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National Reconnaissance Office
OCIO/Information Review and Release Group
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NATIONAL RECONNAISSANCE OFFICE

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8 November 2017

This is in response to your letter dated 20 June 2015 and received in the National Reconnaissance Office (NRO) on 29 October 2015. Pursuant to Executive Order 13526, Section 3.6, you requested a mandatory declassification review of "NSA in Space, April 1975, BYT-19385-75."

A thorough search of NRO files and databases located the information you requested, and it is being released to you in part. We conducted a review of classified information over 25 years old pursuant to the automatic declassification provisions of Executive Order 13526, and determined that the material withheld is exempt from automatic declassification under Sections 3.3(b)(1), 3.3(b)(3), and 3.3(b)(6). The material withheld from release also remains currently and properly classified pursuant to Section 1.4(c) of the Executive Order. The names of NRO or NSA employees and/or information related to NRO or NSA functions and activities are exempt from public release in accordance with the provisions of Section 3.5(c) of E.O. 13526 under statutes 10 U.S.C. § 424 and P.L. 8636 / 50 U.S.C. § 3605.

You have the right to appeal this determination to the NRO Appellate Authority, 14675 Lee Road, Chantilly, VA 20151-1715, within 90 days of the above date. Should you decide to do this, please explain the basis of your appeal.

If you have any questions, please call the Requester Service Center at (703) 227-9326 and reference case number E16-0007.

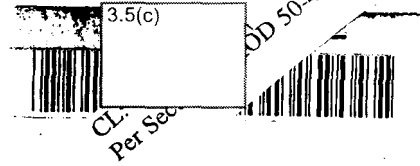
Sincerely,

for Patricia B. Camerese
FOIA Public Liaison

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NSA

IN

SPACE

APRIL 1975

Prepared by:

3.5(c)

Technical Advisor:

3.5(c)

Approved by:

3.5(c)

Chief, Special Systems



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I. INTRODUCTION

This document has been prepared to provide NSA a summary of its involvement in U.S. SIGINT Satellites from the mid-fifties to the present. Some of the information contained herein has been written, in part, from interviews conducted with key people who participated in some phase of SIGINT satellite development. Although not officially involved prior to National Security Council Intelligence Directive 6, dated September 1958, NSA had been engaged in numerous informal meetings concerning SIGINT Satellites and their processing. This report is an attempt to document NSA's informal and formal involvement in the SIGINT Satellite Program.

3.3(b)(3), 3.5(c)

During the 1953-1957 time frame, the United States Air Force (USAF), United States Navy (USN) and other U.S. groups actively involved in the development of the U.S. Space Program were also concerned with the development of the U.S.S.R.'s ICBM Program. On 4 October 1957, the Soviets launched SPUTNIK I from the Tyuratam Missile Test Range (TTMTR). It was later learned that the Soviets used an ICBM booster (designated SS-6) to launch their satellite. Soon after SPUTNIK I was launched, the U.S. concern to "get into the space race" was multiplied. It was at this time that the Central Intelligence Agency (CIA), USAF and USN developed their satellite reconnaissance systems. Although the CIA and USAF projects were primarily photo oriented, CIA or USAF built small piggyback¹ packages deployed on a space available basis on the Agena. The USAF's primary program consisted of a combined photo/ELINT system called SAMOS.² At the same time, the Navy developed an ELINT piggyback payload for TRANSIT.³

¹ Flew on the front rack or Aft-rack of the Agena's used for photo or SIGINT payloads.

² SAMOS is the name for the USAF's Space and Missile Program.

³ TRANSIT is the USN's Navigational Satellite

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The Navy achieved the first launch, GRAB, on 22 June 1960. [See Appendix A for a detailed description on all of the payloads flown in the SIGINT Satellite Reconnaissance Program.] Two months later on 10 August, the CIA/AF SOCTOP was launched and on 31 January 1961, the USAF orbited the first successful SAMOS. (The first SAMOS failed to orbit in October 1960).

On 6 September 1961, the Secretary of Defense (SECDEF) and Director of Central Intelligence (DCI) established a National Reconnaissance Program (NRP) and the SECDEF delegated the Under Secretary of the Air Force to manage the program. The management and operation of the CIA, USAF, and USN satellite programs was placed under the newly formed National Reconnaissance Office (NRO). A DoD Memorandum October 1961 assigned collection responsibilities to the NRO and processing responsibilities to NSA. An NRP Executive Committee (EXCOM) was established in August 1965 to guide and participate in the formulation of the NRP through the Director, NRO (DNRO) (in response to USIB requirements). Specifically, the EXCOM members approve the NRO budget, allocate responsibilities and other essential features of the NRP. Although overall operations and plans are controlled by DNRO and his staff, the Program Managers in NSA, CIA, Air Force and USN actually plan, develop and operate the collection and processing systems.

Since 1960, the low orbiting SIGINT satellites were developed in three programs. The USN TRANSIT piggybacks (GRAB-for Pulsed Radar Main Beam Detection) evolved into the POPPY multi-satellite, multi-receiver, ELINT transpond and processing system. The last POPPY was launched in December 1971

3.3(b)(1), 3.5(c)

The USAF SAMOS Program, which collected zenith lobe data on selected radio frequencies (RF), evolved through several stages of large ELINT record/dump satellites (117L, 102F, 698BK, multigroup) to the STRAWMAN system. The last STRAWMAN vehicle was launched in July 1971 and the program was terminated March 1973. The early CIA/AF piggybacks (SOCTOPs) which evolved into the present BIT and 3.3(b)(1) packages were designed for rudimentary radar tracking vulnerability assessment and continue to be flown on the Photo Reconnaissance Program. The USAF launched their piggybacks to collect both ELINT and COMINT. A primary purpose was to collect specified ABM radar related signals.

3.3(b)(1)

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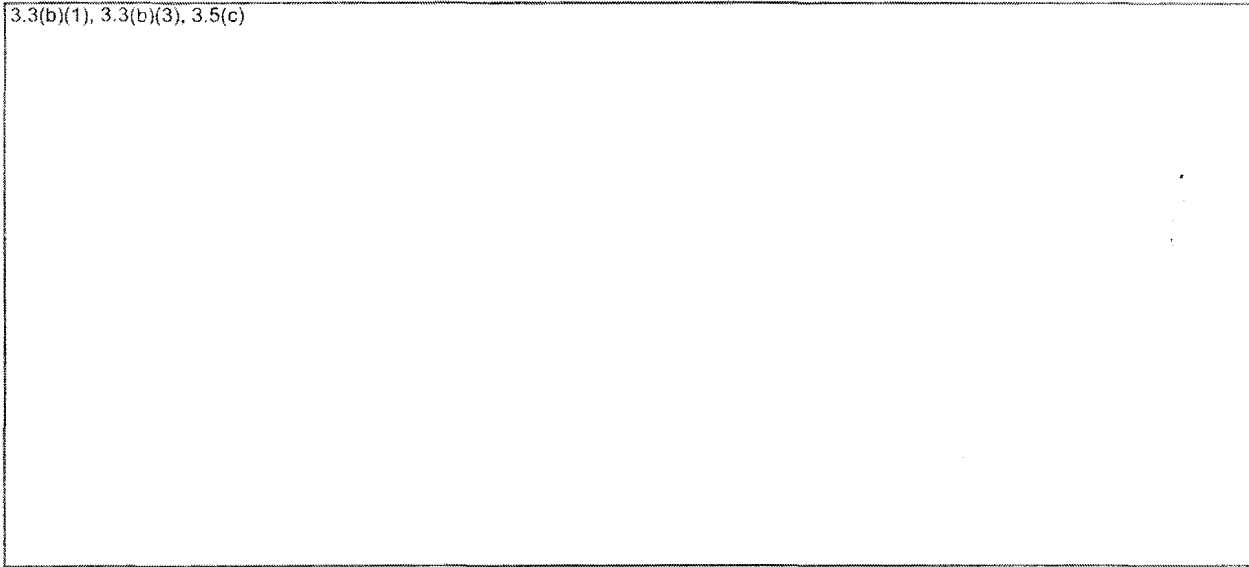
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The third major low-altitude SIGINT Satellite Program, P11, grew out of the desire to extend the life of the Aft-Rack/piggyback payload beyond that of the primary payload. The first SIGINT P11 was launched in October 1963. The P11 spacecraft are sub-satellites which are dependent upon host vehicle for launch and insertion into orbit. The P11 Program, which has carried ELINT, COMINT and telemetry payloads, continues with five vehicles presently active and one launch planned per year.

3.3(b)(1), 3.3(b)(3), 3.5(c)



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<u>NSA UNCLASSIFIED NAME</u>	<u>PROGRAM NUMBER</u>	<u>BYEMAN NAME</u>
3.3(b)(1)		
REBATE	117/102/ 698BK/770A	MULTIGROUP/STRAWMAN Series (For Breakdown of specific BYEMAN Payload names see Appendix A
3.3(b)(1)		
	770B/989	P11 Series (For Breakdown of specific BYEMAN payload names see Appendix A
REPTILE	770C 3.3(b)(1)	POPPY
3.3(b)(1)		

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II. PROGRAMS

A. U.S. Air Force Programs

1. Prime Booster

a. Introduction

In 1960, the United States Air Force (USAF) launched the first large-payload SIGINT satellites. These prime booster low orbiting EOB payloads began with Program WS-117L and evolved into Programs 102, 698BK, and finally to 770. Within Program 770, there was an evolution from multi-group to STRAWMAN. The STRAWMAN program was terminated in 1973 by the Executive Committee (EXCOM) in view of the projected technical intelligence (TI) real-time accomplishments to be attained by ^{3.3(b)(1)}



b. Details

The WS-117L¹ program was initiated in 1946 when the RAND Corporation was tasked with studying the technical feasibility of orbiting artificial satellites. In 1954, the USAF formed the WS-117L Project Office under the Wright Air Development Center (WADC) at Wright Patterson Air Force Base, Dayton, Ohio. Two years later, the development and testing of this system was approved and in October 1956 the prime contract was awarded to Lockheed Missile and Space Company (LMSC). Subsequently, the WS-117L Project Office was moved to Los Angeles, California under what is now SAFSP.

The WS-117L program became a National project with the USAF as Executive Agent by action of the National Security Council (NSC). Within WS-117L, the SAMOS Program was for the development, design, manufacture, and testing of reconnaissance satellites. The sensors flown in the SAMOS vehicle were first priority, photography (Subsystem E); second priority, ELINT (Subsystem F); and third priority, COMINT. These priorities were approved 5 July 1960 by the United States Intelligence Board (USIB). In August 1959, NSA had issued a

¹ WS-117L contained Subsystems A through I which were Airframe, Propulsion, Power, Guidance, Photography, ELINT, Infrared, Ground/Space Communications and Data Processing, respectively.

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report on the collection of communications intelligence (COMINT) from a satellite. This study indicated that the "basic philosophy and some of the equipment of Subsystem F, the ELINT reconnaissance portion of the WS-117L Program, is generally adaptable to the requirements of COMINT data collection."¹

The very first SAMOS, launched 11 October 1960, was a combination flight. It had an Atlas booster with an Agena orbital vehicle, carrying a Subsystem E photo payload and the Subsystem F ELINT payload. The system was designed to demonstrate feasibility of data readout by radio vice physical recovery which was being tested on the DISCOVERER program.

The USAF developed processing equipment for both the photo and ELINT data and located it at the Vandenberg Tracking Station. The first SAMOS was launched but its guidance system failed and did not achieve orbit; three months later, SAMOS II was orbited successfully. Both SAMOS I and II had vacuum tube mechanical tuned receivers and recorded intercepted radar pulses. The ELINT data which SAMOS II collected was not of intelligence value since it was not turned on over the USSR. There also was some difficulty analyzing the pulses on the playback recorder. The system was operated in a real-time calibration mode over the U.S. on orbit eight and intercepted 69 digital words of zenith lobe data from U.S. west coast radars. This data established the feasibility of a spaceborne ELINT reconnaissance system. At this time, it was decided that Atlas boosters were too expensive for ELINT payloads; therefore, the Thor boosted Program 102 and later 698BK payloads were developed. (The previous Air Force payload, SAMOS II was later designated 698BK I). This new program was again designed as an EOB mission to automatically locate known radars. Its first launch, 21 February 1962, carried a digital payload. The receivers were still mechanically tuned but for the first time there was on-board automation and digital data recovery.

3.3(b)(3), 3.5(c)

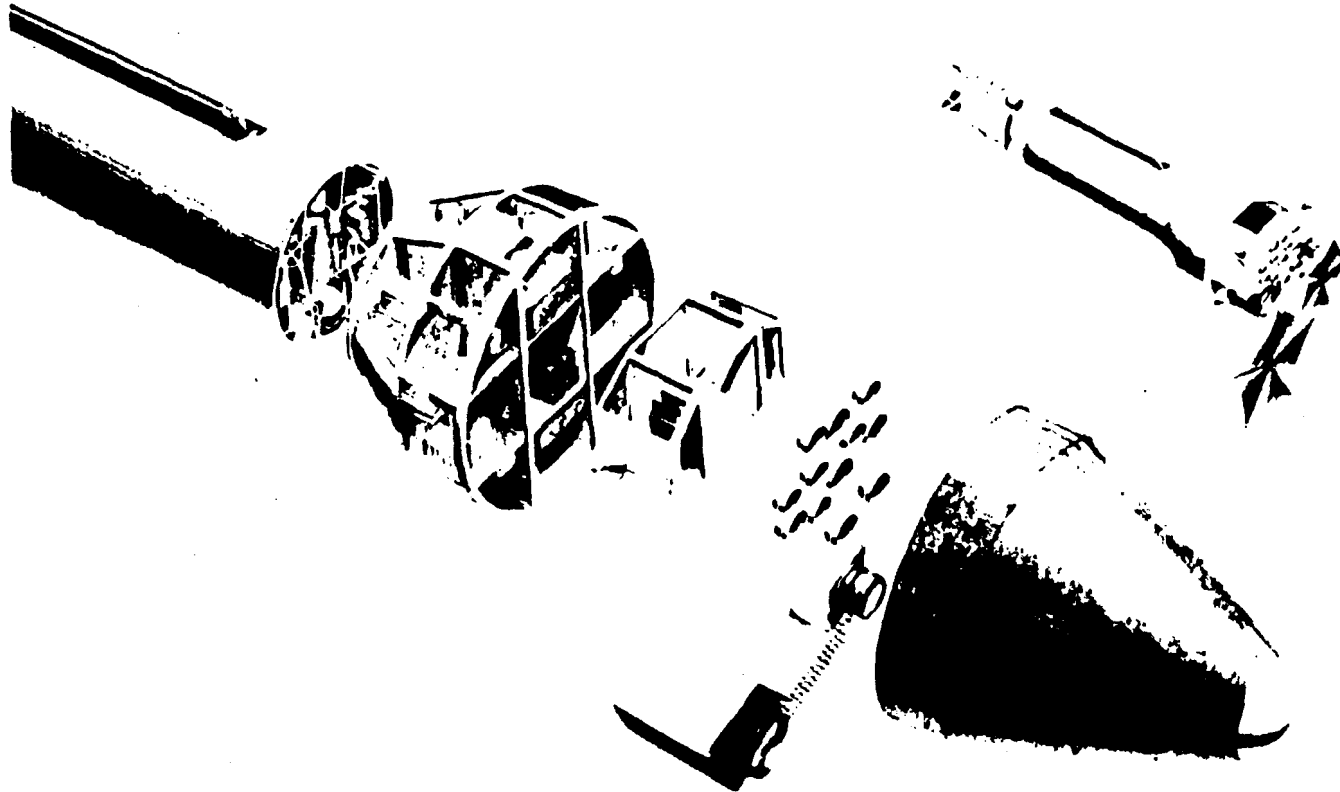
¹ "Study Report on COMINT Collection from Satellite Vehicles", August 1959, TECHDOC NO. 33.144.

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STRAWMAN P/L VEHICLE



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3.3(b)(3), 3.5(c)

Although the next 698BK III lasted only one day in orbit, it also provided information on

3.3(b)(3), 3.5(c)

Program 102 at this time had been SECRET; in 1963 the Program became SECRET Special Handling and the Program name itself was changed to 698BK. On 16 January 698BK IV payload was launched and 3.3(b)(3), 3.5(c) SAC and NSA helped establish the RF collection priority for these flights prior to the formal USIB guidance mechanism. NSA, SAC, and LMSC processed the data. In many cases, NSA reprocessed data which LMSC had worked, to derive intelligence on target radars.

In 1964, the 698BK payloads were improved. First a wideband analog capability was added to collect technical intelligence. Second, a separate payload,

3.3(b)(3), 3.5(c), 3.3(b)(1)

In 1964, a 698BK analog and a 698BK digital/analog system were launched. The analog data was detected video. Much of the processing of the raw data was handled by LMSC. NSA received the output, analyzed it, and identified

3.3(b)(3), 3.5(c)

In the early 1960's, further effort to extend system lifetimes was made. The goal with the 698BK payloads was 20 days but the eight 698BK flights died within 12 days or less due to attitude control, battery failure, or some other vehicle problem. In 1965, an improved 698BK payload lasted a few months. At this time there was a security transition from SECRET Special Handling to BYEMAN compartmented controls and the 698BK program name changed to Program 770. NSA processed almost all of the above data.

1 3.3(b)(3), 3.5(c)

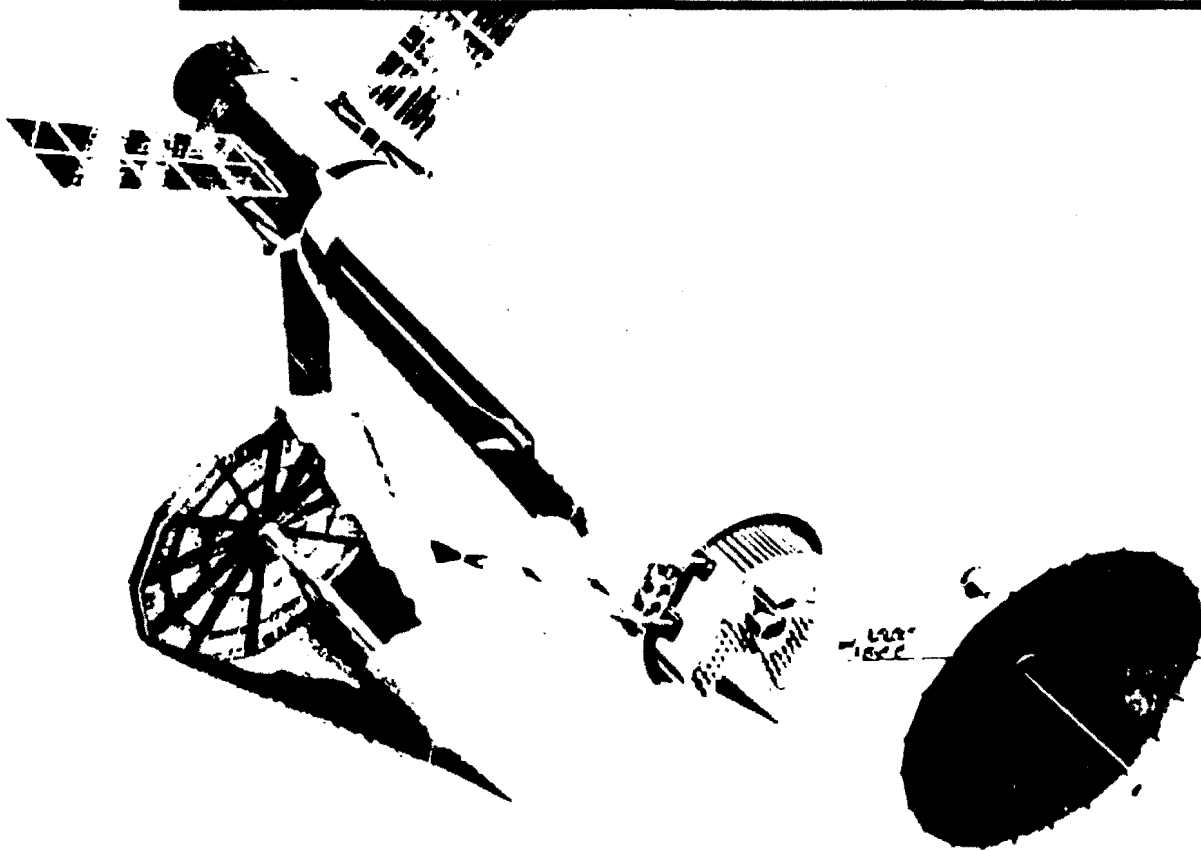
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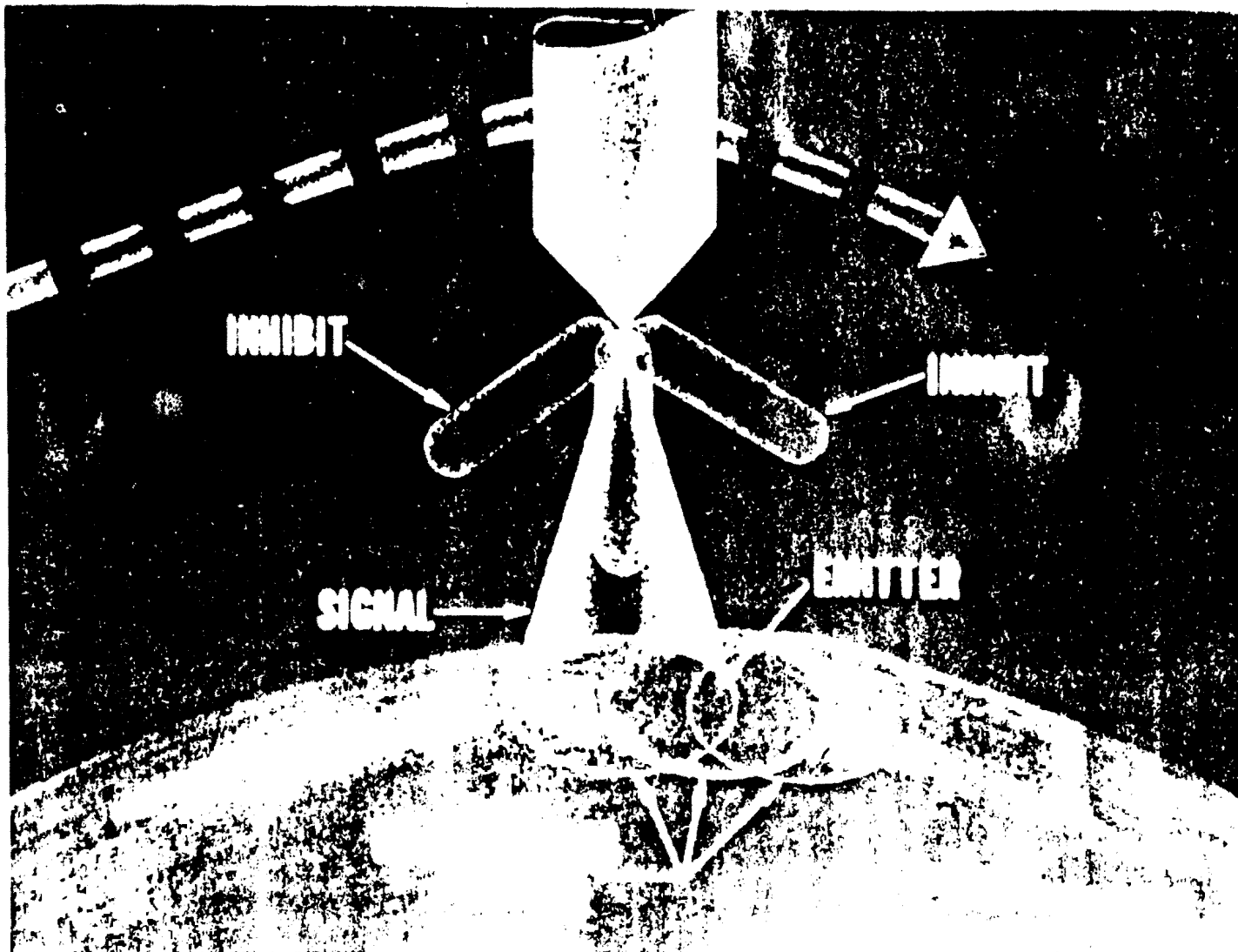
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MULTIGROUP II / SETTER (DONKEY)



