester give excellent performance but are not adapted to mass production methods.

Results to Date

The Eastman Kodak Company has completed the design of a 6x42 binocular employing tapered prisms, mounted in accordance with the technique developed by Mr. J. Mihalyi, which permits adjustment of the prisms for purposes of collimation. Detailed drawings of this binocular have been transmitted to Army and Navy Liaison Officers, so that procurement can be arranged. Work is now in progress on details of the anti-oscillation mounting. This is being designed so that the anti-glare shutter, which is being developed under Section 16.2, can be added later if it is required.

The design of the binocular and anti-oscillation mounting has been coordinated with the work being done by the Northrop Aircraft, Inc., on a swinging bracket arm and carriage to be used for positioning the binoculars for use in front of the pilot, and for removing and stowing them just behind his seat, on the left side when not in use.

Plans for Further Work

Detailed drawings of the anti-oscillation mounting will be delivered to the Army and Navy Liaison Officers for purposes of procurement, probably early in September, 1943. Four models of the anti-oscillation mounted binocular will be produced by the Development Department at Eastman in the very near future. Following completion of work on the binocular, a production design for an anti-oscillation mounted monocular will be

started. This monocular is desired by the Army Air Forces for use by the gunner in the P-61 aircraft. It will be mounted on the same bracket arm which now carries the standard reflex sight.

NDRC Representative: Theodore Dunham, Jr.

Contractor: Eastman Kodak Company
Rochester, New York

Technical Representative: Mr. Fordyce Tuttle

NDRC Actions: 3/5/43, 6/4/43

Current Contract Data: Symbol No. 2366 OEMsr-1090
Initiated: 2/1/43
Terminates: 8/31/43

Contractor's Progress Reports: None

Current Associated Contract

OEMsr-160, Suppl. #3, with the University of Rochester
beginning 4/1/41, terminating 9/30/43
Technical Representative: Dr. Brian O'Brien

Report Date: August 15, 1943

Section 16.1 - Optical Instruments

C. NIGHT VISION DEVICES

Project Control Nos.

AC-26
NA-140

Liaison Officers

Army: Col. F. C. Wolfe
Major L. F. Ryan
Captain J. P. AuWerter
Navy: Lt.Comdr. S. S. Ballard
Lt.Comdr. A. Ramsay
Lt.Comdr. Harvey Hall
Lt. H. London

4. Tests of Binoculars

Background and Scope

It is possible to establish, roughly, the relative influence of magnification, exit pupil, and angular field of view, on efficiency in detecting targets at low levels of illumination, but it is important to select the best possible compromise among these three variables in designing a binocular for any particular purpose. Under this contract extensive tests will be conducted on a large number of personnel to determine the independent effects of changes of these variables on target detection, as well as the value of binocular versus monocular vision.

Results to Date

Tests of several types of binoculars are being carried out at various levels of illumination. Observers willwork under controlled and measured conditions: seated, standing, holding binoculars by hand, on platforms subject to roll and pitch, indoors and outdoors. An artificial horizon covering 100° has been set up inside the Dartmouth Ice Hockey Rink, and trials are being made of the various experimental procedures which will be used in the tests.

Plans for Further Work

As the project develops, it may be desirable to add tests of ability to discriminate shapes of objects and to make actual comparative tests under operating conditions at sea on various types of vessels.

NDRC Representative: Theodore Dunham, Jr.

Contractor: Dartmouth College
Hanover, New Hampshire

Technical Representative: Professor S. Howard Bartley

NDRC Action: 5/28/43

Current Contract Data: Symbol No. 2906
Initiated: 5/15/43
Terminates: 11/15/43

Contractor's Progress Reports: None

Current Associated Contract

OEMsr-160, Suppl. #3, with the University of Rochester
beginning 4/1/41, terminating 9/30/43
Technical Representative: Dr. Brian O'Brien

6280 SW 58 Avenue
Miami 43, Florida
April 29, 1962

Lieutenant General Arthur G. Trudeau
Chief, Research and Development
Department of the Army
Washington 25, D.C.

Dear General Trudeau:

You may remember me as the oft times obnoxious Artillery Lieutenant whose principal preoccupation was to fire champagne corks across the dining room of the Camp Crawford Officer's Mess, while using a field piece of personal design and of local construction.

Subsequent to the attainment of those lofty heights aforementioned as a member of the Seventy Seventh Field Artillery Battalion, it became necessary for me to be retired from the Army in the grade of captain due to physical disability.

Since retirement I have been attending school at the University of Miami and am now poised to enter graduate school.

In the meantime, as a result of some reflective thought, an idea has taken shape in my mind in the area of power generation without fossil fuel requirements and I am very anxious to explore this idea and it's possible military applications.

In the near future I contemplate a trip to Washington and would greatly appreciate an opportunity to discuss the merits of this idea with you.

Considering that the idea may not be worth a damn and that I do know you and your wife, Helen, would it be possible to take five minutes of your social time? After which I would not be offended if you told me to get lost and forget the whole thing!

Trusting that this finds you well and in good spirits, I am,

Very respectfully yours,

John W. Crew

John W. Crew
Captain AUS Retired

3 May 1962

Captain John W. Crew (AUS-Ret)
6280 SW 58 Avenue
Miami 43, Florida

Dear Captain Crew:

I have received your very interesting letter and if you have some ideas regarding power generation we are always interested.

My present commitments frequently take me out of town and this is more than ever the case as I am intending to retire on 30 June, as that critical birthday gets close. If, whenever you are in Washington you will contact my office (OXford 7-8186) arrangements will be made either for me to greet you personally if that is possible, or at least put you in contact with those who would have to examine your proposal in any event.

With kind regards and best wishes.

Sincerely,

ARTHUR G. TRUDEAU
Lieutenant General, GS
Chief of Research and Development

UNITED STATES
ATOMIC ENERGY COMMISSION
WASHINGTON 25, D. C.

July 7, 1961

REPLY AND
MFK ATTACHED-

Lieutenant General Arthur G. Trudeau
Chief of Research and Development
Department of the Army
Washington 25, D. C.

Dear General Trudeau:

The Division of Biology and Medicine, Civil Effects Test Organization, has been considering ways and means for continuing weapons effects studies during the period of the moratorium in tests. As part of this program, we plan to use a bare reactor suspended in the air on a 1500 or 1200 foot tower to do neutron and gamma radiation shielding studies as a follow-up on work begun during weapons test, this is being called Operation BREN.

The tower is now under construction and it is expected that it will be ready for use about the middle of November. When the program has been completed, we plan to dismantle the tower. We will be pleased to provide you or your staff with any further details on the program and to consider any experiments you may wish undertaken during the operational period of the experiment.

Sincerely yours,

Robert L. Corsbie

Robert L. Corsbie, Director
Civil Effects Test Operations
Division of Biology and Medicine

CRD/G
SUBJECT: Nevada Test Site Pulse Reactor

MEMORANDUM FOR RECORD:

REFERENCE: Letter, AEC, Mr. Corsbie, to CRD, dtd 7 Jul 61.

ACTION BEING TAKEN: Interim reply to reference being sent to Mr. Corsbie.

BACKGROUND AND DISCUSSION: The AEC is placing a bare, pulse reactor on a 1200-1500 foot tower at the Nevada Test Site in order to do certain medical and biological radiation studies. It is believed that the main purpose is to simulate the Hiroshima and Nagasaki bursts in order to determine correlation of radiation effects on personnel with radiation received. Mr Corsbie, Director of Civil Effects Test Operations, Division of Biology and Medicine, AEC, has written CRD offering the use of this facility to the Army for experiments. The nuclear radiation emitted by this reactor will closely simulate that produced by an actual detonation.

BRL is presently doing some shielding work at the Oak Ridge National Laboratory (ORNL) and through its contacts there has made certain arrangements to utilize the Nevada Test Site facility in order to determine if the results it is obtaining at the ORNL reactor will correlate with a reactor radiation environment that more nearly simulates an actual detonation. It should be noted that the radiation dose reaching the earth's surface from this reactor will be of a very low level.

DASA has received similar correspondence on this facility but neither the Medical (Col Mullins) nor the Radiation Division (Maj Verser) has indicated an interest in doing projects or coordinating a DOD effort.

A letter is being to USCONARC and a DF to DCSOPS and the Technical Services to determine if they have any experiments that could profitably utilize this facility. A final reply will be made to Mr. Corsbie, AEC, about 1 Sep 61.

CINFO IMPLICATION: None.

COORDINATION: ~~XXXXX~~ OCO.

COPY FURNISHED: OCO and Ch/DASA.

COPY FOR DUPLICATE FILES NOT REQUIRED.

DAVID T. BAKER, Major, GS
Atomic Division, Ext 73484

CRD/G

JUL 31 1961

Mr. Robert L. Corsbie
Director, Civil Effects Test Operations
Division of Biology and Medicine
U.S. Atomic Energy Commission
Washington 25, D. C.

Dear Mr. Corsbie:

Based on your letter of 7 July 1961 to General Trudeau, offering to consider any experiments the Army may wish to undertake on the bare reactor at the Nevada Test Site, the Army is reviewing its nuclear weapons effects program and requirements to determine what experiments could be profitably conducted at the facility. It is expected that the present review of requirements will be completed by 1 September, and any requirements we may have will be forwarded at that time for your consideration.

Your offer of possible use of this facility is greatly appreciated.

Sincerely yours,

SIGNED

DAVID C. LEWIS
Brigadier General, GS
Director of Special Weapons

Copy furnished:
Chief, DASA
Chief of Ordnance

COPY FOR: CHIEF OF RESEARCH AND DEVELOPMENT

19 September 1961

General Bruce C. Clarke
CinC, USAREUR
APO 403, New York, N. Y.

Dear Bruce:

Just a note to acknowledge receipt of your memorandum setting forth the priorities governing the issue of new equipment to your troops.

I am in thorough accord with every single step and read your paper to my assembled staff this morning.

Our hope now is that production will be sufficiently rapid so that your goals can be accomplished, particularly in the face of the difficult situation confronting us.

With warm personal regards.

Sincerely,

ARTHUR G. TRUDEAU
Lieutenant General, GS
Chief of Research and Development

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HEADQUARTERS
U. S. ARMY, EUROPE
Office of the Commander in Chief
APO 403, New York, New York

22 September 1961

Dear Art,

How right!

There is a particular need in this command to improve the night combat capability. In view of the critical situation that exists it is most important that combat troops be provided with the best night viewing equipment available and that emphasis be placed on the development of new and improved items.

Information has been received on three items of night vision equipment in various stages of development which appear to have high potential. These are the Small Starlight Scope, the Very Long Range Infrared Viewer, and the Infrared-Visible Night Vision Kit for Tanks. I urge development of these items be expedited, with the highest priority being given to the night vision kit for tanks.

Sincerely,

Bruce

BRUCE C. CLARKE
General USA
Commander in Chief

Lieutenant General Arthur G. Trudeau
Chief, Research and Development
Department of the Army
Washington 25, D. C.

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Susp: 0900 hrs 3 Oct 61
Lt Col Schraeder/53859
Typed: 2 Oct 61

CRD/D

SUBJECT: Night Vision Program

3 OCT 1961

General Bruce C. Clarke
Commander in Chief
United States Army, Europe
APO 403
New York, New York

Dear Bruce:

Thank you for your letter of 22 September regarding night vision requirements. I welcome this opportunity to bring you up to date on what we have been doing here.

Recognizing the increasingly urgent requirement for a night fighting capability, I directed the Chief of Engineers just a month ago to review his whole night vision program and prepare recommendations for me on ways in which we could expedite the program. I have since approved his program, which provides for pursuing multiple approaches to image converter tube design and assembly. The image tube is the heart of a promising line of passive night vision devices. We believe we have a breakthrough and we are going to do all we can to exploit it. We have taken steps to get industry fully behind us in this effort. Our expedited program is now rolling. While this explains about the expedited program, I am sure you are mainly interested in hardware and how soon you can get it.

The Night Vision Kit for tanks is now under service test at Fort Knox. We hope to have the kit standardized by the end of the year. Further, DA is planning a substantial buy in FY 63. This of course is an active system which we plan to replace with passive devices as soon as they are available.

The other devices you mentioned, both passive devices, Small Starlight Scope and Very Long Range Infrared Viewer, are two of the objectives of the expedited program. By expediting the program we hope to shave three years off availability dates - making it FY 64. If everything goes well we would hope to reduce the time even further.

Other hardware under the program will be passive hand-held weapon sights and driving and close order binoculars. Due at the

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Cy for Gen Trudeau

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General Bruce C. Clarke

beginning of next year will be new image tubes for a passive periscope for the AR/AAV. The same passive capability can later be adapted to the M-48 and M-60 tanks without much delay.

I hope this information is helpful and gives you an idea of the sense of urgency we are applying to solving this problem.

Sincerely,

SIGNED

ARTHUR G. TRUDEAU
Lieutenant General, GS
Chief of Research and Development

CRD/D

SUBJECT: Night Vision Program

MEMO FOR RECORD:

REFERENCE: Ltr, Gen Clarke to Gen Trudeau, subj as abv, dtd 22 Sep 61.

ACTION BEING TAKEN: Replies to Gen Clarke on the expedited night vision program and availability of hardware expected from the program.

BACKGROUND AND DISCUSSION: By ref ltr, Gen Clarke urged expedited development of night vision equipment and requested specific information on Small Starlight Scope, Very Long Range Viewer and Night Vision Kit for Tanks. CRD reply agreed w/requirement, explained the expedited night vision program and estimated aval of equipment requested by Gen Clarke plus other devices to be aval.

COORDINATION: DCSOPS - concur - T. W. Long, Col, 75303.
DCSLOG - concur - Col Ortenzi, 53250

DISP OF INCL: NA

CY FOR DUPE FILES NOT REQUIRED.

Gordon A. Schraeder

GORDON A. SCHRAEDER, Lt Col, GS
Combat Materiel Div 53859 2 Oct 61

CONFIDENTIAL

STANFORD RESEARCH INSTITUTE

MENLO PARK, CALIFORNIA

February 26, 1962

Lt. General Arthur G. Trudeau
Chief of Research and Development
Army Research Office
Arlington Hall, Virginia

Dear Sir:

I am sorry that you were unable to attend the Long Range Planning Service Client Conference held in San Francisco. Total attendance at the Conference was 233, a gratifying number. Proceedings of the Conference are being prepared and should be mailed to you by the middle of March. These proceedings will include most of the presentations in their entirety.

During the Conference I proposed several ideas which we have been considering as a part of our own long range planning. The enclosed questionnaire summarizes the suggestions and has been sent to all those who attended the Conference. I hope that you also will discuss it with your associates and write me your opinion. This will be a real aid in helping us set our course and provide the kinds of information which can be of greatest benefit to corporate planners.

Cordially,

Robert D. Bruce

Robert D. Bruce
Manager
LONG RANGE PLANNING SERVICE

RDB:dd
Enclosure

14 Mar 62

MEMORANDUM FOR RECORD

SUBJECT: SRI Long-Range Planning Service

References:

Letter to CRD from Mr. Robert D. Bruce, Manager, Long Range Planning Service, SRI, dtd 26 Feb 62 subject: Long Range Planning Service Client Conference.

Action Being Taken:

This letter replies to ref above and gives suggestions as requested regarding what Army R&D would like to see in future Long-Range Planning Reports.

Background and Discussion:

SRI produces Long-Range Planning Reports as a service they sell to clients in industry and financial institutions. Two copies of each report are sent to OCRD gratis.

Each year a client conference is held to solicit subject matter for future planning reports. Questionnaire attached to ref asks for such suggestions. It is more suited to organizations with marketing and profit motive and does not lend itself to reply by Army R&D - thus letter reply on how Army R&D uses reports and what they would like to see in future.

ACTION OFFICER:_____
Lt Col Frank L. Schaf, Jr.
Chief, Tech Forecasting Br
Research Planning Div, OCRD

decisions. Knowledge of support by industry and research institutions in areas such as these is valuable planning input.

b. Reports which summarize the potential applications of new devices or techniques, and which indicate the time frame when availability of these new devices will force changes to present Army operations or concepts.

"Fuel Cells" (49), "Irradiated Foods" (2), "Microelectronic Circuits" (80), "Thermionic Power" (112), and "Transistors, Diodes, and Rectifiers" (10) are examples of this category.

c. Reports on complete machines or systems in which the Army shares a common interest with a real or potential consumer market. Reports in this category provide a valuable state-of-the-art summary for program planning.

Examples are: "Ground Effect Machines" (96), "Helicopters" (77), and "Hydrofoil Craft" (119).

d. Reports which assist us in improving our methodology and techniques for long-range planning and technological forecasting.

An example of this category is one of your latest Reports - "The Corporate Planner and His Job" (125).

Our suggestions for your consideration are related to the first two parts of your Questionnaire:

a. During the next two years we would like to see material which would summarize the long-range planning techniques used by different types of R&D organizations. Subjects might include: research planning, project selection, technological forecasting, R&D program balance, and technological strategy.

b. We would be interested in a series of reports on basic assumptions required for planning. Subjects might include: gross national product, forces influencing growth of R&D in industry, and trends in allocation of resources to research versus development.

With kindest personal regards.

Sincerely,

SIGNED

C. B. HAZELTINE, Jr.
Colonel, GS
Chief, Research Planning Division

10. NARA_Fred_Lee_Crisman.pdf

Original start page:	715	**Inserted note page:**	724	**Archive starts after note:**	725

Why it belongs in this release

Best “human lead” document: Crisman is historically tied to saucer lore, and the file contains irregularities, missing files, alleged credentials, surveillance-type notes, Boeing mention, and intelligence-adjacent anomalies. Use with caveats.

Complete release-note text from UAP 4

5. NARA_Fred_Lee_Crisman.pdf

This file should be released as an investigative lead, not as proof. Crisman is historically significant because of his connection to early saucer lore, and this file contains unusual red flags: multiple name variants, references to missing or “mislaid” investigative files, claims of a “Top Secret Washington State Courier’s ID card,” semi-police or special-investigator cards, unclear employment history, no military-service record for a key period, and a Boeing-related record noted as not releasable. Congress and NARA should request FBI, CIA, Army CIC, Air Force OSI, Washington State, Tacoma Police, Attorney General, Boeing, FAA, and postal-inspection records for Crisman, Fred L. Cristman, F. Lee Crisman, Fred Lee Crissman, Julio Grassi, Wilbert White, and related organizations. The goal would be to determine whether Crisman was merely a colorful unreliable figure, a confidence operator, an intelligence-adjacent asset, or part of a deliberate disinformation/cover-story ecosystem surrounding early saucer events.

Source: UAP 4 - Archives Release Notes(2).docx. This note page was inserted immediately before the archive file.

RE: FRED LEE CRISMAN

(→ TACOMA NEWS MEMO)

FRED LEE CRISMAN
WILBERT D. WHITE
925 No. Grant
Tacoma, Washington
JULIO GRASSI
Seattle, Washington

(SOURCE: TACOMA NEWS TRIBUNE (1968)
(MORE RE FCC "PUBLISHERS" AND SEEMING IRRELEVANCE TO REALITY)

Fred Lee Crisman came to my attention on or about 15 April 68. As a reporter for the Tacoma News Tribune, I was covering the story of a new OEO Operation Headstart program designed for Gypsy children. The local OEO administrative branch, Opportunity Development, Inc. of Tacoma, referred me to a "Dr. Crissman" who had prepared an independent research study on Gypsies, on which the new program was based. I contacted Crissman and had an hour-long telephone interview which resulted in a front-page news article (Add. 1).

On 18 April 68, I received a call from Walter West, manager of the Tacoma Better Business Bureau. He informed me that I had best check his files on "Dr. Crissman" before basing more stories on his research studies. The same day, I visited the BBB and went through the files on Fred Lee Crisman, area Gypsies and the Universal Life Church. It was obvious from the information West had collected over a time that Crisman was involved in several shady deals and should be checked further.

On 19 April 68, I visited the Tacoma Police Dept. and informed Chief Charles Zittel of the situation. Since the TNT enjoys good relations with the PD, I was allowed to check the records of Crisman. With the exception of traffic offenses, the check turned up little information. I noted, however, that Crisman had file cards under the names Fred L. Cristman, F. Lee Crisman, and Fred Lee Crissman. The identification officer, Lt. Bob Major expressed an interest in the case and remembered the department had investigated Crisman earlier for a bunco scheme. He speculated that Crisman wanted to get the Gypsy program started, be appointed administrator, then steal the funds some way. This sounded like a practical scheme since Crisman is one of few non-Gypsies who can move freely among them and the eventual OEO program will amount to about $500,000.

Lt. Major introduced me to a detective who had worked on the

-more-

NOTE: CRISMAN'S LACK OF ... PURPOSE IS NOTABLY SY... THEMATIC — TO THE POINT ... BEING UNIQUELY PURPOSEFUL. J.D.

Crisman case and the detective remembered that the investigation involved the Northwest Relief Society, a branch of the Universal Life Church. Crisman had set up a second-hand store next to the church (a vacant theater) and was operating without license. Finally local police forced him to shut down, but they had word he simply moved the operation to a city in Eastern Washington.

Acting on advice from the detective, I contacted a Mr. Wrenn at the State Attorney General's offine in Olympia. Wrenn remembered working on several cases involving Crisman and the NRS in small bunco operations. He said he had a file on Crisman and associates, including Julio Grassi, ex-Gov. Rosellini, and an Eastern entertainer that was "six inches thick". He asked to call back after lunch and he would check it. I contacted him after lunch, but Wrenn stated the Crisman file had been "mislaid" and was nowhere in his files. He said it simply had disappeared. i.e. A former police officer from Tacoma who was a close associate of Grassi and Crisman was employed as an investigator for the AG's office at the time.

I then went to the TNT morgue and photocopied the Grassi file (Add 2). With this information, I went to Robert E. Lee, public affairs director for ODI, and suggested he leave Crisman out of the Gypsy program. He agreed, but wanted me to accompany him on a visit to Miller Stevens to explain why Crisman was being cut.

On or about 22 April 68, we arrived at the store-front home of Stevens. As we pulled up, a Cadillac pulled in beside us and Fred Crisman entered the house with us. Thus, we were forced to talk to both Crisman and Stevens. We explained that some of Crisman's ~~friends~~ "friends" had "bad records" and it would perhaps be a good idea if he stayed in the background of the OEO program. Crisman then left for a few minutes and returned with a notebook. With documents in the notebook, he proceeded to prove to us his good character.

