

~~TOP SECRET~~

RUF

Handle Via Indicated Controls

(b)(1)1.

ZAR

UMB

(b)(1)1.5c /TALENT-KEYHOLE/COMINT

Project Access:

IDEALIST TAGBOARD CORONA

(b)(1)1.5c

REPORT TO THE
40 COMMITTEE
ON THE
NATIONAL RECONNAISSANCE PROGRAM

July 1, 1970 to June 30, 1971

CONTROL NUMBER: (b)(1)1.5c 311

COPY 5

RUF

(b)(1)1.5c

ZAR

44

~~TOP SECRET~~

~~TOP SECRET~~

Handle Via Indicated Controls

(b)(1)1.5c TALENT-KEYHOLE/COMINT

RUFF
(b)(1)
ZARF
UMI

Project Access:

IDEALIST TAGBOARD CORONA (b)(1)1.5c

(b)(1)1.5c

REPORT
TO THE
PRESIDENT'S FOREIGN INTELLIGENCE
ADVISORY BOARD
ON THE
NATIONAL RECONNAISSANCE PROGRAM

July 1, 1970 to June 30, 1971

CONTROL NUMBER: (b)(1)1.5 3110-71

COPY 8

RUFF

(b)(1)1.5c

ZARF

~~TOP SECRET~~

~~TOP SECRET~~

(b)(1)

151 NATIONAL RECONNAISSANCE OFFICE
WASHINGTON, D.C.

OFFICE OF THE DIRECTOR

FOREWARD

This report on the National Reconnaissance Program covers activities for the Fiscal Year ending June 30, 1971. The year was marked by notable achievements, including the successful employment (b)(1)1.5c

(b)(1)1.5c

The year was also marked by changes in our operating environment with the expectation of more changes to come. Presented in this report are both the notable achievements of the National Reconnaissance Office and the challenges which we face.

J. L. P. M. P.
John L. McLucas

HANDLE VIA
(b)(1)1.5c
COMINT SYSTEM

~~TOP SECRET~~
EXCLUDED FROM AUTOMATIC DOWNGRADING
AND DECLASSIFICATION DIRECTIVE 5200.10 DOES NOT APPLY

CONTROL NO. _____
COPY _____ OF _____
PAGE _____ OF _____

DIF

figure 1

~~TOP SECRET~~

RUFF
(b)(1)1.5c
ZARF
UMBRA

Handle Via Indicated Controls

(b)(1)1.5c TALENT-KEYHOLE COMINT

Project Access:

IDEALIST TAGBOARD CORONA (b)(1)1.5c

(b)(1)1.5c

REPORT
TO THE
PRESIDENT'S FOREIGN INTELLIGENCE
ADVISORY BOARD
ON THE
NATIONAL RECONNAISSANCE PROGRAM

July 1, 1970 to June 30, 1971

Control Number: (b)(1)1.5c 13110
Copy

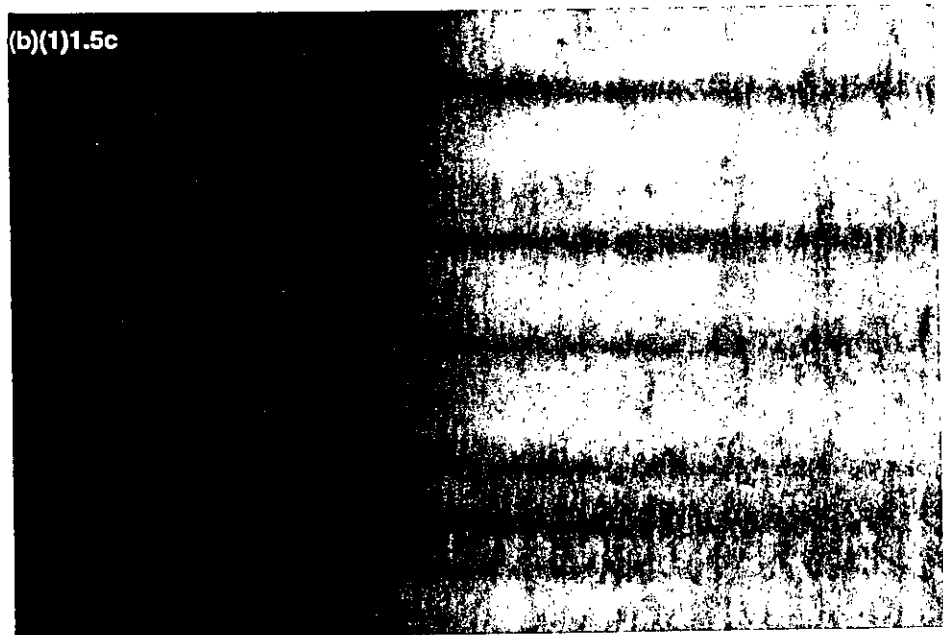
RUFF
(b)(1)1.5c
ZARF
UMBRA

~~TOP SECRET~~

TABLE OF CONTENTS

	Page
I. ORGANIZATION AND FUNCTIONS NATIONAL RECONNAISSANCE PR	
A. Authority.....	
B. Organizational Relations.....	
C. The NRO Organization.....	
II. BUDGET.....	
III. REQUIREMENTS AND COLLECTION ACTIVITIES.....	
General.....	

(b)(1)1.5c



(b)(1)1.5c

C. Aircraft and Drone Reconnaissance.... 28

 U-2..... 29

 SR-71..... 32

 TAGBOARD..... 33

IV. CURRENT ISSUES..... 36

 Classification of Overhead Products..... 36

 Tactical Collection Activities..... 38

V. RESEARCH AND DEVELOPMENT..... 42

(b)(1)1.5c, (b)(1)1.5g

Applied Research/Advanced Technology..... 46

 Optical Payload Technology..... 46

 Electronic Payload Technology..... 47

(b)(1)1.5c, (b)(1)1.5g

Film and Processing..... 50

I. ORGANIZATION AND FUNCTIONS OF THE NATIONAL RECONNAISSANCE PROGRAM

A. Authority

The National Reconnaissance Program is a covert program conducted under the terms of an August 11, 1965 agreement signed by the Deputy Secretary of Defense and the Director of Central Intelligence.

B. Organizational Relationships

The program is managed by the National Reconnaissance Office which develops and commits reconnaissance assets solely against intelligence requirements and priorities established by the United States Intelligence Board. The NRO forwards plans and schedules for satellite, aircraft, and drone reconnaissance overflights directly to the 40 Committee for approval. The President's Foreign Intelligence Advisory Board regularly reviews and provides guidance on National Reconnaissance Program plans and activities. A Panel on NRP Matters, which reports to the President's Science Advisor, meets frequently to

review the technical status of existing and planned reconnaissance projects.

Figure 2 shows the organizational relationships relevant to the National Reconnaissance Program.

C. The NRO Organization

The Director of the NRO, Dr. John L. McLucas is appointed by the Secretary of Defense. He also serves as the Under Secretary of the Air Force. Dr. F. Robert Naka is the Deputy Director and is assigned by the Director of the Central Intelligence Agency.

The NRO Staff, (b)(1)1.5c, (b)(3) is located in the Pentagon and provides staff assistance to the Director of the NRO and to the NRO Program Directors.