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MULTIGROUP COLLECTION TECHNIQUE



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During 1965, the Air Force proposed and NRO decided to build a more versatile ELINT payload and called it Program 770 Multi-group. The concept was to have both analog and digital capability on the same vehicle and prelaunch selectivity of payloads thereby allowing flexibility as to the frequency band covered. All this was to be accomplished with increased reliability of payloads and satellite systems.

The multi-group series achieved lifetimes from 6-14 months each.

3.3(b)(3), 3.5(c), 3.3(b)(1)

In the late 1960's, it was decided that Multi-group and SETTER could be improved even further so STRAWMAN was developed to extend the system life to over a year as well as provide better ELINT performance. The STRAWMAN program consisted of THRESHER, REAPER, and provisions for add-on payloads such as CONVOY and HARVESTER. There was one Program 770 STRAWMAN launch per year from 1968 through 1971 each exceeding the lifetime goal. The THRESHER was the newer version

3.3(b)(1), 3.3(b)(3), 3.5(c)

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As 3.3(b)(1) came into being, the need for Program 770 diminished. Thus, the Air Force prime booster low orbiting program ended in 1973.

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LOW ORBITING PRIME BOOSTER EOB PROGRAM

<u>CLEARANCE</u>	<u>PROGRAM NAME</u>	<u>ANALOG (A) DIGITAL (D)</u>	<u>PAYLOAD NAME</u>	<u>PRIMARY (P) SECONDARY (S)</u>	<u>VEHICLE</u>
Secret White	WS-117L	D	SAMOS I	P	Atlas-Agena
Secret White	WS-117L	D	SAMOS II/ 698BK I	P	Atlas-Agena
Secret White	Program 102	D	698BK II	P	Thor-Agena B
Secret White	Program 102	D	698BK III	P	Thor-Agena B
Secret Special Handling	Program 698BK	D	698BK IV	P	Thor-Agena D
Secret Special Handling	Program 698BK	D	698BK V Plymouth Rock	P S	TAT-Agena B
Secret Special Handling	Program 698BK	A	698BK VII BIRD DOG I	P S	TAT-Agena D
Secret Special Handling	Program 698BK	D	698BK VI BIRD DOG I	P S	TAT-Agena D
Secret Special Handling	Program 698BK	D and A	698BK VIII BIRD DOG II	P S	TAT-Agena D
Byeman	Program 770	A	698BK/770 BIRD DOG III	P S	TAT-Agena D
Byeman	Program 770 Multi-group	D and A	770 SETTER I	P S	TAT-Agena D

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LOW ORBITING PRIME BOOSTER EOB PROGRAM (continued)

<u>CLEARANCE</u>	<u>PROGRAM NAME</u>	<u>ANALOG (A) DIGITAL (D)</u>	<u>PAYLOAD NAME</u>	<u>PRIMARY (P) SECONDARY (S)</u>	<u>VEHICLE</u>
Byeman	Program 770 Multi-group	D and A	Multi-group I SETTER IA	P S	TAT-Agena D
Byeman	Program 770 Multi-group	D and A	Multi-group II SETTER IB DONKEY	P S S	TAT-Agena D
Byeman	Program 770 Multi-group	D	Multi-group III SETTER IB	P S	TAT-Agena D
Byeman	Program 770 STRAWMAN	D and A	THRESHER I REAPER I CONVOY I	P P S	LTTAT-Agena D
Byeman	Program 770 STRAWMAN	D and A	THRESHER II REAPER II CONVOY II	P P S	Thorad-Agena D
Byeman	Program 770 STRAWMAN	D and A	THRESHER III REAPER III	P P	Thorad-Agena D
Byeman	Program 770 STRAWMAN	D and A	THRESHER IV REAPER IV HARVESTER	P P S	Thorad-Agena D

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2. Piggyback

a. Introduction

In 1960, the USAF began launching piggyback payloads. The first series of payloads, SOCTOP's, were strictly vulnerability monitor payloads (to determine if Soviet radars tracked U.S. satellites) and are described in Section II.C. The BIRD DOG, SETTER, REAPER, CONVOY and HARVESTER piggyback payloads were described in Section II.A.1. since they complemented the prime booster program. The remainder of the COMINT and ELINT piggyback payloads will be described below.

b. Details

The TAKI¹

3.3(b)(3), 3.5(c)

The TOPSOCS² were early attempts to determine

3.3(b)(3), 3.5(c)

¹ 3.3(b)(3), 3.5(c)

² Inversion of SOCTOP syllables.

³ Named for either Bill Harris (Lockheed) or Bill Rambo (SEL).

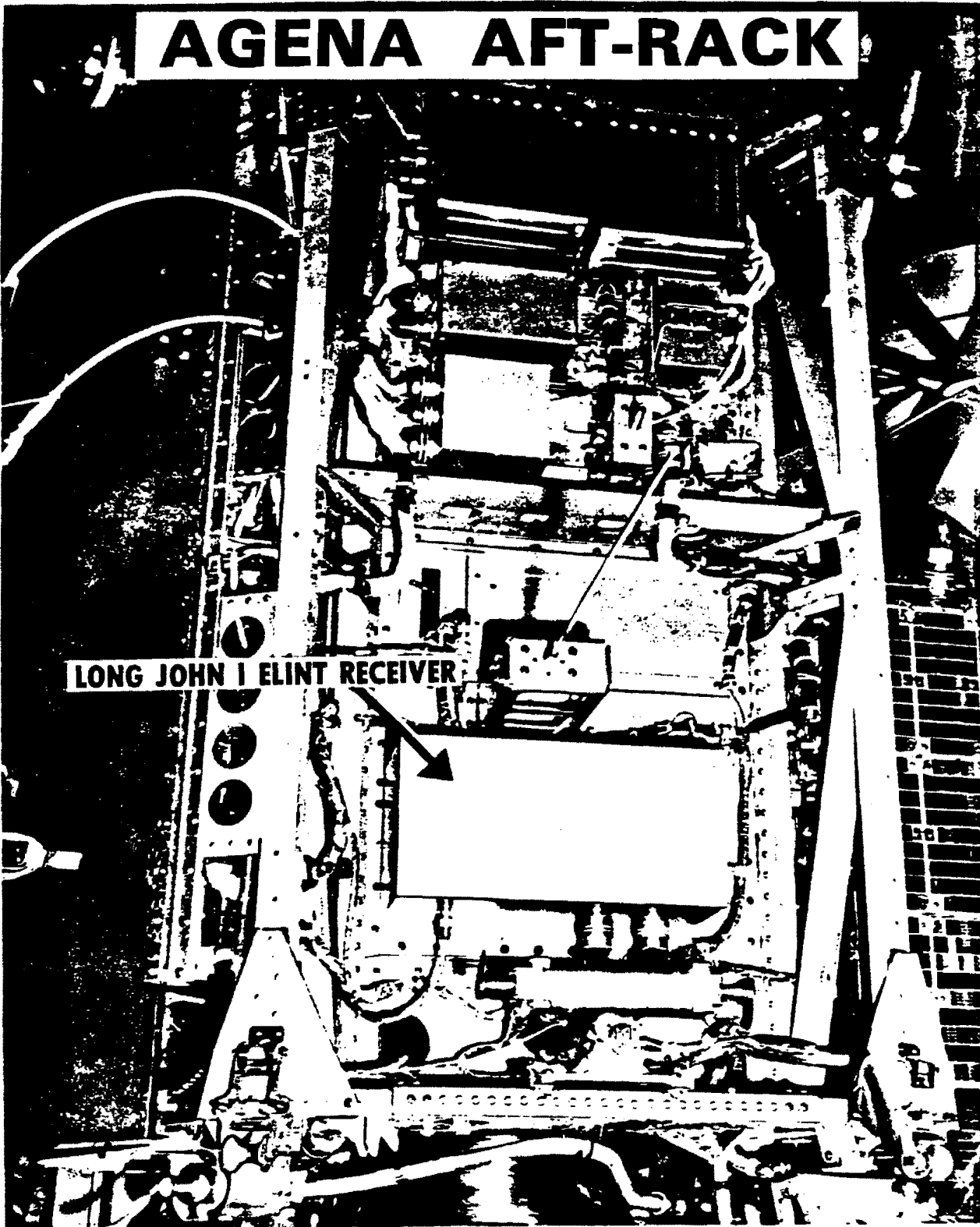
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AGENA AFT-RACK



LONG JOHN I ELINT RECEIVER

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3.3(b)(3), 3.5(c)

TEXAS PINT.² the first COMINT payload, flown

3.3(b)(3), 3.5(c)

Accurate

location depended on processing and analysis using reverse doppler on the RF signal measurements collected by NEW JERSEY.

3.3(b)(3), 3.5(c)

Based on this, NRO approved another payload, NEW HAMPSHIRE,⁵ to detect and record the content of 3.3(b)(3), 3.5(c) but because of delivery and cost problems, NEW HAMPSHIRE never flew.

The GRAPEJUICE⁶ payloads in 1961-1962 were the first satellite attempts to intercept 3.3(b)(3), 3.5(c)⁷ These payloads, which were flown on short-lived vehicles, operated with good sensitivity on prelaunch tests using simulated signals and demonstrated reliable lock on recognition of the 3.3(b)(3), 3.5(c) NSA analyzed and processed the data collected on 102 orbits but none of these signals

¹ Payload named for John Grigsby, Chief Engineer of ATI, builder of the payload.

² Payload named by USAFSS, San Antonio, Texas. The project was not considered large enough to be called "fifth" or "quart".

³ 3.3(b)(3), 3.5(c)

⁴ Payload named for BELMAR signal; also town in New Jersey.

⁵ Payload named after location of Sanders Associates in New Hampshire.

⁶ Payload named for Conrad Welch, Project Engineer.

⁷ 3.3(b)(3), 3.5(c)

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3.3(b)(3), 3.5(c)

VINO,¹ a more sophisticated follow-on to GRAPEJUICE, attempted to intercept both the

3.3(b)(3), 3.5(c)

¹ Named VINO because it was a stronger version of GRAPEJUICE.

² The encryption device (KG400A) was built by HRB Singer.

³ Payload named because the question arose about intercept opportunities or probabilities. It was decided to call the payload OPPORKNOCKITY because when opportunity knocks, OPPORKNOCKITY tunes.

⁴ 3.3(b)(3), 3.5(c)

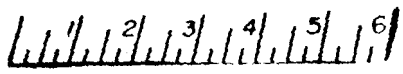
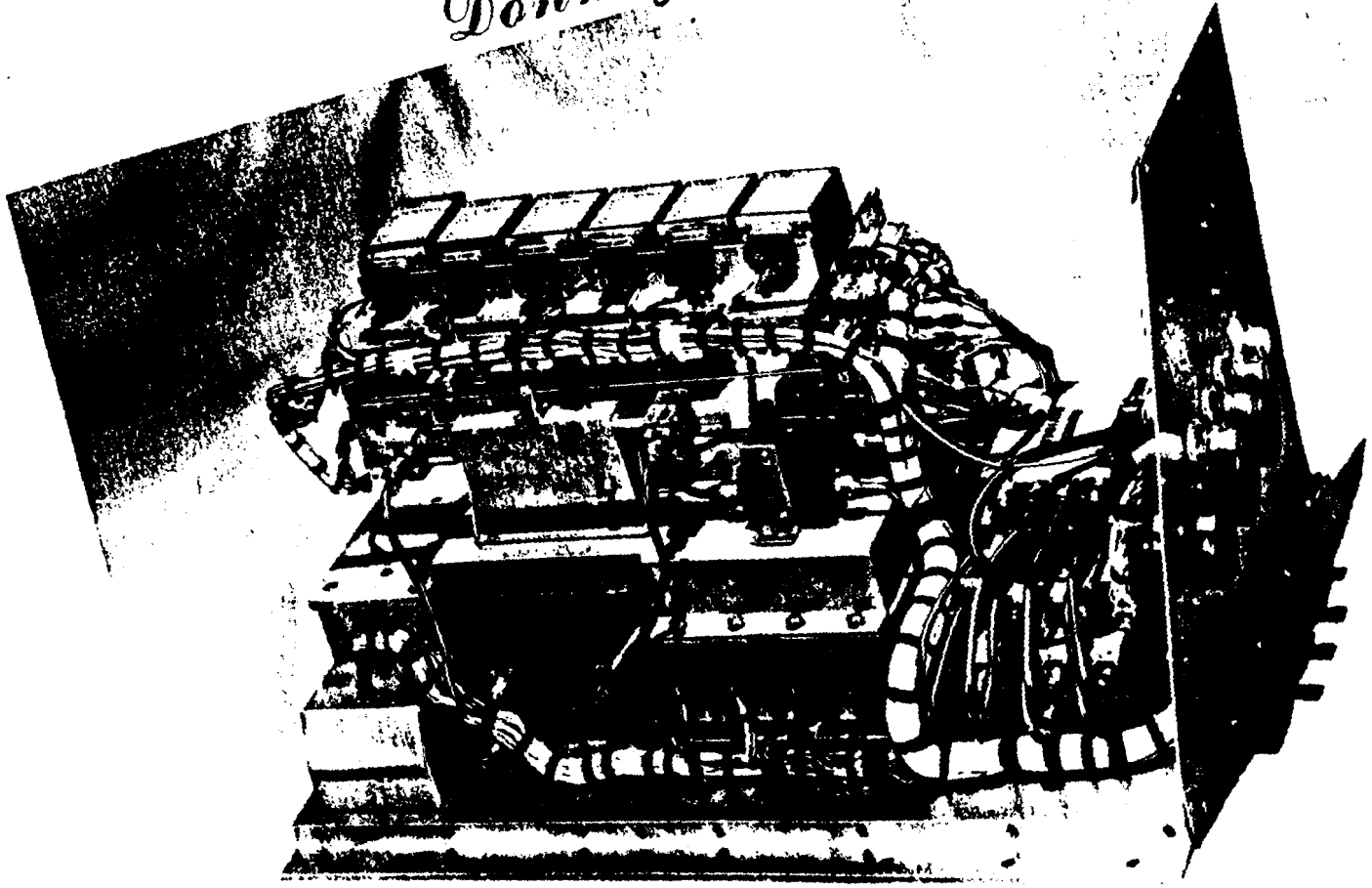
⁵ BYE-19347-68, SQUARE 20 Final Report, 1 May 1968.

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Donkey



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receiving and recording systems were mounted on a helicopter and flown prescribed flight paths to simulate the motion of an orbiting satellite through the microwave beam. Tapes recorded in the helicopter were subjectively rated for their intelligibility. It was proved that intercepted signals were RF coherent and readable.

DONKEY was launched on a long-life Agena MULTIGROUP mission

3.3(b)(3), 3.5(c)

The high sensitivity of the system resulted in false readings due to main-beam poke-thru. However, other data such as long intercept durations and amplitude versus time profile were used to validate the true target location.

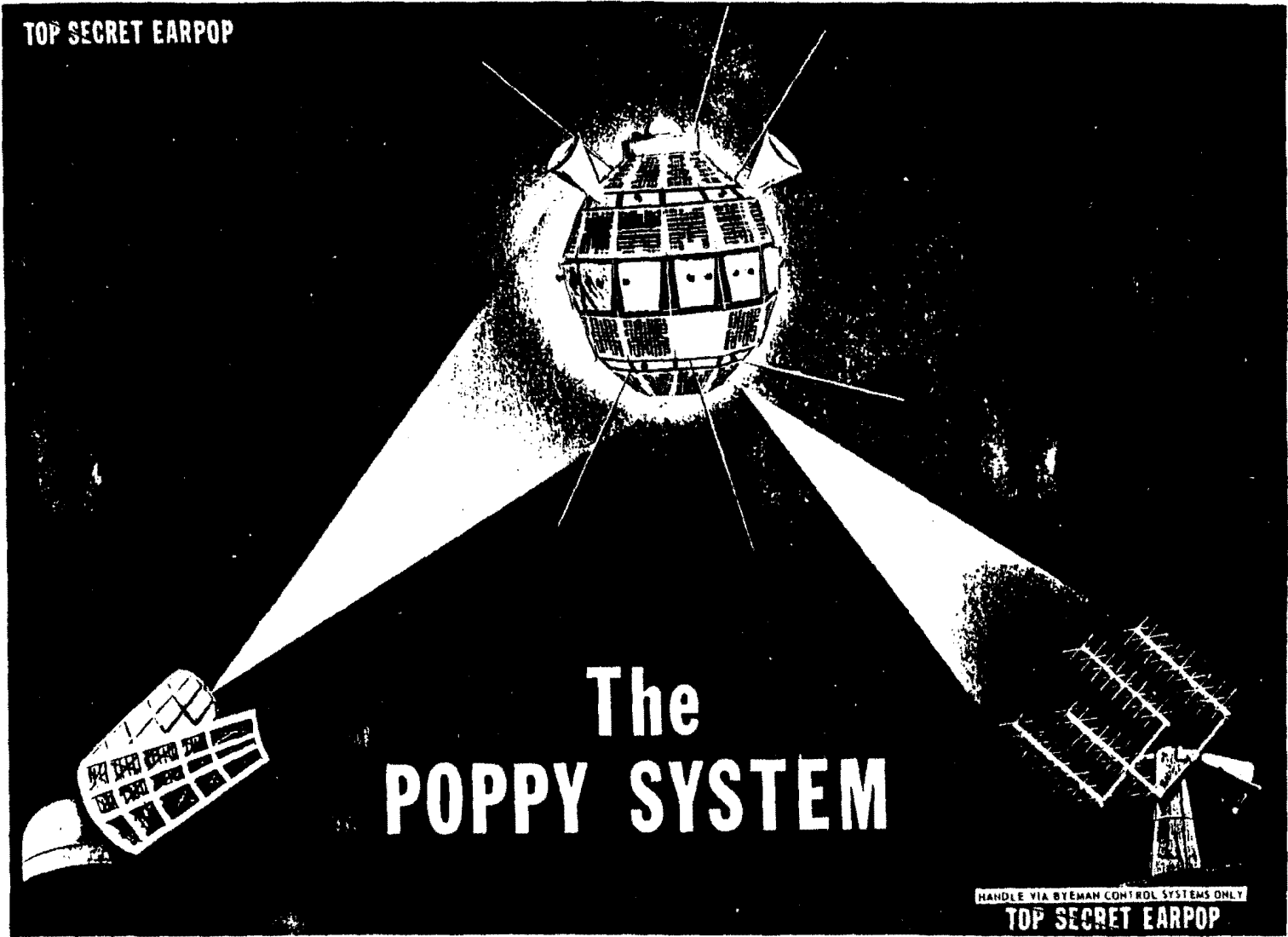
1 3.3(b)(3), 3.5(c)

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TOP SECRET EARPOP



The POPPY SYSTEM

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B. U.S. Navy Program

1. Introduction

In 1960 the United States Navy (USN, Naval Research Laboratory (NRL)) launched the first signals intelligence satellite system, GRAB. The GRAB series evolved into the present POPPY payloads which are low altitude ELINT collection/transponder¹ systems designed for general search and location of ^{3.3(b)(1)} Soviet Bloc Early Warning (EW)/Ground Control Intercept (GCI) radar. ^{3.3(b)(1)}

2. Details

In the late 1950's Advanced Research Project Agency (ARPA)² requested that the Navy submit proposals on space related projects. The NRL had previously developed a submarine crystal video ELINT collection system which they decided to adapt for space usage. They planned to place a real-time, pulse-for-pulse radar transponder into orbit and relay the radar intercepts to a ground station which was in view of the satellite. The concept was presented to the Chief of Naval Operations (CNO) in March 1958 and approved by the President in August 1959. These exploratory missions were designed to last six months. On 22 June 1960, the USN launched the first of these missions, GRAB I³ which lasted three months. This was the first U.S. SIGINT satellite and was launched as a single ball along with a TRANSIT Navigational satellite. The system was activated by Presidential approval⁴ only 22 times over the Soviet Union. A total of eight hours intercept from GRAB 1 provided pulse repetition interval (PRI), scan, and radio frequency (RF) band information on S-band radars.