In the book, in plastic covers, were the following documents: A Top Secret Washington State Courier's ID card signed by Gov. Rosell... an ID card from Interpol; several ID cards from various semi-police agencies i.e. Special Investigator, National Police Chiefs Asso., etc. two letters from Gov. McKeithen of La. praising Crisman for his work on behalf of the State of Louisiana; transcripts and PhD diploma

-more-

from Brantridge Forest School in England; letters from officials of the Universal Life Church, and other documents. He bragged that he did all the political writing for ex-Gov. Wallace and said he would write for anyone that met his price. We asked Crisman for proof of the purported survey he took of Gypsies nationwide and for proof of his educational background. On the Gypsies, he showed us a report from the U. of Washington, and said he had burned his notes. He claimed to have a BA and BS from Willamette U., MA from UW, PhD from Brantridge Forest and a DD from Athenaeum Ecumenical Divinity Institute in Cleveland, Ohio. Actually, he has only a BA from Willamette (Add. 3)

In any case, Crisman agreed to remain out of the OEO project. (To date, however, Stevens still is requesting that Crisman be appointed administrator).

Because I was interested in pursuing the Crisman matter, West at the BBB made several other inquiries about the man and came up with some interesting information. At the time of our meeting, I had asked Crisman if he knew anything about an organization called the Servants of Awareness. (ADD. 9-A) I didn't tell him, but one of his ULC board members called West to report Crisman was heading the secret order. On 1 May 68, I received a letter at the TNT from Crisman, bearing no postmark or return address (Add. 4).

I kept in touch with the BBB regarding the man and his criminal affiliations, but gave little thought to the matter until 11 June 68. On that date, I was approached by the credit manager at the TNT and told a State Dept. investigator was here checking out Crisman and Grassi. I checked with the BBB and the man had been there also. He had given his name as E. Carl McNabb, of P.O. Box 648, Goleta, Calif., and said he came to Tacoma from Vancouver, Canada where he also had checked Crisman. The BBB gave him no information except the prepared report on the ULC. (ADD. 10) Apparently he was satisfied and left, leaving word to send him any material we developed further on Crisman or Grassi. He also left behind several warnings about the pair (Add.5).

This occurred right after the Wheat incident in Oregon, and I began to connect the California visitor with Crisman and his Louisiana cntacts. It seemed that he could fit into the New Orleans investigat somewhere. I wrote to Steve Burton in L.A. who answered that he wanted all information possible on the Universal Life Church.

-more-

This indicated that I possibly was on the right track. I was joined in the Crisman investigation on or about 1 July 68 by George Rennar, our Seattle CCI man, and Harold Porter, with the Tacoma CCI. Rennar received word from Burton shortly thereafter that an arrest or subpoena may be made in our area and we concluded Crisman was the likely suspect. I went to the BBB and, without giving them a reason, was allowed to copy documents from Crisman's file. Rennar began checking the World Wide Advertising, Inc. in Seattle, owned in part by Grassi. Little came from this outside of the fact they do a large business nationally on advertising specialities and are not considered ethical by other advertising companies. E. Williams, familer in this area for several years, heads the agency with Grassi in the background. Meanwhile, Rennar was unsuccessful in connecting Crisman with the Wallace Headquarters in Seattle. I discovered, however, that Crisman had authored a libelous tabloid newspaper that was distributed by Tacoma opponents of the council-mayor form of government (Add. 6). Tacoma is headed by a conservative mayor who wants to usurp the power of the city manager. Crisman had written the unsigned attack under the name of the Civic Improvement Alliance. It was believed to have been printed by Marshall Riconoscuito, a small time advertising man here who specializes in handling conservative political candidates, including Julio Grassi in two (ADD 2) attempts. Miller Stevens confided to me that the next issue of the paper is to be an attack on Walter West of the BBB.

West has been a long-time target of Crisman. Although the two have met only once, West keeps his file on Crisman up-to-date and warns inquiring businessmen to stay away from him. Crisman has authored five libelous letters about West and sent them to different businessmen in the community, who usually give them to West. In the series of letters, Crisman has accused (with "documentary" evidence) West of being the "pinball king", a white slaver, the state's top Communist, and an ex-con and extortionist. All the charges are blatently false. In the most recent attack, distributed 14 ~~May~~ July 68, Crisman accused West of being the leader of the Washington Minutemen. What is interesting is that somewhere, he got hold of Minuteman letterhead

-more-

NOTE: ... AS SEXUALLY SADISTIC

...ayed an y familiarity with the or anization's operation. The last letter, also, was turned over to West by a local banker who received it, and I obtained a copy (Add. 7).

On the weekend of 13-14 July 68, I was visited by Mr. and Mrs. Fred Newcombe, of the L.A. CCI. They had visited several of the Washington CCI people on their way to camp in Canada and stopped on their way back to spend the weekend with us and check out Crisman. They carried credentials from Steve Burton.

We began by comparing notes and they said Burton had asked them to check out a rancher named White in Northern Oregon. He was described as a right-winger with a penchant for holding sadistic parties on his ranch. I recalled the name and located it on notes of an Oregon police report on Crisman. Crisman had been arrested in Ontario, Ore. on 20 May 58 for being drunk and disorderly. He had pulled a gun on the arresting officer but got off with a $100 fine. On 6 Nov. 67, he was again arrested for speeding through a stop sign and causing an accident. At that time he gave an address of Rt. 1, Box 226, Carlton or Turner, Ore. He said the address belonged to a Mr. White, his stepfather. (Add. 8).

Checking city directories, we found Crisman's Tacoma address (928 N. Grant) was also occupied by Wilbert D. White and his wife Eva L. White's occupation was listed as Colonel, USA until 1968 when he was listed as retired. Crisman was listed as president of a car lot owned by Grassi, and president of a management research firm (non-existant). (Question arises: how authentic is "F.L. Crisman"?) J.G.

The Newcombes had checked out a Vancouver lead I had on the ULC but failed to turn up anything there. While here we checked the address given and found it to be an old theater. Crisman had used the thaater and an adjacent store for his church and rummage sale. A gunshop now has the store and the theater still is vacant. The realtor who handled the property at the time called Crisman "a crook". He said the rent and ~~xx~~ utilities never were paid and that collecters couldn't find Crisman. A check through the newspaper morgue and the city library failed to turn up any information on the ULC. Apparently the church never got a good start here.

NOTE steadiness of pattern of CRISMAN as a "dysfunctional", "irrelevant" individual. This does not comport with the [illegible] of the character questioned before the Grand Jury in 1968 — [illegible]

NOTE: LAVEN FR STATEMENT DESCRIBES CRISMAN AS SEXUALLY SADISTIC

and displayed an easy familiarity with the organization's operation. The last letter, also, was turned over to West by a local banker who received it, and I obtained a copy (Add. 7).

On the weekend of 13-14 July 68, I was visited by Mr. and Mrs. Fred Newcombe, of the L.A. CCI. They had visited several of the Washington CCI people on their way to camp in Canada and stopped on their way back to spend the weekend with us and check out Crisman. They carried credentials from Steve Burton.

We began by comparing notes and they said Burton had asked them to check out a rancher named White in Northern Oregon. He was described as a right-winger with a penchant for holding sadistic parties on his ranch. I recalled the name and located it on notes of an Oregon police report on Crisman. Crisman had been arrested in Ontario, Ore. on 20 May 58 for being drunk and disorderly. He had pulled a gun on the arresting officer but got off with a $100 fine. On 6 Nov. 67, he was again arrested for speeding through a stop sign and causing an accident. At that time he gave an address of Rt. 1, Box 226, Carlton or Turner, Ore. He said the address belonged to a Mr. White, his stepfather. (Add. 8).

Checking city directories, we found Crisman's Tacoma address (928 N. Grant) was also occupied by Wilbert D. White and his wife Eva L. White's occupation was listed as Colonel, USA until 1968 when he was listed as retired. Crisman was listed as president of a car lot owned by Grassi, and president of a management research firm (non-existant). (Question arises: how existent is "F. L. Crisman"?) J.G.

The Newcombes had checked out a Vancouver lead I had on the ULC but failed to turn up anything there. While here we checked the address given and found it to be an old theater. Crisman had used the theater and an adjacent store for his church and rummage sale. A gunshop now has the store and the theater still is vacant. The realtor who handled the property at the time called Crisman "a crook". He said the rent and ~~xx~~ utilities never were paid and that collecters couldn't find Crisman. A check through the newspaper morgue and the city library failed to turn up any information on the ULC. Apparently the church never got a good start here.

MAY NOT BE SAME MAN.

NOTE steadiness of pattern of CRISMAN as a "dysfunctional", "irrelevant" individual. This does not ...

Re: FRED LEE CRISMAN

RESULTS OF OREGON CHECK BY FRED NEWCOMBE, 18 July 68.

(NEWCOMBE MEMO)

After researching Crisman and associates in Tacoma, Mr. and Mrs. Newcombe left for their home in Los Angeles. They planned to check out our Oregon leads on the way down.

On 18 July 68, after being assured by Mr. Alcock that Crisman was involved, I received a telephone call from the Newcombes who had reached the Klamath Falls home of Lawrence Haapanen (Lt. USAF), a member of the Washington CCI. Newcombe first had checked a Portland address (4610 NE. Emerson) listed as the Universal Life Church in Crisman's booklet (Add. 10). They found it to be the home address of Walter Dawes, listed in the booklet as a Trustee of the ULC. Dawes is listed in the Portland city directory as a painting contractor. While in Portland Newcombe checked the morgue at the Oregonian for references to the ULC. He found a story dated 3 April 68 which listed the permanent membership as around 50. The article also said Rev. Kirby Hensley had been accused of abetting draft dodgers by ordaining them as ministers in the ULC. Reportedly, 6,000 ministers have been appointed since 1962. Hensley is listed in Crisman's booklet as being National President of the ULC with headquarters in Modesto, Calif. The story, however, said Hensley was from Denver where he is running for President on the Universal Party ticket. He also ran for President in 1964 on the same ticket. A convention of the Universal Party reportedly was held in Denver 4 March 68.

In Salem, Newcombe attempted to get a picture of Crisman from his college yearbook at Willamette U., but found the library closed.

THE WHITE RANCH

The previously mentioned White ranch was located by Newcombe in Carlton, Ore. Checking with the local postmaster, he found the place listed under the name E. L. Crisman. The local address is Meadowlake Road, and the phone number is 852-7453. Newcombe said the place is about 50 acres, has a large farmhouse, 3-4 barns and appears to be a working ranch.

In continuing investigations, Tacoma CCI is checking Crisman and White, Haapanen (Ore.) is checking a Gypsy there named Duke Ephraim, Perry Adams (Goleta CCI) is checking McNabb. #

E.L. White

Through certain discreet x sources, we have been able to keep a constant check on the mail received at P.O. Box 722 (Universal Life Church) and 928 N. Grant. The checks began Monday, 15 July 68 and x will continue as needed.

Mail to date has been: Two copies of "The Plain Truth" addressed to Mrs. Eva White; The Newsweek Talking Newsletter, from P.O. Box 6146, Louisville, Ky. addressed to E.L. White; two copies of an advertisement for "The Incredible Power of Kezuima" by Frank R. Young sent bulk rate from Englewood, N.J. to Mr. F. Lee.

At the ULC box, there was one letter from Griffin, Boyle & Enslow, Tacoma attornies, addressed to Fred L. Crisman.

18 July 68, Crisman received at home a copy of Ramparts (has subscriptio

REPORT FROM WHITE RIVER SCHOOL DISTRICT SUPTD. received by BBB 3 May 68.

(NOTE: DATES ARE FAR ENOUGH BACK SO THAT THEY MAY NOT APPLY TO "OUR" F.L. CRISMAN)

1939-Graduated Vale Union High School, Vale, Ore.

39-40-Attnd. Eastern Ore. College of Education.

40-47-Unaccountable. Crisman has no military record of service.

PROBABLY UNDER NAME OF WHITE! JG.

47-48-Again at EOCE at LeGrande, Ore.

48-51-At Willamette University. March '51, recommended for teaching. Recvd. BA 10 June 51.

52-53-Unaccountable. Claims he attended U of W, but no record.

53-55-Taught social sciences at Salem High School.

56-57-Taught English at Elgen, Ore.

57-60-Taught at Buckley High School, Wash.

60-Present-Not clear. Crisman worked for a time at Boeing in Seattle. He was fired from there, however, and is unable ever to return. The records are not releasable. (Add. 9).

This combination is representative of standard dis-association technique relative to intelligence deep-cover assignment. JG

FRED LEE CRISMAN

Mr. G;

Out on the coast is a man you ...ould talk with. Trace this information out. His name is Fred Lee Crisman, of Tacoma, Wash. He flys to New Orleans steadily. 1964 eleven times, 1965, 17 times 1966, 32 times, 1967 24 times. He is the first man that Clay called after being told he was in trouble and he is the first man that Beckham called also. He was questioned by both CIA and FBI in 1966 but he is able to call Wash. and they laid off of him in a hurry. He is very good friends with the Cubans and specially S.A. in Dallas (he goes there too) and J.R. in New O.

Mr. Crisman is a very old man. He supplied the money for certain political campaigns and in return is very much protected by both Lou. politicos and Wash. state people. He has a diplomatic passport issued on the word of a senate chairman of a committee. He seems to have no income and certainly spends a large sum of money on air travel. He is friends with F. Gremillion of your state. His private office has an unlisted number (206 Ma 7-4790) and it is the meeting place for many odd characters from Cubans to political figures. Ask him to take a lie detector test and then ask him where he put the $200,000.00 dollars delivered to him by Beckham in August of '67. (Cuban Money) Money that is used to recruit killers to be sent to Cuba to try for Castro ask him if it is not true that he has sent 5 different men to S.A. in Dallas for final briefing. Make Crisman talk and you will have the answer to why there has been fighting among certain Cuban factions over the money in certain buried places. You know this is true because some special Cubans have dropped out of sight. (Dropped in Torpedo Junction) Crisman is also a pilot. He is the man that through Beckham and S.A. paid off certain people Is it not odd that he is a friend of Clay's as well as Beckham. Is it not strange that he knew Tippit! Just ask Crisman certain question under a lie detector and see what the answers are. He is the one that advised Mark Evans to hide out in Iowa and NOT to go to N.O to make any statement about money or anything. Have an investigator check out the amount of long distance calls that Beckham (Evans) has made to Crisman in the past year and the wild places Crisman calls. He is leaving for Europe in Jan. Keep digging, Jim, you have some odd fish on the run

NOTE: This number did check out as CRISMAN'S Tacoma (as opposed to his Oregon) residence. The number, unpublished, was billed to a fictional named WHITE. See attached follow-up memo in this regard. J.I.

NOTE: This is the correct "stage name" for THOMAS E. BECKHAM. J.I.

Re: FRED LEE CRISMAN

(TURNER MEMO)

MArket 7-4790 is a Residence service, non-published number at 928 North Grant in Tacoma, Washington billed to W. D. White.

Service was established in August 1967 and is still a working line. W. D. White is an army man -- good credit rating.

MA 7-4790 is in process of being changed to MA 7-6330 also a non-published number.

MA 7-4893 is working at the same address as above, billed to W. D. White. Service established January 1959 and is still working.

The current Telephone Directory (July 1967 issue) contains listing for F. Lee Crisman P.H.D. (same address as above) 928 North Grant, Tacoma, MA 7-4893 as an additional listing on the service of W. D. White. Additional listing started October 1966.

Jim!

This is all we could get on the # you had for Fred Lee Crisman. To get the toll tickets we would have to make a request of the FCC — and that is out from here.

this is a fishy situation: a non-pub # to White of the U.S. Army (P.O.D. is standard C.E.H. Cover), now being charged, with additional service at a residence, to Crisman, who is listed as a Ph.D.

Bill T.

RE: FRED LEE CRISMAN

Distributed 23

MEMORANDUM
(LAVENDER MEMO)

February 19, 1968

TO: JIM GARRISON, District Attorney

FROM: WILLIAM BOXLEY, Investigator

RE: Interview with BOB LAVENDER

When originally contacted from New Orleans early in January, LAVENDER lived at the White House Apartments, 523 Denning Way in Apartment #9, Seattle, Washington. He has no listed telephone. The landlady of the apartment also has an unlisted telephone. It was determined, however, that her name is MRS. JOHNSON and that her phone number is EA. 9-2130.

Another tenant in the apartment is WOLFGANG JOST whose telephone number is EA. 3-6718.

LAVENDER stated that mail could be cover addressed to him in care of DAN R. BROWN, 715 Second Avenue, N., Apartment 2, Seattle, Washington. LAVENDER insisted that all contact to him be executed only through his attorney in San Francisco (See addenda After two days of negotiation with the attorney in San Francisco funds were advanced in the form of an aircraft ticket for LAVENDER to fly from Seattle to San Francisco and a meeting was set up at the Jack Tar Hotel on the night of January 18, 1968. The interview was conducted in the presence of LAVENDER's attorney. Neither LAVENDER nor his attorney would permit the conversation to be recorded. At the beginning of the interview the attorney required specific reassurance that this office was interested in learning nothing from LAVENDER other than his knowledge of the individuals about whom he had written the office. There seemed to be some apprehension on the part of both LAVENDER and his attorney that we might wish to inquire into matters which they implied were under investigation by Federal authorities at that time. In connection with this, it's noteworthy that arrests were made shortly after the meeting with LAVENDER in the Seattle area of a number of persons described by the FBI as Minutemen who had been conspiring to rob a number of banks in Seattle.

NOTE: Underlining here is not intended to be significant. Not in original doc. JG

LAVENDER who is approximately 27 or 28 years of age, stands about 6'2 or 3" and weighs approximately 190 pounds, bears a remarkable facial resemblance to photographs of BECKHAM which appeared in the New Orleans newspapers after the latter's appearance before the Grand Jury here, stated that he first met BECKHAM in February of 1967 in a bar in Omaha, Nebraska; however, subsequent disclosure of cards which LAVENDER showed me dispute this statement. LAVENDER stated that BECKHAM showed him a Louisiana State Police badge which he carried, cards which indicated that he had been a minister in the Catholic church and in the Universal Life Church. The card from Universal Life Church showed that it's address was 1766 Poland Drive, Modesto, Calif.

and it was issued by the Rev. KIRBY J. HENSLEY. Both BECKHAM, according to LAVENDER, and LAVENDER, according to my observations, seem to have made something of a fetish of carrying cards and certificates of membership in various organizations. For example, LAVENDER said that BECKHAM obtained for him an honorary Attorney General's card from the State of Louisiana and he displayed a card signed by the Attorney General apparently, JACK P. F. GREMILLION and dated, however, May 13, 1964. This would indicate that had BECKHAM actually obtained that card for LAVENDER as he stated, LAVENDER would have had to know BECKHAM several years prior to his admitted meeting of the man in a bar in Omaha.

LAVENDER states that BECKHAM now has broken away from the Universal Life Church and started his own church organization which he calls Universal Life Churches of America, Inc. LAVENDER states that BECKHAM always appears to be without funds, that he files various corporation papers for sundry people and makes a living from the fees he charges therefor.

LAVENDER says that the time news of the Garrison investigation into the Warren Commission first broke in February 1967 BECKHAM told him that FERRIE was a pilot, a homosexual, he made fun of FERRIE and said that he had had nothing to do with the assassinati but "You watch, he'll be dead in a couple of weeks." BECKHAM also told him, LAVENDER said, of the death of an Associated Press reporter who died in bed in Georgia or Alabama late in 1965 or early 1966, whom BECKHAM claimed was killed because of his inside knowledge of the assassination. However LAVENDER could not recall the name of the reporter.

LAVENDER said BECKHAM told him he had assisted in establishing a fund raising office with SERGIO ARCACHA and LOUIS RABEL in the NewOrleans area for anti-Castro activity.

LAVENDER describes FRED CRISMAN as 53 or 54 years of age, an intellectual, gray haired, "somewhat of SHAW's type", approximate 5'9" to 10" in height, 175 to 180 pounds, wears glasses when reading, owns an expensive but limited wardrobe. He states that CRISMAN is an extreme right winger who continuously writes anti-Kennedy articles and essays apparently for publication in magazines. He states that when BECKHAM was subpoenaed for Grand Jury testimony, CRISMAN called him (LAVENDER) and said that he would "kill BECKHAM if I am subpoenaed as a result of anything he says -- not that I know anything about the conspiracy, of course. LAVENDER quotes CRISMAN as having said that he made numerous trips from Olympia, Washington, to New Orleans and Dallas, that he made a number of trips with BECKHAM to the Roosevelt Hotel in New Orleans for meetings. He states that CRISMAN has described himself as being sadistic in sexual practice preferences.

LAVENDER states that he has seen CRISMAN on an average of once or twice a week during the year 1967 but knows of no particular aircraft journeys CRISMAN has made during that period of time.

Note: Some sexual preferences as CLAY SHAW. N.O.P.D.'s office obtained blood-stained whips during search of SHAW's apartment.

As a matter of fact he states that he has been almost exclusively in the Olympia-Seattle area. Note the discrepancy in this comment and the claim in the anonymous letter from Orlando, Florida, which states that FRED LEE CRISMAN of Tacoma, Washington flies to New Orleans steadily "twenty-four times in 1967". LAVENDER at first contended that CRISMAN's unlisted telephone number did not begin with the "Main" exchange, however, when late after being tested he was shown a copy of the Orlando letter, he stated it was true, that it had been MAin 7-4790 as stipulated in that letter but that within the past three weeks CRISMAN had changed the number and his new number was now MAin 7-6330.

LAVENDER said that CRISMAN told him that ARCACHA SMITH and LOUIS RABEL said that they had accumulated between four and five hundred thousand dollars in cash from various fund raising enterprises and private backers. That they as a matter of safe keeping for the money had placed it in BECKHAM's hands in a suitcase and had sent him aloft flying around the country from one city to another as custodian of the money. He supposedly flew under the name of MIKE NELSON and stayed in touch with ARCACHA. Eventually, the story goes, ARCACHA and RABEL and their backers decided that the money would be used to assassinate President Kennedy. However, in order to throw the authorities off BECKHAM was instructed to land at the Miami airport in possession of some $30,000 of the total amount, the rest being stored somewhere else and arrangements were made to have the FBI and the CIA arrest ARCACHA and RABEL and BECKHAM at the Miami airport and confiscate the $30,000, the plan being, it was hoped, that the FBI and CIA would think that this was all of the money which ARCACHA and RABEL had been able to abscond with.

LAVENDER added that CRISMAN owns no automobile himself, that he drives friends' older model automobiles which he can borrow from time to time and that he has been ordained a bishop in the Universal Life Church from Modesto by the Rev. K. J. HENSLEY, President.

The high point of the entire three-hour interview and cross examination seemed to have been the story of BECKHAM being custodian for the four to five hundred thousand dollars of stolen funds and LAVENDER appeared to have to work himself up to telling the story towards the end of the interview. He seemed much relieved after he had told the story but throughout the interview he seemed to consult his attorney by expression, by facial expression, and I got the distinct feeling that LAVENDER was on stage reiterating a story which he had been encouraged to tell us.

LAVENDER said that BECKHAM told him he had a private detective friend in Texas City. Later he said, according to LAVENDER, that he had met DAVID FERRIE one time through the efforts of a private detective named JACK MARTIN.