The Staff numbers (b)(1)1.5c

(b)(1)1.5c

Handle Via

(b)(1)1.5c COMINT
TALENT KEYHOLE

THE NRP ORGANIZATIONAL ENVIRONMENT

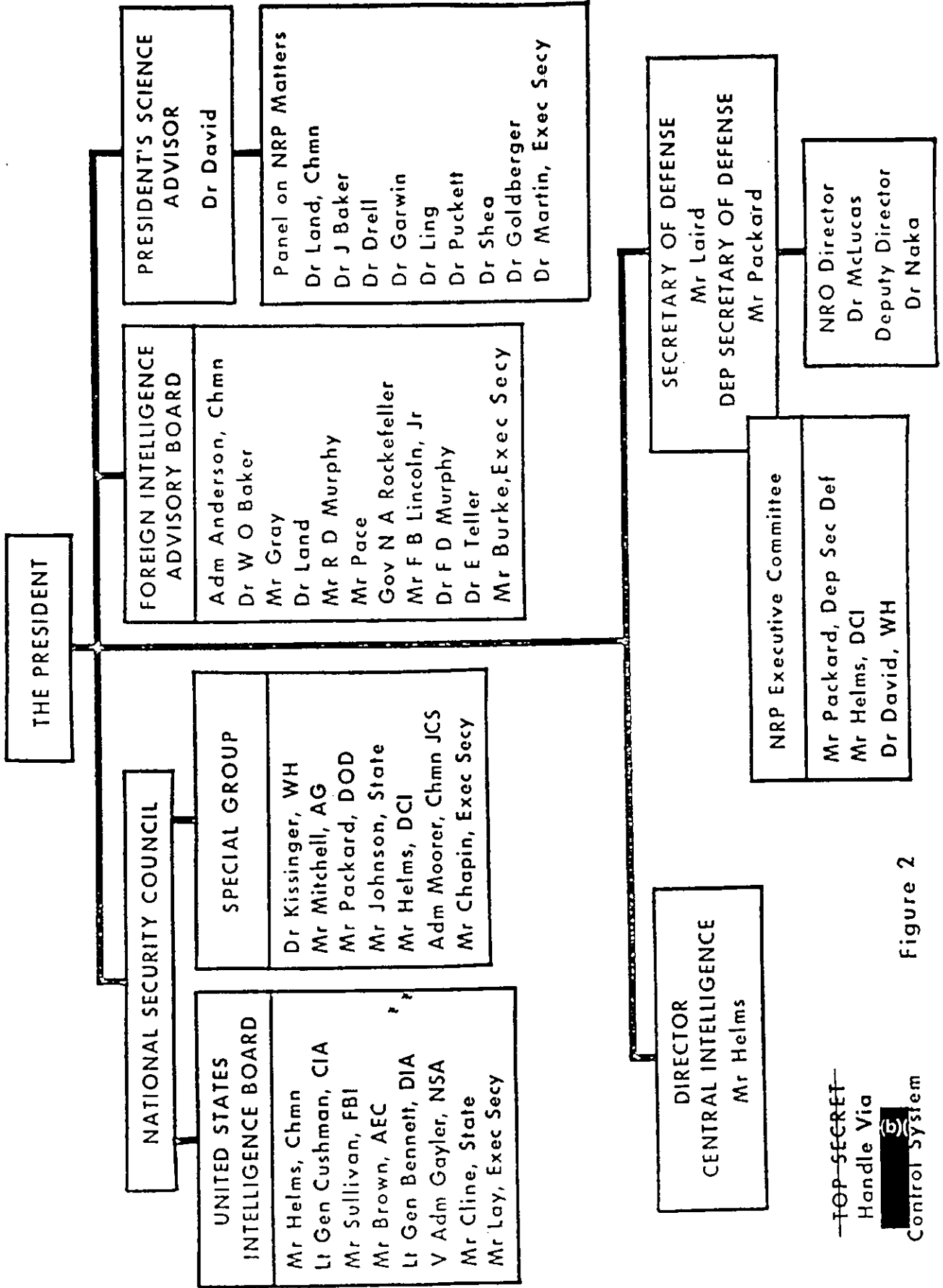


Figure 2

It has become increasingly evident that the overall assessment, evaluation, and long range planning for intelligence collection systems and their relationship to requirements and exploitation capabilities is not being accomplished adequately. Although the scope of such considerations includes much more than the responsibilities of the NRO, (b)(1)1.5c

(b)(1)1.5c

The Director of Program A is Brigadier General Lew Allen, Jr. The unclassified designation of the Program A organization is the Office of Special Projects in the Office of the Secretary of the Air Force. The Program A Headquarters in El Segundo, California is staffed by (b)(1)1.5 people. This organization deals primarily with satellite

photographic and signal intelligence payload development and operations, including systems readiness and checkout, launching, orbital control, and recovery of payload capsules.

(b)(1)1.5c

(b)(1)1.5c

Program A also manages the Air Force Special Projects Production Facility (AFSPPF) at Westover Air Force Base, an organization which assists in the processing of photographic reconnaissance products. This facility is staffed by (b)(1)1.5c people. Additionally, Program A supervises a number of advanced research programs intended to extend existing reconnaissance capabilities. General Allen is responsible for booster vehicles and launch operations for all NRP satellites, including collection systems developed by his own organization, by the CIA Reconnaissance Program Office, and by Program C. In carrying out his mission, General Allen is supported extensively by the Air Force Space and Missile Systems Organization as well as by (b)(1)1.5c

The Director, CIA Reconnaissance Programs, Mr. Carl Duckett, has responsibilities in both aircraft and satellite reconnaissance. The Agency also provides some covert

contractual and procurement functions for the National Reconnaissance Program and conducts assigned research and development efforts for both aircraft and satellite reconnaissance projects. The Office of Special Activities, CIA, continues to use the U-2 vehicle in the IDEALIST collection program. The (b)(1)1.5c intelligence collection system, the CORONA (b)(1)1.5c imagery sensor subsystems, and electro-optical imaging technology are the CIA's major satellite developments and are managed by the CIA Office of Special Projects. The Agency's Washington-based reconnaissance staff and detached locations are manned by about (b)(1)1.5 people.