¹ A method by which satellites relay in real-time a signal corresponding to the pulse train of the intercepted radars. This occurs over several ground stations located on the periphery of the target.

² Established 7 February 1958 as a central authority over all military space projects.

³ Designated DYNO 1 by NRL.

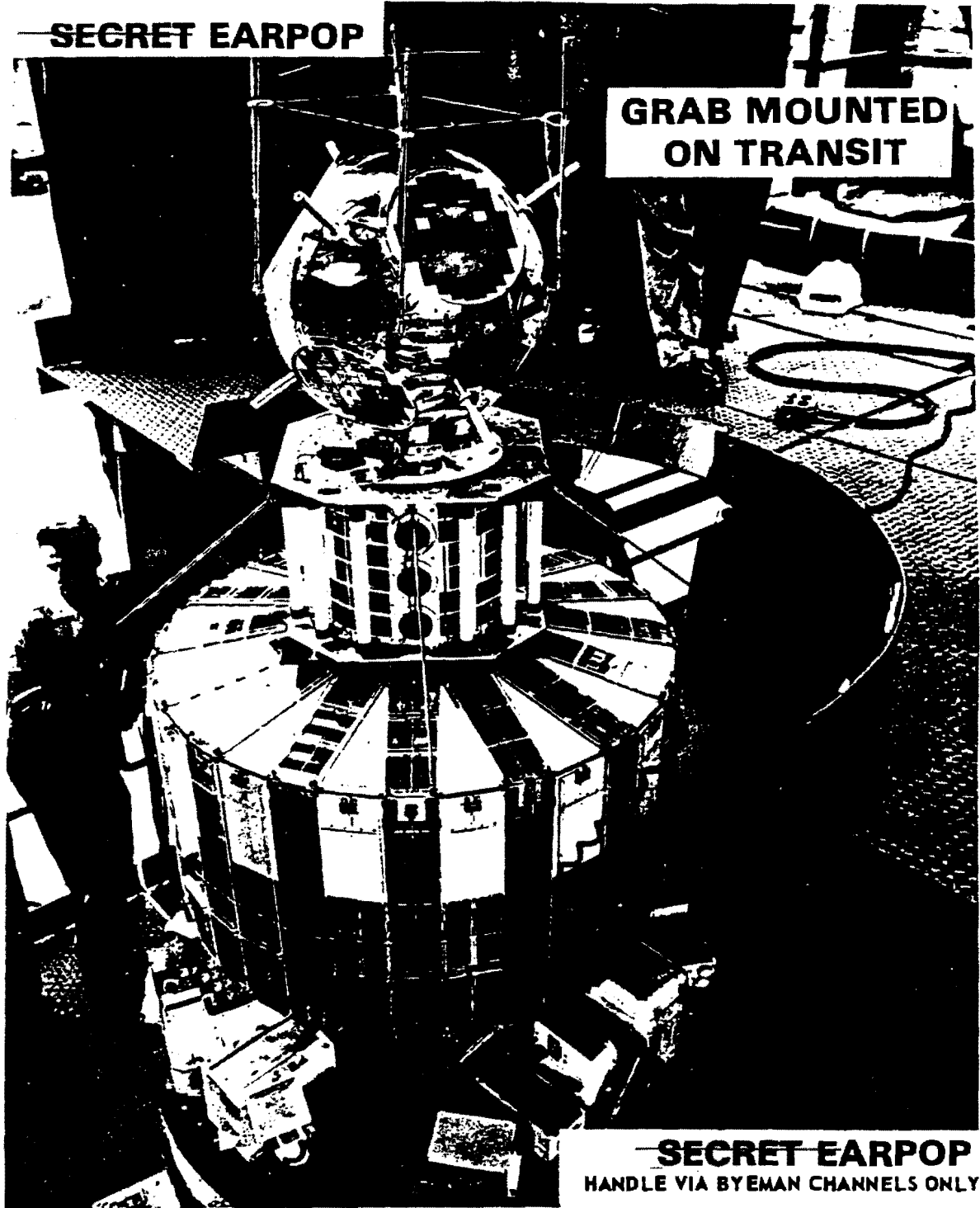
⁴ Since the Gary Powers U-2 incident in 1958, all tasks had to be personally approved by the President.

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**GRAB MOUNTED
ON TRANSIT**

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Processing of the GRAB data was to be handled by the National Technical Processing Center (NTPC) which was by then integrated into NSA under its new ELINT responsibility as outlined in NSCID 6. [3.3(b)(1), 3.3(b)(3), 3.5(c)]

[redacted] NSA (NTPC), with the help of Strategic Air Command (SAC), hand processed the GRAB I data. The second GRAB mission was destroyed when the booster failed. In June 1961, GRAB II later renamed POPPY I, was launched with another TRANSIT and although they failed to separate from each other, GRAB operated for six months and produced [3.3(b)(3), 3.5(c)]

[redacted] Because of political pressures within the intelligence community and lack of processing confidence within NSA, NSA provided SAC with copies of the tape recorded data from GRAB, thus duplicating processing for backup. SAC published the first locations in the GRAB program by [3.3(b)(3), 3.5(c)]

[redacted] In 1962, NRL began to launch the [3.3(b)(1)] POPPY's. The first, POPPY II, suffered a launch failure and was the last to be mated with TRANSIT on the Thor-Able Star vehicle launched from the Eastern Test Range (ETR) at Cape Canaveral. Subsequent POPPY launches were on various Thor-Agena vehicles from the Western Test Range (WTR) at Vandenberg AF base and were NRO sponsored. The first POPPY launched from the WTR was the [3.3(b)(1)] POPPY III in December 1962. [3.3(b)(3), 3.5(c)]

[redacted]

In 1963 there was a great deal of discussion about accurate location techniques. As mentioned, SAC had used the V-beam pattern method to determine location. NSA was basing location on scan rate. Neither method was very successful which prompted a competition to devise an accurate location technique. The President's Scientific Advisory Committee (PSAC) initiated a special study in 1963 to stimulate new ideas in location finding. [3.3(b)(1)]

[3.3(b)(1), 3.3(b)(3), 3.5(c)]

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3.3(b)(1), 3.3(b)(3), 3.5(c)

By 1966, the tape volume output of POPPY had increased considerably. Because of this, NSA began using a CDC 6400

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computer to relieve some of the processing problems. In addition, NSA worked with several Navy ground stations to which we subsequently assigned processing tasks. These first stations were in [redacted] 3.3(b)(1), 3.3(b)(3), 3.5(c)

POPPY VII provided good coverage [redacted]

3.3(b)(3), 3.5(c)

In 1967, the Commander of Naval Security Group (CNSG) directed POPPY sites to monitor Soviet Naval Operations on a "not-to-interfere" basis. This initial exercise in ocean surveillance proved worthwhile and in 1969 the Chief of Naval Operations (CNO) made ocean surveillance an official function of POPPY.¹

Because of the wealth of information which POPPY VII furnished on ABM emitters, the Navy designed POPPY VIII to intercept any associated/unknown emitters which might be operating with the known ABM's. This satellite provided good coverage overlaps through E-band. However, POPPY VIII was not very successful. [redacted] 3.3(b)(1)

[redacted] For the first [redacted] 3.3(b)(1) of operation, POPPY VIII, contributed

¹ [redacted] 3.3(b)(1), 3.3(b)(3), 3.5(c)

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significant information on the beam structure and effective radiated power (ERP) of PART TIME; refined the scan capabilities and complex modulation of GUN DISH; traced the GUN DISH deployment to the Soviet Far East; computed the power measurements of TOP SAIL; and identified the beam structure of POP GROUP. After the [3.3(b)(1)] POPPY VIII operated on an intermittent basis since its [3.3(b)(1)]

The last of the POPPY series, POPPY IX, was launched in December 1971. [3.3(b)(1), 3.3(b)(3), 3.5(c)]

[3.3(b)(1)] POPPY IX has an expected life of [3.3(b)(1)] POPPY operations will continue until the vehicle dies.

3. Present Data Handling

POPPY processing is handled at the Navy field sites and NSA. The field site processing is handled according to NSA and NSG guidelines. At the beginning of every mission, NSA established data processing and reporting priorities for the

[3.3(b)(3), 3.5(c)]

[3.3(b)(3), 3.5(c)] NSA processes digitized magnetic

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tapes sent from the field. Processing of these tapes is done on the WESTBEND computer-based processing system. Isolated signals are reported to the off-line WESTBEND data base file which is used by NSA for manual analysis of unlocated or unidentified data and for statistical studies.

3.3(b)(3), 3.5(c)

3.3(b)(1), 3.3(b)(3), 3.5(c)

4. Tasking

All POPPY IX tasking is accomplished through NRO/SOC, occasionally from the Pentagon but usually from the

3.3(b)(3), 3.5(c)

the Navy, or other sources but tasking may be changed only by the NRO.

5. Future

3.3(b)(1), 3.3(b)(3), 3.5(c)

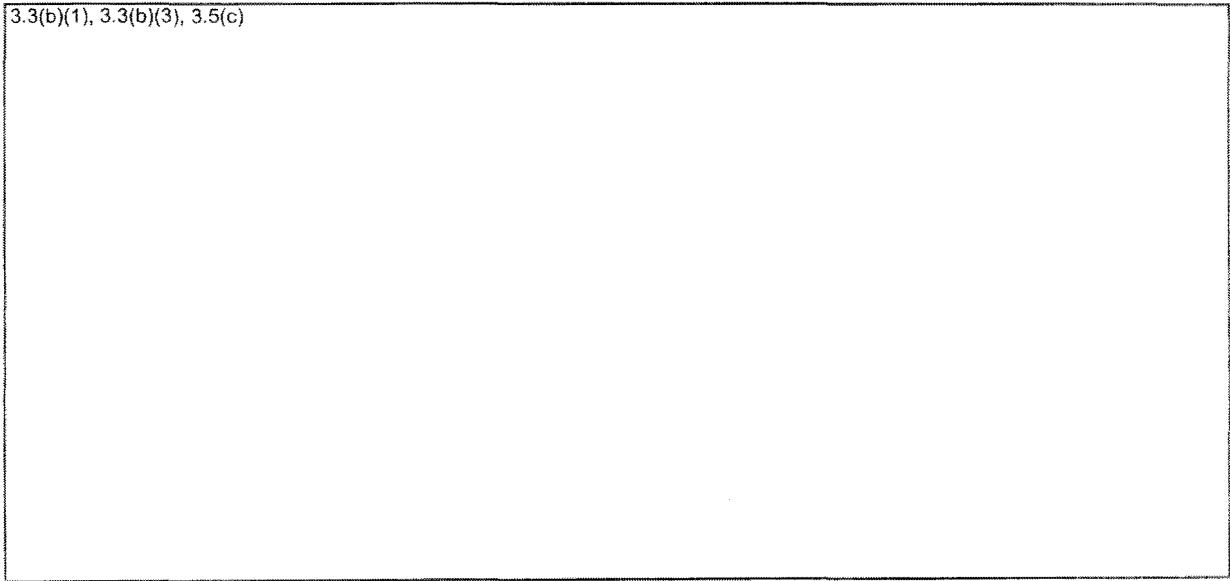
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3.3(b)(1), 3.3(b)(3), 3.5(c)



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C. Vulnerability Monitor Payloads

The first vulnerability monitor payload was flown near the start of the SIGINT program and with many small piggybacks such collection has persisted to the present. The idea was to determine whether the known Soviet radars were tracking the U.S. photo satellites. At that time there was fear that the Soviets could by concentrated tracking with their ABM type radars establish an ephermeris with sufficient accuracy to shoot down a photo satellite. Later, there was concern that the Soviets would use laser beams to destroy the satellite operations. All vulnerability monitor payloads are listed in Appendix A.

In the early sixties, the United States Air Force launched little black boxes on the aft-rack of the DISCOVERER Photo Reconnaissance Satellites. The first of these packages was called SOCTOP¹ and their objective was to determine if the Soviets were tracking our satellites with their many S-band radars. We did acquire some good S-band tracking but it was over our own tracking stations. We thought it strange that the Soviets were tracking us over our own stations and soon discovered that it was our radar tracking for we operated the very radars designed to track DISCOVERERS as well as many other radars in S-band. 3.3(b)(1)

The next series of vulnerability payloads were called STOPPER. Sylvania Electric Products Incorporated, Electronic Defense Laboratory (EDL) provided the intercept receivers and signal logic subsystem while Lockheed Missile and Space Company (LMSC) provided the antennas, commutator, recorder, programmer, data link, and basic power subsystems. Although seventeen test models were to be built with delivery in April 1963, only seven STOPPER's were actually flown between May 1963 and October 1964. The STOPPER package carried aboard the earth satellite vehicles (ESV) were to determine whether the Soviets attempted to:

¹ Originally called Special Component Test Package but for euphemism two O's were added, thus SOCTOP.

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"a. Unlock and track the radar beacon carried aboard the satellite,

b. Issue ground commands to the vehicle via the radar beacon receiver or interfere with our commanding of the satellite,

c. Skin-track the satellite with a high-powered radar system transmitting between 160-2500 MHz."¹

3.3(b)(1)

Between October 1964 and December 1966 a series of packages built by EDL called BIT and BIT II were flown as vulnerability monitoring payloads. The primary objective of these packages was to determine if the satellite vehicles were being tracked by the HEN HOUSE group of radars. The frequencies for the BIT were 154-164 MHz and 150-164 MHz, 150-300 MHz for BIT II. During this time, the management of the BIT packages was turned over from 3.3(b)(1) to SP-6 where it has remained ever since.

3.3(b)(1)

¹ BYE-4180-63, 6 August 63, Final Report Mission 7005.

² 3.3(b)(1)

³

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3.3(b)(1)



¹ BYE-12808-71, Description of 3.3(b)(1)

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D. Program 989 (P-989)

1. Introduction

In 1963, a significant change occurred in the overhead SIGINT program with the launch of Lockheed's newly developed P-11 sub-satellite which became the basis for SP-8's Program 989 (P-989). The sub-satellite concept grew out of the desire to extend the life of the aft-rack payloads beyond that of the primary payload. The idea was for the primary satellite to carry smaller independent satellites which could be injected into a higher orbit. In 1966, the P-989 program had been accelerated to five planned launches per year and was primarily oriented towards the then prominent anti-ballistic missile (ABM) problem. Later, the P-11 missions were largely accomplished by the new high altitude satellites but they do provide capabilities which augment the high altitude systems and still continue to be useful.

2. Details

The P-989's are sub-satellites that ride along with photo birds on launch, are ejected, and then propel themselves into their own orbit as independent satellites. To date, a total of 30 SIGINT sub-satellites (36 missions) have flown; all were boosted into orbit on photo birds except one which went up with a POPPY. The P-989 missions can be divided into four main SIGINT collection categories: Telemetry, Soviet ABM radars, COMINT, and EOB/GS. Highlights of each category will be discussed here. Further information on the P-989's can be found in Appendix A. The early P-989's were assigned comical names by whoever could think of a good name. Later, SAFSP chose acronyms or women's names for the satellites.

3.3(b)(1), 3.5(c), 3.3(b)(3)

satellites. NSA wanted to transpond the signal and Lockheed suggested recording the information, dumping it, thus calling the payload shove it. Both capabilities were provided, thus you SIVET, SHOVE IT, and PUNDIT home.

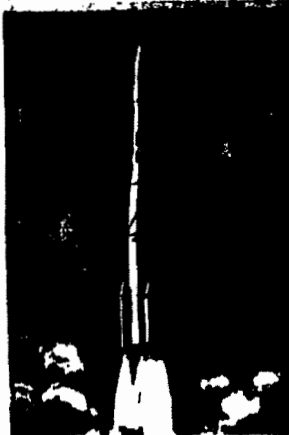
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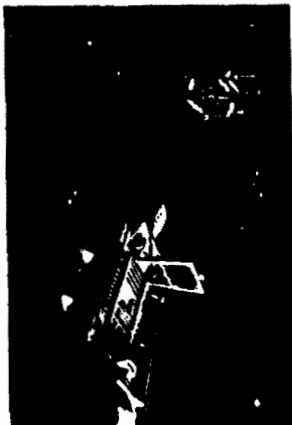
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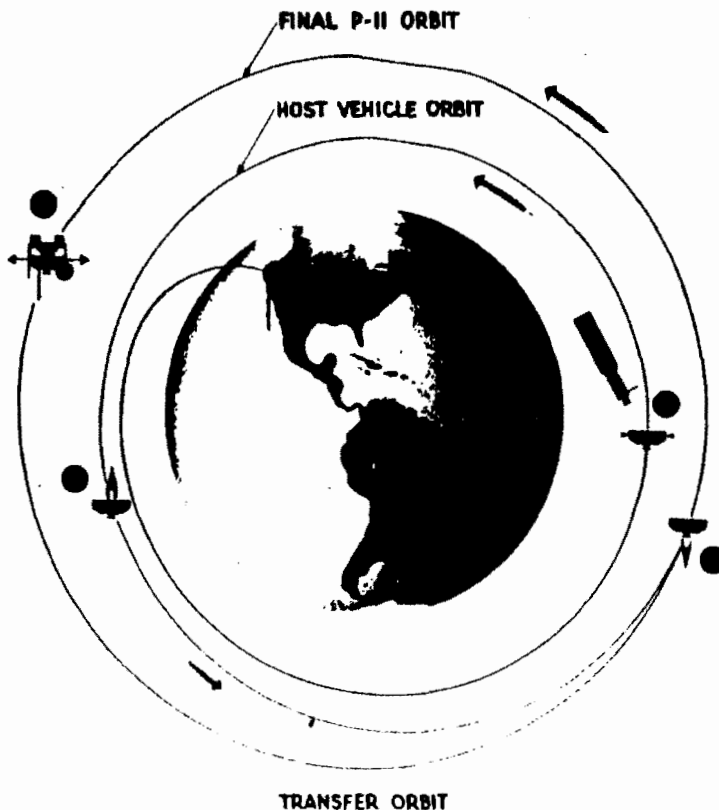
SEQUENCE OF LAUNCH EVENTS