I strongly suggest this entire story as well as the receipt of th letters from Seattle and Orlando bear a distinct JACK MARTIN flav It's recommended that the facts contained therein be taken with a generous portion of salt. If for no other reason, than the fact

NOTE: An interesting gratuitous observation by Bobby Ward - an accredited "former" C.I.A. agent - particularly since our original CRISMAN file seems to

that I havenever met anyone either in the CIA or among right-wing donors to political causes who would (A) entrust a large sum of money to either BECKHAM or LAVENDER or others of their ilk, or (B) permit such funds to be flown around the country in a suitcase which might become misplaced or stolen at baggage terminals along the airline routes. Some of the information about CRISMAN might b checked through the American Express Company which is suing CRISMAN, according to LAVENDER, for past due charges on a card whi he held from that concern.

Of MARTIN GRASSI, LAVENDER stated that he is "A real crook" in the used car business in Seattle and that CRISMAN had introduced LAVENDER to GRASSI whom he understands is on the fringe in the Mafia. However, he was unable to offer any connection between BECKHAM and GRASSI and between GRASSI and the assassination.

6/23/64 reference - file - No suit or info from American Express Co. - No record -

11. NARA_RG341_Box43_HQ_WPAFB_1952-55.pdf

Original start page:	729	**Inserted note page:**	739	**Archive starts after note:**	740

Why it belongs in this release

Strongest operational pointer: ATIC/Wright-Patterson procedures for high-priority intelligence photography and restricted CIA-related “J-Reports.”

Complete release-note text from UAP 4

1. NARA_RG341_Box43_HQ_WPAFB_1952-55.pdf — ATIC/Wright-Patterson priority intelligence handling.

This is the strongest document in the batch because it shows the Air Technical Intelligence Center at Wright-Patterson using formal procedures for “high priority air technical intelligence photography,” including controlled processing, calibration data, field-collection instructions, film custody, original negatives, master positives, duplicate negatives, and Headquarters USAF coordination. A related page also shows restricted handling of “J-Reports,” including CIA involvement, non-reproduction rules, limited access, no lower-echelon dissemination, and no direct published references. Congress and NARA should demand the complete ATIC office-instruction series, J-Report control logs, ATIRC/ATISR/ATIA/ATIS files, Wright-Patterson photographic lab records, and all records showing what “priority intelligence operations” were being protected. This is exactly the kind of file-control and image-analysis system that could have handled UFO films, crash-site photography, technical debris imagery, or classified sightings evidence.

Source: UAP 4 - Archives Release Notes(2).docx. This note page was inserted immediately before the archive file.

CONFIDENTIAL

AIR TECHNICAL INTELLIGENCE CENTER)
OFFICE INSTRUCTION)
NR. 200-13)

AIR TECHNICAL INTELLIGENCE CENTER
WRIGHT-PATTERSON AIR FORCE BASE
21 APRIL 1955

INTELLIGENCE

(Uncl) PROCESSING PRIORITY INTELLIGENCE PHOTOGRAPHY

1. PURPOSE. This office instruction establishes responsibilities and procedures for processing high priority air technical intelligence photography within the Air Technical Intelligence Center. This instruction does not alter present established procedures for processing and handling of routine intelligence photography.

2. POLICY. In order to provide the optimum results of analysis of intelligence photography of a priority air technical intelligence nature, it is highly desirable that such film be processed at ATIC under closely controlled conditions. For such high priority programs, the ATIC Photographic Engineer and the Photographic Training Laboratory will be utilized for servicing the priority internal requirements of ATIC. All routine production requirements will be fulfilled by other Wright-Patterson AFB Photographic agencies whenever possible, in accordance with established procedures.

3. RESPONSIBILITIES. The various components of ATIC will be responsible for their particular phase of the priority processing program according to the following chronology:

a. ATIMG will take necessary action to assure that messages and data pertaining to priority intelligence operations are immediately passed to ATIRC-2. Personnel of ATIRC-2 will be instructed to advise ATIR, ATIS, and ATIA of information pertaining to their respective offices.

b. Prior to operational use of specialized equipment, ATIRC will provide for adequate calibration of such equipment. Copies of such calibration data will be forwarded to ATISR for reference during the interpretation phase of the program.

c. ATIRC will assure that proper operating instructions are provided to field collection agencies for use of equipment and for forwarding of exposed film together with identification and other pertinent exposure data.

d. ATIRC will assume responsibility for obtaining film pertaining to specific projects of high priority and will assure proper security

by wire to D/I, Headquarters, USAF, and to the originating field agency. Transmission of this wire will be coordinated with ATIRC.

4. REVISIONS AND CHANGES IN PROCEDURES:

a. Major revisions to this instruction will be initiated by the ATIC component involved, coordinated with other applicable offices and submitted for publication in accordance with ATICOI 5-3.

b. Minor revisions, not involving policy or overall responsibility, will be made by Disposition Form, coordinated with applicable offices and filed as an adjunct to this instruction.

c. Minor changes, such as quantities of prints desired, will be coordinated with the Chief, ATISR, and informally implemented.

5. IMPLEMENTATION. ATIC components will prepare SOPs for internal use by the respective divisions and staff offices or will use whatever means is required to assure proper fulfillment of all phases of their responsibility.

BY ORDER OF THE COMMANDER:

T. J. CONNAIR, JR.
Major, USAF
Adjutant

OFFICIAL:

T. J. CONNAIR, JR.
Major, USAF
Adjutant

DISTRIBUTION:
SPECIAL
ATIA - 20 cys
ATIR - 20 cys
ATIS - 10 cys
ATI - 1 cy
ATIMG- 15 cys
ATIMX- 1 cy

control and prompt delivery of such film to ATIC. ATIRC will act as coordinating agency with D/I, Headquarters, USAF, on matters pertaining directly to field collection and to USAF requirements for the immediate priority program.

e. ATISR will be responsible for obtaining necessary processing of motion picture film, color film, and other film which cannot be accomplished within the facilities of ATIRT.

f. ATIRT will be responsible for initial processing of 35-mm, 36 exposure film rolls, and any other films received which the ATIRT Photographic Laboratory is capable of processing under the desired controlled conditions. This initial processing and printing of the photographs will be under the direct supervision of the Photographic Engineer, ATIRC. All prints and negatives will be marked for identification of roll and frame numbers, and proper security control numbers will be marked as specified by ATISR.

g. ATISR will provide for screening of film negatives by qualified personnel as soon as development is completed.

(1) The original negatives will be used by ATIRT for immediate projection of one positive film transparency and four paper prints of the specific exposures hand-picked and marked by ATISR. Additional transparencies of specific portions of the films may be required by ATISR.

(2) Unless otherwise specified by ATISR, all positive transparancies and prints will be made including the full format area, without border masking.

h. Following initial processing, the Chief, ATISR, will be project monitor for ATIC. No changes to the procedures will be made without prior clearance of the project monitor, nor will additional internal requirements for photographs be levied on ATIRT without prior approval of ATISR.

i. As soon as initial processing and printing of the selected frames is accomplished, ATISR will obtain one master fine-grain and five duplicate negatives of all film. ATISR will provide monitoring personnel at the 1350th Motion Picture Unit and the WADC Photographic Laboratory to insure proper handling of the film.

j. ATISR will arrange with Wright-Patterson AFB Base Photographic Laboratory for production printing of selected frames to meet Headquarters, USAF, requirements and non-priority internal requirements of ATIC.

Duplicate negatives will be used for these production runs.

k. ATISR will assure that all prints and negatives are properly identified by roll and frame number and that proper security control numbers are marked.

l. The following distribution of the films and prints will be made by ATISR:

(1) ATISR will retain the following:

(a) All original negatives. These will not be handled or utilized again except for imperative reasons where ultimate accuracy is required.

(b) All master fine-grain positives.

(c) Two sets of duplicate negatives.

(d) One complete set of positive transparencies.

(e) One complete set of paper prints.

(2) ATIA will be provided the following:

(a) Three sets of paper prints.

(3) ATIRC will be provided the following:

(a) Two complete sets of duplicate negatives.

(4) The following will be provided to ATISD for transmittal to D/I, Headquarters, USAF:

(a) One complete set of duplicate negatives.

(b) Ten sets of paper prints of the selected frames, unless other requirements are levied by Headquarters, USAF, prior to final reproduction of prints.

m. ATIRC will make a preliminary evaluation of the photographic data and will forward such evaluation, together with one complete set of duplicate negatives, to the field agency which performed the original priority intelligence photography.

n. ATIA will make a preliminary technical analysis based on results of the photographic interpretation and will forward this analysis

AIR TECHNICAL INTELLIGENCE CENTER)
OFFICE INSTRUCTION)
NO. 205-5)

AIR TECHNICAL INTELLIGENCE CENTER
WRIGHT-PATTERSON AIR FORCE BASE
22 AUGUST 1952

CONTROL OF TOP SECRET, REGISTERED, AND "RESTRICTED DATA" DOCUMENTS

CONTENTS

1. PURPOSE. This office instruction implements and amplifies the provisions of AFR 205-1, AFR 205-2, AFR 205-75, and AMCM 205-1 pertaining to the processing and control of TOP SECRET, registered, and "restricted data" documents. In it are contained the policies and procedures that will be used by the Air Technical Intelligence Center to effect this control.

2. DEFINITIONS AND REFERENCES.

a. Document. Any recorded information regardless of its physical form or characteristics. Examples include but are not limited to written

material in its final form, whether handwritten, printed, or typed; painted, drawn or engraved material; sound or voice recordings; printed photographs and exposed or printed film, still or motion pictures; and reproductions of the foregoing, by whatever process reproduced. (Executive Order 10290, page 24 of AFR 205-2).

b. Registered Document. A document bearing the notation "THIS IS A REGISTERED DOCUMENT" and carrying a copy (registry) number, short title, and instructions to account for it periodically. Registered Documents may bear the security classification of CONFIDENTIAL, SECRET, or TOP SECRET. The term "registered document" should not be confused with "registered mail" which refers to the postal system of requiring a receipt for mail sent "registered." Neither should a registered document be confused with a numbered document as defined in AFR 205, par 12n. See AFR 205-1, Section IV, entire.

c. "Restricted Data" Document. A document containing information released by the Atomic Energy Commission. "Restricted data" documents may bear the security classification of CONFIDENTIAL, SECRET, or TOP SECRET. See AFR 205-1D, par 17.

d. TOP SECRET Document. A document containing security information classified TOP SECRET. As used within this instruction, the term "TOP SECRET document" does not include registered and "restricted data" documents classified TOP SECRET. These latter two types of documents if classified TOP SECRET will be referred to as "TOP SECRET registered document" or "registered TOP SECRET document" and "TOP SECRET 'restricted data' document." See AFR 205-1, par 29, and AFR 205-1A, par 20.

e. Abstract. A brief summary or digest of the contents of a document. Not an exact quotation.

f. Extract. An exact quotation or excerpt from a document.

g. Working Level. Any organizational level to which documents are released for use in accomplishing work assignments.

3. THE TOP SECRET CONTROL SYSTEM. TOP SECRET documents are under the jurisdiction of the Hq AMC TOP SECRET Office. The Air Technical Intelligence Center is serviced by the Hq AMC TOP SECRET Control Office, and is, thereby, subject to the provisions of AMCM 205-1. The Hq AMC official is designated the "TOP SECRET Control Officer," while the ATIC official is called the "TOP SECRET Officer." TOP SECRET documents are received by the ATIC through the Hq AMC TOP SECRET Control Office and ATIC initiated TOP SECRET documents are transmitted from the Center through this same office. Identifying numbers for both incoming and outgoing TOP SECRET documents are assigned by the Hq AMC TOP SECRET Control Office, through the ATIC TOP SECRET Officer. Further details concerning the TOP SECRET control system established by Hq AMC may be found in AMCM 205-1, Part II.

4. CONTACT WITH HQ AMC TOP SECRET CONTROL OFFICE. Contacts with the Hq AMC TOP SECRET Control Office will be performed only by the ATIC TOP SECRET Officer or his authorized representative. Persons desiring identification numbers for TOP SECRET documents originating within the ATIC will submit their request, through the working level TOP SECRET custodian, to the Registered Documents Section. The same procedure will be followed in requesting TOP SECRET documents not reposited in the Registered Documents Section and in transmitting TOP SECRET documents from the Center.

5. ATIC INTERNAL CONTROL SYSTEM. Within the Air Technical Intelligence Center, the persons involved in the control system for TOP SECRET, registered, and "restricted data" documents and their responsibilities are as follows:

a. TOP SECRET Officer. The Air Technical Intelligence Center's TOP SECRET Officer is the Chief of the Registered Documents Section (ATIMA-3). He is responsible for the receipt, storage, issuance within the ATIC, transmittal from the ATIC, and effecting destruction of TOP SECRET documents. Registered documents and "restricted data" documents of all classification are also under his jurisdiction. All documents in these three categories will be received and recorded by the Registered Documents Section before they are disseminated to working levels or dispatched from the ATIC.

b. Assistant TOP SECRET Officers. One or more officers, appointed by the Chief, Air Technical Intelligence Center, will assist the TOP SECRET Officer. In the absence of the TOP SECRET Officer, an assistant TOP SECRET Officer will serve as the Chief, Registered Documents Section.

c. Working Level TOP SECRET Custodian and Alternates. One working level TOP SECRET custodian and two alternates will be appointed by the division or staff office chief at whatever organizational levels deemed advisable. The working level TOP SECRET custodian is authorized to receive and sign for TOP SECRET and "restricted data" documents, and to transport these documents to and from the Registered Documents Section. Working level TOP SECRET custodians will be responsible to the ATIC TOP SECRET Officer for the material released to their custody. They will maintain record and take physical inventory of this material each working day. At the direction of their immediate supervisor, they will disseminate this material to persons within the working level who have the required security clearance and the official need to know, by use of the receipt system specified in par 10. Working level TOP SECRET custodians will not be responsible for registered documents (see par 5e). Notice of appointment as working level TOP SECRET custodians and alternates will be made by the division chief on DD Form 96, "Disposition Form" to the persons appointed, with a copy to the Registered Documents Section.

d. Working Level Supervisor. The chief of the working level will review documents received from the Registered Documents Section, except those that have been specifically requested by or are delivered directly to a worker under his supervision, and will decide to whom within the working level the documents should be referred.

e. Working Level Personnel. Persons within working levels who are certified for access to material under the jurisdiction of the Registered Documents Section will be thoroughly familiar with the applicable security regulations. They will insure that the material is safeguarded while in their possession and that it is examined only by persons authorized access (par 6). They will request and receive TOP SECRET documents from their working level TOP SECRET custodian, and will be responsible for returning these documents to the same custodian. Registered documents will be released to them directly from the ATIC TOP SECRET Officer and will be returned to the ATIC TOP SECRET Officer in the same manner. They will be responsible to the ATIC TOP SECRET Officer for the material released to their custody until it is returned, and a receipt for return obtained.

6. ACCESS TO DOCUMENTS. The requirement for access to TOP SECRET, registered, and "restricted data" documents will be determined by the degree of security clearance held and the official need to know. Certification of official need to know will be sent by Disposition Form, over signature of the division chief, to the registered Documents Section, with a copy to the working level TOP SECRET custodian. Contained in the Disposition Form will be the following information:

a. Name of person authorized access and his security clearance.

b. Organizational component to which assigned.

c. Position title, i.e., "Intelligence Analyst."

d. Major fields of activity, i.e. "Electronics."

e. Specific assignments, i.e. "Missile guidance and control," "Communications."

f. Any other information justifying access to TOP SECRET, registered, and "restricted data" documents and indicating the subject matter requirements of the person.

The Registered Documents Section and the working level TOP SECRET custodian will be notified in the same manner of changes in the certified list of persons and their subject matter requirements.

7. USE OF DOCUMENTS. Documents in the custody of the Registered Documents Section may be used by authorized personnel to the extent necessary for the accomplishment of the Center's mission and the person's assigned duties, if the requirements specified below are met.

a. Security Requirements. Security measures specified in AFR 205-1, AMCM 205-1, and this office instruction will be adhered to.

b. Source Identity. The identity of the source will be protected.

c. Document Identity. The original identity of the document will be concealed by utilization of either an ATIC number, a paraphrased subject or title, or Hq AMC TOP SECRET number with short title.

d. Security of Acquisition. The method of obtaining the information in the document, or of the document itself will not be divulged. (Methods of acquisition of intelligence information are apart from any information contained in the document.)

8. EXTRACTS. Material extracted from documents under the jurisdiction of the Registered Documents Section will be processed through the Registered Documents Section under the following conditions:

a. Extracts Classified TOP SECRET. If the extract itself is classified TOP SECRET, it will be processed through the Registered Documents Section. Extracts from TOP SECRET documents classified lower than TOP SECRET need not be referred to the Registered Documents Section. Problems concerning the correct classification of extracts should be referred to the Unit Security Officer.

b. Extracts from Registered Documents. Extracts will not be made from registered documents without proper authorization from the originating agency. If permission for extraction has been obtained from the originating agency, the extract itself must be registered. See AMCM 205-1, Chapter XXII, par 22-4.

9. RELEASE OF DOCUMENTS TO WORKING LEVELS. Accountability for TOP SECRET, registered, and "restricted data" documents will remain with the ATIC TOP SECRET Officer as long as the material is reposited within the Center. This material, except as specified in sub-paragraph d, will be loaned to working level personnel on a person to person basis. All incoming material not specifically requested by working level personnel will be screened by the Registered Documents Section and referred to the certified person who has the need to know. The provisions for release of TOP SECRET, registered, and "restricted data" documents to working levels are as follows:

a. Level of Release. Incoming documents will be routed from the Registered Documents Section directly to the working level of primary interest. TOP SECRET and "restricted data" documents will be released to working level TOP SECRET custodians; registered documents directly to specified personnel.

b. Custody of Loaned Material. The person to whom the document is released by the Registered Documents Section will be responsible for its custody until it is returned to the Registered Documents Section and a receipt for its return received (see par 10).

c. Transfer Between Working Levels. Documents loaned by the Registered Documents Section to a person in one working level will not be transferred directly to a person in a working level serviced by another TOP SECRET custodian. Instead, the document will be returned to the Registered Documents Section for release to the other working level.

d. Loan Period. The loan period for a document will be established by the Registered Documents Section. The length of the period will be based on the complexity of the material and the number of persons who are required to examine it. When necessary, both the date and hour of return will be specified. The initial loan period will not exceed two weeks. Extension of initial period will be granted when justified and if possible. However, the material must be handcarried to the Registered Documents Section for physical inventory if an extension is requested. All material released on loan will be subject to recall by the Registered Documents Section, if necessary, before the loan period expires. Material requiring the immediate attention of a number of persons will NOT be released on loan. Instead, those who have need to examine it will be scheduled to view it in the Registered Documents Section. Notice of schedule will be issued by the Registered Documents Section on Disposition Form.

10. RECEIPT SYSTEM. Documents under the jurisdiction of the Registered Documents Section will be transmitted in and out of the Center, between the Registered Documents Section and working levels, and from one person to another within a working level by the following receipt system.

a. TOP SECRET and "Restricted Data" Documents. A hand receipt will be used to transmit TOP SECRET and "restricted data" documents between Hq AMC TOP SECRET Control Office and the Registered Documents Section, and between the Registered Documents Section and the working levels. AMC Form 9J (formerly 93B), "TSCO Receipt" will be used for this purpose. Within the working level, TOP SECRET and "restricted data" documents will be charged out to working level personnel by ATIC Form 109, "TOP SECRET and 'Restricted Data' Document Charge Out." See Attachment No. 1 to this instruction for procedure for preparing and using this form.

b. Registered Documents.

(1) AF Form 163, "Registered Material - Transfer Report" will be used in issuing registered documents to one specified individual within a working level and for return of the document to the Registered Documents Section. The same form will be used for transmission of registered documents to and from the ATIC.

(2) When it is necessary for another person within the working level to use the same document the person so interested will notify the Registered Documents Section. The Registered Documents Section will issue another copy of the same material on temporary loan basis by AF Form 163.

11. REMOVAL OF DOCUMENTS FROM THE ATIC. Material under the jurisdiction of the Registered Documents Section will not be taken from the Wright-Patterson Air Force Base unless its removal is coordinated in writing with the TOP SECRET Officer, and it is transported in accordance with the provisions of AFR 205-1 and AFR 205-75. Within the Base, these documents may be transported from one building to another without adhering to the foregoing procedure if they are inclosed in double sealed envelopes, the unmarked outer envelope addressed to the Commanding Officer, Air Technical Intelligence Center, Wright-Patterson Air Force Base, Ohio.

12. TRANSMITTAL OF DOCUMENTS FROM THE ATIC. TOP SECRET and registered documents originating within the ATIC will be transmitted from the Center through the Registered Documents Section. After the material has been prepared for transmission, it will be delivered unsealed to the Registered Documents Section for recording and transmittal. See Attachment No. 2 for method of preparing TOP SECRET material for transmittal. All copies, reproduction master, proofs, and waste incident to its preparation will be turned over to the Registered Documents Section at the same time (see ATICOI 205-9).

13. AUTHORITY TO CLASSIFY TOP SECRET. In accordance with paragraph 5, AFR 205-1, only the Chief, ATIC, or his duly authorized designee, is authorized to classify TOP SECRET, material originating within the ATIC.

14. DOWNGRADING AND DECLASSIFYING TOP SECRET MATERIAL. Material classified TOP SECRET will be downgraded and declassified in accordance with proper authority from the originating agency or organization (AFR 205-1, par 27), and specific instructions issued by the Director of Intelligence and the Chief, Air Technical Intelligence Center. The physical action of downgrading and declassification will be effected only by the ATIC TOP SECRET Officer. Operating components will conduct a continuing review of TOP SECRET documents originated by the component to determine if downgrading or declassification is warranted and will notify the Registered Documents Section accordingly.

BY ORDER OF COLONEL O'MARA:

ROBERT E. KENNEDY
Major, USAF
Air Adjutant General

OFFICIAL:

Robert E. Kennedy
ROBERT E. KENNEDY
Major, USAF
Air Adjutant General

2 Incls:
1. Atchmt No. 1 - ATIC Fm 109
2. Atchmt No. 2 - Prep. of ATIC Originated TS Material for Transmittal from the Center

DISTRIBUTION:
"A"

ATTACHMENT NO. 1 TO ATICOI 205-5

ATIC FORM 109, "TOP SECRET,
AND "RESTRICTED DATA" DOCUMENT CHARGE OUT"

ATIC FORM 109, "TOP SECRET, AND "RESTRICED DATA" DOCUMENTS CHARGE OUT"

This form (page 2) will be used to maintain record of the physical location within a working level of TOP SECRET and "restricted data" received from the Registered Documents Section. One of these forms will be prepared and maintained by the working level TOP SECRET custodian for each document received. On it will be recorded the daily charge out and return of the document within the working level. This form will be completed and processed as follows:

1. Items 1, 2, and 3 will be copied from AMC Form 9J (formerly 93B), "TSCO Receipt." Full title will not be used to avoid the necessity for classification of this form.