In January, 1971 all Navy space activities were consolidated in a newly created Navy Space Project Office. Concurrently, the functions of NRO Program C were transferred from the Assistant Chief of Naval Operations (Intelligence) to the Navy Space Project Office. Captain Robert K. Geiger is the Manager of the Office and the Director of Program C; his Washington staff for covert activities consists of (b)(1)1.5 people. The (b)(1)1.5c signal intelligence system remains the primary development of the Program C Office, and the effort

continues to be carried on principally at (b)(1)1.5c
(b)(1)1.5c supported by (b)(1)1.5c In addition, this office is studying the use of NRP assets--systems, facilities, technology and experience--which could be of use in satisfying both Navy and national ocean surveillance requirements.

Colonel Frank W. Hartley, Jr., the Director of Program D, employs (b)(1)1.5c on his Washington staff and (b)(1)1.5c additional persons at (b)(1)1.5c Robins Air Force Base. Program D provides and manages the TAGBOARD drone system and the SAC U-2 aircraft fleet, as well as Air Force support to CIA for the IDEALIST program. Colonel Hartley and his staff also furnish (b)(1)1.5c

(b)(1)1.5c

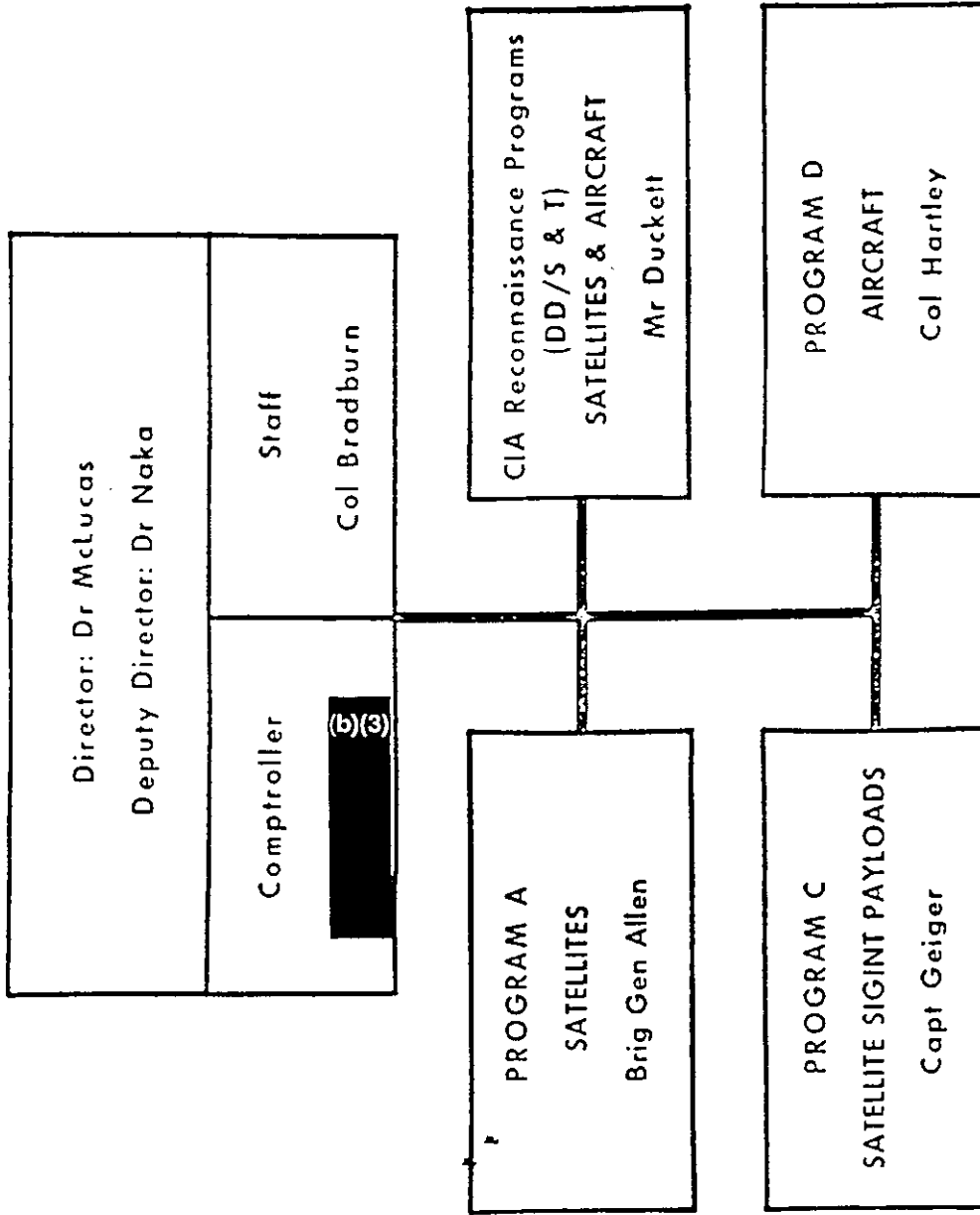
Under special arrangements, the Joint Reconnaissance Center of the Joint Chiefs of Staff exercises, for the DNRO, operational control of certain aircraft programs when overflight of denied territory is involved. At present, reconnaissance systems in this category include U-2 and SR-71 aircraft, and the TAGBOARD drone.