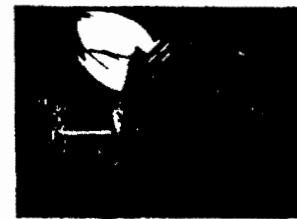
● LAUNCH



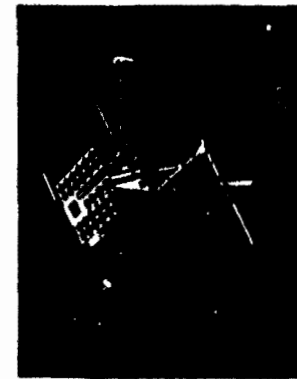
● SEPARATION & SPIN



● 1ST BURN



● 2ND BURN



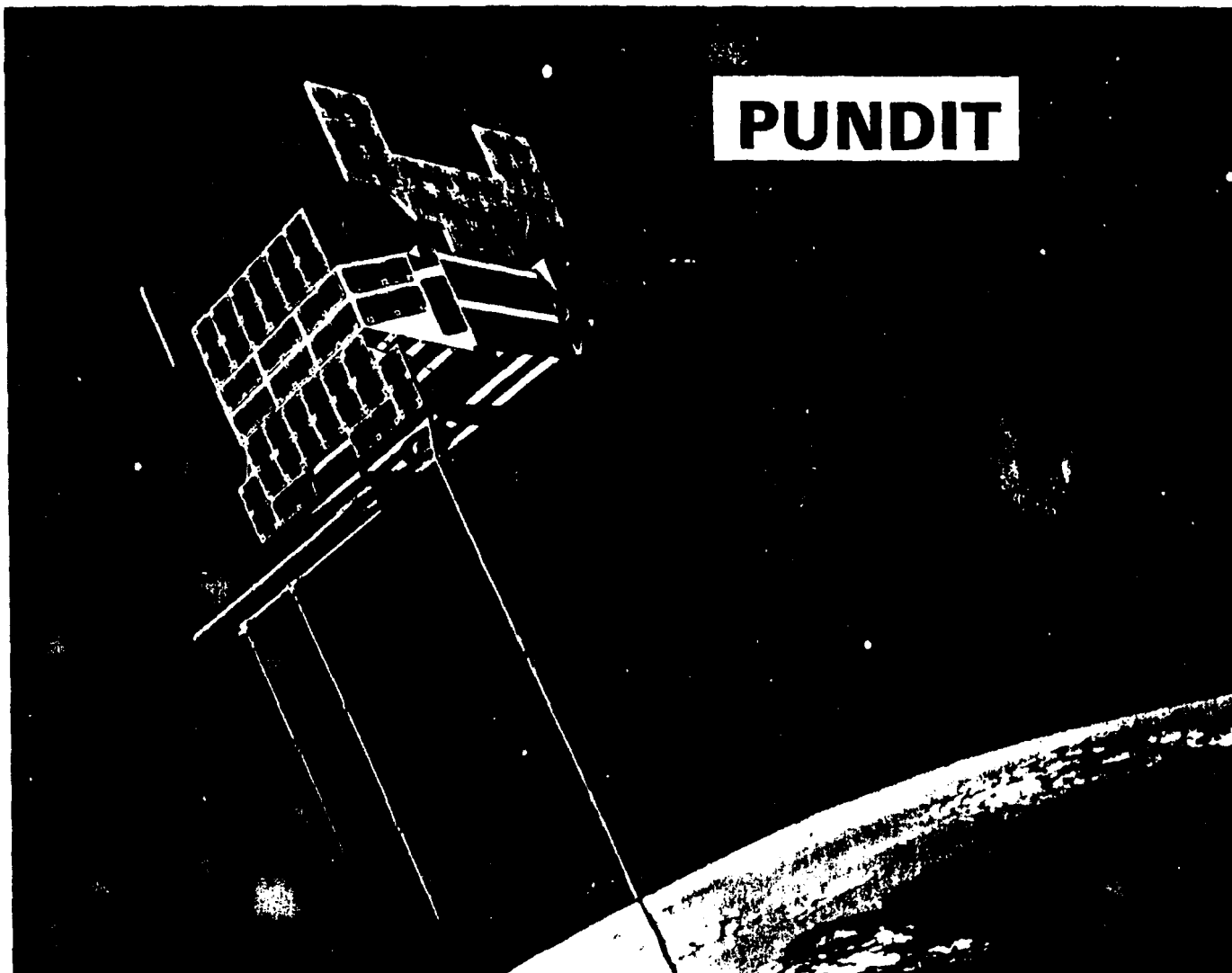
● DEPLOYMENT

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PUNDIT

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3.5(c), 3.3(b)(1), 3.3(b)(3)

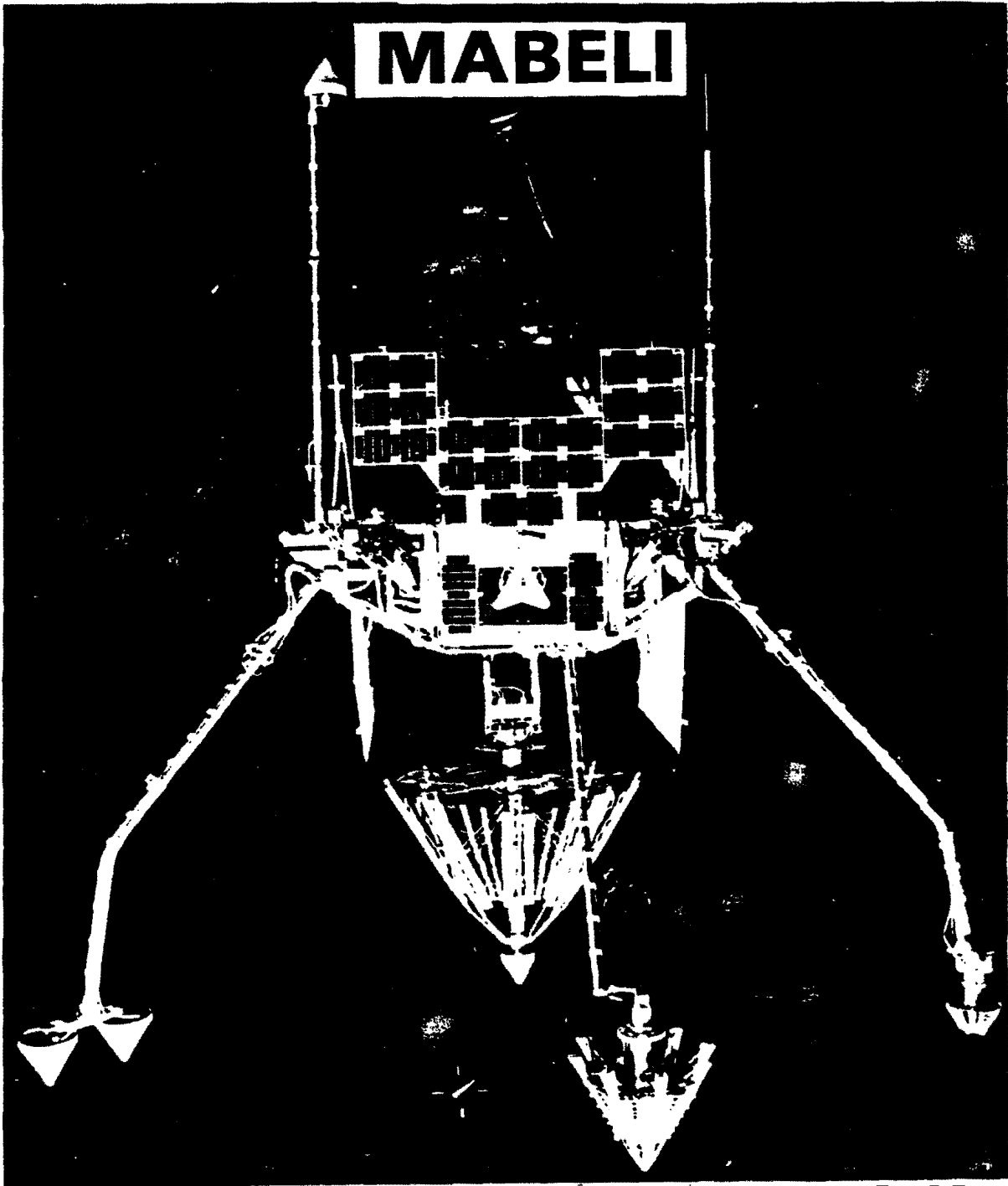
- 2.5
3.1
3.2*
- 1 Named for Noah Tony Taussig who was in charge of the vehicle.
 - 2 Named for its design of slewing the receiver in tuning to the signal.
 - 3 Acronym for Technical Intelligence Vehicle Orbital Life Indefinite.
 - 4 Stood for Mainbeam TIVOLI.

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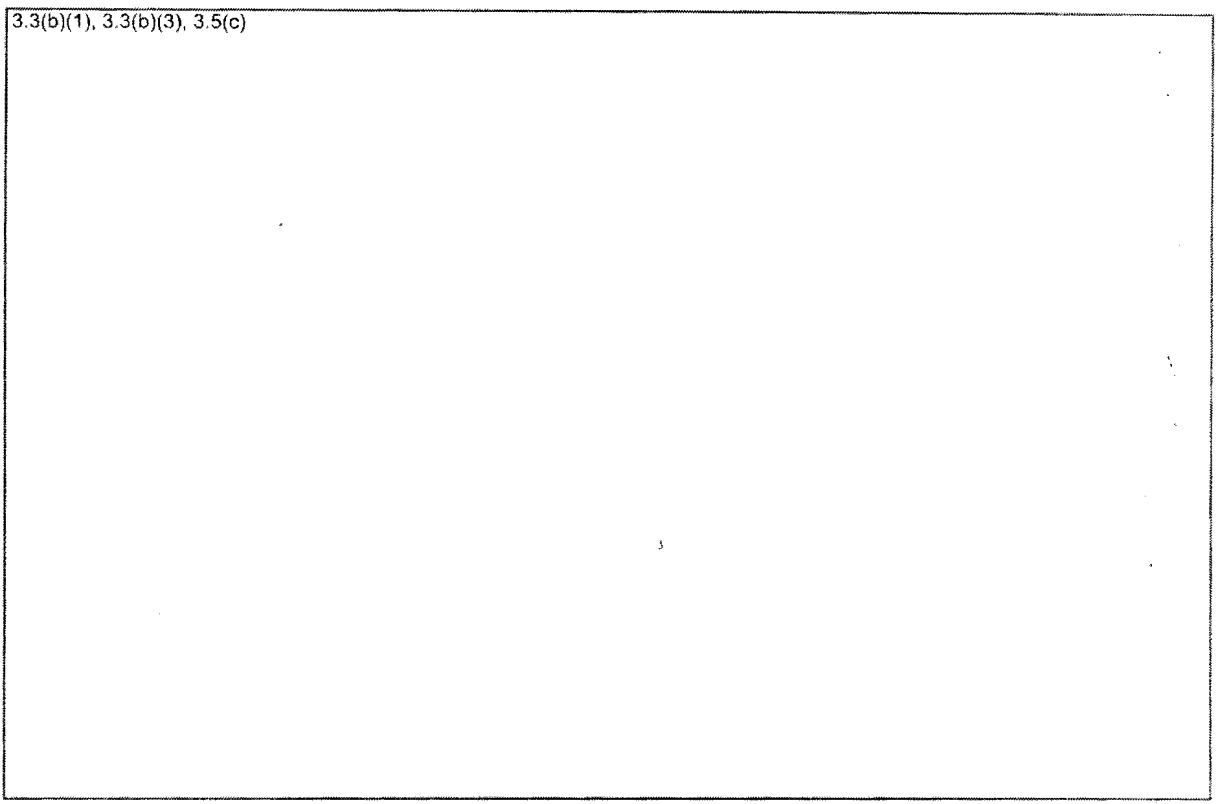
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3.3(b)(1), 3.3(b)(3), 3.5(c)

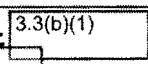





The P-989 vehicles specifically designed for COMINT included WESTON, the TOPHAT's, and ARROYO.⁵ WESTON, which was a sophisticated version of OPPORKNOCKITY,⁶ collected

¹Named for its pre-selected frequency tuning on 13 steps.

3.3(b)(3), 3.5(c)



⁵Low altitude P-11 to support  therefore named ARROYO because it is a 

⁶Air Force add-on payload designed to 


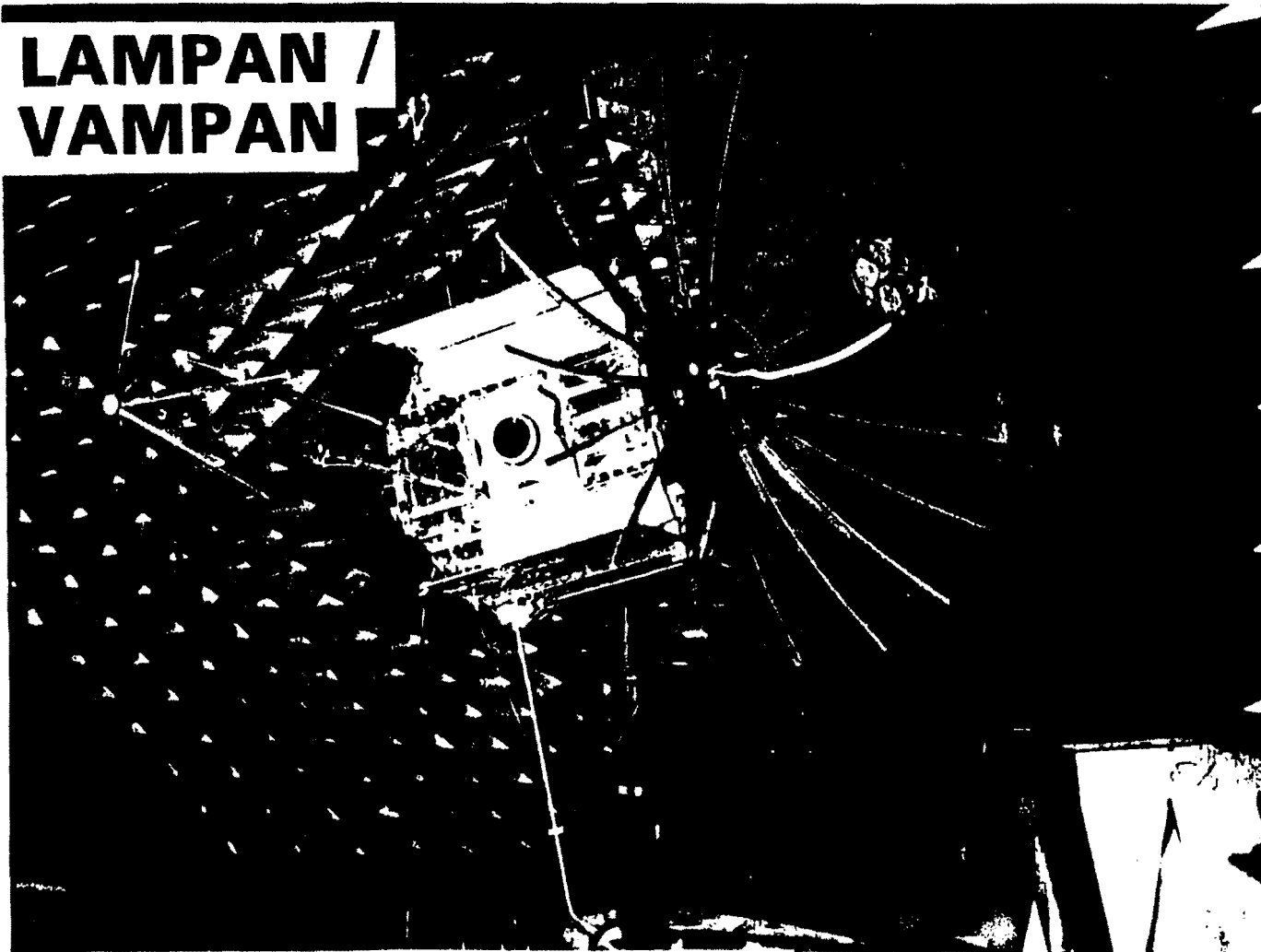
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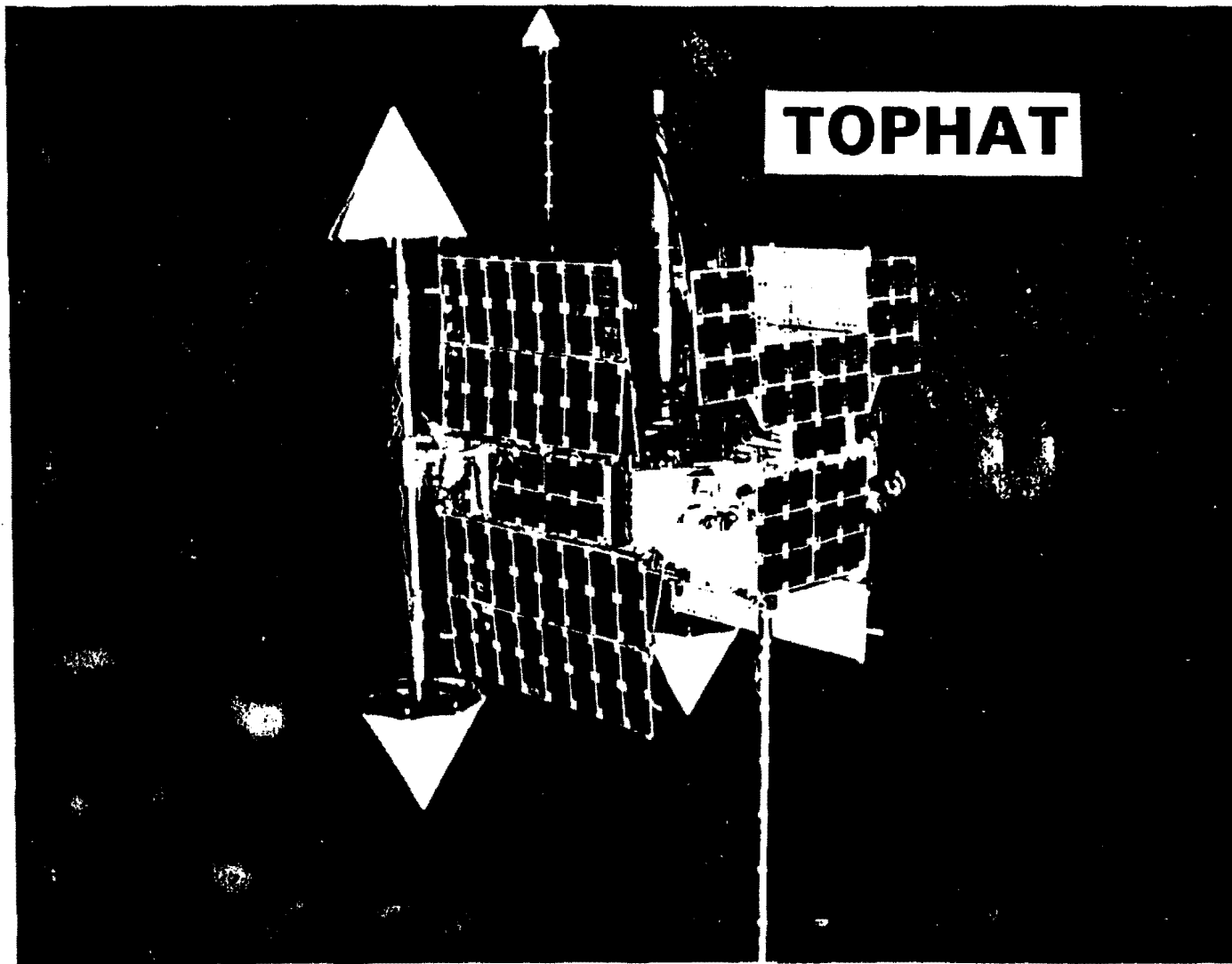
**LAMPAN /
VAMPAN**



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3.5(c), 3.3(b)(3)

[redacted] Before WESTON was launched, a model of the satellite was flown on an aircraft reconnaissance platform (ACRP) [redacted] and collected simulated orbital data to test its capability in a live signal environment. It worked but when WESTON was actually flown, the communications signals it collected were still troubled by interference. WESTON did produce useful data

3.3(b)(3), 3.5(c), 3.3(b)(1)

[redacted] TOPHAT also provided support to the [redacted] system in its COMINT mission. As a bonus, TOPHAT aided [redacted]

[redacted] TOPHAT II, presently in orbit, functions similar to TOPHAT I and collects special [redacted] Although ARROYO was on orbit only one month, it collected a large quantity of information [redacted] and provided support to the [redacted]

In the EOB/GS category, there were numerous P-11 satellites which provided excellent EOB support, intercepted new signals, and also contributed TI. These missions provided accurate geopositioning with spinning pencil beam antennas. The spin-stabilized spacecraft carried an intercept antenna mounted so as to sweep its beam across the target emitter.