2. In item 4 will be entered the suspense date set by the Registered Documents Section.

3. In item 5, the supervisor will list the persons within the working level to whom the document is to be referred, in order of routing.

4. Working level personnel who receive the document from the custodian will enter the date and time of receipt and their full signature in columns A, B, and C of item 6.

5. The TOP SECRET custodian will record return of the document from working level personnel by entering full signature, date and time of return in columns D, E, and F.

6. The "Remarks" column (column G) will be used by both the custodian and working level personnel to record disposition and inventory of the document. If a document is not returned to the custodian the same day it is charged out, the "borrower" will enter in this column "Retained" and initial his entry.

7. When the document is out of the custodian's possession, this form will be filed in an "Out" folder.

8. Working level personnel will return a document to the custodian as soon as they have finished with it. They will take a document being retained beyond the day received to the custodian for physical inventory, at least one half hour before closing time, each day it is retained.

9. The custodian will note inventory of retained documents by entering the dates of daily inventory in column G.

10. At least fifteen minutes before closing time the custodian will check the "Out" folder. Should there be any forms remaining in the folder on which the daily inventory has not been noted, the custodian will contact the person to whom the document has been charged and either obtain the document or have the appropriate entries made in column G.

"Restricted data" classified TOP SECRET will be treated as a registered document (par 17h, AFR 205-1D). That is, ATIC Form 109 will not be used to transfer TOP SECRET "restricted data" between working level individuals. Instead, the receipt system specified in paragraph 10b of this basic office instruction will be used.

TOP SECRET, AND "RESTRICTED DATA" DOCUMENT CHARGE OUT

1. Identifying Number	2. Short Title	3. Copy Number	4. Due Date

5. Route To:

(Supervisor's Signature) ____________________ Date __________

6. CHARGE OUT RECORD

A. DELIVERED TO (SIGNATURE OF RECIPIENT)	B. DATE DEL.	C. TIME DEL.	D. RETURNED TO (SIGNATURE OF CUSTODIAN)	E. DATE RET.	F. TIME RET.	G. REMARKS

ATIC FORM 109

Attachment No. 1 to ATICOI 205-5

27 August 1952

ATTACHMENT NO. 2 TO ATICOI 205-5

PREPARATION OF ATIC ORIGINATED TOP SECRET MATERIAL
FOR TRANSMITTAL FROM THE CENTER
(SEE AFR 205-1, AND AFR 205-1A, PAR 28)

I

PREPARATION OF ATIC ORIGINATED TOP SECRET MATERIAL FOR TRANSMITTAL FROM THE CENTER
(SEE AFR 205-1, AND AFR 205-1A, PAR 28)

I TYPE OF MATERIAL	*II TOP SECRET IDENTIFICATION NUMBER	**III SECURITY CLASSIFICATION	IV CLASSIFICATION AUTHORITY	V TOP SECRET COVER (AMC FORM 9G)
1. CORRESPONDENCE	Enter on lower right corner of each page, and on the TOP SECRET cover.	Stamp at top and bottom of each page the appropriate classification for the particular page. Also stamp "Security Information."	Enter on the upper right corner of the first page the following: Classification: TOP SECRET Authority: Chief, Air Technical Intelligence Center By: (Hand written initials over typed signature) Date:	All people who have seen or worked with the material will sign on the back of this form.
2. BOUND DOCUMENTS	Enter on front page, title page, last page, and back cover. Enter in lower right corner.	At top and bottom of each page, enter the appropriate security classification for the particular page, together with "Security Information." Enter the overall security classification (TOP SECRET) on the top and bottom of: (1) Outside front cover (2) Title Page (3) First Page (4) Back Page (5) Outside back cover	Enter on the title page the same information specified above for "Correspondence."	Same as above.

PREPARATION OF ATIC ORIGINATED TOP SECRET MATERIAL FOR TRANSMITTAL FROM THE CENTER
(SEE AFR 205-1, AND AFR 205-1A, PAR 28) (CONTD)

I TYPE OF MATERIAL	*II TOP SECRET IDENTIFICATION NUMBER	**III SECURITY CLASSIFICATION	IV CLASSIFICATION AUTHORITY	V TOP SECRET COVER (AMC FORM 9G)
3. LETTERS OF TRANSMITTAL	Same as for correspondence	If classified TOP SECRET because of inclosures, enter statement of down-grading upon withdrawal of inclosures, or include in letter a paragraph to that effect.	If classified TOP SECRET because of inclosures, omit authority for classification.	Same as above.
4. EXTRACTS FROM TOP SECRET DOCUMENTS	Enter ATIC number and suffix TOP SECRET number on lower right corner of each page and on the TOP SECRET cover, if the extract itself should be classified TOP SECRET.	Enter the security classification warranted by the extracted material.	Indicate the document from which extracted and the original authority for classification, if the extracted passage itself warrants the TOP SECRET classification. If the extract does not warrant the TOP SECRET classification, omit the original authority and enter the ATIC authority. Enter classification authority on upper right hand corner of first page.	Same as above, if the extract is classified TOP SECRET.

* Call ATIMA-3 for ATIC number and suffix TOP SECRET number, as required.

** See AFR 205-1A, par 28c for additional markings (notation) to be entered on TOP SECRET matter.

Attachment No. 2 to ATICOI 205-5 — 27 August 1952

SECRET

(PLACE SECURITY CLASS. HERE)

Air Force WPAFB-O-12 OCT 51 8M

USAF	ATIC	ATIA	ATIAA	ATIAE	ATIAS	ATIR	ATIRL	ATIRC	ATIRE	ATIS	ATISD	ATISG	ATIST	ATIMB
	1									1	1			1

PROJECT NO 602 A--

DATE PROB TO BE DIST:

DATE OF INITIATION 1 July 1952

MAKE 4 COPIES DISTRIBUTE →

DATE OF DISTRIBUTION

TITLE: THE PROCESSING OF CIA "X" DOCUMENTS

PROBLEM PRESENTED: To provide facilities whereby CIA "X" documents requiring special handling can be made available to authorized personnel, and to provide for the necessary administrative, clerical, stenographic and mail services to satisfactorily carry out this project.

SECRET
AUTH: CO, ATIC
BY: [illegible]
CAPT, USAF
DATE: 28 July 1952

FACTUAL DATA: All CIA "X" documents will be received, logged, processed and controlled by ATIMA-3. After CIA "X" documents are disseminated to the working groups they will be handled in accordance with SOP attached to Disposition Form, dated 27 Mar 52, from ATIS-2 (new symbol - ATIMA-3), Subject: (Uncl) Procedure for Handling of "X" Documents. ATIMA-3 will make provisions for the screening of "X" documents before being released to the working groups.

(CONTINUED IN ATT A ☐)

REQUESTED BY ATIC

WHEN WANTED BY ORIGINATOR Continuous (SEE ATT B ☐)

PERT CONTRACTS (OR P.R.)

PROJECT ASSIGNED TO: ATIMA-3

	SYMBOL	TELE. NO.
FROM Captain [illegible]	ATIMA-3	55295
A/O Lt Colonel A. E. McKenzie	ATIM	53114

COST ITEM	Acquisition ATT C ☐ HRS.	Acquisition AMT	Interpretation ATT D ☐ HRS.	Interpretation AMT	Documentation ATT E ☐ HRS	Documentation AMT	ATI Training ATT F ☐ HR	ATI Training MT
LABOR-C					2400	4,188		
LABOR M					1200	1,818		
TRAVEL								
TRANS.								
MAT'L.								
EQUIP'T								
CONTRACT								
SUB. TOTAL					3600	5,940		
GRAND TOTAL: MAN HRS		3,600	AMT	$ 5,940				

APPROVED BY		DATE
ATIA	[illegible]	29 July 52
ATIR	[illegible]	29 July 52
ATIS	[illegible]	
ATIM	[illegible] A. E. McKenzie	29 Jul 52
ATI-2	for [illegible]	
ATI	[illegible]	29 Jul 52

ATIC Form 15
(1 Sep 51)

SECRET

(PLACE SECURITY CLASS. HERE)

T52-13453-3

Supersedes MCI Form 15, 20 Nov 50

RG 341
BOX 43
HQ USAF DCP
CHIEF NRIGHT PAFF

SECRET
(PLACE SECURITY CLASS. HERE)

Air Force WPAFB O 12 OCT 51 6

SECURITY INFORMATION

PROJECT ATTACHMENTS | SPACE RESERVED FOR PATENTED FILE PASTE-ER | ITEM NO 1 | PROJ NO 602

ATT NO	NO ITEM	EXPLANATION OF THE ITEM	EST COST MRS	EST COST DOLLARS	COMPLETIC DATE
E		DOCUMENTATION			
	1	ATIMA-3 will operate in accordance with AMC Organizational Directive 20-220 dated 13 Feb 51, on file in ATIMA-3, and authority Formation of Policy for Handling "X" Documents contained in attached letters from Directorate of Intelligence: Subject: "Formation of Policy for the Handling of J Reports," dated 13 Jul 49 and Subject: "Revised Procedures for Handling Special Documents," dated 26 Dec 51.			
	2	ATIMA-3 will monitor the processing of "X" documents and provide facilities for transmitting them to the working levels.			
	3	ATIMA-3 will provide the necessary administrative, clerical, stenographic services to carry out this project.			
	4	ATIMA-3 will receive, record, index and control all special documents received.			
	5	ATIMA-3 will maintain a list of persons officially cleared for access to "X" documents.			
	6	ATIMA-3 will make provisions to screen all "X" documents.			
	7	ATIMA-3 will assign ATIC numbers to "X" documents when authorized by the Project Monitor.			
	8	ATIMA-3 will prepare index reference cards with subjects and document numbers on all "X" documents for reference file in ATIMA-3.			
	9	ATIMA-3 will keep on file the reproducible copy of abstracts from "X" documents within ATIC.			
	10	ATIMA-3 will prepare a monthly report showing number of "X" documents received, number evaluated, number completed, number discarded, and backlog.			
	11	ATIMA-3 will prepare documents for transmittal by mail.			
	12	ATIMA-3 will initiate requests for additional information with reference to "X" documents.			
	13	Project Monitor will travel to and from Washington, D. C. (20 days TDY)			
	14	Civilian labor	2400		Cont.
		Military labor	1200		Cont.

T52-13453

ATIC Form 150
(1 Sep 51)

SECRET
(PLACE SECURITY CLASS. HERE)

Supersedes MCI Form 150, 20 Nov 50.

SECRET
(PLACE SECURITY CLASS HERE)

SECURITY INFORMATION

Air Force-WPAFB-O-12 OCT 51 1DM

PROJECT ATTACHMENTS | SPACE RESERVED FOR PATENTED FILE PASTE-ON | PAGE NO 2 | PROJ NO 602

ATT. NO.	NO. ITEM	EXPLANATION OF THE ITEM	EST COST HRS	EST COST DOLLARS	COMPLETION DATE
B		Basic letter fr Hq USAF AFOIR-DD to CG AMC 13 Jul 49, "Formation of Policy for the Handling of J-Reports"			

1st Ind MCIAXR/LPM/dw
15 Jul 49

Hq AMC, Wright-Patterson Air Force Base, Dayton, Ohio

TO: Headquarters USAF, Director of Intelligence, ATTN: AFOIR-DD, Washington 25, D. C.

1. The Air Materiel Command is very desirous of receiving the J-Reports. It is considered that their receipt is strictly in line with the technical intelligence mission of this Command, and that the reports will be of great value in the accomplishment of this mission.

2. This Command proposes to handle the J-Reports as follows:

a. All personnel handling the reports will have a Top Secret clearance and will be a native born United States citizen.

b. The reports will be received only by the Project Office, Capt. R. R. Sneider, and as alternate, Lt. James C. Paschal, Analysis Division Security Officer.

c. The reports will be contained in three-combination safes and located in a vault equipped with strong bar and lock. Under no circumstances will these reports be removed from this vault area. The security of the vault will be the responsibility of the Project Officer. Admission to this area will be granted to only a limited number of Project Engineers and clerical personnel, native born and with Top Secret clearance, who will study these reports and accomplish abstracts with absolutely no reference to source. The J-Reports will not be reproduced and will not be disseminated to any lower echelon by this Command.

d. It is anticipated that the needs of the Intelligence Department of this Command can be met by the receipt of one (1) copy of the J-Reports. The reports, as mentioned above, will be maintained in a current file in the special vault, and any copies not needed for reference will be burned and proper notification filed on a certificate of destruction in accordance with applicable security regulations.

3. It is the opinion of the Intelligence Department that the outlined procedure will provide adequate security for the handling of J-Reports, and is being directed to Hq USAF for consideration and approval.

FOR THE COMMANDING GENERAL:

HAROLD E. WATSON
Colonel, USAF
Actg Chief, Intelligence Department

S-62453
T52-13453

ATIC Form 15C
(1 Sep 51)

SECRET
(PLACE SECURITY CLASS HERE)

Supersedes MCI Form 15C 28 Nov 50

SECRET

(PLACE SECURITY CLASS. HERE)

Air Force-WPAFB-O-12 OCT 51 8M

SECURITY INFORMATION

PROJECT ATTACHMENTS	SPACE RESERVED FOR PATENTED FILE FASTENER	PAGE NO 3	PROJ NO 602

ATT NO	NO ITEM	EXPLANATION OF THE ITEM	EST COST HRS	EST COST DOLLARS	COMPLETION DATE
B					

DEPARTMENT OF THE AIR FORCE
HEADQUARTERS UNITED STATES AIR FORCE
WASHINGTON 25, D.C.

AFOIR-DD 13 July 1949

SUBJECT: Formation of Policy for the Handling of J-Reports

TO: Commanding General
Air Materiel Command
Wright-Patterson Air Force Base
Dayton, Ohio

ATTN: Chief, Intelligence Department

1. Through the medium of a joint Army and Air Force program, this headquarters has been receiving what has been designated as J-Reports. For purpose of protecting the source, the dissemination of these reports has been greatly restricted. However, it is the opinion of this Headquarters that J-Reports containing technical information should be disseminated to Air Materiel Command.

2. The continuation of the above described program has been transferred to Central Intelligence Agency. In discussing the Air Force needs with Central Intelligence Agency and in particular our desire to disseminate to Air Materiel Command, their representative requested that certain restrictions regarding the handling of J-Reports be made a matter of record.

3. Therefore, it is requested that your Headquarters prepare a policy statement to this Headquarters regarding the handling of J-Reports (or reports that CIA designates as having similar contents) incorporating the following principles:

a. That such reports will not be reproduced.

b. That such reports will be made accessible to native born U. S. officials only.

c. That these reports will not be disseminated to any lower echelon.

d. That direct references to these reports will not be published in any manner or form.

4. Capt. Arthur D. Gaston is designated as the official courier of this memorandum and is authorized to receive any answer or documents related to this matter.

BY COMMAND OF THE CHIEF OF STAFF:

/s/J. E. Mallory
/t/J. E. MALLORY, COLONEL, USAF
Chief, Documents and Dissemination Br
Air Intelligence Requirements Div

ATIC Form 154
17 Sep 51

SECRET

(PLACE SECURITY CLASS. HERE)

Supersedes MCI Form 161, 28 Nov 50,

T52-13-53

SECRET
(PLACE SECURITY CLASS. HERE)

Air Force WPAFB-O-12 OCT 51 18M

SECURITY INFORMATION

PROJECT ATTACHMENTS

SPACE RESERVED FOR PATENTED FILE FASTENER

ATT. NO.	NO. ITEM	EXPLANATION OF THE ITEM	EST. COST HRS	EST. COST DOLLARS	COMPLETION DATE
B					

PACK NO. 4 — FILE NO. 602

DISPOSITION FORM

SUBJECT: (Uncl) Revised Procedures for Handling Special Documents

TO: AFOIN-C/DD FROM: ATIS-2 DATE: 19 Nov 51 COMMENT NO. 1

Mr. W.E. Goll/ad
Bldg 263/51103

1. Reference is made to letter from this Center dated 23 April 1951, subject same as above, a copy of which is attached, wherein the manner of handling CIA "X" documents and STIB "Dragon Return" reports at AMC was described.

2. Investigations conducted recently indicate that with the increased flow of documents, the measures originally adopted to provide the utmost in security, are creating an excess amount of typing and delays in the utilization of the information contained in the interrogation reports received. The difficulties stem principally from the system of housing the original documents in a special vault and permitting only abstracts to be disseminated to the analysts concerned, in order that the possibility of compromising information regarding sources and methods of collection be minimized.

3. It is now believed that many of the documents received contain so much detail information of air technical importance to several analysis groups that abstraction requires a needless amount of effort and also introduces possibilities of error in transposition of data. Practically all of the difficulties can be eliminated by direct circulation of the reports, or copies thereof, to the analysts who are cleared for the security classification involved and have a definite need for the information.

4. Your comment, therefore, is requested as to a revision of the present procedure in order to permit dissemination of copies of "X" documents and "Dragon Return" reports to personnel in the analysis groups who are properly cleared for access to these types of data. Distribution will be made by standard control procedures now in effect to protect classified material. Authority is also requested to reproduce both types of reports where more than one working copy is required to permit expeditious operations whenever necessary.

1 Incl:
Cy ltr dtd 23 Apr 51

FRANK L. DUNN, COLONEL, USAF
Chief, Air Technical Intelligence Center

51S-57237-C

T52-13453

ATIC Form 154
(1 Sep 51)

SECRET
(PLACE SECURITY CLASS. HERE)

Supersedes MCI Form 154, 20 Nov 50

SECURITY INFORMATION

SECRET
(PLACE SECURITY CLASS. HERE)

Air Force WPAFB-O 12 OCT 51 500

PROJECT ATTACHMENTS | SPACE RESERVED FOR ATTENTED FILE PAGE | PAGE NO 5 | FORM NO 602

ATT NO.	NO ITEM	EXPLANATION OF THE ITEM	EST COST HRS	EST COST DOLLARS	COMPLETION DATE
B		DISPOSITION FORM			

SUBJECT: (Uncl) Revised Procedures for Handling Special Documents

TO: Chief, Air Technical Intelligence Center
Wright-Patterson AFB
Dayton, Ohio

FROM: Dept of the Air Force
Hq USAF, AFOIN-C/DD

DATE: 26 Dec 51

COMMENT NO. 2
Lt Col Adams/kt/53093

1. Reference paragraph 4 above, AFOIN-C/DD has checked the control and source of the referenced documents and it has been determined that there is no objection to disseminating copies of "X" documents and "Dragon Return" reports to personnel in the analysis groups who are properly cleared for access to the security classification assigned to these documents. Authority is also granted to reproduce copies of "Dragon Return" reports.

2. The reproduction of SOX reports is still prohibited and it is suggested that extractions be made of pertinent information, deleting all reference to the source of the document.

1 Incl
n/c

HERBERT L. PHILLIPS,
Lt Col, USAF
Actg Chief, Documents & Dissemination Br.
Collection Division
Directorate of Intelligence

51S-57237-C

T52-13453

AFIC Form 150
1 Sep 51

SECRET
(PLACE SECURITY CLASS. HERE)

Supersedes MIT Form 1 of 28 Nov 50

ATT NO	NO ITEM	EXPLANATION OF THE ITEM	EST COST DOLLARS	COMPLETION DATE
B				

HEADQUARTERS
AIR MATERIEL COMMAND
WRIGHT-PATTERSON AIR FORCE BASE
Dayton, Ohio

MCISXW/RRS/vhl
23 April 1951

SUBJECT: Revised Procedures for Handling Special Documents

TO: Director of Intelligence
Headquarters USAF
ATTN: Colonel J. E. Mallory
Chief, Document & Dissemination Branch
Washington 25, D. C.

1. The attached copies of revised standing operating procedure for the processing and handling of special documents are submitted for your information and file.

2. The Special Document Project Office was established in June 1949 in the Intelligence Department, Headquarters Air Materiel Command to afford an activity wherein a maximum type of security control could be maintained in the handling and dissemination of a controlled type of Air Technical Intelligence information derived from documents which required extraordinary security precautions in order to safeguard the source, office of origin and content of certain documents:

a. Documents coming within purview and intent of these established policies include "J" documents, CIA "SO ___ x" documents and some "STIB" reports which are based on code word or code name projects whose nature it was considered desirable to give more than usual security protection.

b. Access to these documents are given only to native born U.S. citizens possessing a Top Secret clearance whose names are listed as authorized access by order of Chief, Intelligence Department.

c. Original documents are received and transmitted by sealed registered mail or Top Secret channels when indicated by nature of classification directly to addressees from and to the Special Document Project Office, Intelligence Department (Major Robert R. Sneider).

d. Restrictions against removal of original documents from vault files, reproduction and dissemination of original documents to lower echelons, usage of original identification numbers and titles prevail as fixed policy.

e. Minor changes include designation of "secure areas" and "area officers" within the Intelligence Department (see I.D. O.I. 205-7 attached.)

515-5723-2

SECURITY INFORMATION

SECRET (PLACE SECURITY CLASS HERE)

Air Force WPAFB-O-12 OCT 51 8M

PROJECT ATTACHMENTS

SPACE RESERVED FOR PATENTED FILE FASTENER

PAGE NO. | FILE NO. 602

ATT NO.	NO. ITEM	EXPLANATION OF THE ITEM	EST COST HRS	EST COST DOLLARS	COMPLETION DATE
B		B/L fm Hq AMC to Hq USAF dtd 23 Apr 51, subj: "Revised Procedures for Handling Special Documents"			

It remains the duty of the "area officer" to implement existing directives and policies so as to afford maximum use and control of the material they are charged with in their area.

FOR THE COMMANDING GENERAL:

3 Incls:
1. I.D. O.I. 205-7
2. SOP - "J"
3. SOP - "STIB"

HAROLD E. WATSON
Colonel, USAF
Chief, Intelligence Department

COPY TO:
Colonel L. S. Harris
TCB

51S-5723-2

T52-13453

ATIC Form 1 ...

SECRET (PLACE SECURITY CLASS HERE)

Supersedes ... Form ... 20 Nov ...

(PLACE SECURITY CLASS. HERE) RESTRICTED

Air Force-WPAFB-O-12 OCT 51 8M

PROJECT REPORT & TERMINATION FORM	USAF	ATI-2	ATIA	ATIAA	ATIAE	ATIAS	ATIR	ATIRL	ATIRC	ATIRF	ATIS	ATISD	ATISE	ATIST	ATIMB		PAGE NO. 1	PROJ. NO. 602
MAKE 4 COPIES — DISTRIBUTE TO →		1									1	1			1			C-3

ITEM NO.	ITEM NOT ON TIME	STATUS OF ITEM	NEW COMPLETION DATE
		SECURITY INFORMATION	

TO: ATIM COMMENT NO. 1 25 September 1952

1. It is requested that Project No. 602 be terminated as of 25 September 1952. Subject project is to be transferred from ATIMA-3 to ATISD.

2. This project is being transferred in accordance with Memorandum For Record dated 3 September 1952 from ATIMA-3 to ATI, coordination completed 5 September 1952 by each division in ATIC.