Figure 3 shows the organization of the National Reconnaissance Office.

Handle Via

(b)(1)1.5c COMINT

NATIONAL RECONNAISSANCE OFFICE



II. BUDGET

The succeeding pages reflect the National Reconnaissance Program Financial Program as obligated in Fiscal Years 1967 through 1971. This is a departure from previous reports which were on a fiscal year fund availability basis and did not as meaningfully reflect the funded efforts in any particular year. The obligation basis is called a Program Year. The change has been made because, when Fiscal Year 1972 data is reflected, there would be an evident distortion of program funding as a result of significant Fiscal Year 1971 appropriated but unobligated funds being applied to 1972 obligations.

Planned funding for Fiscal Years 1972 through 1977 will be furnished in a supplemental report reflecting the decision on a Near Real Time Readout system.

NATIONAL RECONNAISSANCE FINANCIAL PROGRAM

FY 1967 THROUGH 1971 OBLIGATIONS

(b)(1)1.5e

FY67 FY68 FY69 FY70 FY71

Total Obligations

(b)(1)1.5e

Satellite Programs

(b)(1)1.5e

CORONA

(b)(1)1.5e

(b)(1)1.5e

Handle Via

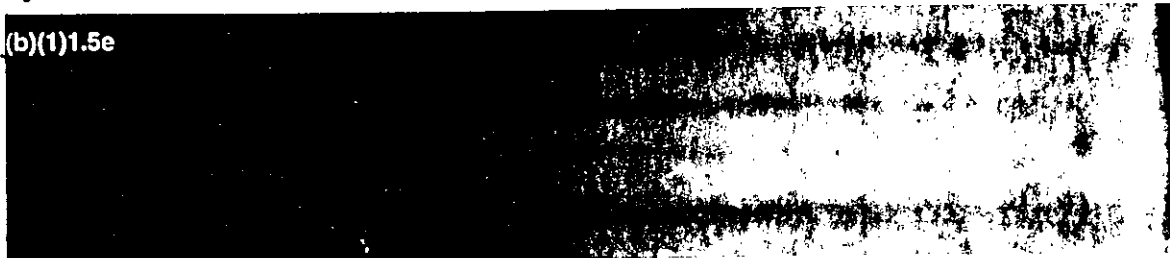
(b)(1)1.5c

COMINT

FY67 FY68 FY69 FY70 FY71

System Technology

(b)(1)1.5e



Mission Support

Satellite Control
Facilities

AFSPPF, Propellants,
Misc. Operating

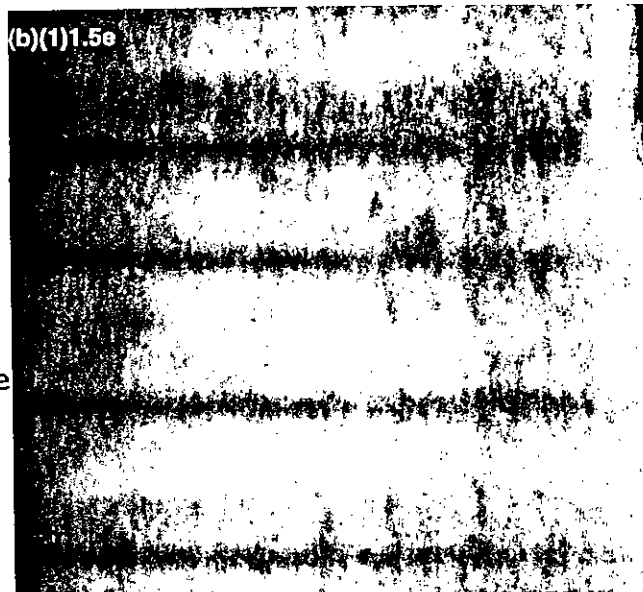
Subtotal

R&D Support

Applied Research, Advance
Development, Vulner-
ability, Photo, Misc.
Development

Satellite Total

(b)(1)1.5e



Aircraft and Support Programs

OXCART (A-12)