3.3(b)(3), 3.5(c), 3.3(b)(1)

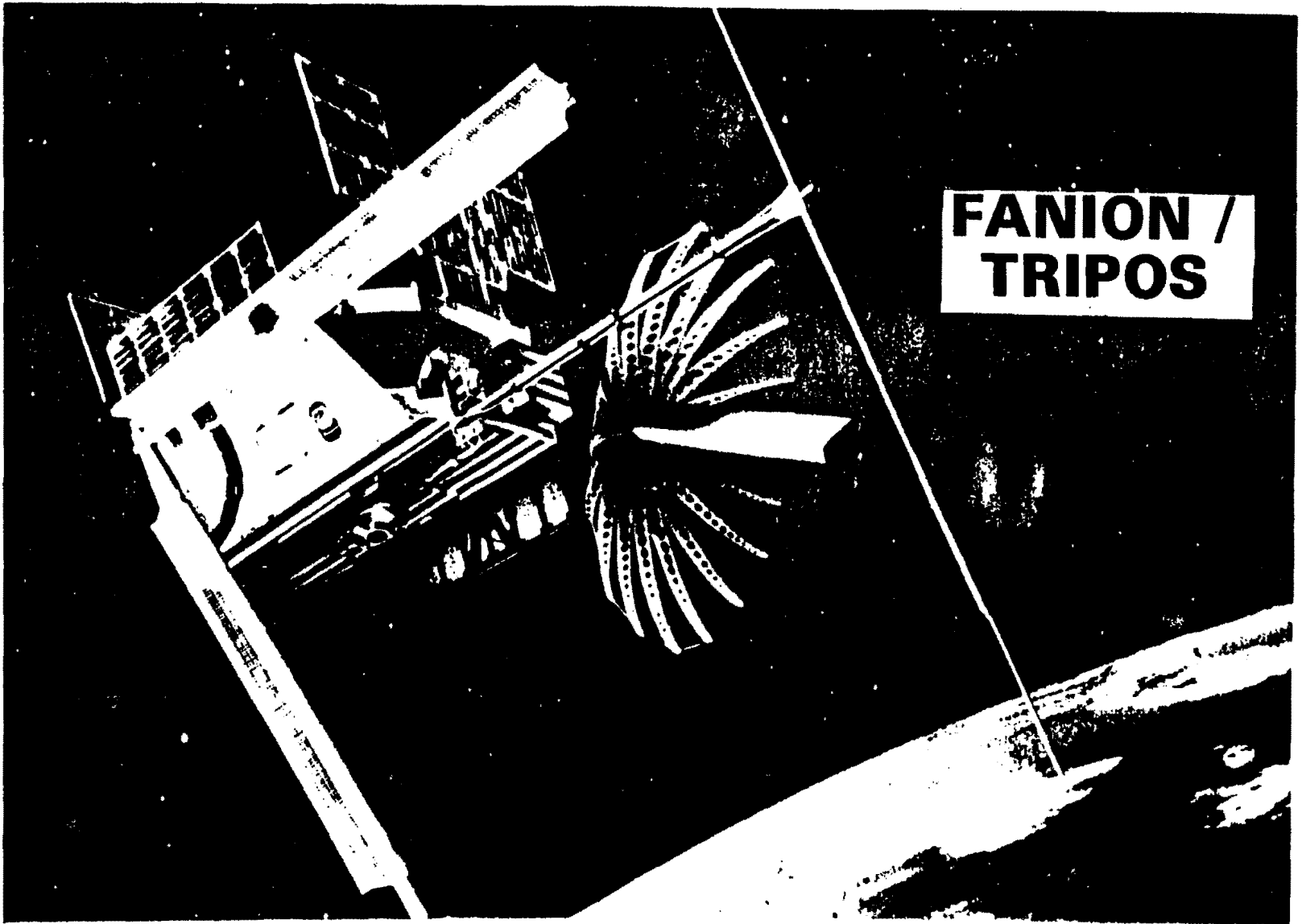
[redacted] TRIPOS was the first pencil beam parabolic reflector antenna put on a P-11. FANION was a separate system on the same satellite to [redacted] It derived a pencil beam from a Mills-Cross antenna pattern using two receivers and compared outputs. An accurate pointing angle measurement resulted when the P-11 spun the crossing fan beams directly at the emitter. The combined payload was built compatible to an analog type processor which SAC had developed.

3.3(b)(3), 3.5(c)

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**FANION /
TRIPOS**

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3.5(c), 3.3(b)(1), 3.3(b)(3)

3. Data Flow

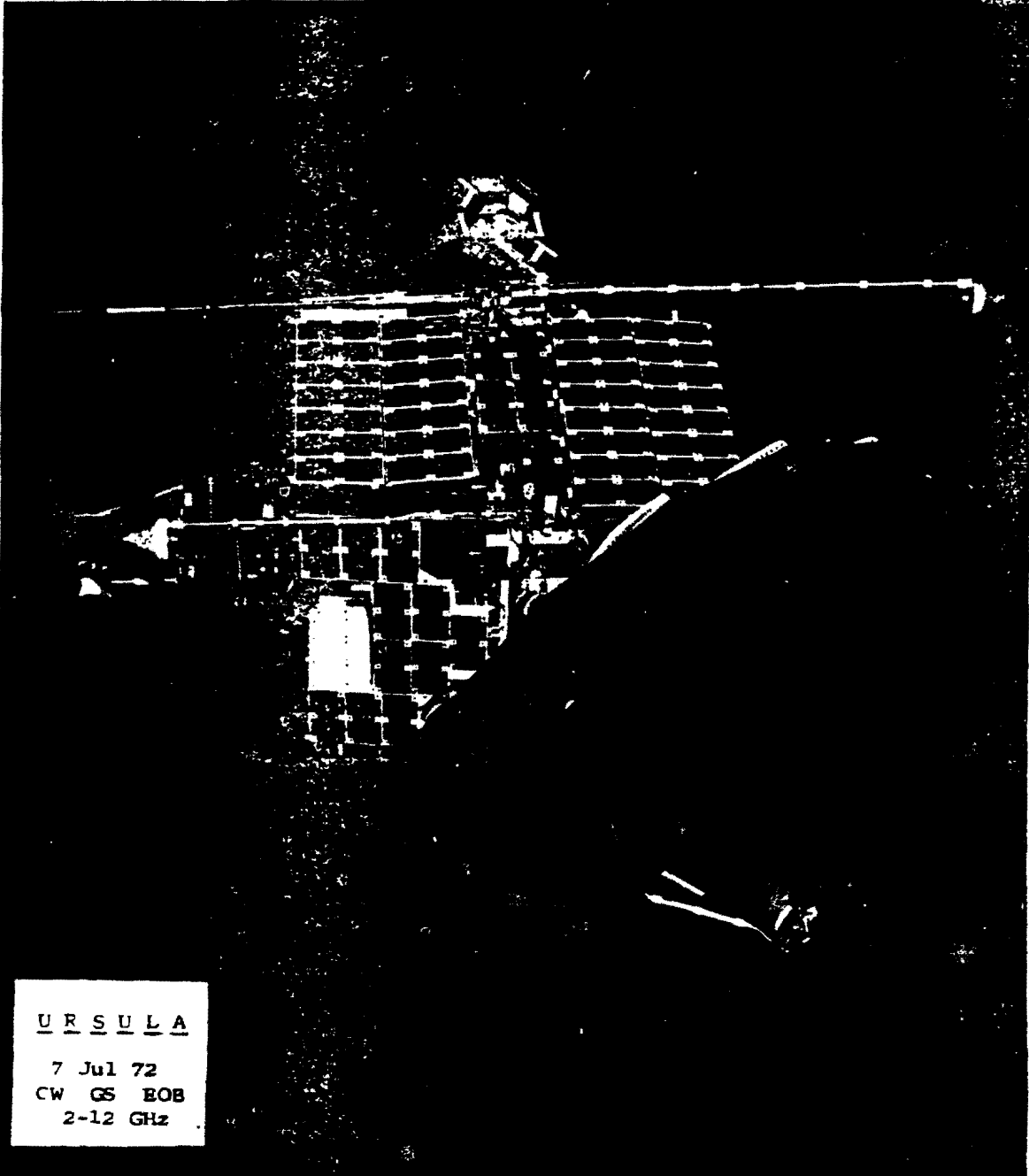
P-989 data collection is conducted by the Satellite Test Center (STC) at Sunnyvale, California. The STC generates and directs all vehicle commanding and maintains and/or monitors the status of the satellites. The actual command and data retrieval functions are carried out at remote tracking stations (RTS) at Hawaii, Vandenberg, New Boston, and Guam which all have direct voice and data links to the mission control center at STC. Initially, all intelligence data was recorded at the stations and couriered to STC. The SIGINT data

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SECRET EARPOP



U R S L A

7 Jul 72
CW GS EOB
2-12 GHz

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from P-11's can now reach the [3.3(b)(1)]
[redacted] or the STC in one of three ways. First, the data from the satellites in analog or digital form goes to either the Hula (Hawaii) or Guam remote tracking station then by microwave to the Hula or Guam Communications Satellite (COMSAT) terminal and via COMSAT links to the Palo Alto COMSAT terminal, by microwave to STC, Sunnyvale and [redacted]

[3.3(b)(1)] Use of the Defense Satellite Communications System (DSCS) Pacific COMSAT has provided rapid reporting capabilities.

Second, the data transmitted from the satellites to the Vandenberg tracking station is relayed by microwave to STC and [redacted]

[3.3(b)(1)] A third means which all the stations may use but is the only way New Boston can transmit is on the low rate data lines. The field processing for P-989 intelligence data is done [3.3(b)(1)]

[redacted] URSALA and RAQUEL processing
The MABELI data required by NSA is pre-scanned in [3.3(b)(1)] and weekly summary reports are forwarded to NSA. For detailed analysis of the data, NSA requests [3.3(b)(1)] forward the raw material by courier to NSA, Ft. Meade. [3.3(b)(3), 3.5(c)]

[redacted] TOPHAT data is electrically forwarded to NSA, Ft. Meade for processing. Other TOPHAT data is recorded and couriered to NSA for decryption.

4. Future

Proposed new vehicles for Program 989 include:

a. URSALA III to be launched in 1976 with a contingency for 1975 if needed.

b. RAQUEL II to be launched in [3.3(b)(3), 3.5(c)]

c. URSALA IV to be launched in 1978. These two new URSALA's will provide precision frequency measurements on pulsed emitters in the bands of present URSALA missions.

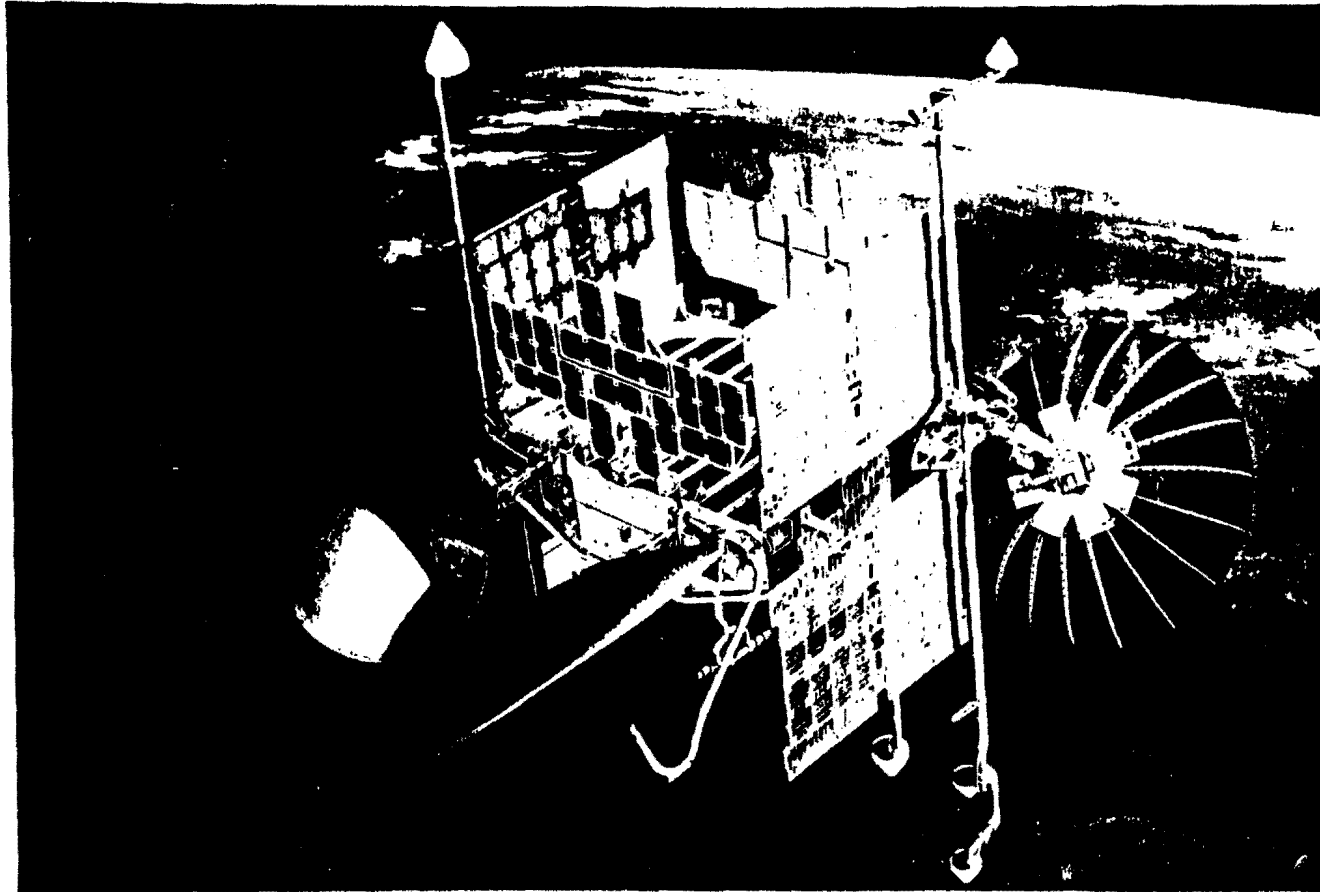
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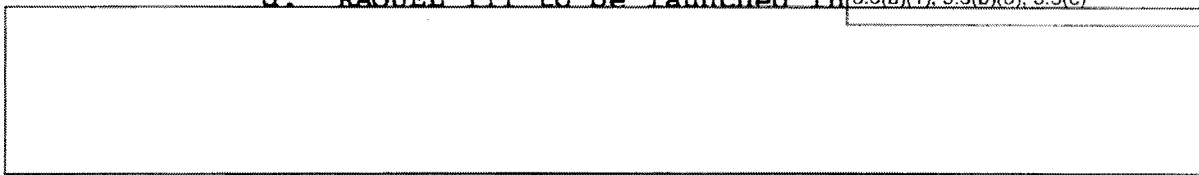
RAQUEL



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d. RAQUEL III to be launched in 3.3(b)(1), 3.3(b)(3), 3.5(c)



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NSA SUPPORT DETACHMENT (NSD), SUNNYVALE, CALIFORNIA

3.3(b)(1)

The Director, NSA, made the first proposal to establish a form of NSA liaison to SAFSP with representation in the Satellite Test Center (STC) at Sunnyvale, California in January 1964. The Director, NSA, indicated a desire to explore the possibility of improving the interface between collection and processing with NSA personnel working under the direction of Director, Air Force Directorate of Special Projects (SAFSP).¹

In the fall of 1965, the SAFSP Office arranged for office space at 3.3(b)(1) Lockheed Missile Space Company (LMSC), to be equipped and staffed by NSA and/or SAC.²

In October 1965, NSA provided a liaison officer to Sunnyvale to interface with the SAFSP and the SAC. A year later, NSA forwarded to the Director, SAFSP, a concept paper regarding the establishment of an NSA Support Detachment (NSD) at Sunnyvale California.³ On 14 February 1967, a letter from the Director describing the scope and nature of the NSD facility was forwarded to Director, SAFSP. The letter stated that: (1) the current NSA liaison officer at Sunnyvale would be assigned as Chief of the Support Detachment, (2) the detachment manning level would be raised to five personnel, and (3) the NSA Support Detachment would be implemented in July of that year. In the same letter, the Director, NSA informed the Director, SAFSP that he had corresponded with Headquarters, SAC to solicit their participation in the detachment as a matter of processing support to NSA, and had received a most favorable response. The SAC representative would have a primary duty of actively participating with the NSA Support Detachment as well as to serve as the SAC Liaison Officer.⁴ A formal agreement dated February 1968 stated SAC's (OL-65 544th ARTW) participation at the NSD facility.⁵

¹ NSA-BYE-17835-4, 28 January 1964.

² 3.3(b)(1) 1944, October/November 1965.

³ 1535-6, 28 October 1966.

⁴ NSA-BYE-60000-67, 14 February 1967

⁵ BYE-71180/68, February 1968.

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On 20 February 1967, the Assistant Director, NSA for Production (ADP) forwarded a memorandum to the Director, NRO informing him of the NSD concept.¹ [REDACTED]

[REDACTED] 3.3(b)(3), 3.5(c)

[REDACTED] 3.3(b)(1)

In August 1974, the [REDACTED] 3.3(b)(1) under a Memorandum of Agreement between the NRO and the NSA. The [REDACTED] 3.3(b)(1) will consolidate the present

¹ NSA-BYE-60051-67, 20 February 1967.

² Letter from Director, SAFSP to Director NSA dated 15 March 67.

³ NSD MSN Concept Paper, dated February 1967.