3. The new project monitor is Major Evan T. Hopkins, ATISD, 66320.

4. The new approving official is Major Walter D. Keach, ATIS, 52233.

Barbara P. Hanawalt

BARBARA P. HANAWALT, 2d Lt, USAF

15B
51)

RESTRICTED
(PLACE SECURITY CLASS. HERE)

Supersedes MCI Form 15B, 20 Nov 50.

(PLACE SECURITY CLASS. HERE) RESTRICTED

Air Force-WPAFB-O-12 OCT 51 8M

PROJECT REPORT & TERMINATION FORM

USAF	ATI-2	ATIA	ATIAA	ATIAE	ATIAS	ATIR	ATIRL	ATIRC	ATIRF	ATIS	ATISD	ATISE	ATIST	ATIX
	1									1	1			1

PAGE NO. 1 | PROJ. NO. 602

MAKE 4 COPIES | DISTRIBUTE TO ➡

C—2

ITEM NO.	ITEM NOT ON TIME	STATUS OF ITEM	NEW COMPLETION DATE

SECURITY INFORMATION

On Hand 8/31/52	Documents Received	Documents Abstracted	Abstracts Prepared	Documents Discarded	Backlog
263 "X"	33 "X"	66 "X"	66 "X"	113 "X" None (TS)	* 150 "X" None (TS)
	33 "X" None (TS)	66 "X" None (TS)	66 "X" None (TS)	Preliminary Screening 40 "X" Intell Specialists Screening 73 "X"	

* 150 "X" - Total includes seven (7) documents rescreened during the month of August and were found to be of no interest.

Noted:
A-2 McKinzie

Barbara P. Hauswald
2d Lt, USAF

Noted
9/12

ATIC Form 15B
(Rev 1 Sep 51)

RESTRICTED
(PLACE SECURITY CLASS. HERE)

Supersedes MCI Form 15B, 20 Nov 50.

(PLACE SECURITY CLASS. HERE) RESTRICTED

Air Force-WPAFB-O-12 OCT 51 8M

PROJECT REPORT & TERMINATION FORM

MAKE 4 COPIES

DISTRIBUTE TO →

USAF	ATI-2	ATIA	ATIAA	ATIAE	ATIAS	ATIR	ATIRL	ATIRC	ATIRF	ATIS	ATISD	ATISE	ATISI	ATIMB
	1									1	1			1

PAGE NO. 1 — PROJ. NO. 602 — C— 1

ITEM NO. | ITEM NOT ON TIME | STATUS OF ITEM | NEW COMPLETION DATE

SECURITY INFORMATION

On Hand 7/31/52	Documents Received	Documents Abstracted	Abstracts Prepared	Documents Discarded	Backlog
329 "X"	100 "X"	26	26	142 "X" None (TS)	* 263 "X" None (TS)
	100 "X" None (TS)	24 "X" 2 (TS)	24 "X" 2 (TS)	Preliminary Screening 134 "X" Intell Specialists Screening 8 "X"	

* 263 "X" - Total includes additional pages of one (1) "X" Document previously received.

Robert J. Snaider Major USAF

TO: ATI-2 Cmt 2 6 Aug 52

Recommend approval.

A. S. McKenzie

ATIM CMT 3 11 Aug 52

1- Approved

[signature]

ATIC Form 15B (Rev 1 Sep 51)

(PLACE SECURITY CLASS. HERE) RESTRICTED

Supersedes MCI Form 15B, 20 Nov 50.

SECURITY INFORMATION

(PLACE SECURITY CLASS HERE) RESTRICTED

Air Force-WPAFB-O-12 OCT 51 8M

PROJECT REPORT & TERMINATION FORM

MAKE 6 COPIES

DISTRIBUTE TO →

USAF	ATI-2	ATIA	ATIAA	ATIAE	ATIAS	ATIR	ATIRL	ATIRC	ATIRF	ATIS	ATISD	ATISE	ATISI	ATIMB	PAGE NO.	PROJ. NO.
	1									1	1			1	1	2002

C-15

ITEM NO.	ITEM NOT ON TIME	STATUS OF ITEM	NEW COMPLETION DATE

SECURITY INFORMATION

TO: ATIS COMMENT NO. 1 28 July 1952

1. It is recommended that Project No. 2002 be terminated as of 30 June 1952. Subject project is to be transferred from ATIS to ATIM and renumbered 602.

2. The new project monitor is Captain Ray C. Newson, ATIMA-3, 55295.

3. The new approving official is Lt Colonel A. E. McKenzie, ATIM, 53114.

Robert A. Snaider, Major, USAF

TO: ATI CMT #2 31 Jul 52

Recommend project be renumbered. Walter D. Leach, Major USAF

TO: ATI-2 Cmt 3 6 Aug 52

Recommend approval. A. E. McKenzie

ATIM Cmt 4 11 Aug 52

Approved

[signature]

ATIC Form 15B
(Rev 1 Sep 51)

(PLACE SECURITY CLASS HERE) RESTRICTED

Supersedes MCI Form 15B, 20 Nov 50.

SECURITY INFORMATION SECRET

SECRET
AUTH: CO, ATIA
BY: Capt. K.C. Newson
DATE: 3 Sep 52

TO: Colonel O'Hara

ATIMA-3/Lt Hanawalt/ej/55295
3 September 1952

MEMORANDUM FOR RECORD

PROBLEM:

To establish uniformity within the Air Technical Intelligence Center in the dissemination of documents to the working groups. To accomplish this uniformity transfer dissemination of CIA "X" documents from ATIMA-3 to ATISD.

FACTS AND DISCUSSION:

1. Disposition Form, dtd 19 Nov 51, to AFOIN-C/DD (AFOIN-1A1), Subj: (Unal) Revised Procedure for Handling Special Documents, was forwarded from this Center requesting a revision of the procedure established in letter dtd 23 Apr 51, Subj: same, to D/I, Hq USAF, Attn: Col Mallory from Col Watson, former Chief, ATIC, re dissemination of "X" and "Dragon Return" documents. (See Exhibit "A")

2. Indorsement dated 26 Dec 51, from Hq USAF, AFOIN-C/DD (AFOIN-1A1-1A2) was forwarded to Chief, ATIC from Lt Col Herbert L. Phillips, Acting Chief, DD Br, Collection Division, D/I, USAF, authorizing the dissemination of copies of "X" and "Dragon Return" documents to personnel in the ATIC working level properly cleared for access to these documents. Authority was further granted to reproduce copies of "Dragon Return" reports. Reproduction of the "X" documents was still prohibited. (See Exhibit "B")

3. As a result of this authority the "Dragon Return" documents classified Secret and lower were transferred to ATISD from ATIMA-3 to be received, processed and handled entirely within routine document processing and screening. The "X" documents were not transferred to ATISD at the same time although their classification is Secret and lower.

CONCLUSIONS:

The function of ATIMA-3 is to process Top Secret, Registered Documents and Restricted Data. Since "X" documents have the classification of Secret or lower, the function of processing them is not that of ATIMA-3 but ATISD. A complete and thorough inventory has just been made of all "X" documents. Project 602 re "X" documents has recently been approved by all divisions. Therefore, there is no reason why the processing and control of "X" documents as set forth in Project 602 cannot immediately be transferred to ATISD from ATIMA-3. All necessary security precautions previously established concerning "X" documents will not be changed.

SECRET

T52-15075

Cy #4

ATTI INFORMATION **SECRET**

RECOMMENDATIONS:

It is recommended that Project 602 be transferred without delay from ATIEA-3 to ATISD after coordination of this Memorandum for Record is completed.

COORDINATION:

ATIEA-3	Lt Hanawalt, Section Chief	/s/Barbara T. Hanawalt	3 Sep 52
ATIE	Lt Col McKenzie, Actg Div Chief	/s/A. E. McKenzie	3 Sep 52
ATISD	Major Hopkins, Branch Chief	/s/Evan T. Hopkins	5 Sep 52
ATIS	Major Lasch, Division Chief	by /s/Evan T. Hopkins	5 Sep 52
ATIA	for Col Bower, Division Chief	/s/L.O. Breckenridge	5 Sep 52
ATIR	Lt Col Brownewell, Div Chief	/s/John L. Brownewell	5 Sep 52
ATI	Colonel O'Mara, Commanding Officer	/s/ John A. O'Mara	5 Sep 52

T52-15075

NEED COPIES

REFERENCE SERVICE SLIP

DATE: 23 MAR 01 | NO.:

NAME OF REQUESTOR: Nick Reeding

AGENCY OR ADDRESS:

UNITS OF SERVICE

INFORMATION SERVICE (Number of replies)		RECORDS FURNISHED (Number of items)	TEXTUAL, STILL PICTURES, ETC. (Number of pages)	MOTION PICTURES (Number of feet)	SOUND RECORDINGS (Number of feet)
WRITTEN	ORAL				
		1			

SOURCE OF REQUEST (Check)

- NA Administrative Use
- Agency of Origin
- Other Government
- Nongovernment

REQUEST HANDLED BY: [illegible]

RG NO.	STACK AREA	ROW	COMPARTMENT	SHELF	OUTCARD NO.
341	190	67	33	06	

RECORD IDENTIFICATION

"PROJECTS 1944-52 (RECORDS RELATING TO POLICIES + PROCEDURES FOR THE PROCESSING, RECORDING, MAINTENANCE AND DISSEMINATION OF SPECIAL INTELLIGENCE (REGISTERED DOCUMENTS, 1944-52)"

BOX 124

RECEIVED BY	DATE	RETURNED TO	DATE

NATIONAL ARCHIVES AND RECORDS ADMINISTRATION — DO NOT REMOVE FROM RECORDS — NA FORM 14001 (11-85)

Annual Orders Part 13

ORGANIZATIONAL SYMBOLS FOR THE AIR TECHNICAL INTELLIGENCE CENTER

NAME	SYMBOL
Office of the Commander	ATI
Assistant to the Commander	ATI
Scientific Advisor's Office	ATI
Adjutant's Office	ATIG
Administrative Branch	ATIG-1
Mail Branch	ATIG-2
Records Branch	ATIG-3
Registered Documents Branch	ATIG-4
Policy and Management Office	ATIM
Contract Administrator	ATIM
Budget and Accounting Branch	ATIMC
Personnel Branch	ATIMP
Military Personnel Section	ATIMP-1
Civilian Personnel Section	ATIMP-2
ATLO Processing Section	ATIMP-3
Management Analysis Branch	ATIMM
Air Intelligence Office	ATIX
Research and Publications Branch	ATIXP
Briefing Branch	ATIXB
Technical Requirements Division	ATIR
Administrative Office	ATIR-1
Collection Planning Office	ATIR-2
Control Branch	ATIRC
Requirements Section	ATIRC-1
Operations Section	ATIRC-2
Foreign Activities Section	ATIRC-3
ATI Indoctrination Branch	ATIRT
Photographic Section	ATIRT-1
Training Administration Section	ATIRT-2
ATI Training Section	ATIRT-3
Technical Analysis Division	ATIA
Plans, Operations, and Administrative Office	ATIA-2
Technical Advisor's Office	ATIA-3
Aircraft and Propulsion Branch	ATIAA
Aircraft Section	ATIAA-2
Propulsion Section	ATIAA-3
Guided Missiles Section	ATIAA-4
Electronics Branch	ATIAE
Radiation Section	ATIAE-2
Signal Analysis Section	ATIAE-3
Science and Components Section	ATIAE-4
Aerial Phenomena Section	ATIAE-5

Attachment No. 1 to ATICOI 20-2 — 6 May 1954

NAME	SYMBOL
Technical Analysis Division (cont'd.)	
Weapons and Industry Branch	ATIAW
Armament Section	ATIAW-2
Industry Section	ATIAW-3
Special Weapons Section	ATIAW-4
Equipment Section	ATIAW-5
Technical Services Division	ATIS
Administrative Office	ATIS-1
Plans and Operations Office	ATIS-2
Flight Operations Office	ATIS-3
Document Services Branch	ATISD
Document Processing Section	ATISD-1
Document Screening Section	ATISD-2
Translation Section	ATISD-3
Document Repository Section	ATISD-4
Reproduction and Graphic Services Branch	ATISR
Reproduction Section	ATISR-1
Graphic Services Section	ATISR-2
Graphic Data Section	ATISR-3
Materiel Services Branch	ATISE
Foreign Equipment Section	ATISE-1
ATI Supply Section	ATISE-2
Maintenance and Service Section	ATISE-3
Troop Commandant	ATITC
USAF Security Service Detachment	USAFSSO

CONFIDENTIAL

AIR TECHNICAL INTELLIGENCE CENTER)
OFFICE INSTRUCTION)
NO. 10-3)

AIR TECHNICAL INTELLIGENCE CENTER
WRIGHT-PATTERSON AIR FORCE BASE
6 AUGUST 1951

Correspondence

TRANSMITTAL OF CORRESPONDENCE TO PROJECT STORK

1. PURPOSE. The purpose of this instruction is to designate proper procedure to be used in transmitting correspondence to the Battelle Memorial Institute (Project Stork.)

2 ADDRESSING CORRESPONDENCE. When envelopes are addressed to the Project Stork contractor, neither Air Technical Intelligence Center nor the contractor's name will appear on the outside of the envelope Envelopes will be addressed as follows:

a. Type contractor's address:

P.O. Box 216
Station A
Columbus, Ohio

b. Type the ATIC return address:

P.O. Box 4118
Headquarters Air Materiel Command
Wright-Patterson Air Force Base
Dayton, Ohio

3. COORDINATION. All correspondence addressed to Project Stork will be hand-carried to the Project Officer of "Stork," Lt. Colonel Michael J. Piatnitza, ATIA, for coordination. The Project Officer at this time will also inspect envelopes for proper address.

BY ORDER OF COLONEL WATSON:

MURRAH S. STURGIS
Captain, USAF
Air Adjutant General

OFFICIAL

MURRAH S. STURGIS
Captain, USAF
Air Adjutant General

DISTRIBUTION:
"S"

CONFIDENTIAL

ATIA NOTICE)

TECHNICAL ANALYSIS DIVISION
AIR TECHNICAL INTELLIGENCE CEN.
WRIGHT-PATTERSON AIR FORCE BASE
2 January 1952

Administrative Practices

PROJECT "STORK"

1. All ~~Intelligence Department~~ ATIC directives for services to be performed on Project Stork will be reviewed and coordinated with the Project Officer.

2. The Project Officer will be Mr. Miles E. Goll, Extension 57120. The Assistant Project Officer will be Capt. Francis H. McGovern, Extension 51262.

3. The following procedures will be instituted on all correspondence concerning the above reference contract.

a. Outgoing correspondence - Normal coordination will be affected and the subject correspondence ~~forwarded~~ hand-carried to ATIA for approval by the Project Officer prior to signature. Signature policies now in force will then apply.

b. Incoming correspondence - All incoming correspondence relating to subject contract will be forwarded to the Project Officer prior to the initiation of any action.

c. Project Officer will review such correspondence and forward to appropriate action agency.

d. All correspondence pertaining to this contract and Project STORK will reference the actual project number (classified) in the subject of the correspondence.

4. The above cited policy will be in affect until rescinded or modified by directives.

S. H. KIRKLAND JR.
Colonel, USAF
Chief, Technical Analysis Division
Air Technical Intelligence Center

DISTRIBUTION - "B"

ATIA NOTICE)

TECHNICAL ANALYSIS DIVISION
AIR TECHNICAL INTELLIGENCE CENTER
WRIGHT-PATTERSON AIR FORCE BASE
2 January 1952

INITIATING A STORK PROJECT

1. To initiate an intelligence requirement (study or materiel analysis) that is to be accomplished by Project STORK, a Project Proposal Sheet (PPS) (ATI Form No. 18) setting forth the proposal, can be prepared by anyone within the Intelligence Department or by the Contractor and submitted to ATIA for action.

2. The PPS will explain concisely the study or analysis that is required. A clearly defined Intelligence objective should be evident.

3. All PPS's will be directed to ATIA, Attn: Mr. Miles E. Goll (Project Officer), or Capt. Francis E. McGovern, Assistant Project Officer.

4. The Project Officer will determine if other elements of the Intelligence Department are affected and will seek their comments as to their requirements or participation either through consultation or written comment (most likely both).

5. Contractor will also make his comments relative to the initial proposal (and vice versa if PPS originates with contractor)

6. The Division Chief ATIA will review the PPS and all comments. He will issue necessary instructions and authorize further planning by the contractor.

7. The approved PPS (Para. 6) will be directed to the Stork Project Officer (contractor) for purposes of detailed planning and finalization, including estimated cost of project (dollars or manhours): estimated completion date; etc. Contractor will effect necessary liaison with appropriate personnel.

8. The final work plan will be coordinated with appropriate working level personnel and given final approval by the Division Chief, ATIA prior to the initiation or work by the Stork Contractor.

9. Forms for Project Stork can be obtained from the Supply Room and can be referred to as MCI Form No. 18 the "Project Proposal Sheet" and MCI Form No. 18A the "Project Proposal Commentary Sheet".

DISTRIBUTION - "B"

S. H. KIRKLAND JR.
Colonel, USAF
Chief, Technical Analysis Division
Air Technical Intelligence Center

MCIA

MCIAN 45

MCIA NOTICE)
NO. 45)

TECHNICAL ANALYSIS DIVISION
HEADQUARTERS, AIR MATERIEL COMMAND
WRIGHT-PATTERSON AIR FORCE BASE
7 March 1951

INITIATING A STORK PROJECT

1. To initiate an intelligence requirement (study or materiel analysis) that is to be accomplished by Project STORK, a Project Proposal Sheet (PPS) (MCI Form No. 18) setting forth the proposal, can be prepared by anyone within the Intelligence Department or by the Contractor and submitted to MCIA for action.

2. The PPS will explain concisely the study or analysis that is required. A clearly defined Intelligence objective should be evident.

3. All PPS's will be directed to MCIA, Attn: Lt Colonel Michael J. Piatnitza, (Project Officer).

4. The Project Officer will determine if other elements of the Intelligence Department are effected and will seek their comments as to their requirements or participation either through consultation or written comment (most likely both).

5. Contractor will also make his comments relative to the initial proposal (and vice versa if PPS originates with contractor)

6. The Division Chief (MCIA) will review the PPS and all comments. He will issue necessary instructions and authorize further planning by the contractor.

7. The approved PPS (Para. 6) will be directed to the Stork Project Officer (contractor) for purposes of detailed planning and finalization, including estimated cost of project (dollars or manhours): estimated completion date; etc. Contractor will effect necessary liaison with appropriate personnel.

8. The final work plan will be coordinated with appropriate working level personnel and given final approval by the Division Chief, MCIA, prior to the initiation of work by the Stork Contractor.

9. Forms for Project Stork can be obtained from the Supply Room and can be referred to as MCI Form No. 18 the "Project Proposal Sheet" and MCI Form No. 18A the "Project Proposal Commentary Sheet".

BRUNOW W. FEILING
Colonel, USAF
Chief, Technical Analysis Division
Intelligence Department

DISTRIBUTION - "B"

12. NARA_Growing_UFO_Involvment_1947-52.pdf

Original start page:	767	**Inserted note page:**	778	**Archive starts after note:**	779

Why it belongs in this release

Shows CIA scientific-intelligence growth, OSI authority disputes, U-2/Area 51, CORONA, NPIC, and NRO-style secrecy architecture.

Complete release-note text from UAP 4

2. NARA_Growing_UFO_Involvment_1947-52.pdf — CIA science, reconnaissance, and compartment growth.

This file is important because it shows the CIA’s Office of Scientific Intelligence emerging from wartime and early Cold War scientific-intelligence channels, while also facing disputes over whether it should analyze foreign weapons systems such as guided missiles. It then traces the growth of CIA-Air Force high-technology secrecy through Edwin Land, AQUATONE/U-2, Area 51, CORONA, NPIC, and NRO-related coordination. Congress and NARA should follow this chain into CIA OSI, CIA Directorate of Science and Technology, NPIC, NRO, Lockheed Skunk Works, Air Force Systems Command, and Area 51/Nevada test-site records. If UFO programs were absorbed into reconnaissance, sensor, propulsion, or aerospace-compartment structures, this document points to the correct bureaucratic neighborhoods to investigate.

Source: UAP 4 - Archives Release Notes(2).docx. This note page was inserted immediately before the archive file.

http://www.gwu.edu/~nsarchiv/NSAEBB/NSAEBB54/index.html

Note: The following documents are in PDF format.
You will need to download and install the free Adobe Acrobat Reader to view.

Growing Involvement: 1947-1962

Document 1

Memorandum for the Record, Subject: Responsibilities of the Office of Scientific Intelligence, November 29, 1951, 2 pp.
Source: National Archives, CIA 1998 Release: RG 263, Box 209, Folder 3

Scientific intelligence production in the CIA began with a Scientific Branch in the Office of Reports and Estimates. On December 31, 1948, the branch was merged with the Nuclear Energy Group of the Office of Special Operations to form the Office of Scientific Intelligence (OSI).

This memorandum reviews the origins of OSI as well as examining some of the difficulties it faced as of late 1951. In its early years OSI faced opposition from outside the CIA with regard to two issues: the extent of its authority over other elements of the intelligence community and its belief that its work should involve the technical analysis of foreign weapons systems such as guided missiles – the latter being a sore point with the military service intelligence organizations. In addition, the operations elements of the CIA did not believe they should take OSI direction with regard to the collection of scientific intelligence.

Document 2

CIA, Memorandum for the Record, Subject: Project ARTICHOKE, January 31, 1975, 5 pp.
Source: John Marks Donation

Among the CIA's early scientific interests were "special" interrogation methods, including the use of drugs and chemicals, hypnosis, and isolation. A number of CIA units, including OSI, the Inspection and Security office, and the Technical Services Staff would be involved in investigating such techniques. In 1949-50 experiments were conducted under a program designated BLUEBIRD, which subsequently became known as ARTICHOKE.

This memo written in 1975, as such CIA activities were about to become the focus of Congressional and public attention, provides a brief history of these efforts through 1960, and includes a short discussion of the death of Frank Olson, who committed suicide after a CIA official secretly administered a dose of LSD to the Army scientist under a program designated MKULTRA.

Document 3

Letter, Edwin Land to Allen Dulles, November 5, 1954 w/att: Memorandum for: Director of Central Intelligence, Subject: A Unique Opportunity for Comprehensive Intelligence, November 5, 1954, 6 pp.
Source: Dwight D. Eisenhower Library

In a number of ways, this letter and the attached memorandum represent a key turning point in the history of the CIA. Its author, Edwin Land, Polaroid's chief executive officer, would go on to become a key adviser to the CIA's science and technology effort for over three decades.