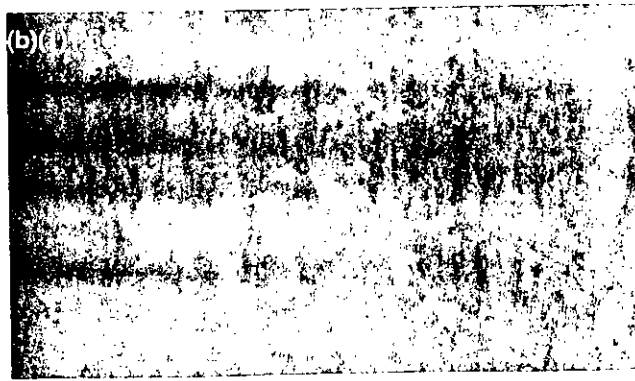
TAGBOARD Drone

U-2 Programs

U-2R Procurement

COMINT Procurement

(b)(1)1.5e



Handle Via

(b)(1)1.5c COMINT
VALUABLE COPY

FY67 FY68 FY69 FY70 FY71

(b)(1)1.5e

Drone Procurement

(b)(1)1.5e

U-2 Operating

Subtotal

Mission Support

Photographic

(b)(1)1.5c Fuel, Misc.

Subtotal

R&D Support

Countermeasures

General R&D

Subtotal

Aircraft and Support Total

Handle Via

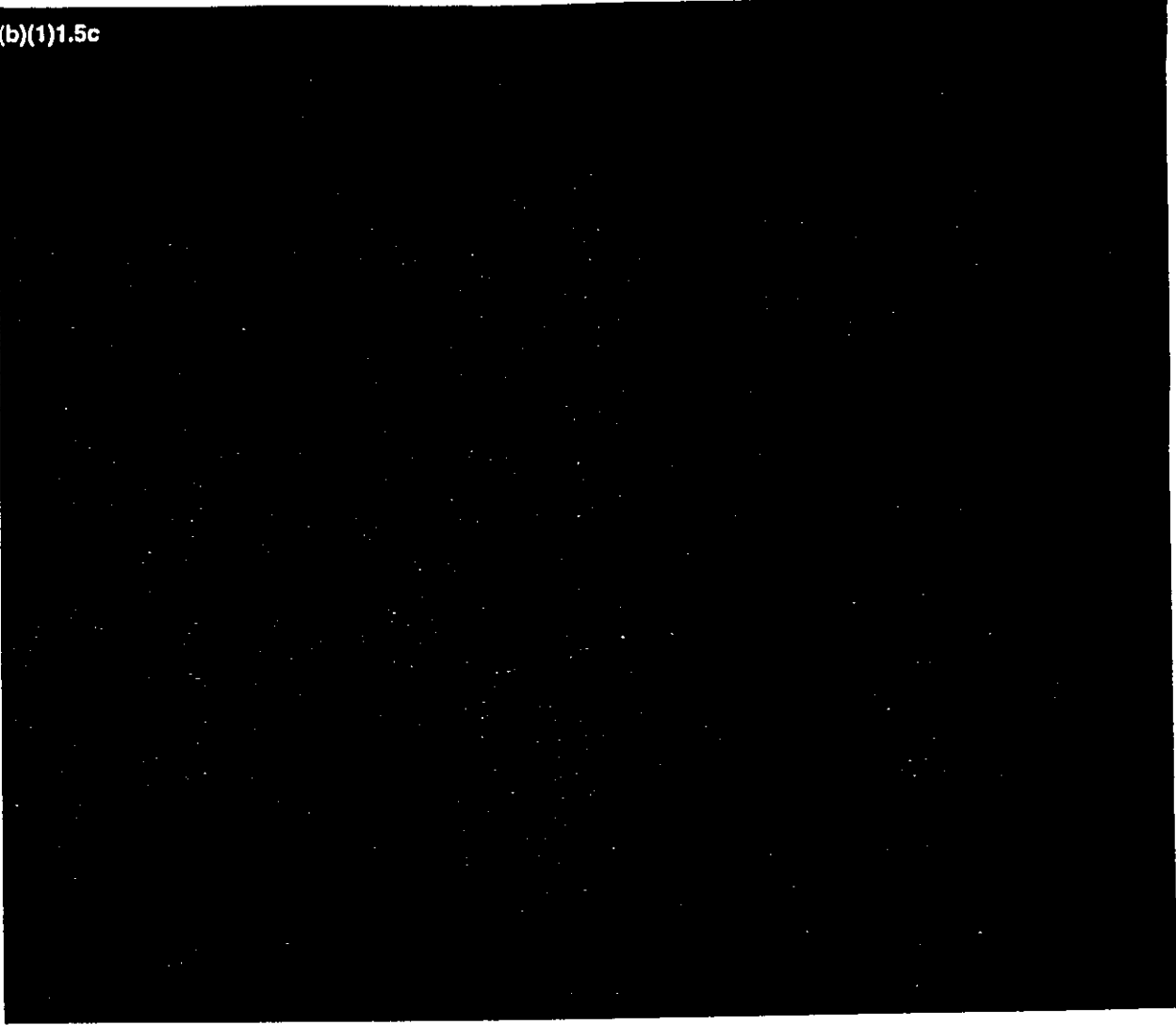
(b)(1)1.5c COMINT

TALENT-KEYHOLE

Control Systems, Jointly

Pages 11, 12, 13 - 20
are non-responsive
DIF (b)(1) 1.5c

(b)(1)1.5c



C. Aircraft and Drone Reconnaissance

Aircraft and drone reconnaissance provides a useful adjunct to satellite collection in several areas of the world. During the last year the NRO has employed U-2R and SR-71 aircraft, and the TAGBOARD drone. Missions were flown over China, North Korea, Cuba and the Middle East cease fire zone.

Handle Via

(b)(1)1.5c COMINT

U-2. The NRO maintains a fleet of eleven U-2R IDEALIST aircraft; five are operated by the CIA Office of Special Activities and the remainder by the Strategic Air Command. The U-2R is capable of flying at (b)(1)1.5g at (b)(1)1.5g altitude and can fly missions of (b)(1)1.5g miles. It is fitted out with one of three primary camera systems, depending upon the type of mission to be flown, and is capable of photography with a best resolution of (b)(1)1.5c, (b)(1)1.5g from its operating altitude. Signal Intelligence payloads can also be carried aboard these vehicles.