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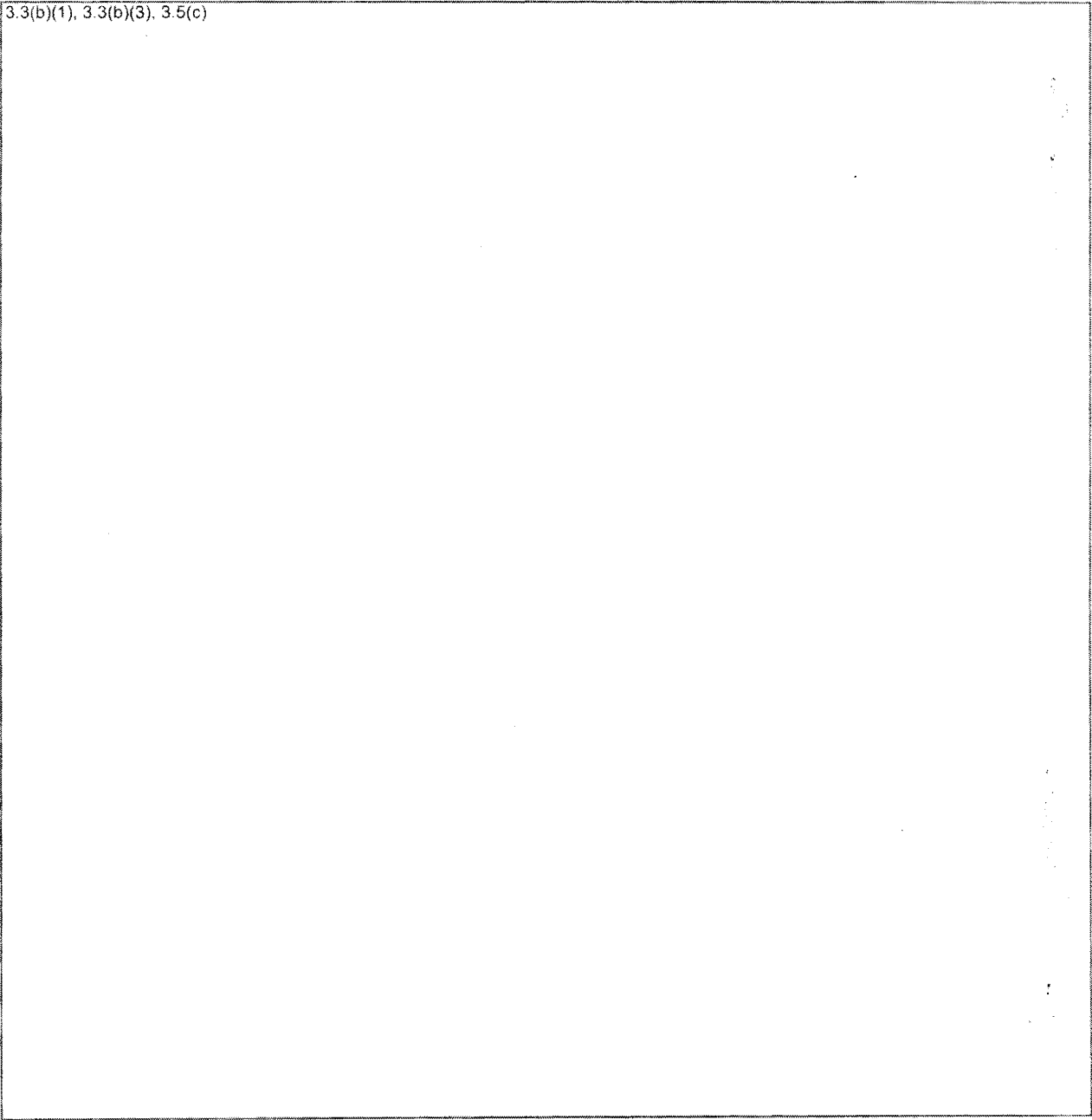
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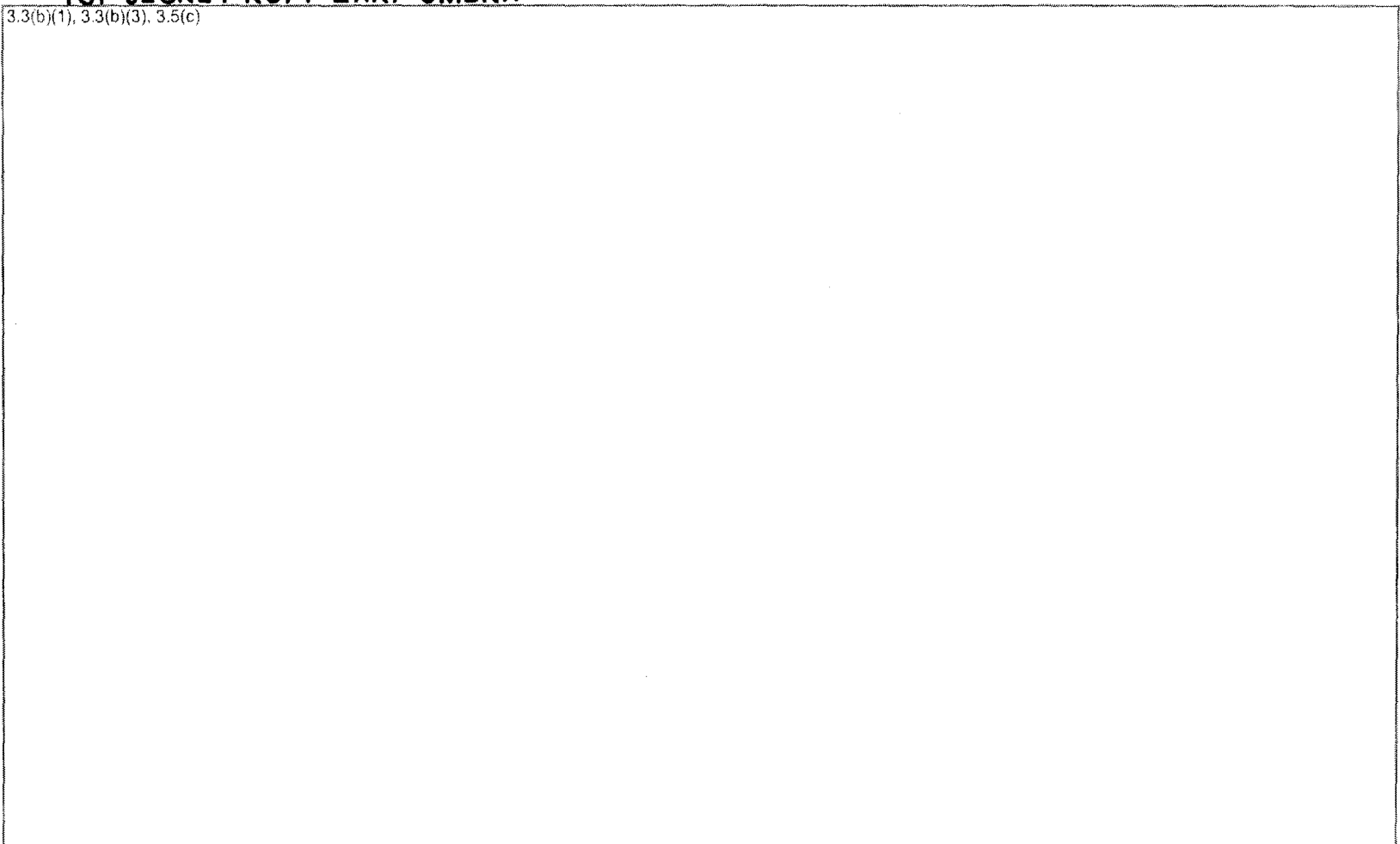
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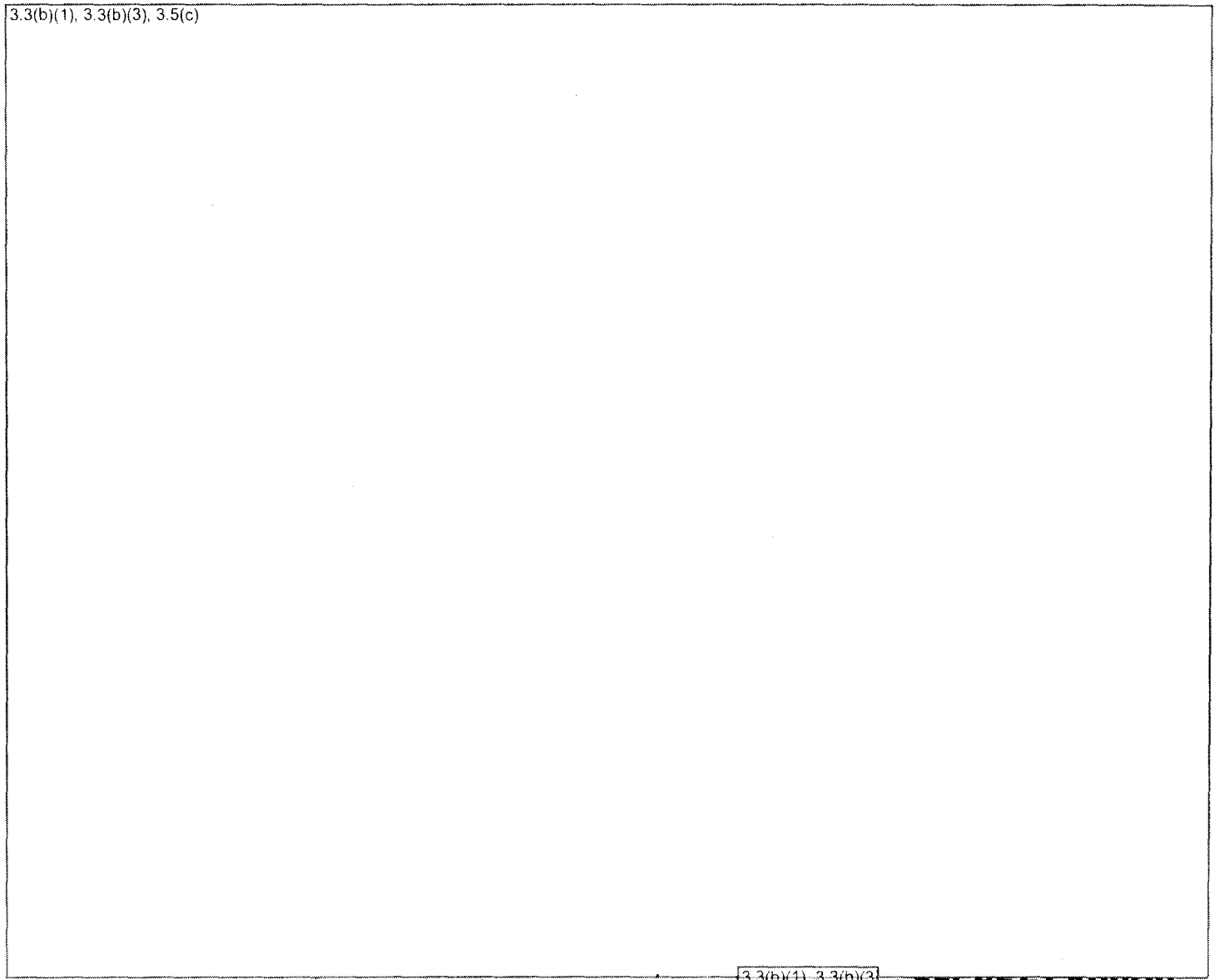
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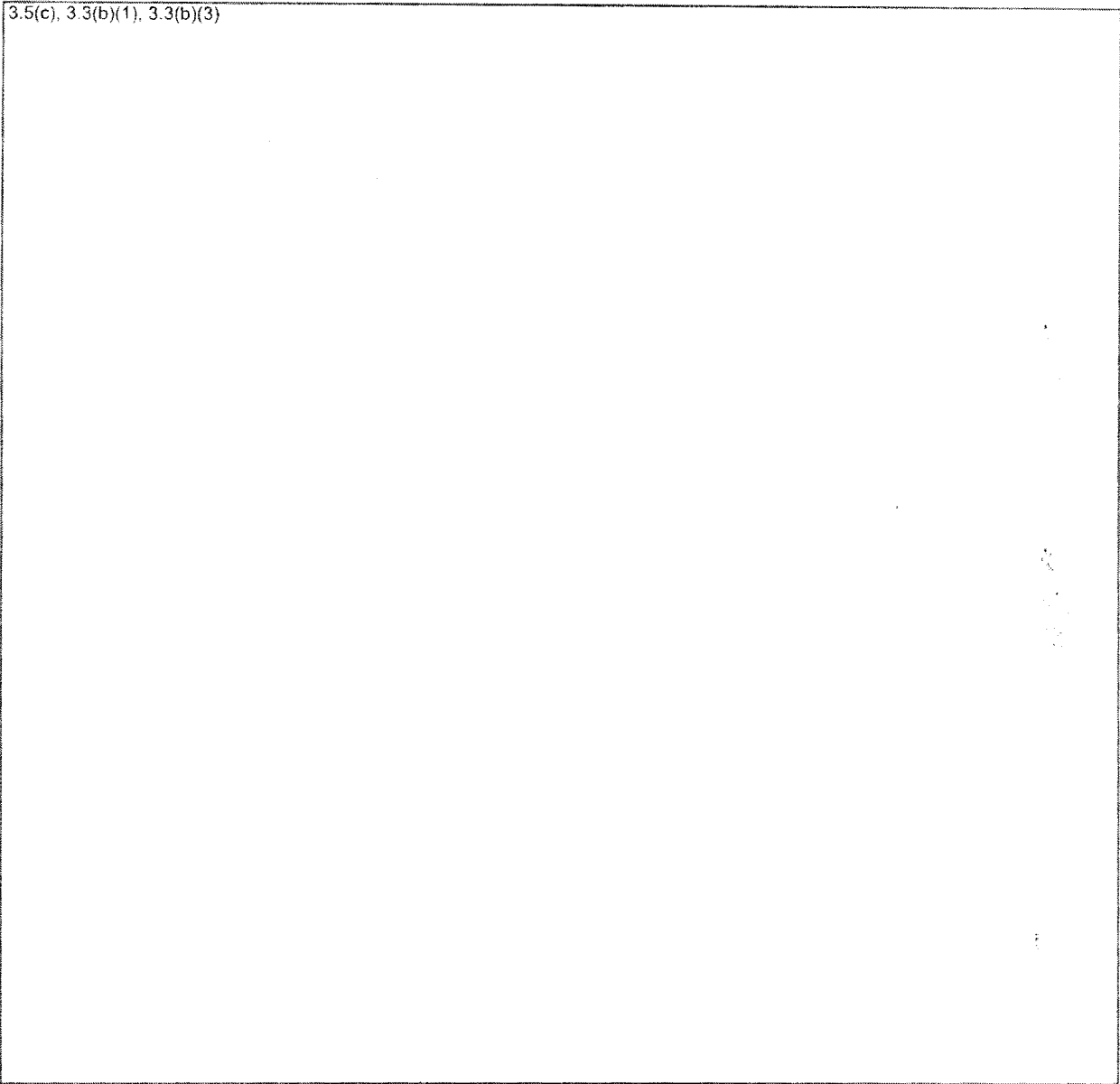


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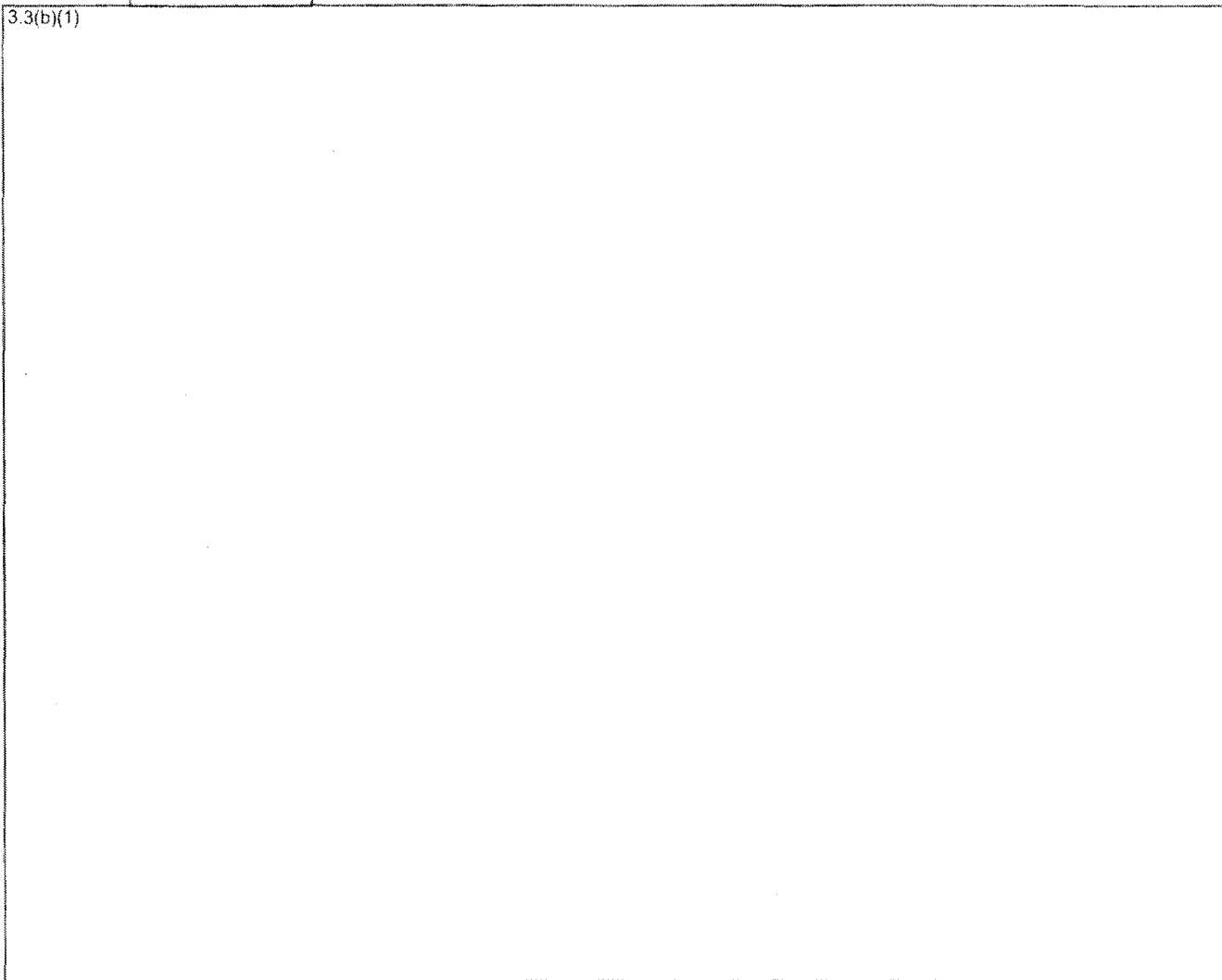
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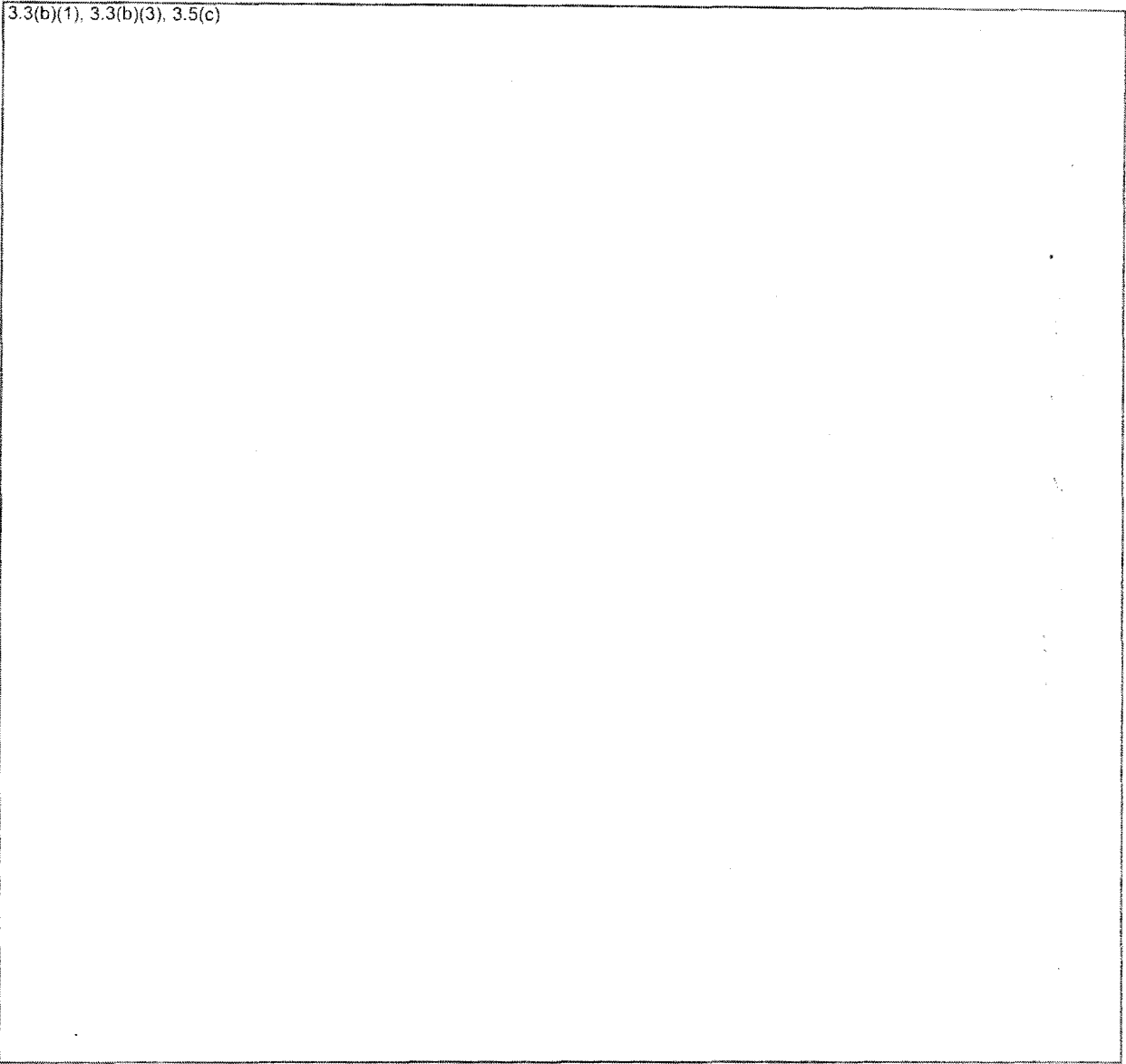
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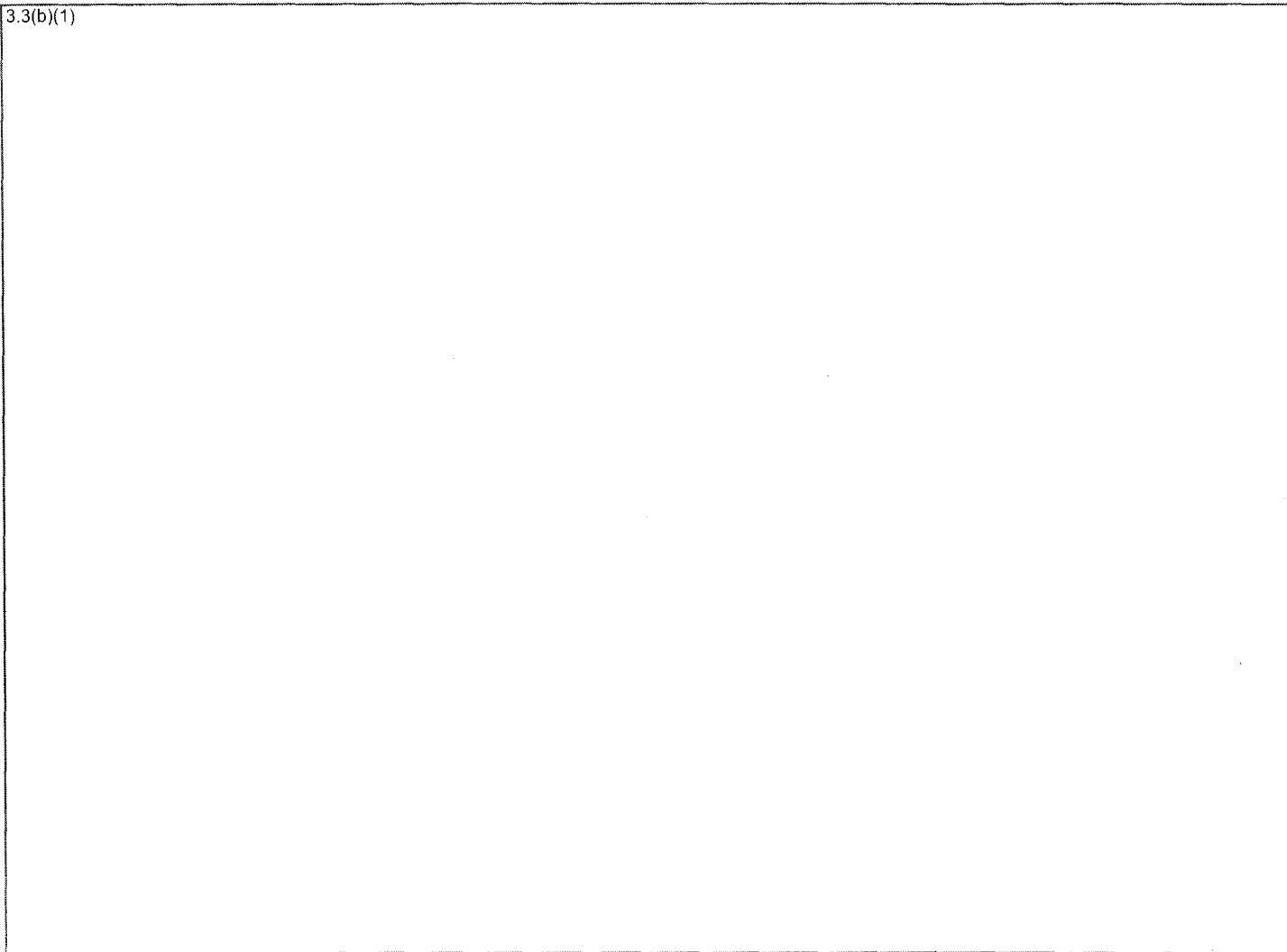
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H. Communications Security (COMSEC) - Encryption of Satellite Collected Data

As early as 27 October 1958, DoD Directive C-5200.5 set forth that Communications Security (COMSEC) is an established function of the National Security Agency (NSA). However, in the case of SIGINT satellites, as for all COMSEC, the final decision as to encryption of data rests with the user, in this case National Reconnaissance Office (NRO).