The letter and memorandum, written in Land's capacity as chairman of the intelligence committee (Project 3) of President Dwight Eisenhower's Technological Capabilities Panel, urged a reluctant Allen Dulles, the Director of Central Intelligence, to pursue development of a special high-altitude aircraft to overfly the Soviet Union and obtain detailed photographs of Soviet installations. The ultimate result would be a CIA-Air Force program, first known as AQUATONE, and subsequently as CHALICE and IDEALIST, that resulted in the development (by Lockheed's Skunk Works) and deployment of the U-2 aircraft, which remains in operation today.

Document 4

Herbert I. Miller, Memorandum for: Project Director, Subject: Suggestions re the Intelligence Value of AQUATONE, July 17, 1956. Top Secret, 3 pp.
Source: National Archives, CIA 2000 Release

On July 25, 1955, less than eight months after Lockheed had been given official approval to begin the project, the first U-2 aircraft was delivered to the secret Nevada test site that would become known as Area 51. On July 4, 1956, after overflights over Eastern European countries, the first U-2 targeted on the Soviet Union photographed Leningrad's naval shipyards, as well as several major military airfields. The following day, another mission overflew Moscow as well as a number of airfields in an attempt to determine the threat from Bison heavy bombers. The intelligence from these early U-2 missions would be crucial in eliminating U.S. fears of a "bomber gap."

Three additional overflights followed, on July 9 and 10. Also, on July 10 the Soviets, who proved more capable of detecting the flights than hoped, filed their first protest note concerning the intrusions. As a result, later that day, President Eisenhower ordered a halt to all overflights until further notice. This memo, by CIA official Herbert Miller, summarizes the intelligence value of the AQUATONE flights and argues that the danger to the United States of stopping the flights was greater than that of continuing them.

Document 5

CIA, Project CORONA, April 25, 1958, 6 pp.
Source: NRO CORONA-ARGON-LANYARD Collection:1/A/0001

On February 7, 1958 James Killian, who had served as chairman of the Technological Capabilities Panel, and Edwin Land met with President Eisenhower to discuss the limited progress the Air Force was making in trying to develop a photographic reconnaissance satellite. The primary objective of the Air Force program, then known as SENTRY and subsequently as SAMOS, was to develop a satellite that would electronically scan the photographs obtained by its camera and

transmit the data to a ground station, where it would be reconstructed into a photograph.

At that meeting Eisenhower confirmed a decision he made the day before – to assign the CIA the responsibility for developing a reconnaissance satellite that could eject its film for recovery on earth. The CIA's Richard Bissell, who, along with Lockheed's Kelly Johnson, had successfully managed the development of the U-2, was assigned responsibility for developing the film-return satellite. The project would soon be codenamed CORONA. For security reasons little was written down in the early days of the program. This outline statement sets forth the objectives of the CORONA program only a few months after it was established.

As indicated in the outline, CORONA was intended to be a short-term program, ultimately to be replaced by the Air Force's SAMOS system. However, all the versions of SAMOS would be cancelled before the end of 1962, and CORONA would continue until mid-1972.

Document 6

Richard M. Bissell Jr., Deputy Director for Plans, Memorandum, Subject: ELINT Requirements Requiring Sensitive Collection, September 9, 1959, 2 pp.

Source: National Archives, CIA 2000 Release

The National Security Agency (NSA) was established in 1952, within the Department of Defense, to manage the national signals intelligence effort, including the communications intelligence activities of the military services. In 1958, it was also made responsible for supervising military service electronic intelligence (ELINT) efforts. The NSA, however, proved unable to satisfy the CIA's need for certain types of ELINT – including intercepts of telemetry from Soviet missiles undergoing testing as well as ELINT concerning Soviet radar systems which could detect CIA reconnaissance aircraft. As a result, the CIA would become heavily involved in electronic intelligence collection – from aircraft, ground stations, ships, and eventually satellites. In 1954, Allen Dulles approved the CIA's first ELINT plan. This 1959 memo represents another step in the CIA's growing responsibility for ELINT collection.

Document 7

Office of Scientific Intelligence, The French Nuclear Weapons Program, November 13, 1959, 10 pp.

Source: Freedom of Information Act Request

Throughout its existence, OSI's primary concern was the nuclear programs of both allied and adversary nations. Even the nuclear program of a nation such as the Netherlands was the subject of OSI analysis. The purpose of this report on the French nuclear weapons program was to "assess French capability to produce fissionable material and to develop, test, and produce nuclear weapons; and to estimate the likely timing of the first French nuclear weapons test." Topics discussed in the report include the availability of uranium, plutonium production

and extraction, uranium isotope separation, weapons research and development, and nuclear weapons testing.

Document 8

Gene Poteat, "Stealth, Countermeasures, and ELINT, 1960-1975," *Studies in Intelligence*, 48, 1 (1998): 51-59, 9 pp.

Source: Donation

The CIA's ELINT program included the collection of precise data concerning radars that would detect U.S. reconnaissance aircraft. One aspect of this "Quality ELINT" program involved flying specially equipped aircraft in the vicinity of the radars – radars located in Eastern Europe, the Soviet Union, Cuba, North Vietnam, and elsewhere. In 1958, the CIA made the first significant attempt to measure the power of a radar for intelligence purposes. The targeted radar was the Bar Lock, which was extensively deployed in East Germany. Equipment capable of measuring the power output of a radar was installed in a C-119 aircraft and a series of flights, ostensible supply missions through the air corridors to Berlin, followed.

Another means of evaluating the threat from foreign radars, and of accumulating information that might allow planes to be designed to avoid detection was a highly secret program, which began in the early 1960s and was designated PALLADIUM. The program allowed the CIA to insert "ghost aircraft" with different radar cross sections into Soviet radar returns. NSA's interception and decryption of the communications traffic to and from the radar sites allowed the CIA to determine whether an aircraft with a given radar cross section would be detected by a particular radar (and its operator).

This article, originally published in a classified issue of the CIA's *Studies in Intelligence*, was written by a key figure in the PALLADIUM program – Gene Poteat, who worked as a missile guidance engineer at Bell Telephone Labs and at Cape Canaveral before joining the CIA. In addition, to describing the origins and developments of the PALLADIUM program, Poteat also describes a program codenamed MELODY, which produced intelligence about Soviet radars by detecting their signals as reflected off Soviet missiles while they were being tested.

Document 9

CIA, Situation Estimate for Project CHALICE – Fiscal Years 1961 and 1962, March 14, 1960. Top Secret, 15 pp.

Source: National Archives, CIA 2000 Release

Despite Eisenhower's concerns about the consequences of a loss of a U-2 over the Soviet Union, he did approve further missions after his initial, July 1956, order to stop the overflights. During a 23-day period in August 1957, U-2s conducted Operation SOFT TOUCH – seven overflights of the Soviet Union and two of the People's Republic of China. This activity, particularly with regard to the Soviet Union was atypical. Thus, Francis Gary Powers May 1, 1960 overflight would be 24th and last of Soviet territory. This situation estimate, prepared a little less than

two months before the shootdown, was intended to provide "guidance for the planning and conduct of project operations during the FY1961-62 time period." In addition, it provides a concise history of the program and an assessment of the intelligence desired from future U-2 flights.

Document 10

CIA, Future of the Agency's U-2 Capability, July 7, 1960. Top Secret, 11 pp.

Source: Dwight D. Eisenhower Library

The May 1, 1960 incident resulted in a halt of U-2 overflights of Soviet territory. By that time the agency's U-2 program had conducted overflights of a number of other countries and areas – including the People's Republic of China, Indonesia, and the Middle East. It had also been used to conduct peripheral reconnaissance missions of the Soviet Union. However, this July 1960 document considered the question of whether the CIA should maintain a U-2 capability or cede the mission to the Strategic Air Command, which had been employing U-2s for nuclear air sampling and peripheral reconnaissance missions. The study considered a number of issues – including intelligence requirements, U-2 vulnerability, basing needs, and cover arrangements. It proposed that the CIA maintain "a greatly reduced and redeployed U-2 capability." The CIA would, in fact, continue operating U-2s through 1974, conducting peripheral reconnaissance missions as well as flights over the PRC, Cuba, the Middle East, Vietnam and several other Southeast Asian nations.

Document 11

Photographic Intelligence Center, CIA, Joint Mission Coverage Index: Mission 9009, 18 August 1960, September 1960, 11 pp.

Source: Kevin C. Ruffner (ed.), CORONA: America's First Satellite Program (Washington, D.C.: CIA, 1995)

The first attempted launch in the CORONA program took place in February 1959. Launch after launch over the next eighteen months produced nothing but failures. The launch of August 18, 1960 resulted in the first successful orbit of a camera-carrying satellite, the return to earth of the images it obtained while orbiting the earth, and the recovery of the film – snatched out of the air by a specially modified C-119 aircraft.

This partially declassified document shows the areas covered by the CORONA satellite as well as providing some information on the targets covered and the intelligence derived from the mission.

Document 12

Marion W. Boggs, Memorandum: Subject: Discussion at the 474th Meeting of the National Security Council, Thursday, January 12, 1961, January 13, 1961, 5 pp. (pages 2-5, 10 and following omitted)

Source: Dwight D. Eisenhower Library

In March 1960, Secretary of Defense Thomas Gates suggested to President Eisenhower that he approve a study of the defense intelligence establishment, which he described as a huge conglomerate spending $1.5 - 2 billion a year. In early May, a Joint Study Group was established to review assorted aspects of the U.S. intelligence effort. The group's December report noted agreement throughout most of the Intelligence Community that a central photographic intelligence center should be established. The report recommended that the DCI and Secretary of Defense should determine the details concerning the center's management and that a National Security Council Intelligence Directive (NSCID) be drafted establishing a National Photographic Interpretation Center (NPIC).

Three meetings of the United States Intelligence Board (USIB) included debates over whether the CIA or Defense Department should run the center, but without a resulting agreement. As a result, the issue was brought up at the January 12, 1961, meeting of the National Security Council. The portion of the memorandum reproduced here provides a summary of the discussion at that meeting, whose participants included Eisenhower, Gates, Dulles, Joint Chiefs of Staff chairman Lyman Lemnitzer, and presidential science adviser George Kistiakowsky.

Dulles argued vigorously for CIA responsibility, a view supported by science adviser Kistiakowsky. Ultimately, Eisenhower decided that the CIA should convert its Photographic Intelligence Center into NPIC. Six days later, NSCID 8 on "Photographic Interpretation" was issued establishing the new national center. NPIC was part of the Directorate of Intelligence until it was transferred to the DS&T in 1973.

Document 13

Letter, Richard M. Bissell Jr. to Allen Dulles, August 8, 1961, 7 pp.
Source: Donation

In August 1960, the CIA's CORONA program returned the first satellite photographs of the Soviet Union and other areas of interest. Meanwhile, the Air Force continued to work on its SAMOS satellite programs as well as a program, designated GAMBIT, to develop a high-resolution satellite system. Overflights of certain countries, such as China, also involved aircraft and/or drones.

When Robert McNamara became Secretary of Defense with the advent of the Kennedy administration, he sought to centralize and rationalize a number of defense and intelligence activities – including overflight reconnaissance. Beginning in the spring of 1961 and continuing through the summer, Defense Department and CIA officials discussed establishment of a centralized organization that, while not absorbing the CIA and Air Force overflight programs, would provide a significant degree of coordination.

This letter from Bissell to Dulles followed an exchange in which Dulles accused the Deputy Director for Plans of exceeding his authority with regard to negotiations to establish what would become the National Reconnaissance Office (NRO) as well as with regard to planning for the ill-fated Bay of Pigs invasion that cost both Dulles and Bissell their jobs. In his letter, Bissell noted his belief

that the agreement Dulles objected to represented a formalization of the de facto relationship that existed between Bissell and Air Force undersecretary Joseph Charyk. It would have made Bissell director of the NRO and Charyk deputy. It would also have assigned the Air Force responsibility for technical program management for satellite development, while the CIA would be responsible for target programming.

Dulles objected to the agreement for at least one major reason – he did not want to have a CIA official in charge of Defense Department personnel and activities, and thus subject to blame in the event of some fiasco. In addition, he preferred specifying the arrangements in a letter rather than an interagency agreement.

Document 14

Roswell L. Gilpatric, Deputy Secretary of Defense, to Allen W. Dulles, Director of Central Intelligence, Re: Management of the National Reconnaissance Program, September 6, 1961, 4 pp.

Source: Freedom of Information Act Request

As a result of Dulles's objections, a redrawn agreement was not concluded until September 5. The next day, this letter from Deputy Secretary of Defense Roswell Gilpatric to Dulles confirmed "our agreement with respect to setting up of the National Reconnaissance Program." The letter specified the creation of an NRP that covered satellite, aircraft and drone overflights for the purposes of photographic intelligence, electronic signal collection, and mapping, charting, and geodesy. It also established the National Reconnaissance Office as an umbrella organization for the CIA and Air Force efforts. In addition, it established a uniform security control system (which would become known as the BYEMAN Control System), and specified that the NRO would be directly responsive to the intelligence requirements and priorities specified by the United States Intelligence Board.

Rather than assigning the directorship of the NRO to the CIA's Deputy Director for Plans (DDP), the DDP and the Under Secretary of the Air Force (Joseph Charyk) were made co-directors. In addition, no specific responsibilities were assigned to either the Air Force or the CIA, leaving that to be worked out by Bissell and Charyk or their successors, either on a case-by-case basis or by formal agreement.

Deputy Directorate for Research: 1962-1963

Document 15

HN 1-9, February 16, 1962, 1 p.

Source: National Archives, CIA 1998 Release

By late 1961, the CIA's exploitation of science and technology had become a very significant aspect of the agency's activities. James Killian and Edwin Land, who had encouraged Allen Dulles to seek scientific solutions to intelligence problems, thought it was time that the CIA's scientific activities be placed in a separate directorate. As a result of the Bay of Pigs fiasco, Dulles would leave in late November, and be replaced by John McCone, a former Under Secretary of the Air

Force and Atomic Energy Commission chairman. Killian and Land pushed McCone to establish a new scientific directorate – which resulted in this February 16, 1962 headquarters notice.

The only activities whose transfer to the new directorate – to be known as the Deputy Directorate for Research (DDR) – was guaranteed by this notice were some of those belonging to the Development Projects Division. That division started out as the Development Projects Staff and originally managed a single program – the U-2. By 1962 it was also responsible for the planned U-2 follow-on, OXCART, as well as the CORONA and ARGON satellite programs. Those programs would be managed by the new directorate's Office of Special Activities. Before the end of 1962, two other offices would be established in the DDR – the Office of ELINT and the Office of Research and Development.

Heading the new directorate was Dr. Herbert J. Scoville Jr., who had been with the agency since 1955, as head of the Office of Scientific Intelligence, an office that would remain in the Directorate of Intelligence during Scoville's tenure.

Document 16

Letter, Richard Bissell to John McCone, February 7, 1962, 4 pp.

Source: Freedom of Information Act Request

Initially, Richard Bissell, as Deputy Director for Plans, was to leave office about the same time as Allen Dulles, and for the same reason. However, shortly after McCone took office, his wife died and he asked Bissell to remain on for a while. Ultimately, he decided, with the concurrence of John and Robert Kennedy, to offer Bissell the position of Deputy Director for Research (DD/R).

Bissell who had opposed the creation of such a directorate in an earlier memorandum wrote this letter to correct McCone's impression that Bissell was seriously considering taking the position. In it he explains his reservations about the wisdom of transferring some activities (including the Office of Scientific Intelligence) to the new directorate as well as his personal reasons for not wanting to accept the position. On page 3, Bissell notes that there was a possibility the previous August of his serving with the CIA or Defense Department in the area of advanced reconnaissance – a reference to the plan, vetoed by DCI Allen Dulles, to have Bissell become the first Director of the NRO. (see Document 13).

As a result of Bissell's decision, McCone turned to Herbert Scoville to serve as the first (and, as it would turn out, only) Deputy Director for Research.

Document 17

[Memorandum for] Dr. Scoville, Subject: Mission and Functions of the DD/R, July 5, 1962. Secret w/attachments: Reconsideration of the Mission and Functions of the Deputy Director (Research); Herbert Scoville Jr. Memorandum for: Executive Director, Subject: Organization HN - , July 5, 1962, 11 pp.

Source: National Archives, CIA 2000 Release

Richard Bissell was not the only CIA official with doubts about the wisdom of establishing the new directorate. Although McCone had told Scoville that his new directorate would include the Office of Scientific Intelligence and the Technical

Services Division (TSD), which supported the Clandestine Service, neither transfer was made – due to opposition by Ray Cline (the Deputy Director for Intelligence) and Richard Helms (the Deputy Director for Plans). This memo explores the rationale for establishing the DDR, the benefits and drawbacks of incorporating OSI and TSD into the new directorate, and the reasons for opposition. It suggests that, at least for the present, it might be wise to halt attempts to bring OSI and TSD into the new directorate – and settle for a directorate responsible for overhead reconnaissance, ELINT, and research and development activities.

Document 18

Office of Deputy Director (Research), 1962, 9 pp.
Source: National Archives, CIA 2000 Release

This document, produced sometime in the later part of 1962, provides a summary of DDR responsibilities at the time. In the reconnaissance area, the directorate was responsible for the OXCART and IDEALIST (U-2) aerial reconnaissance programs, the CORONA and ARGON satellite programs. The memo specifies the type of ELINT activities that the directorate was responsible for, such as the "technical operation and maintenance of CIA deployed non-agent ELINT systems," without mentioning specific systems, locations, or targets. By this time, the directorate's ELINT efforts included a CIA-operated ground station in Iran to monitor Soviet missile telemetry, funding ground and sea-based Norwegian ELINT collection efforts, and the Quality ELINT program.

Whereas the Office of Special Activities and Office of ELINT had been established by transferring CIA components and activities in other directorates to the DDR, the Office of Research and Development was to be established from scratch (it would actually begin work in 1963). Its primary purpose was to conduct research into further means of exploiting technology for intelligence collection, although it would become involved in a variety of projects, including behavior modification.

Document 19

National Photographic Interpretation Center, CIA, Terminal Range Facilities of the Tyura Tam Missile Test Range, USSR, August 1962. Top Secret, 15 pp.
Source: National Archives, CIA 2000 Release

This photographic interpretation report on facilities associated with the Tyuratam missile test range – at the time the only test range from which Soviet ICBMs were tested – was based on three sensitive sources of information. One was communications intelligence, indicated by the codeword DINAR. The other two were the results of CIA reconnaissance projects – pre-May 1960 U-2 photography (indicated by the codeword CHESS), and more recent CORONA imagery (indicated by the codeword RUFF). At the time the resolution of the CORONA imagery, obtained by the KH-4 camera system, was in the range of 10-25 feet. As a result, the CORONA imagery did not always add new information beyond that obtained by the U-2.

Document 20

Letter, Herbert Scoville Jr. to John A. McCone, April 25, 1963, 3 pp.
Source: Donation

After a little over a year as Deputy Director for Research, Scoville turned in his resignation. This letter noted that his efforts to establish the directorate had resulted "in a continuous series of frustrations in which, with a few exceptions, the working components have resisted any transfer of their responsibilities." He was referring, of course, the opposition of the intelligence and operations directorates to the DDR taking control of OSI and TSD.

He also expressed his frustration with regard to a joint CIA-DoD program– a reference to the CIA's participation in the National Reconnaissance Program and National Reconnaissance Office. During his year in office, Scoville had been at odds with Joseph Charyk, the first director of the NRO, and then Brockway McMillan, Charyk's successor. Much of the cause was different views as to the authority of the NRO and its director and Scoville's position vis-a-vis the NRO director. When Charyk wanted Scoville to assume the position of deputy NRO director in July 1962, Scoville argued (despite his statement in this letter) that he should have the more independent position of CIA representative to the NRO. Rather than serve as director of Program B (the CIA component of the NRO), he delegated the position to his OSA chief, Brig. Gen. Jack Ledford. The situation deteriorated even further after McMillan replaced Charyk in March 1963. Contributing to Scoville's unhappiness was his feeling that McCone failed to support him, either in internal CIA disputes or those with the NRO. Scoville touches obliquely on this point with regard to internal CIA matters, noting that while McCone had always indicated his belief in the original concept of the DDR, "no one is willing to face up the problems of implementing it."

S&T and the Cold War, 1963-1991

Document 21

HN 1-36, August 5, 1963, 1 p.
Source: National Archives, RG 263, NN3-263-94-010, Box 5, HS/HC 706, Folder 7

Scoville's resignation left with Deputy Directorate of Research in disarray, and without a leader. DCI John McCone asked Albert "Bud" Wheelon to take Scoville's place – just as he had done in the spring of 1962 when he left TRW to replace Scoville as head of the Office of Scientific Intelligence. The 33-year old Wheelon at first declined, but offered to speak to Scoville about the problems that led to his departure.

Within a day after he briefed McCone and Deputy DCI Marshal Carter, a briefing in which he argued that it was vital for the CIA to play a significant role in overhead reconnaissance, he was again offered the position Scoville vacated. With McCone pledging complete support, which included rechristening the directorate the Deputy Directorate of Science and Technology (to emphasize the concept of the unit managing all CIA scientific efforts), transferring OSI to the directorate,

and supporting Wheelon's plan to reassert the CIA role in space reconnaissance, Wheelon accepted.

The change became effective on August 5, 1963 and was announced by this headquarters notice. In 1965, in line with a change in terminology across the CIA, the Deputy Directorate for Science and Technology became the Directorate of Science and Technology.

Document 22

Letter from General Bernard Schriever, Commander, Air Force Systems Command to General Curtis E. LeMay, Chief of Staff, USAF, December 20, 1963. Confidential, 2 pp.

Source: Curtis E. LeMay Papers, Library of Congress

Two key organizational changes Wheelon would make after taking over the directorate was removing the responsibility for CIA satellite reconnaissance efforts from the Office of Special Activities and placing it in a Special Projects Staff (which would become the Office of Special Projects in 1965) and establishing the Foreign Missile and Space Analysis Center (FMSAC) on November 7, 1963.

FMSAC's mission would be the determination of the trajectories, range, number of warheads, and accuracy of ICBMs as well as the monitoring of the precise movements and missions of satellites and space shots. Its output would be based on the technical analysis of the intelligence provided by CIA and other intelligence systems – including those the CIA had established in Iran and Norway (and would later establish in space) to intercept telemetry. The job of providing overviews of space and missile programs, monitoring deployments, and assessing strategies would be carried out by OSI and other elements of the intelligence community.

As this letter demonstrates, FMSAC's creation was of great concern to key figures in the Air Force. By 1963, the Air Force Systems Command's Foreign Technology Division had been conducting technical intelligence analysis of foreign missiles and space systems for a number of years. It was not an area in which Air Force leaders wished to see the CIA intrude. The Air Force opposition proved futile, although the DoD did establish its own organization, the Defense Special Missile and Astronautics Center (DEFSMAC), in the spring of 1964, which competed with FMSAC to some extent, to provide current intelligence on missile and space launches.

Document 23

Directorate of Science and Technology, Preliminary Report, U-2 Reconnaissance Mission C015C, Flown 8 January 1965, February 8, 1965. Top Secret, 9 pp.