China. The USIB requirement for aircraft collection against mainland China calls for monthly, quarterly, and semi-annual coverage of selected targets and areas (USIB D-46.4/13, March 27, 1968 and USIB D-41.14/276, January 19, 1966). IDEALIST missions flown out of Taiwan are planned to meet these requirements. On July 3, 1968, the Secretary of State suspended aircraft overflights of China; however, no IDEALIST missions have penetrated Chinese airspace since March 16 of that year. Because of the standing USIB requirements flights are requested each month, but the 40 Committee has approved

Handle Via

(b)(1)1.5c COMINT

only peripheral IDEALIST operations with the stipulation that they approach no closer than twenty nautical miles to the mainland China coast. Twenty peripheral missions-- all successful--were flown during the year, collecting photography and signal intelligence. (b)(1)1.5c

(b)(1)1.5c

Middle East. On August 7, 1970, the Department of State requested that U-2 aerial photographic coverage be made of the border area (b)(1)1.5c

(b)(1)1.5c

To meet this request a task force of two U-2R aircraft operated by the CIA Office of Special Activities and identified by the codeword EVEN STEVEN, was deployed on August 8 (b)(1)1.5c

(b)(1)1.5c

was flown on August 9. During the period from August 9 through December 13, a total of thirty EVEN STEVEN missions were flown over routes that ranged from six to nine nautical miles (b)(1)1.5c Five of the photo missions also

Handle Via

(b)(1)1.5c

COMINT

carried (b)(1)1.5c [REDACTED] The last EVEN STEVEN mission was flown on November 10, and the task force deployed back to Edwards Air Force Base, California on December 13, (b)(1)1.5c [REDACTED]