The development of COMSEC equipment started in early 1961 with the hardware programs delegated to the Services (U.S. Air Force and U.S. Navy). At this time, the NSA (R&S Organizations) were providing technical guidance, security evaluation and crypto key material. On 4 August 1960, Navy Letter OP-94G/G-61, Serial: 001207P94, Subject: Communications Security for High Accuracy Navigation System Using Artificial Earth Satellites (U) requested that the National Security Agency undertake the task of determining the means for providing the necessary COMSEC protection for the Navigation Satellite WS-432 (TRANSIT) system. On 24 March 1961, Dr. S. Kullback, NSA Associate Director for Research and Development sent a reply to the Head, Naval Security Group (NSG) providing a general description of the COMSEC to be employed for TRANSIT.¹

On 27 March 1961, Joseph V. Charyk, Under Secretary of the Air Force sent a letter to the Director, NSA, requesting "that a broad examination into the vulnerability of all phases of satellite control communications should be accomplished. This examination also should look for improved control communications practices and techniques which could readily be applied on a common basis to all satellite test and flight operations."² In this same letter, Dr. Charyk restated that the Air Force is looking to, and will continue to look to NSA for leadership and assistance in matters such as this. Dr. Charyk expressed the hope that NSA's recommendations would be in context with broader findings and recommendations relating to the security and vulnerability of control communications for all military satellite systems.

¹ Letter from Dr. Kullback to Head, NSG, Serial: N1023, 24 March 61.

² Letter from Dr. Charyk to DIRNSA, NSA TS Control #6101415, 27 March 61.

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On 13 April 1961, the Director, NSA, forwarded a reply to the Under Secretary of the Air Force stating that NSA would conduct a thorough analysis of the entire problem of security for satellite, missile and range communications.¹

The traditional NSA position in regard to encryption of data collected by SIGINT satellites was reflected in a joint NSA/NRO "Report of the Electronic Reconnaissance Task Group of the NRO(s)", 27 July 1962. This report states in part: "providing security to the satellite ELINT collection product is highly desirable and should be done to the extent possible without unduly jeopardizing or detracting from the results of the collection effort."² Further, the NSA SIGINT Satellite Reconnaissance Board in Report No. 1 of 5 February 1962 stated that "it is intended that encipherment of satellite-to-ground transmissions of SIGINT data will be carefully studied and will be implemented on all subsequent SIGINT collection packages, if at all possible."³ A final determination on encryption by NSA was in the form of a letter to the Assistant Secretary of Defense, John H. Rubel dated March 1962 which stated that "it is considered that communications between ESV (Earth Satellite Vehicle) and the ground must be secured when necessary."⁴

As stated before, prior to 1963 the development of encryption devices (e.g. KG-400A, KG-400B, and KG-26) were delegated to the Air Force. NSA started their hardware developments in 1963. Since that time, approximately 42 COMSEC devices have been put into space on SIGINT satellites (see Appendix K). A list of all other satellite COMSEC equipments including programs, launch dates and quantities can be found in Appendix L. Also contained in both appendices is a list of programs which integrate COMSEC equipment, operational ground sites and the type of COMSEC equipments installed and a chart depicting planned use of COMSEC.

¹ Letter from DIRNSA to Dr. Charyk, NSA TS Control #6101614, Serial: N1187, 13 April 61.

² Report of the Electronic Reconnaissance Task Group of the NRO(s) 27 July 62.

³ NSA SSRB Report No. 1, 5 February 62.

⁴ Letter from DIRNSA to Assistant Secretary of Defense, dated March 62.

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I. Security

Prior to the establishment of BYEMAN channels, the Satellite Space Programs were classified at the SECRET level. DoD Directive Number S-5200.13, March 23, 1962, Subject: Security and Public Information Policy for Military Space Programs stated that:

a. "Adequate protection of military space programs is vital to the security of the United States. This requires the capability to launch, control, and recover space vehicles without public knowledge of the timing of these actions or of the specific mission involved. It is impractical to selectively protect certain military space programs while continuing an open launch policy for others since to do so would emphasize sensitive projects.

b. The security principle of need-to-know for military space projects must be vigorously enforced within DoD, DoD advisory groups, and by Defense contractors.

c. Rigorous care must be taken to insure that information revealing the identification, mission, scope, or capability of specific military space projects and programs does not appear in unclassified documents and presentations.

d. Unauthorized public discussion by Defense and Defense contractor personnel of the results, effectiveness, capabilities, and potentialities of specific military space projects and programs must be eliminated."¹ (See Appendix M)

In 1963, the BYEMAN Security Manual (BYE 13063-63) was written which established uniform procedures for the control of multiple codeword documents subject to the controls of the BYEMAN, TALENT and KEYHOLE compartmentation, any of which may be combined with COMINT system materials. By 1965, direct relationships within the BYEMAN Control System between NSA/NRO, NSA/CIA were established.

¹ DoD Directive Number S-5200.13, 23 March 1962.

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Today, the overall trend within NSA is toward a very widespread dissemination of TK clearances among analytic and processing personnel. For example, NSA TK billets (SCA's included) have increased from some 450 in 1965 to over 10,000 clearances in 1975. Although there have been several studies and proposals to reduce compartmentation, there is no indication today of any decision to eliminate the TK compartment. However, if the present trend continues, we may eventually find that COMINT/TK access will become a basic NSA clearance.

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III. DIRECTIVES/BOARDS

A. National Security Council Intelligence Directive 6
(NSCID 6)

National Security Council Intelligence Directive 6 (NSCID 6) dated 15 September 1958 delegated NSA the authority to organize and control all U.S. electronic intelligence (ELINT) intercept and processing. The 1958 version of the NSCID added ELINT to NSA's responsibilities, and since this Directive was written before SIGINT began to use space vehicles, references to "satellites" are neither specifically included nor excluded. As a result of a Presidential reorganization of the intelligence community in the fall of 1971, NSCID 6 was rewritten and the 1972 revision of the directive delineates NSA's responsibilities on control of the intercept payload and processing of the data collected by SIGINT satellites. Appendix N contains both an extract from the original NSCID 6 on the Mission, Administration and specific responsibilities of NSA and its' Director and a copy of the 17 February 1972 Directive.

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B. United States Intelligence Board (USIB)

The first known official national document which recognized the potential for SIGINT satellites was dated after the first SIGINT satellite had been launched. On 5 July 1960, the United States Intelligence Board (USIB) set forth the intelligence requirements for satellite reconnaissance (USIB-D-33.6/8). "It is essential that the U.S. have access to information derived from electronic emissions inside of denied areas that, in the present state-of-art, can be collected only by electronic reconnaissance over those denied areas. A satellite reconnaissance vehicle is likely to be of great value in this reconnaissance."¹ Specifically, the USIB Committee on Overhead Reconnaissance (COMOR) was established on 9 August 1960 "for the purpose of providing a focal point for information on, and for the coordinated development of foreign intelligence requirements for, overhead reconnaissance projects and activities of the Government over denied areas (including foreign intelligence requirements during research and development phases of such projects and activities)."²

At this time, the primary emphasis of COMOR was on photography and its work on SIGINT. Although there were USIB requirements which could have been interpreted to cover SIGINT operations in space, additional organizational controls were needed. Thus, the COMOR SIGINT Working Group (CSWG) was established. The Members on the CSWG were from DIA, CIA, NSA, USA, USN, and the USAF, and were Chaired by a DIA individual. At a meeting on 28 October 1963, the CSWG drafted and sent to COMOR for approval the following list of responsibilities of the Working Group: "The SIGINT Working Group, being composed of a Chairman and representatives of the COMOR membership, will be directly responsible to COMOR for:

a. Securing prior advice and consent on actions that would be binding upon COMOR.

¹ USIB-D-33.6/8 dated 5 July 1960.

² DCID No. 2/7 (New Series), dated 23 April 1965 (Superceded 2/7 dated 9 August 1960).

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b. Providing advice and assistance to COMOR on matters relative to overhead SIGINT reconnaissance, to include: plans, programs, research, development, security and dissemination matters, operational status, results, and degree of success attained from SIGINT collection efforts.

c. Advising COMOR on all SIGINT matters assigned to or undertaken by the Working Group.

d. Establishing and maintaining a current listing of priority SIGINT objectives for collection by overhead SIGINT methods.

e. Establishing and maintaining a current listing of priority objectives for processing and reporting on SIGINT obtained from overhead reconnaissance methods consistent with collection priorities.

f. Establishing and maintaining close liaison with operational, technical, and processing elements to insure that cognizance on applicable aspects of overhead SIGINT matters is at all times effected.

g. Securing the advice and assistance from sources internal and external to COMOR membership requisite to the above.

h. Effecting necessary liaison with non-overhead elements associated with SIGINT to insure proper balance and responsiveness of the Working Group."¹

In 1967, the CSWG was separated from COMOR, whose name also was changed: the two new groups were SIGINT Overhead Reconnaissance Subcommittee (SORS) of the SIGINT Committee and the Committee on Imagery and Requirements Exploitation (COMIREX). The latter will not be discussed since its primary responsibility is photo reconnaissance. Effective 1 July 1967, the SORS was established by the USIB SIGINT Committee as a permanent subcommittee to advise, assist and, as directed, act for the SIGINT Committee in all matters pertaining to SIGINT overhead reconnaissance.² In particular, SORS shall

¹ List of responsibilities for the COMOR SIGINT Working Group; BYE-15057-63, dated 29 October 1963.

² SIGINT overhead reconnaissance comprises reconnaissance by satellite, aircraft or other reconnaissance vehicle over denied areas.

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advise and assist the SIGINT Committee on collection requirements, processing and reporting requirements and evaluation. (See Appendix O, BYE 4518-67, 10 July 67. The SORS membership is comprised of a Chairman (designated by Chairman, SIGINT Committee) and representatives from Department of State, CIA, DIA, NSA, USAF, USA, USN and the NRO. From time to time working groups were set up by SORS such as the COMINT Working Group chaired by an NSA representative.

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C. National Reconnaissance Office (NRO)

In September 1961, the National Reconnaissance Program (NRP) and the National Reconnaissance Office (NRO) were established to manage the SIGINT reconnaissance programs. Specifically, the Secretary of Defense designated the Under Secretary of the Air Force as his assistant for reconnaissance and delegated to him the full authority to manage the National Reconnaissance Program (NRP). In order to manage the NRP, a NRO was established under the joint direction of the Under Secretary of the Air Force the Deputy Director (Plans) of the Central Intelligence Agency (CIA). (See Appendix P) The following month, the Deputy Secretary of Defense issued a Memorandum, Subject: Space Vehicle Electronics Intelligence Program, which assigned collection responsibilities to the Department of the Air Force (SAFMS - later designated SAFSS) covertly the NRO), and processing responsibilities to NSA. (See Appendix Q)

In May 1962, the NRO formally invited NSA to nominate one of its personnel to become a full-time member of the NRO. For the first time, NSA had an integrated member working on the NRO Staff to coordinate SIGINT Satellite System plans and development. (See Appendix R)

In correspondence between Dr. Joseph Charyk, Director, NRO (Under Secretary of the Air Force) and Dr. Peter Scoville, Deputy Director, CIA, for the period 15 June 1962 through 4 January 1963 they proposed and agreed to establish a NRO Satellite Operations Center (SOC) in the Pentagon to handle both CIA and SAFSP photo satellite operations. The SOC became operational 14 January 1963 and "all satellite operations control would be exercised from the Pentagon."¹ Also, on 21 March 1963, CIA released a message stating that "subsequent to 1 April 1963 operational control of all NRO satellite missions will be exercised by the Satellite Operations Center (SOC)."² In 1964, NSA was invited to integrate a man into the NRO/SOC to supervise SIGINT satellite operations tasking and liaison to COMOR SIGINT Working Group (CSWG). Another NSA man was integrated into the NRO Staff in

¹ Memorandum from Dr. Charyk, DNRO, for Dr. Peter Scoville, D/DIR CIA, dated 4 January 1963.

² CIA originated message to interested collective addressees, dated 21 March 1963.

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1970 to work on the Studies and Analysis Group. One of the studies prepared by this group was the first Multimission Study in 1970.

A major reorganization of the NRP occurred on 11 August 1965 when the NRP Executive Committee (EXCOM) was established to guide and participate in the formulation of the NRP through the DNRO. One of the primary responsibilities of the EXCOM is the authority to approve or modify the consolidated National Reconnaissance Program and its budget. This reorganization also established the NRO as a separate agency of the Department of Defense.¹ Although the original members of the EXCOM consisted of the Deputy Secretary of Defense, the Director of Central Intelligence (DCI), and the Special Assistant to the President for Science and Technology, the present membership consists only of Assistant Secretary of Defense for Intelligence (ASD(I)) and the DCI. (See Appendix S) Additionally, it should be noted that in August 1969, ADM Noel Gayler, Director, NSA, was the first NSA Director to attend an EXCOM meeting. Since that time, the Director, NSA, attends EXCOM meetings.

¹ DoD Directive No. TS 5105.23, dated 27 March 1964.

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IV. SPECIAL STUDIES

A. Davis Committee

The Davis Committee evolved from a recommendation of
the Land Panel of the President's Scientific Advisory Council

3.3(b)(1), 3.3(b)(3), 3.5(c)



¹ Special Assistant to Secretary of the Air Force (DNRO).

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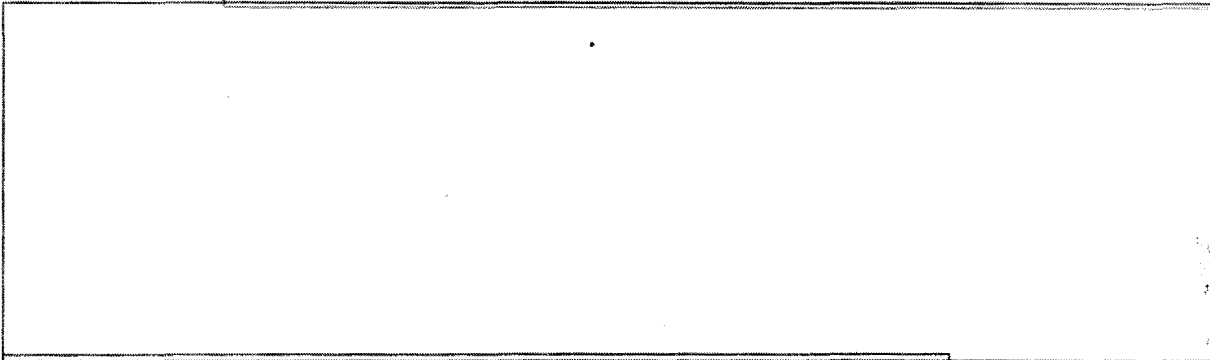
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B. Multimission Studies

In the fall of 1970, the National Reconnaissance Office (NRO) established a joint study group to seek ways to improve the existing SIGINT satellite program while at the same time attempting to reduce the annual budget of the National Reconnaissance Program (NRP). This group, chaired by Dr. Robert A. Kahal of NRO Analysis Staff, consisted of representatives from NSA, CIA/OSP, SAFSP, and the Aerospace Corporation. The principal objective was to find a way to combine the

3.3(b)(1), 3.3(b)(3), 3.5(c)



On

24 June 1971, NSA drafted an informal message stating NSA's basic conclusions and recommendations on the Multimission Study results. NSA recommended the following:

"a. The basic two-system configuration not be altered because it is a viable configuration from technical, financial, and management viewpoints.

b. That recognition be given to the fact that step-wise system improvements will be required in order to meet anticipated future requirements.

c. That if future resource pressures require reductions in out-year budgets, these reductions can best be accommodated by delaying specific system improvement actions because of the very low probability of being able to develop and deploy a new system configuration with the present system and an associated step-by-step improvement policy.

¹

SIGINT Multimission Study, Volume I, BYE-13071-71, and Volume II, BYE-13042-71, 1 July 1971.

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d. That it be clearly recognized that other valid SIGINT satellite requirements exist which were outside the scope of the study effort and therefore the configurations discussed do not represent a total SIGINT satellite effort."¹ Soon after, SAFSP issued a separate analysis recommending as follows:

3.3(b)(1), 3.3(b)(3), 3.5(c)

- ¹ Message from NSA to NRO, SAFSP, and CIA, Subject: Preliminary Comments on Results of Multimission Study, dtg 241900 June 71.
- ² Multimission Study Analysis, BYE-15932-71, 26 October 1971.
- ³ 3.3(b)(1) Study, Volume I, BYE-13006-72, 20 July 72; Volume II, BYE-13006-72, 28 August 72.

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a paper on operational ELINT procedures which was approved by the Secretary of Defense and forwarded to NSA for implementation. NSA drafted the formal implementation plans which are in the process of being carried out.

The third Multimission Study was a revival of the first one and became what is now called the SIGINT Mix Study. "On 12 July 1973 the DNRO indicated in his report to EXCOM that he intended to initiate a study to evaluate the SIGINT multi-system tradeoffs in terms of effectiveness, timing and cost." On 22 August 1973, the NRO sent a memorandum to the Director, NSA, providing NSA with the study guidance and scope of the SIGINT Mix Study.¹ The objective of this study is "to identify a meaningful range of SIGINT satellite mix options to assist the November 1973 Executive Committee (EXCOM) in determining a proper mix of [3.3(b)(1)] within the constraints of the FY-74 and 75 budgets." In terms of competition for funds, the competition boiled down to possible cancellation of the [3.3(b)(1)]

¹ Memorandum for General Allen, Director, NSA from NRO, Subject: NRO SIGINT Mix Study, 22 August 1973.

² [3.3(b)(1)] Mix Study, BYE-13224-73, November 1973.

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V. EXTERNAL AGREEMENTS

A. U.S. Air Force (USAF)

On 21 March 1961, the Under Secretary of the Air Force signed a memorandum to the Director, NSA, inviting the Agency to work with and assist the Air Force in the planning and execution of the national satellite reconnaissance program, SAMOS.¹ The following month, the Director, NSA, accepted the Air Force invitation.²

¹ Letter from the Under Secretary of the Air Force to Director, NSA, dated 21 March 1961.

² Memorandum from DIRNSA to the Under Secretary of the Air Force, Serial: N1093, 31 March 1961.

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B. Strategic Air Command (SAC)

Prior to the National Security Agency's responsibility to process SIGINT collected from space vehicles, the Strategic Air Command (SAC) was processing the data for the Air Force. Once NSA had acquired its' responsibility to process the data, NSA and SAC subsequently became parallel processors. In order to clarify electronics intelligence processing arrangements, a Memorandum of Understanding between the National Security Agency and the Strategic Air Command was signed on 11 September 1962. "The National Security Agency and SAC have reached agreement as follows:

a. The Strategic Air Command will:

(1) Process certain space vehicle ELINT signals data in response to the operational intelligence need and in satisfaction of tasking instructions provided by the National Security Agency. (Such processing will normally consist of producing radar order of battle for operational intelligence purposes.)