Source: National Archives, CIA 2000 Release

In 1961, the CIA had arranged with the Nationalist Chinese government on Taiwan to provide pilots to fly U-2 missions over mainland China. Those missions began in 1962, flying out of Taoyuan. Among the priority targets were known or suspected Chinese nuclear facilities. In 1964 and 1965, Nationalist

Chinese pilots made several attempts to fly a U-2 equipped with an infrared scanner over nuclear facilities at Baotou and Lanzhou to determine if they were active. The first two missions, conducted in 1964, were aborted. However, mission C015C, targeted on Lanzhou was conducted successfully and led to the determination that the facility was operational.1

Document 24

Paul Worthman, NRO Staff, Memorandum for the Record: Subject: Telephone Conversations with Representatives of the Itek Corporation, February 24, 1965. Top Secret, 2 pp.

Source: Freedom of Information Act Request

In the time since Herbert Scoville's departure, the relationship between the NRO and CIA had deteriorated even further. In addition to disputes over the authority of the NRO director and management of the CORONA program, the two entities clashed over CIA work on possible new satellite programs – specifically, a wide-area search system and a high-altitude telemetry intercept system.

This memo relates the first news that the NRO staff received that the Itek Corporation was withdrawing from any further work for the CIA to develop a search system – at the time codenamed FULCRUM. The incident that resulted in the decision, not mentioned in the letter, involved the claim by a CIA representative that it was Itek's idea, not the CIA's demand, that the future satellite be able to produce high-quality images 60 degrees to each side of the center of the ground track.

The announcement was one that the NRO staff, according to an NRO history, found "hilariously enjoyable."2 Despite the setback, the Directorate of Science and Technology was able to recruit another contractor to develop the search system, which was first launched in 1971 under the codename HEXAGON. The program, which continued until 1984, produced images covering many thousands of square miles with a resolution of 1-2 feet.

Document 25

Marshall S. Carter, Deputy Director of Central Intelligence, Memorandum, Subject: Meeting with Mr. Vance and Dr. McMillan on Thursday, 25 March, March 26, 1965. Secret, 4 pp.

Source: NRO CORONA-ARGON-LANYARD Collection: 1/A/0096

This memo provides another example of the hostility in the CIA-NRO relationship during this period of time. Among the issues was the NRO's claim that the CIA was not providing sufficient information concerning the performance of the CORONA payloads that the Air Force required to perform its launch (of the satellite) and recovery (of the film capsule) missions.

This memo, written by Deputy Director of Central Intelligence Marshall S. Carter, summarizes his meetings with Deputy Secretary of Defense Cyrus Vance and NRO director Brockway McMillan to discuss the issue. In his meetings, Carter denied that the CIA was withholding any information that the Air Force required to perform its mission. He also expressed his view that "there was a clear-cut

effort to run CIA out of the satellite business" and turn the program over to the Air Force.

The conversation deteriorated even further when McMillan suggested that Carter and DCI John McCone were prisoners of their staffs. Carter responded that McMillan should be careful about what he said and that he might learn to make use of his staff.

Document 26

CIA, Cost Reduction Program FY 1966 - FY 1967, September 1, 1965. Top Secret, 4 pp.

Source: National Archives, RG 263, Entry 36, HRP 89-2/00443, Box 7, File 713

The following pages from this 1965 CIA document contain references to two of the ELINT efforts being conducted by the Directorate of Science and Technology – electronic monitoring of the Soviet space effort and funding of a ELINT boat operation in the Barents Sea – as well as the deployment of reconnaissance aircraft to the Far East, and the establishment the Office of Special Projects in the DS&T.

The ELINT boat operation was actually conducted by Norway, with the CIA providing the funds. The reconnaissance aircraft that the CIA was hoping to deploy to the Far East were three OXCART or A-12 planes. Development began in 1958 as the intended follow-on to the U-2. The planes would not actually be deployed until May 1967.

Creation of the Office of Special Projects built on the Special Projects Staff, established in the fall of 1963 by Albert Wheelon to exclusively handle CIA satellite reconnaissance operations. Its upgrading to office status in the fall of 1965, followed the conclusion of a new agreement between the CIA and DoD concerning the responsibilities of the CIA, the NRO, and the NRO director in the satellite reconnaissance field. That agreement laid the groundwork for the CIA to continue and extend its development of new imagery and signals intelligence satellite systems.

Document 27

Memorandum for: [deleted], Subject: [deleted] Views on Trained Cats [deleted] for [deleted] Use, March 1967, 2 pp.

Source: Donation

In a project known as "Acoustic Kitty" the Directorate of Science and Technology sought to train a surgically altered cat, wired with transmitting and control devices, to become a mobile, eavesdropping platform. In its first test, the cat was run over by a taxi. According to Victor Marchetti:

they slit the cat open, put batteries in him, wired him up. The tail was used as an antenna. They made a monstrosity. They tested him and tested him. They found he would walk off the job when he got hungry, so they put another wire in to override that. Finally, they're ready. They took it out to a park bench and said "Listen to those two guys. Don't listen to anything else – not the birds, no cat or dog – just those two guys!" ... They put him

*out of the van, and a taxi comes and runs him over. There they were, sitting in the van with all those dials, and the cat was dead!*3

This heavily redacted memo appears to express the view that cats can be altered and trained to perform certain tasks. At the same time, it notes that "the environment and security factors in using this technique in a real foreign situation force us to conclude that, for our [intelligence] purposes, it would not be practical."

Document 28

National Photographic Interpretation Center, Black Shield Mission X-001, May 31, 1967. Secret, 30 pp.

Source: National Archives, CIA 2000 Release

In 1958, the CIA and Lockheed began work on a follow on to the U-2. The result was the A-12 aircraft, also known by the program codename -- OXCART. The A-12, a far more complicated plane than the U-2, and which required much greater support, was capable of flying at Mach 3.1 (over 2,100 mph) at altitudes of 100,000 feet.

By May 1967, the DS&T's Office of Special Activities had been trying for several years to obtain approval to use the plane on operational missions – an objective made all the more urgent by proposals to terminate the program in favor of the A-12 modifications (the SR-71s) operated by the Air Force. Proposed flights over Cuba, dubbed SKYLARK, were not approved. Another proposal to fly the plane toward the Soviet border to photograph and stimulate the Flat Twin radar at Tallinn, while a U-2 collected electronic intelligence about the radar, was also rejected.

However, concern about whether surface-to-surface missiles, SCUDs, had been deployed to North Vietnam led President Lyndon Johnson, in mid-May 1967 to approve the deployment of a contingent of A-12s to Kadena AB in Japan and the commencement of a flight program. The first of those flights, designated BLACK SHIELD, took place on May 31, 1967. It produced imagery of surface-to-air missile sites, air facilities, naval activities and ports, and other military targets, but produced no data indicating the presence of SCUDs.

Document 29

[Leslie Dirks], Chief Design and Analysis Division, Memorandum for: Director of Special Projects, Subject: Briefing to General Maxwell Taylor on Photographic Satellite Support to Middle East Crisis, 31 August 1967, September 8, 1967, Top Secret, 2 pp.

Source: NRO CORONA-ARGON-LANYARD Collection

The Six Day War of June 1967 had demonstrated the limitations of U.S. photographic reconnaissance satellite systems – which at the time included the CORONA system with ten-foot resolution and the GAMBIT system with 18-inch resolution. Although both types of satellites were in orbit during the crisis, neither was able to provide sufficiently timely, clear images to aid decision-makers.

This briefing by Leslie Dirks, chief of design and analysis in the DS&T's Office of Special Projects, to the chairman of the President's Foreign Intelligence Advisory Board focused on problems with maintaining a standby capability (since at the time the U.S. did not continually have a reconnaissance satellite in space), and CORONA's limited resolution. The inevitable lag between acquisition of an image and its return to earth and transformation into intelligence was undoubtedly apparent to Taylor.

The need for a better means of obtaining satellite images in the case of crisis had been apparent to Dirks for many years. It would be another decade before the U.S. would have a satellite system capable of providing real-time imagery – an event that would occur during Dirks' tenure as Deputy Director for Science and Technology.

Document 30

Director, Joint Staff, Memorandum for the Chairman, Joint Chiefs of Staff, Subject: Requirement for a Second BLACK SHIELD Mission over North Korea, January 29, 1968. Top Secret, 2 pp.

Source: Freedom of Information Act Request

Some BLACK SHIELD missions overflew North Korea. The first North Korean overflight occurred on January 26, 1968, in response to the seizure of the Pueblo three days earlier. In addition, at least two missions obtained imagery of targets in southern China – images obtained as the planes flew over the northern portion of Vietnam.

This memo specifies additional information in three categories (jet capable airfields, naval order of battle, and ground force activity) that the Pacific Command and Defense Intelligence Agency wished to see provided by a second mission over North Korea. The Pacific Command, in particular, "urgently requested" that another mission would be flown. That mission was flown on February 9, followed by another on May 8.

That mission would mark the end of the OXCART program, as a result of the decision by Secretary of Defense Clark Clifford and President Johnson to rely solely on the Air Force SR-71 fleet to provide a Mach 3 overflight capability. As a result, the DS&T's Office of Special Activities was left with only one major program – the U-2.

Document 31

CIA, Memorandum, Subject: Response to "Lines of Questioning for Mr. Helms," US Senate Committee on Foreign Relations, Staff Memorandum, 23 April 1969, May 7, 1969, 14 pp.

Source: National Archives, CIA 1998 Release, RG 263, Box 182, Folder 7

In mid-March 1969, President Richard Nixon announced that he was scrapping the Johnson administration's plans to build the Sentinel ABM system, which was designed to defend selected population centers. In its place, the president announced plans for the Safeguard system, which would seek to protect U.S. ICBM forces from being destroyed in a first strike.

The new administration, and particularly Secretary of Defense Melvin Laird, argued that the Soviets were seeking to attain a first strike capability by placing three independently targetable warheads on the giant SS-9. A projected SS-9 force of 500 missiles would give the Soviets, at least theoretically, the capability to destroy a very high percentage of the U.S. ICBM force.

Whether the SS-9 was truly MIRVed, how accurate its warheads were, as well as the yield of its warheads were all key factors in determining the actual SS-9 threat – and it was FMSAC's responsibility to provide answers (or approximate answers) to those questions. Its work was reflected in the answers to questions 1, 6, and 9 in the "SS-9" section (pp. 1-3) and in all six answers to the questions in the "Status of MRV and MIRV Programs" section (p.7). Throughout the debate over Safeguard, which resulted in a 51-50 Senate vote (with Vice President Spiro Agnew casting the deciding vote) in favor of deployment, the CIA, in opposition to the Defense Department, maintained that the SS-9 would not be deployed in MIRVed form – an estimate that proved correct.

Document 32

President's Foreign Intelligence Advisory Board, Memorandum for President's File, Subject: President's Foreign Intelligence Advisory Board Meeting with the President, June 4, 1971, June 4, 1971. Top Secret, 8 pp.

Source: National Archives, Nixon Presidential Materials, President's Office Files

By 1971, Leslie Dirks and others in the Directorate of Science and Technology believed that the means was at hand to develop and deploy a real-time imagery satellite – one that would not record its images on film, to be returned days or weeks after the images had been obtained, but would convert light levels in a scene into numbers that would be relayed back to a ground station where they would be transformed into images. Such a method would allow U.S. photo interpreters to observe what the satellite saw as soon as saw it.

The Air Force element of the NRO had a proposal for a less revolutionary system. Called Film-Readout GAMBIT (FROG), this proposal envisioned a modified GAMBIT satellite whose film-based images would be "read-out" when the satellite was over a U.S. ground station – which could be hours or weeks after an image was acquired.

At this PFIAB meeting, Edwin Land, still a key adviser to the Intelligence Community, suggested to President Nixon that the CIA's more radical approach promised to produce a "quantum technological advance" in contrast to the Air Force's "cautious" choice, and that such a system could be developed in three years, with presidential support. Nixon agreed to take a "hard look" at the matter.

Document 33

Inspector General, CIA, Inspector General's Survey of the Office of Research and Development, October 1972. Secret, 89 pp.

Source: National Archives, CIA 1998 Release: RG 263, Box 66, Folder 2

In July 1972, Robert Chapman, who had served as director of the ORD, was replaced by Sayre Stevens. According to this report, it was a change that was overdue.

The report noted that "arrangements for overseeing the work of ORD seemed to us to be very loose and unstructured ... many of the tasks that occupy [staff members] are self-generated as a consequence of a personal interest in a particular subject." As a result, "many [technical officers] have been allowed to drift into fields of activity ... which offer little or no prospect of benefitting the Agency." The report also noted that ORD project officers were isolated from the rest of the CIA and had little familiarity with the work of the offices whose missions their work was intended to support. Under the new administration ORD would seek to identify specific needs of analysts and operators and develop means of satisfying those needs. Among those efforts was Project UPSTREET, which employed earth resources satellite photography to help analysts improve their estimates of Soviet grain crop yields.

Document 34

Memorandum for: Deputy Director for Science and Technology, Subject: TSD Support to Other Agencies, May 8, 1973, 10 pp.

Source: Freedom of Information Act Request

In April 1973, Director of Central Intelligence James Schlesinger decreed that the Technical Services Division of the operations directorate would be transferred to the Directorate of Science and Technology, where it would become the Office of Technical Services (OTS). The primary focus of the office was technical support of CIA case officers in the field – including development of exotic weapons and eavesdropping devices and production of forged documents.

TSD had become an object of concern in this period because of its technical assistance to the efforts of Howard Hunt and G. Gordon Liddy to burgle the office of Daniel Ellsberg's psychiatrist as well as to dig up derogatory information on Edward Kennedy.4 As part of an overall examination of the possible CIA activities outside its charter, known as the "Family Jewels," Schlesinger asked agency components to prepare relevant reports.

This memo focuses on TSD support to other government agencies. Support included provision of forged documentation, although not without approval at non-TSD officers. Entities receiving TSD support of some kind included the Defense Department, Secret Service, FBI, Bureau of Narcotics and Dangerous Drugs, the Immigration and Naturalization Service, the Secret Service, and the Postal Service.

Document 35

Cable, For [Deleted], From Brig. Gen. Bevan [Director, Office of Special Activities], June 26, 1974. Secret, 3 pp.

Source: National Archives, CIA 2000 Release

In 1969, NRO director John McLucas raised the possibility of ending the CIA's role in the U-2 program, along with the NRO's role in SR-71 operations – with

the responsibilities being turned over to the Strategic Air Command. Over the next several years, President Nixon and the NSC's 40 Committee decided that the CIA should continue conducting U-2 overflights. But, in June 1973, DCI James Schlesinger concluded that the CIA's role in the U-2 program could safely be terminated. The 40 Committee decreed that the CIA role should conclude on August 1, 1974.

This cable announced that the Republic of China had agreed to the end of the TACKLE program, the component of the IDEALIST (U-2) program (JACKSON was the codename for British participation in the U-2 program) that involved the use of Nationalist Chinese pilots in operations directed against the PRC. With the OXCART program having been terminated in 1968 and the end of CIA involvement in the U-2 program, the Office of Special Activities would be disbanded in early 1975.

Document 36

Daniel Stillman, Los Alamos Scientific Laboratory, An Analysis of a Remote-Viewing Experiment of URDF-3, December 4, 1975. Confidential, 34 pp.

Source: Freedom of Information Act Request

During the later part of the tenure of Carl Duckett, who had succeeded Albert Wheelon in 1966 as Deputy Director for Science and Technology, two components of the DS&T – ORD and OTS – funded "remote viewing" experiments conducted by the Stanford Research Institute (SRI). The remote viewers, operating under less than strictly controlled conditions, were asked to determine details about targets of interest in the Soviet Union and other nations.

This analysis, conducted by a member of the Los Alamos laboratory, focused on one particular experiment, in which the remote-viewer, Pat Price, was asked to provide details on the facility that the CIA designated URDF-3 (for Unidentified Research and Development Facility-3). The Air Force referred to the same site as a PNUTS - Possible Nuclear Underground Test Site.

The evaluator compared the remote viewers reports with what has shown by satellite photography of the site. He noted that in addition to one object, a gantry crane, that was present at the site and "seen" by the remote viewer, there were another nine objects seen by the remote viewer but not actually present. His overall judgement was that "the validity of Price's remote viewing of UDRF-3 appears to be a failure."

After the fall of the Soviet Union, American scientists would tour the facility and discover that research at URDF-3 was focused on development of a nuclear-powered rocket for space flight.5

Document 37

E.H. Knoche, Deputy Director of Central Intelligence, Memorandum for the Record, Subject: Meeting with National Security Advisor Brzezinski, December 30, 1976, 3 pp.

Source: Freedom of Information Act Request

Edwin Land's advice to President Nixon (see Document 32) was not initially successfully in obtaining approval to proceed with the CIA's real-time satellite program. But some key scientists, Sidney Drell and Richard Garwin, were able to convince national security advisor Henry Kissinger of the value of the CIA proposal. As a result, Nixon overruled his Secretary of Defense Melvin Laird, who had initially selected the FROG program over the CIA program.

On December 19, 1976, the first launch in the KENNAN program – as the CIA program to develop a real-time imagery satellite had been designated – took place. It carried the KH-11 optical system. When, Deputy DCI Knoche, John McMahon, the Associate Deputy to the DCI for the Intelligence Community, and others briefed national security advisor-designate Zbigniew Brzezinski on intelligence matters in late December 1976, the first KH-11 was undergoing checkout. As noted in paragraph 3, McMahon described the new system at some length and suggested that it could alter the government's approach to crisis-management. Just over a month later, on January 21, Knoche, showed President Jimmy Carter some of the first images taken by the new satellite – images of his inauguration.

Document 38

National Security Council, Memorandum for Robert C. McFarlane, From: Oliver L. North, Constantine Menges, Subject: Special Activities in Nicaragua, March 2, 1984. Top Secret, 2 pp.

Source: Iran-Contra Hearings

This NSC memo provides the strategic rationale for U.S. mining of Nicaraguan harbors during the Reagan administration. Between January 7 and March 30, 1984 a total of 39 mines were planted. By early 1984, ten commercial ships had been damaged by the mines, including a Mexican oil tanker carrying 75,000 barrels of fuel. The mining operation cost the Nicaraguans more than $10 million, with cotton and coffee piling up on the docks, while imports and exports had to be trucked to and from ports in neighboring Central American countries.

The Office of Technical Service was responsible for establishing the technical requirements for the demolitions. Its Weapons Group produced the mine casings from sewer pipes, while the fuses were apparently provided by the Naval Surface Warfare Center. The mines were designed to disable the ships rather than sink them.

Document 39

Organization chart, mission and functions of the Office of Special Projects, July 21, 1988. Confidential, 2 pp.

Source: Freedom of Information Act Request

In 1973, the Office of Special Projects, established in 1965 to manage CIA satellite reconnaissance operations became the Office of Development and Engineering (OD&E), with a mission that extended beyond satellite development. In 1987, Deputy Director for Science and Technology Evan Hineman established a new Special Projects Staff, which soon became a new Office for Special Projects. This version of the office was concerned not with satellites, but with

emplaced sensors – sensors that could be placed in a fixed location to collect signals intelligence or measurement and signature intelligence (MASINT) about a specific target. Such sensors had been used to monitor Chinese missile tests, Soviet laser activity, military movements, and foreign nuclear programs. The office was established to bring together scientists from the DS&T's Office of SIGINT Operations, who designed such systems, with operators from the Directorate of Operations, who were responsible for transporting the devices to their clandestine locations and installing them.

Document 40

Letter, E.C. Aldridge, Director, National Reconnaissance Office, to Senator David L. Boren, Chairman, Senate Select Committee on Intelligence, November 21, 1988. Secret, 3 pp.

Source: National Reconnaissance Office

By 1988, the basic agreement between the DoD and CIA concerning the operation of the National Reconnaissance Office had been in effect for 23 years. But the end of the Cold War, declining budgets, and the expansion of NRO's customer base – due to the ability of modern systems to provide real-time tactical intelligence as well as their ability to support disaster relief and other domestic requirements – made it apparent that some changes need to be made in N RO operations and structure.

In this letter, NRO director Aldridge provides the SSCI chairman Boren with an overview of the changes he was planning to make. Notable is his statement that Programs A, B, and C would continue as "distinct elements" of the NRO. Thus, the CIA's Program B (the Office of Development and Engineering) would continue to be responsible for the development and operation of selected imagery and SIGINT satellite systems.

After the Cold War, 1991-2001

Document 41

DCI Task Force on the National Reconnaissance Office, Final Report, April 1992. Secret. Section IV, 6 pp.

Source: Freedom of Information Act Request

This task force headed by former Lockheed CEO Robert Fuhrman and a number of former and then-current intelligence officials was asked by DCI Robert Gates to examine a number of issues concerning the management and structure of the NRO. Among its recommendations was one that would have a profound impact on the DS&T's role in satellite reconnaissance.

The task force concluded that the thirty-year old arrangement of separate Air Force, CIA, and Navy components to the NRO "leads to counterproductive competition" and that it would preferable to restructure the NRO – with separate directorates for imagery and SIGINT. Their recommendation would be briefed to

Gates and Secretary of Defense Dick Cheney in late March, and President Bush would sign NSD-67 on March 30. The directive authorized the recommended restructuring of the NRO.

That restructuring would be effected in 1993. As a result, satellite programs such as the KH-11 and advanced KH-11 imagery satellites and the ORION signals intelligence satellite, were no longer CIA-NRO programs but NRO programs – although OD&E personnel continued to work on such programs. Similarly, satellite ground stations were no longer CIA stations, but belonged to the NRO.

Document 42a

DCI, Terms of Reference for a National Imagery Agency, 1995, 5 pp.
Source: Freedom of Information Act Request

Document 42b

CIA, Press Release, National Imagery and Mapping Agency Proposed to Congress, November 28, 1995, 2 pp.
Source: CIA Public Affairs

In April 1995, then DCI-designate John Deutch told the Senate Select Committee on Intelligence that, if confirmed, he would "move immediately to consolidate the management of all imagery collection, analysis, and distribution." He argued that "both effectiveness and economy can be improved by managing imagery in a manner similar to the National Security Agency's organization for signals intelligence."

After his confirmation, Deutch established a National Imagery Agency (NIA) steering group, which in turn chartered an NIA task force. The terms of reference for the task force included among its key assumptions that "at a minimum, the NIA will be formed from the Central Imagery Office, the Defense Mapping Agency, National Photographic Interpretation Center, and portions of the Defense Intelligence Agency and the Services."

Deutch's plan was opposed by several former CIA officials, who felt that the new imagery agency would be placed within the Department of Defense – not only abrogating DCI prerogatives but quite possibly resulting in a de-emphasis on national intelligence in order to provide support to military activities (both operations and exercises). Objections and questions were also raised by the House Permanent Select Committee on Intelligence and Sen. Robert Kerrey (D-NE), the vice chairman of the Senate Select Committee on Intelligence.