Cuba. The requirements for Cuban coverage (USIB D-46.2/35, April 2, 1970) state that approximately 90 percent of the entire island shall be covered by interpretable high-resolution stereo photography during any 3-month period; that at least one successful manned overflight will be made at least once every (b)(1)1.5c [REDACTED] and that a capability will be maintained to overfly Cuba within 24 hours against any specific critical objective. Sixty-seven missions, identified as OLD HEAD, were flown during this period by U-2R aircraft operated by the Strategic Air Command. On June 30 the satisfaction of Cuban collection requirements stood at 99.3 percent. There were two missions where fighter intercept was attempted or thought to be underway. In the first incident on March 18, 1971, COMINT indicated that an attack was being vectored against the mission. The U-2 pilot immediately took evasive action and left the area when his

warning system indicated imminent attack. It was subsequently determined that the on-board attack warning system had malfunctioned (b)(1)1.5c

(b)(1)1.5c

in the area. In the second case, on June 6, two MIG-21 aircraft were vectored in a poor intercept attempt. The closest approach was four nautical miles and 40,000 feet below the U-2R. This OLD HEAD mission was successfully completed.

SR-71.

North Korea. The current requirements for North Korean coverage (USIB D-46.4/13, March 27, 1968, and USIB D-41.14/276, January 19, 1966), call for 50 percent of the targets to be sampled quarterly and essentially all targets semi-annually, with high resolution photography. SR-71 aircraft operated by SAC and identified by the codeword GIANT SCALE flew four deep and two shallow (less than twenty nautical mile) penetration missions--all successful--during the year. GIANT SCALE missions are coordinated for the purpose of collecting against essential (b)(1)1.5c

(b)(1)1.5c

Handle Via

(b)(1)1.5c COMINT

In March, April, and May of this year, the North Koreans lodged five separate protests against GIANT SCALE missions. The protests against missions GS 334 on March 14 and GS 359 on May 17 have been stronger than in the past and indicate that retaliatory action may be taken. As a result of these threats, which may include actions against lower and slower flying reconnaissance platforms that (b)(1)1.5c two GIANT SCALE missions planned for June 1971 were disapproved by the 40 Committee. In addition to the North Korean actions, the first Soviet airborne reaction to an SR-71 flight was made against the peripheral mission flown (b)(1)1.5c (b)(1)1.5c on May 14, 1971. The Soviet aircraft, however, did not approach closer than 100 nautical miles to the mission.

TAGBOARD. The TAGBOARD drone was developed as a high speed, high altitude photographic collection vehicle. It is air launched from a B-52 aircraft and boosted to speed and altitude by a solid rocket motor; it is capable of flying at (b)(1)1.5c altitude at (b)(1)1.5c miles. Launched outside of denied territory, the TAGBOARD

flies a pre-programmed course, and upon completion of the mission a hatch consisting of the camera and film magazine is ejected over international waters. The hatch is attached to a parachute and is air-recovered. The hatch is used to retrieve photographic satellite data. The drone vehicle self-destructs after the mission is completed through (b)(1)1.5c altitude.

The 40 Committee approved the use of TAGBOARD drone over (b)(1)1.5c. Three of these missions were flown. The first mission launched on December 12, 1964, followed the planned route but the parachute failed to deploy and an unsuccessful attempt at water recovery was made. The second parachute malfunction--in the second case. The third TAGBOARD mission was flown on (b)(1)1.5c airspace and followed its programmed path of the mission; after an unexplained deviation from its prescribed path it apparently self-destructed as it is programmed to do under these circumstances. A report was submitted as a result of the problems encountered on these missions.

Handle Via -

(b)(1)1.5c COMINT

~~TOP SECRET~~

to recommend whether to continue the program or to terminate it with the results to be reported to the ExCom meeting in July, 1971.

Handle Via
(b)(1)1.5c COMINT

IV. CURRENT ISSUES .

Classification of Overhead Products

The products of aircraft and satellite reconnaissance from denied territories of the world have been protected in a special security compartment at the direction of the President since the first U-2 photography was returned from the Soviet Union in 1956. Throughout the intervening years there have been pressures from various sources to either remove the product from special security controls, or to declassify it altogether. The reasons are varied; they range from the desire to make the intelligence gathered easier to work with, to the thought that security is a wasting asset since the world is aware of our reconnaissance operations.

There is now the possibility of consummating a Strategic Arms Limitation Treaty with the Soviets. During the debate which would accompany consideration of such a treaty, and during any subsequent enforcement of it, the subject of proof could not be expected to be avoided. Thus the downgrading or declassifying issue may be assumed to become even stronger in the future.

pages 37 to 50
are non-essential
DIF (b)(1) - 500