Despite reservations and objections, Deutch and Secretary of Defense William Perry informed Congress in late November 1995 of their plans to establish a National Imagery and Mapping Agency (NIMA) as a combat support agency within the Department of Defense on October 1, 1996. NIMA came into being on the date planned, absorbing the DS&T's NPIC as well as the Directorate of Intelligence's Office of Imagery Analysis, the Central Imagery Office, the Defense Mapping Agency, the Air Force's Defense Dissemination Program Office (which disseminated satellite imagery), the imagery exploitation activities of the NRO ,

Defense Airborne Reconnaissance Office, and Defense Intelligence Agency. It did not assume responsibility for the imagery exploitation activities of the military service or unified intelligence organizations.

Document 43

Restructuring the DS&T, 1996, 1 p.
Source: CIA Public Affairs

In September 1995, Ruth David replaced James Hirsch as Deputy Director for Science and Technology. David had been director of Sandia Laboratory's Strategic Thrust in Advanced Information Technologies. Not surprisingly, her primary emphasis as DDS&T was in the information technology area – an area that a 1995 blue ribbon review panel had recommended be a key area of DS&T activity.

In order to enhance the DS&T's role, David established three new offices – as described and explained in this CIA summary – the Clandestine Information Technology Office, the Office of Advanced Analytical Tools, and the Office of Advanced Projects. At the same, time the Office of Research and Development was abolished. David's plan for funding the new office, by cutting the budget of the DS&T's Foreign Broadcast Information Service, as well as her disestablishment of ORD proved to be extremely controversial.

Document 44

CIA, D&ST Realignment Overview, 2000, 4 pp.
Source: CIA Public Affairs

In January 2000, Gary L. Smith, the Deputy Director for Science and Technology suddenly resigned – according to CIA statements because he wished to resume his retirement. Smith had become DDS&T only nine months earlier, after retiring from the Johns Hopkins University Applied Physics Laboratory. DCI George Tenet moved quickly to appoint a new deputy director, selecting Smith's deputy, Joanne Isham, who had also served as the deputy to Smith's predecessor – Ruth David.

At the time there was speculation as to whether the DS&T had a future. In the fall of 2000, Isham announced a number of organizational initiatives intended to enhance the DS&T's performance and relevance to the Tenet's objectives for the intelligence community. This unclassified overview explains the changes and their intent.

Most of the DS&T components remained in place – the Office of Technical Services, the Office of Technical Collection, the Office of Development and Engineering, and the Foreign Broadcast Information Service. But, the Office of Advanced Analytical Tools (AAT), established under Ruth David's tenure was replaced by the Office of Advanced Information Technology (AIT), which had a somewhat broader mandate (AIT would be disestablished in 2001, with some of its functions being transferred to the CIA's new chief information officer). In addition, an Office of Advanced Technologies and Programs was established to replace, at least in part, the Office of Research and Development that David had

abolished. The new alignment also eliminated the Clandestine Information Technology Office (CITO), which had been a joint activity of the DS&T and the Directorate of Operations. Some of CITO's activities were transferred back to the Office of Technical Collection, while others were transferred to a newly created Information Operations Center in the Directorate of Operations.

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Document 1: Memorandum for the Record, Subject: Responsibilities of the Office of Scientific Intelligence, November 29, 1951.

Document 2: CIA, Memorandum for the Record, Subject: Project ARTICHOKE, January 31, 1975.

Document 3: Letter, Edwin Land to Allen Dulles, November 5, 1954 w/att: Memorandum for: Director of Central Intelligence, Subject: A Unique Opportunity for Comprehensive Intelligence, November 5, 1954.

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Document 5: CIA, Project CORONA, April 25, 1958.

Document 6: Richard M. Bissell Jr., Deputy Director for Plans, Memorandum, Subject: ELINT Requirements Requiring Sensitive Collection, September 9, 1959.

Document 7: Office of Scientific Intelligence, The French Nuclear Weapons Program, November 13, 1959.

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Document 31: CIA, Memorandum, Subject: Response to "Lines of Questioning for Mr. Helms," US Senate Committee on Foreign Relations, Staff Memorandum, 23 April 1969, May 7, 1969.
Document 32: President's Foreign Intelligence Advisory Board, Memorandum for President's File, Subject: President's Foreign Intelligence Advisory Board Meeting with the President, June 4, 1971, June 4, 1971. Top Secret.
Document 33: Inspector General, CIA, Inspector General's Survey of the Office of Research and Development, October 1972. Secret.
Document 34: Memorandum for: Deputy Director for Science and Technology, Subject: TSD Support to Other Agencies, May 8, 1973.
Document 35: Cable, For [Deleted], From Brig. Gen. Bevan [Director, Office of Special Activities], June 26, 1974. Secret.
Document 36: Daniel Stillman, Los Alamos Scientific Laboratory, An Analysis of a Remote-Viewing Experiment of URDF-3, December 4, 1975. Confidential.
Document 37: E.H. Knoche, Deputy Director of Central Intelligence, Memorandum for the Record, Subject:Meeting with National Security Advisor Brzezinski, December 30, 1976.
Document 38: National Security Council, Memorandum for Robert C. McFarlane, From: Oliver L. North, Constantine Menges, Subject: Special Activities in Nicaragua, March 2, 1984. Top Secret.
Document 39: Organization chart, mission and functions of the Office of Special Projects, July 21, 1988. Confidential.
Document 40: Letter, E.C. Aldridge, Director, National Reconnaissance Office, to Senator David L. Boren, Chairman, Senate Select Committee on Intelligence, November 21, 1988. Secret
Document 41: DCI Task Force on the National Reconnaissance Office, Final Report, April 1992. Secret. Section IV.
Document 42a: DCI, Terms of Reference for a National Imagery Agency, 1995
Document 42b: CIA, Press Release, National Imagery and Mapping Agency Proposed to Congress, November 28, 1995.
Document 43: Restructuring the DS&T, 1996.
Document 44: CIA, D&ST Realignment Overview, 2000.

Notes

1. See Jeffrey T. Richelson, *The Wizards of Langley: Inside the CIA's Directorate of Science and Technology* (Boulder, Co.: Westview Press, 2001), pp. 94-95.
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4. Fred Emery, *Watergate: The Corruption of American Politics and the Fall of Richard Nixon* (New York: Times Books, 1994), pp. 52-53; Thomas Powers, *The Man Who Kept the Secrets: Richard Helms and the CIA* (London: Weidenfeld and Nicolson, 1979), p. 253.
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13. NARA_341_AAF_Sceintific_Advisor_Board.pdf

Original start page:	793	**Inserted note page:**	805	**Archive starts after note:**	806

Why it belongs in this release

Shows the elite Air Force scientific advisory structure in July 1947, including propulsion, pilotless aircraft, electronics, upper-air research, nuclear energy, and aeromedicine.

Complete release-note text from UAP 4

3. NARA_341_AAF_Sceintific_Advisor_Board.pdf — July 1947 Air Force scientific advisory network.

This document is highly useful because it gives a snapshot of the Army Air Forces Scientific Advisory Board on 22 July 1947, chaired by Theodore von Kármán, with panels on aircraft, fuels and propulsion, guided missiles and pilotless aircraft, electronics and communications, weather and upper-air research, explosives and nuclear energy, and aeromedicine and psychology. Names include Hugh Dryden, Charles Draper, Lee DuBridge, Irving Langmuir, Fritz Zwicky, Detlev Bronk, W. Randolph Lovelace, Hsue-shen Tsien, and others. Congress and NARA should investigate whether any UFO, “flying disc,” crash-retrieval, anomalous-material, or unconventional-propulsion questions were ever routed to this board, its subpanels, or its individual members. A special search should be made of von Kármán, Twining, Vandenberg, AMC, T-2 intelligence, and Air Materiel Command correspondence from June–December 1947.

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SEARS, Dr. William R.	Director, Graduate School of Aeronautical Engineering Cornell University Ithaca, New York	206 Valley Road Ithaca, New York
SODERBERG, Dr. C. Richard	Dept of Mechanical Engineering Mass. Institute of Technology Cambridge 39, Mass. Tel: Elliot 3311	543 Boston Post Road Weston, Massachusetts
STEVER, Dr. H. Guyford	Project METEOR, Rm 20-B-245 Mass. Institute of Technology Cambridge 39, Massachusetts Tel: Elliot 3311	
SWEENEY, Dr. William J.	Vice President Standard Oil Development Co. 30 Rockefeller Plaza New York, New York Tel: Columbia 5-2700	24 Greenbriar Drive Summit, New Jersey
TSIEN, Dr. Hsue-shen	Guggenheim Aeronautical Laboratory Mass. Institute of Technology Bldg. 33-408 Cambridge 39, Mass.	5 Hobart Road Newton, Mass.
VALLEY, Dr. George E., Jr.	Laboratory for Nuclear Physics Mass. Institute of Technology Cambridge 39, Mass. Tel: Elliot 3311	55 Frost Street Cambridge, Mass.

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NAME	BUSINESS ADDRESS	HOME ADDRESS
VON KARMAN, Dr. Theodore	S.A.B.-Rm. 3D-1089 Hdq. U.S.A.F. Washington 25, D. C. also Box 59, Pupin Bldg. Columbia University New York 27, N. Y. Tel: Univ. 4-3200 ext. 133	The Gotham Hotel 5th Ave and 55th Sts. New York, New York Tel: Circle 7-2200 1501 S. Marengo Ave. Pasadena, California
WATTENDORF, Dr. Frank L.	Engineering Division Air Materiel Command Wright Field, Ohio Wright Fld ext 39211	14 McDaniel Street Dayton, Ohio Tel: Adams 1396
ZWICKY, Dr. Fritz	Director Laboratory of Astrophysics Calif. Institute of Technology Pasadena, California also Director of Research Aerojet Engineering Corporation Azusa, California	212 W. California St. Pasadena, California
ZWORYKIN, Dr. Vladimir K.	Vice President & Technical Director, R.C.A. Laboratories Princeton, New Jersey	103 Battle Rd. Circle Princeton, New Jersey (summer) Taunton Lakes, Marlton P.O. New Jersey

BRAY, Charles W (illiam), II (Married) 6' - 130 pounds - Blonde Hair - Gray eyes

BORN: 14 May 1904 in Pittsburgh, Pennsylvania

EDUCATION: Psychology

B.S. - Princeton University - 1925
A.M. - " " - 1926
PhD. - " " - 1928

AWARDS:

Warren Medal - 1936
War Department Certificate of Appreciation for outstanding contribution to the War effort as member of the AAF Scientific Advisory Group - 1946.

OCCUPATIONS:

Instructor, Princeton University - 1928 to 1930
Asst. Prof. " " - 1930 to 1938
Assoc. Prof. " " - 1938 to 1942
Professor " " - 1942 to date

On Leave from Princeton University (War Years) from 1941 to 1946 as:

Research Investigator, National Research Council. 1941-1942
Exec. Secy - Committee on Service Personnel, NRC. 1942-1943
Technical Aide & Chief, Applied Psychology Panel, NDRC 1943-1946
Consultant, AAF Scientific Advisory Group 1944-1945
Member of Panel for Aeromedicine & Psychology on the AAF Scientific Advisory Board 1946 to date

SOCIETIES & ORGANIZATIONS:

American Psychological Association
Accoustical Society of America
American Association for Advancement of Science
Society of Experimental Psychology

BRONK, Detlev W(ulf) - (Married) - 5' 7" - 140 lbs - Brown hair - Blue eyes
BORN: 13 August 1897 in New York City

EDUCATION: Physiologist. Physicist. Infrared spectroscopy; volume flow of blood; physiology of sense organs and nervous system; nervous control of circulation; synoptic mechisms; cellular oxidations; aviation medicine.

A.B. - Swarthmore College - 1920
M.S. - University of Michigan - 1922
Lippincott Traveling Fellow - 1921-22
PhD. - University of Michigan - 1926

AWARDS & DEGREES:

ScD. - Swarthmore College - 1937

OCCUPATIONS:

Exec. Secretary, Philadelphia Food Administrator - 1918
Instructor of Physics, University of Pennsylvania - 1921
" " " " " Michigan - 1921-24
" " Physiology, " " " - 1924-26
Asst. Prof. Physiology & Biophysics, Swarthmore College - 1926-27
Assoc. " " " " - 1927-28
Professor " " " -1928-29
Dean of Men " - 1927-29
National Research Fellow, Cambridge & London, Eng.- 1928-29
Johnson Professor of Biophysics and Director, Eldridge Reeves Johnson Foundation for Medical Physics, University of Pennsylvania - 1929-date
Director, Institute of Neurology - 1936-40
" " " - 1940-date
Weir Mitchell Lecturer, Philadelphia College Physicians - 1938
Hughling Jackson Lecturer, MacGill University, Can. - 1938
Vanuxem Lecturer, Princeton University - 1939
Professor, Physiology, Cornell Medical College -1940-41
Priestly Lecturer, Penn. State College -1941
Co-ordinator of Research, Air Surgeon's Office, Hq. AAF - 1942-45
Herter Lecturer, Medical College, New York Univ.- 1943
Chairman, National Research Council - 1946-date
Member of Panel for Aeromedicine & Psychology, AAF Scientific Advisory Board - 1946-date
Member, National Research Council - 1935-date
NDRC, Section C-6 - 1941-45
Committee for Aviation Medal -1941
Chairman SubCommittee for Visual Problems - 1942
" " Oxygen & Anoxia - 1942

BRONK, Detlev W. - Continued

SOCIETIES & ORGANIZATIONS:

Managing Editor "Journal Cellular and Comparative Physiology"
Assoc. Editor, "Processes of Experimental Biology & Medicine"
1935-1941
Journal Applied Physics
American Journal Physiology
National Academy of Sciences
American Association for Advancement of Science
American Physiological Society
American Physical Society
American Neurological Association
Society of Experimental Biology
American Medical Association
American Society of Anesthetists
American Council of Applied Physics
American Optical Association
Harvey Society
American Philosophical Society
Physiological Society of Philadelphia - President 1938-40
Philadelphia Neurological Society
British Physiological Society
Society of Philosophy, Paris

DRAPER, Charles Stark - 5' 6½" - 200 lbs - Brown eyes - Black Hair

WIFE'S NAME: Ivy Willard Stark, Children - three sons, one daughter

BORN: 2 October 1901

EDUCATION:

Student, University of Missouri, 1917-1919
A.B., Stanford University - 1922
B.S., Mass. Institute of Technology - 1926
M.S., " " " - 1928
PhD., " " " - 1938 (Physics)

OCCUPATIONS:

Research Engineer - R. E. Gilmour's, 83 Fourth Ave., N. Y. C.
January 1927 to July 1927
Research Assistant - M. I. T., 9/29 to 9/30
Research Associate - M. I. T., 9/30 to 9/35
Asst. Professor - M. I. T., 9/35 to 9/38
Assoc. Professor - M. I. T., 9/38 to 9/39
Professor (Aero.) - M. I. T., 9/39 to date

MILITARY SERVICE:

1st Lieutenant Air Corps Reserve - 1926 to 1942
AAF Trng Center, Brooks Field, Texas - 1926
Middletown Air Depot - 1931-32 and 1935
Wright Field - 1936

SOCIETIES & ORGANIZATIONS:

Sigma Xi - M.I.T. Chapter - 1937 to date
American Assoc. for Advancement of Sciences - 1943 to date
American Society for Engineering Education - 1945 to date
American Physical Society - 1936 to date
Institute of Aeronautical Sciences - 1933 to date
American Academy of Arts and Sciences - 1942 to date
Army Ordnance Association
Society of Automotive Engineers
American Society of Mechanical Engineers
Journal Aeronautical Sciences - Consulting Editor 1938

REMARKS:

Operated Laboratory and developed Infra-Red signaling devices for U. S. Navy - 1927. Consulting Engineer for: Curtis Propeller Co., Sperry Products Co., Sperry Gyroscope, Waltham Watch Co., Hamilton Watch Co., Standard Propeller Co., Vega Aircraft Co., Boeing Aircraft Co., Bureau of Aeronautics, USN, NACA. Adviser on Aeronautical Engineering, Princeton Univ. - 1942-44.

DRAPER, Charles Stark continued

SPECIALTIES:

High Speed Pressure Indicators, Vibration Measuring Equipment, Gyroscopic Instruments, Detonation in Engines, Vibration, Aircraft Instruments.

DRYDEN, Hugh Latimer - (Married), 5' 9" - 168 lbs - Black Hair - Brown eyes
BORN: 2 July 1898 - Pocomoke City, Maryland

EDUCATION:

A.B.- John Hopkins University - 1916
A.M.- " " " - 1918
PhD.- " " " - 1919

OCCUPATIONS:

Division Chief, (Physicist), National Bureau of Standards 1919-1946
Asst. Director, National Bureau of Standards 1/46 to 6/46
Assoc. Director, " " " 6/46 to 7/47
Director Aeronautical Research, NACA 7/47 to date

SOCIETIES & ORGANIZATIONS:

National Academy of Sciences
Royal Aeronautical Society of London (Fellow)
Institute of Aeronautical Sciences * Honorary Fellow
President 1943
American Society of Mechanical Engineers, Publications Committee Member
American Physical Society
Washington Academy of Sciences - President 1946
American Association for Advancement of Sciences
Philosophical Society of Washington - President 1934

SPECIALTIES:

Aerodynamics, Properties of Airfoils at High Speeds, Wind Tunnel Investigations, Wind Pressure on Structures, Turbulence.

AWARDS:

Medal of Freedom and WD Certificate of Appreciation for outstanding contribution to the War effort as a member of the Scientific Advisory Group - 1946.

DuBRIDGE, Lee Alvin - (Married) - 5' 8" - 175 lbs - Blue eyes, Grey brown hair
BORN: 21 September 1901 - Terre Haute, Indiana

EDUCATION:

A.B. - Cornell College - 1922 (Iowa)
A.M. - University of Wisconsin - 1924
PhD. - " " - 1926
National Research Fellowship - Calif. Inst. of Tech. 1926-28

DEGREES AND AWARDS:

Doctor of Science - Cornell College, Iowa - 1940
WD Certificate of Appreciation for outstanding contribution to War effort as member of Scientific Advisory Group - 1946.

OCCUPATIONS:

Asst. Professor (Physics) Washington College, St. Louis - 1928-33
Assoc. Professor " " " " - 1933-34
Professor & Chairman, Dept. of Physics, Univ. of Rochester, New York, 1934 to 11/40 and 1/46 to 7/46.
Dean, Faculty Arts and Sciences, Univ. of Rochester - 1938-41
President, Calif. Inst. of Tech. 7/46 to date.
Consultant OSRD - Director Radiation Lab. M.I.T. 1940-46.

ORGANIZATIONS & SOCIETIES:

National Research Council - Physical Sciences Div.-1936 to date
Assoc. Editor "American Physics Teacher" - 1935 to 1938
"The Physical Review" - 1936 to 1939
"Review of Scientific Instructors" - 1936 to date
American Association for the Advancement of Science
American Physical Society
Optical Society of America
Rochester Optical Society (Vice Pres. 1935, President 1936)
American Institute of Radio Engineers
National Academy of Sciences
American Philosophical Society
Association of American Physics Teachers
American Association of University Professors
Phi Beta Kappa, Sigma Xi, Tau Kappa Alpha

SPECIALTIES:

Physics, Bio-physics, Nuclear disintegration, Photoelectric and thermionic emission, direct current amplification, Energy distribution of photoelectrons, Theory of photoelectric effect.

DUWEZ, Pol Edgard - (Married) - 5' 5" - 125 lbs - Blue eyes - light hair

BORN: 11 December 1907 - Mons, Belgium
(Naturalized in District Court, Los Angeles, 17 Nov. 44, Cert. #6180357)

EDUCATION:

AWARDS AND DEGREES:

WD Certificate of Appreciation for outstanding work in the War effort while member of Scientific Advisory Group.

OCCUPATIONS:

Professor, School of Mines, Mons, Belgium - 1935 to 1940
Research Feller, Calif. Inst. of Tech. 1941 to 1944.
Section Chief, Jet Propulsion Lab., Calif. Inst. of Tech. 1944 to date

ORGANIZATIONS & SOCIETIES:

Sigma Xi - Honorary Fraternity - 1935 to date
American Association for Advancement of Sciences - Fellow 1935 to date

GAMOW, George Anthony - (Married) - 6' 3" - 210 lbs - blue eyes - Blond hair

BORN: 4 March 1904, Odessa, Russia
Naturalized in Rockville, Maryland, 5 August 1940, Cert. #4919854

EDUCATION:

Student - Normal School, Odessa, Russia - 1914 to 1920
A.B., A.M. - University of Leningrad - 1922 to 1926
PhD. " " - 1928
Fellow - University of Gottingen, Germany - summer 1928.
University of Copenhagen, Denmark - 1928-29
Rockefeller Fellowship - Cambridge, Eng. - 1929-30

OCCUPATIONS:

Asst. Professor (Physics) University of Copenhagen - 1930-31
Master of Research - Academy of Sciences, Leningrad - 1931-33
Lecturer - University of Paris and London, winter - 1933-34
Lecturer - University of Michigan, summer - 1934
Professor of Physics, Geo. Washington Univ., Sept. - 1934-date
Lecturer, Stanford University, summer - 1936
Consultant, Office Naval Research, Physics Section - 1943-date

ORGANIZATIONS & SOCIETIES:

Member Physical Congress, Rome - 1931
" " " , London - 1934
Solway Congress, Brussels, - 1933
International Congress (Physics) Warsaw - 1938
International Astronomical Union
American Physical Society
American Geophysical Society
American Astronomical Society
Washington Philosophical Society

AWARDS & DEGREES:

WD Certificate of Appreciation for outstanding work as a member of the Scientific Advisory Group - 1946

SPECIALTIES:

Structure of the Atomic Nuclei and Properties of Elementary Particles - Problems of Stellar Energy and Evolution.

HOFF, John Nicholas - (Married) - 5' 5" - 151 lbs - Brown eyes - Brown hair

BORN: Magyarovar, Hungary - 3 January 1906
Naturalized, East District, New York, 27 July 1944 - Cert. #5968853

EDUCATION:

Dr. Eng. Zurich, Switzerland - 1928
PhD., Stanford University - 1942

OCCUPATIONS:

Aircraft Stress Analyst & Designer, Manfred Weiss Airplane and Motor Works, Ltd., Hungary - 1929-39
Assistant, Vibration & Earthquake Lab., Stanford University - 1939-40
Professor (Aero. Eng.) Polytechnic Inst. of Brooklyn - 1940-date

ORGANIZATIONS & SOCIETIES:

American Society of Mechanical Engineers
Institute of Aeronautical Sciences
American Society of Electrical Engineers
Royal Aeronautical Society of London
Sigma Xi - Honorary Research Fraternity, New Haven, Conn.
Tau Beta Pi - Honorary Engineering Fraternity

SPECIALTIES:

Aircraft Stress Analysis - especially stress distribution in and instability of monocoque structures and of framework with rigid joints.