(2) Report and distribute the results of space vehicle electronic processing direct to consumers specified by the National Security Agency and directly to the latter when required for integration with other information at NSA.

(3) Not reassign space vehicle processing responsibility to other organizations without the approval of NSA.

b. The National Security Agency will:

(1) Provide appropriate planning support and furnish required instructions for implementing this agreement.

(2) Provide technical support and guidance."¹

¹ Memorandum of Understanding between NSA and SAC, dated 11 September 1962.

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C. U.S. Navy (USN)

On 21 January 1963, the Director of Naval Intelligence (DNI) sent a letter to the Director, National Reconnaissance Office (DNRO) regarding a realignment of responsibilities for the POPPY System which superceded the original letter dated 10 September 1962. The specific responsibilities of the organizations/individuals associated with Project POPPY can be found in Appendix T. A separate Agreement between the National Security Agency (NSA) and the Office of Naval Intelligence (ONI) was signed in July 1963 and under this provision NSA agreed to:

- (1) provide appropriate planning support and furnish tapes to the Naval Scientific and Technical Intelligence Center (STIC) for processing and analysis and
- (2) provide technical support and guidance.¹

On 5 November 1971, a Management Agreement for the POPPY System was signed by NRO, NSA, CIA and the USN. The purpose of this Agreement was to define the organizational responsibilities and the lines of authority associated with the management of the POPPY System Project. The specific responsibilities outlined in this Agreement can be found in Appendix U. The POPPY System transponds collected data to ground sites at several SIGINT stations worldwide.

In late 1971, the Director, NSA, participated in a discussion with key people in the U.S. Navy and the intelligence community regarding developmental stages of a proposed system which led to the [3.3(b)(1)]. On 19 February 1972, the Navy adopted a plan for the development of a satellite ELINT system [3.3(b)(1)]. Throughout the following months informal discussions were held by the Ocean Surveillance Executive Working Group to discuss problem areas within the [3.3(b)(1)]. A Memorandum of Agreement was signed on 7 August, 28 July, and 22 June 1972 by the DNRO, NSA/CSS, and the Chief of Naval Operations (CNO) respectively.²

¹ Memorandum of Understanding between NSA and the ONI, dated July 1963.

² [3.3(b)(1)] Memorandum of Agreement, BYE-52253/72, dated 7 August 1972.

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3.3(b)(1), 3.3(b)(3), 3.5(c)

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D. Defense Intelligence Agency (DIA)

On 3 September 1963, a Memorandum of Agreement was signed concerning certain procedures to be followed by DIA and NSA concerning the processing and distributing of SIGINT and operational information derived from SIGINT satellite reconnaissance missions. It stated that:

a. "NSA will:

(1) Provide to DIA the technical information and background data required for preparation of DoD SIGINT requirements applicable to satellite collection.

(2) Provide technical assistance to DIA, when requested, on matters pertaining to operational planning of SIGINT satellite reconnaissance missions.

(3) Process, in accordance with priorities established by USIB, all SIGINT data collection by satellite reconnaissance and distribute the resulting SIGINT to DIA and/or other DoD recipients as requested by DIA, as well as to non-DoD consumers. Satellite collected SIGINT produced by other than internal NSA facilities will also be distributed to the aforementioned consumers, either directly or by NSA, as determined by NSA. Analytic results will be forwarded in the form of hardcopy reports or, in the case of significant information, by electrically transmitted messages.

(4) Provide reports to DIA and other interested consumers indicating the status of processing of SIGINT obtained from satellite collection.

(5) Provide information copies to DIA of technical or other feedback being furnished to the National Reconnaissance Office(s) by NSA.

b. DIA will:

(1) Obtain NSA guidance on all DoD SIGINT requirements applicable to satellite collection prior to submission to COMOR for consideration.

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(2) Obtain NSA guidance on all operational planning factors prior to forwarding for the National Reconnaissance Office(s).

(3) Brief significant as well as periodic mission summary reports to appropriate DoD elements.

(4) Furnish desired distribution lists for all DoD recipients for those NSA SIGINT product series based on the results of SIGINT satellite reconnaissance.

(5) Prescribe control and security procedures applicable to the handling of satellite derived SIGINT by DoD recipients of such material."¹

¹ Memorandum of Agreement between NSA and DIA, NSA-0846-KH-63, 3 September 1963.

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VI. INTERNAL AGREEMENTS/BOARDS/GROUPS

A. SIGINT Satellite Reconnaissance Board (USIB)

On 15 November 1961, the NSA Assistant Director, National Cryptologic Staff (ADN) established the SIGINT Satellite Reconnaissance Board (SSRB). The SSRB was a standing committee established to provide technical advice and guidance to ADN with regard to coordination of NSA activities for SIGINT collection and processing associated with earth satellite reconnaissance. According to SSRB charter, bi-monthly meetings were to be held. The SSRB was disestablished on 10 January 1964. The role and functions of the SSRB were officially distributed into the appropriate NSA organizational elements.

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B. SIGINT Satellite Working Group (SSWG)

On 10 July 1964, an Assistant Director for Research and Development (ADRD) memorandum, "Planning for the Satellite Collection and Processing Program" was sent to the Director proposing that a SIGINT Satellite Working Group (SSWG) be established to prepare NSA requirements for NRO (collection) and NSA (processing). The Director concurred, and on 20 August 1964 the SSWG was established by an ADRD Memorandum.

This special study group, headed by the Assistant Director NSA for Research and Engineering (ADRE), convened in late 1964 to review applications of Earth Satellite Vehicle (ESV) techniques to SIGINT collection programs and the impact of such ESV programs upon existing SIGINT collection and processing programs, particularly in view of the NSA requirement to prepare a detailed SIGINT satellite processing program as soon as possible.

The SSWG was tasked to 3.3(b)(3), 3.5(c)

either intelligence or collection requirements, to cross-check those consolidated requirements against present or anticipated U.S. SIGINT collection resources, and to develop supplemental guidance for NRO stating specifics and limits of current or future SIGINT ESV collection parameters.

The SSWG prepared an NSA SIGINT Satellite Report (TCS-650119-65) which covered the next two to seven years (the next period of the earliest possible new Soviet electronic equipment development and deployment), realistically based upon the most detailed and accurate SIGINT requirements statements available to the Working Group within the U.S. Government and including those which can be postulated from evaluations of future Soviet or U.S. technological progress in the electronics field.

The report discussed in detail all technical aspects of the studies performed and included conclusions and recommendations of the Working Group. For further reference see TCS-650119-65, dated 1 December 1965.

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C. Director's Ad-Hoc Advisory Group for ELINT and Special Reconnaissance (DAGER)

On 17 October 1966, the Director, NSA, established the Director's Ad Hoc Advisory Group for ELINT and Special Reconnaissance (DAGER). The group had the following main functions:

"The principal purpose of the Group is to recommend to me the optimum organizational configuration of a permanent staff mechanism which will perform the following general functions in the fields of ELINT and of special reconnaissance:

- a. Serve as a central Agency coordinating authority;
- b. Monitor or, as required, participate in the development of major objectives, plans, programs, and courses of action;
- c. Advise the Director in these fields and assure him that all specific actions submitted for his approval are in conformity with his responsibilities, authorities, and policies;
- d. Keep the Director informed of external pertinent developments;
- e. Provide information and assistance to the Chiefs of Key Components.

A second and concurrent function of the Advisory Group is to provide a temporary mechanism for coordinating, without further delay, activities in these fields, especially as they impinge upon my national responsibilities and authorities."¹

From the beginning DAGER attempted to configure for DIRNSA a staff mechanism which would be the central authority in the ELINT and special reconnaissance fields. After presenting several organizational concepts to DIRNSA, DAGER submitted a plan which influenced the formation of W Group.

¹ Office Memorandum from Director, NSA, to Chiefs of Key Components, Subject: DAGER, dated 15 October 1966.

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Within its secondary function in coordinating national responsibilities and authorities in the ELINT field, DAGER prepared for DIRNSA a report¹ on the implementation of the National ELINT Plan (NEP). This report was written in response to an 8 February 1966 letter from the Deputy Secretary of Defense to the Director, NSA requesting that NSA submit an analysis of major actions taken by the U.S. ELINT Community with respect to the National ELINT Plan implementation during the one year since NEP was promulgated. In October 1970, DAGER's functions were included in organizations of the newly formed W Group.

¹ Implementation of the National ELINT Plan Report for 1966 to the Secretary of Defense from DIRNSA, 8 February 1967.

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D. Internal NSA Memorandum of Understanding for SIGINT
Satellite Processing Relationships Among Production
Groups A, B, and G

An internal NSA Memorandum of Understanding among the Production Groups for SIGINT satellite processing relationships was signed on 23 February 1967. This Agreement was written to further delineate responsibilities in SIGINT satellite exploitation which were previously assigned to the Prod Groups in an ADP Memorandum NSA-BYE-60022-67, 10 January 1967. The Understanding was intended to provide a basis for coordination and co-participation by the Prod Groups in order to carry out their assigned responsibilities. (See Appendix V)

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E. Special Systems Support Center (SSSC)

In early January 1968, the Assistant Director for Production (ADP) forwarded a memorandum to the Director requesting the formal establishment of the Special Systems Support Center (SSSC). On 10 February 1968, the Director approved the establishment of the SSSC.¹ Prior to the formal establishment of the SSSC, the Assistant Director, NSA for Production (ADP) created the Operations Planning Group (OPG) COMINT Working Group for the purpose of preparation of processing plans for the various overhead SIGINT collection systems. One of the OPG recommendations was to establish an NSA operations center. Once the basic mission of the OPG was accomplished, the NSA inputs to operations control of the satellite SIGINT collection systems were handled by the SSSC.

The mission of the SSSC is to provide SIGINT technical support and guidance to designated high altitude SIGINT satellite collection systems, in order to maximize the collection of unique and significant COMINT, ELINT and TELINT by such systems, and effectively to integrate these operations with other U.S. SIGINT operations to avoid excessive duplication while providing a maximum U.S. SIGINT collection capability. To fulfill this mission, the SSSC has three fundamental responsibilities:

1. To provide to each of the primary SIGINT satellite collection systems long-term SIGINT technical support and system evaluation;
2. To provide 24 hour/day SIGINT technical guidance and intercept direction to designated high altitude SIGINT satellite collection systems and specified low orbiting satellites as required;
3. To provide a mechanism for consolidating NSA recommendations on the SIGINT satellite collection requirements.

The SSSC was originally manned with approximately eight personnel to handle the collection of COMINT, ELINT and TELINT. In January 1972, two representatives from the NRO/SOC were integrated into the SSSC to operate certain phases of NRO

¹ NSA-BYE-19016-68, 9 February 1968.

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tasking here at NSA. By the summer of 1972, there were at least four NRO/SOC representatives working jointly with NSA personnel in the SSSC.

As a part of an internal NSA reorganizations, the SSSC was formally disestablished on 18 September 1974. The 24 hour Watch Operations in SSSC were assimilated into the NSOC operations and the NSA as well as NRO personnel were relocated in the NSOC spaces. These internal changes in no way altered or diminished the authorities and responsibilities formerly exercised by the SSSC. The Watch Operations responsibilities of providing tip-off and technical support to Mission Ground Stations remained unchanged.

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F. Advanced Program Support (APS) Program Element

1. Introduction

Through the early evolution of NSA work in SIGINT using space vehicles, the NSA resources were borrowed from those budgeted for conventional SIGINT. As the processing of satellite-collected data expanded, more resources were required and, in order to budget for this, separate line items were included in regular NSA programs approved by the Secretary of Defense. Still, this budget was not tied to the NRO budget which included the very large collection resources for developing and building the SIGINT satellites. Thus, Advanced Program Support Program Element (APSPE) was created in 1969 to coordinate the collection and processing budgets for SIGINT satellite programs and to keep them balanced by having them approved simultaneously.

2. Details

The APS Program serves as the basis for the APS Program Objectives Memorandum (POM) and Financial Plan submissions. In order to support program objectives, the individual NSA Project Managers play a key role in structuring the financial and systems requirements. Consequently, the formulation of the APS Program is a continuous process. Although there are specific times during the year when financial summaries or other information may be formally requested from analytic and field elements, the success of the Program is dependent upon Project Manager structure being aware of the problems, successes and goals of the analytic and field organizations.

Once a year, the Project Manager is required to structure a five year plan which includes a narrative description of Program goals and objectives and a statement of resource requirements. The Managers use their personal knowledge, inputs from other Agency elements, financial guidance statement of the General Defense Intelligence Program (GDIP), basic guidance in the National Reconnaissance Program (NRP), Intelligence Requirements Guidance from USIB and other source material to formulate each program.

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APS resources must be defended, by NSA in the Department of Defense Budget mechanism and in the House and Senate Appropriations Committee and Subcommittee structure. Within NSA, the ADPR takes the lead in this activity with the General Counsel and R24 providing assistance as requested. In the past, the DDR has been involved in hearings regarding RDT&E appropriations, therefore making it necessary to maintain a high level of coordination between all of these elements.

The execution of the individual projects of the APS Program is generally under the direction and guidance of the Project Manager once the resources have been approved and appropriated. During the Program development phase, commitment schedules have been developed for all resource requests.

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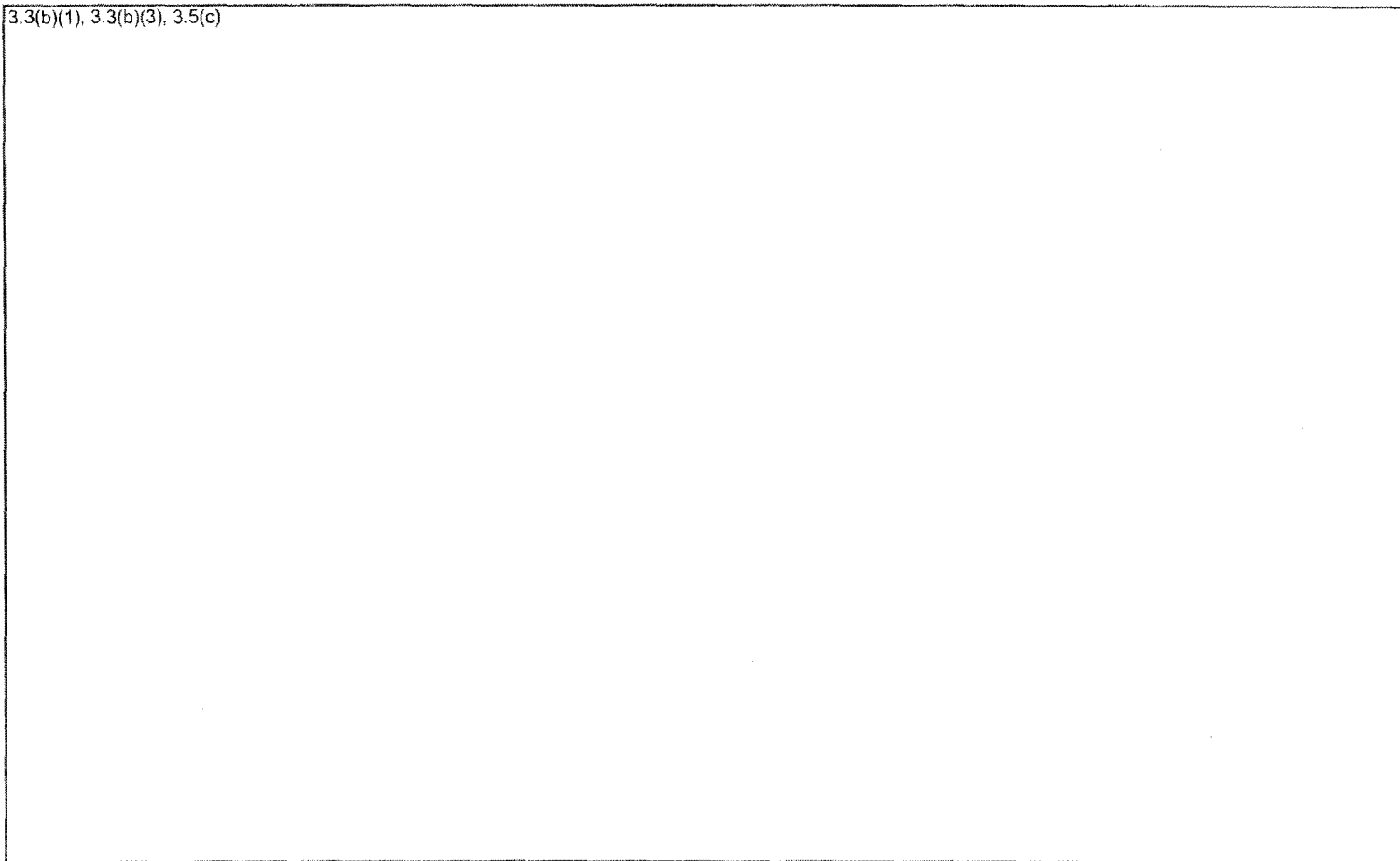
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3.3(b)(1)

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3.3(b)(1), 3.3(b)(3), 3.5(c)



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3.3(b)(1)



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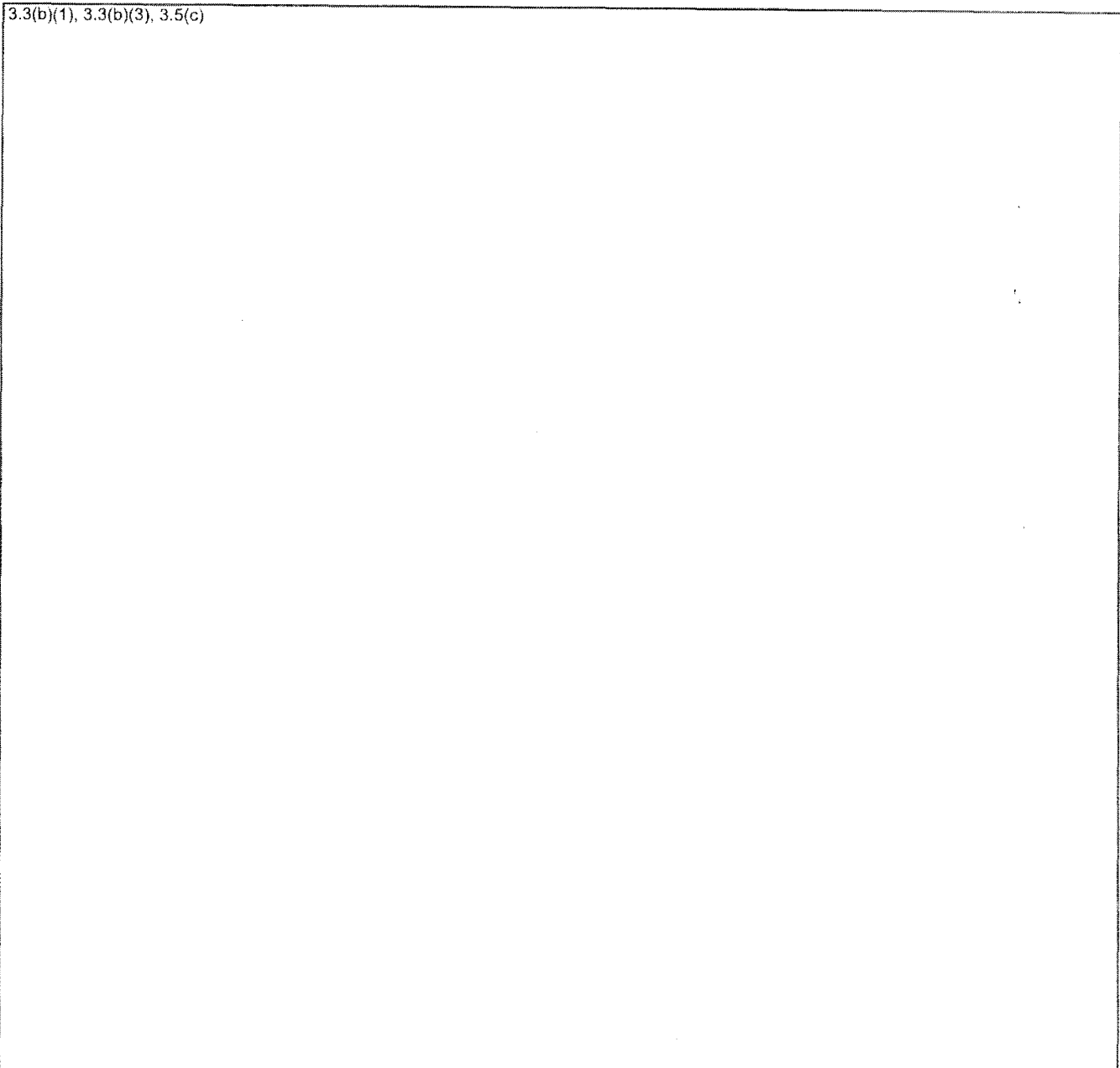
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G. C-COMPLEX

1. Introduction

3.3(b)(1), 3.3(b)(3), 3.5(c)



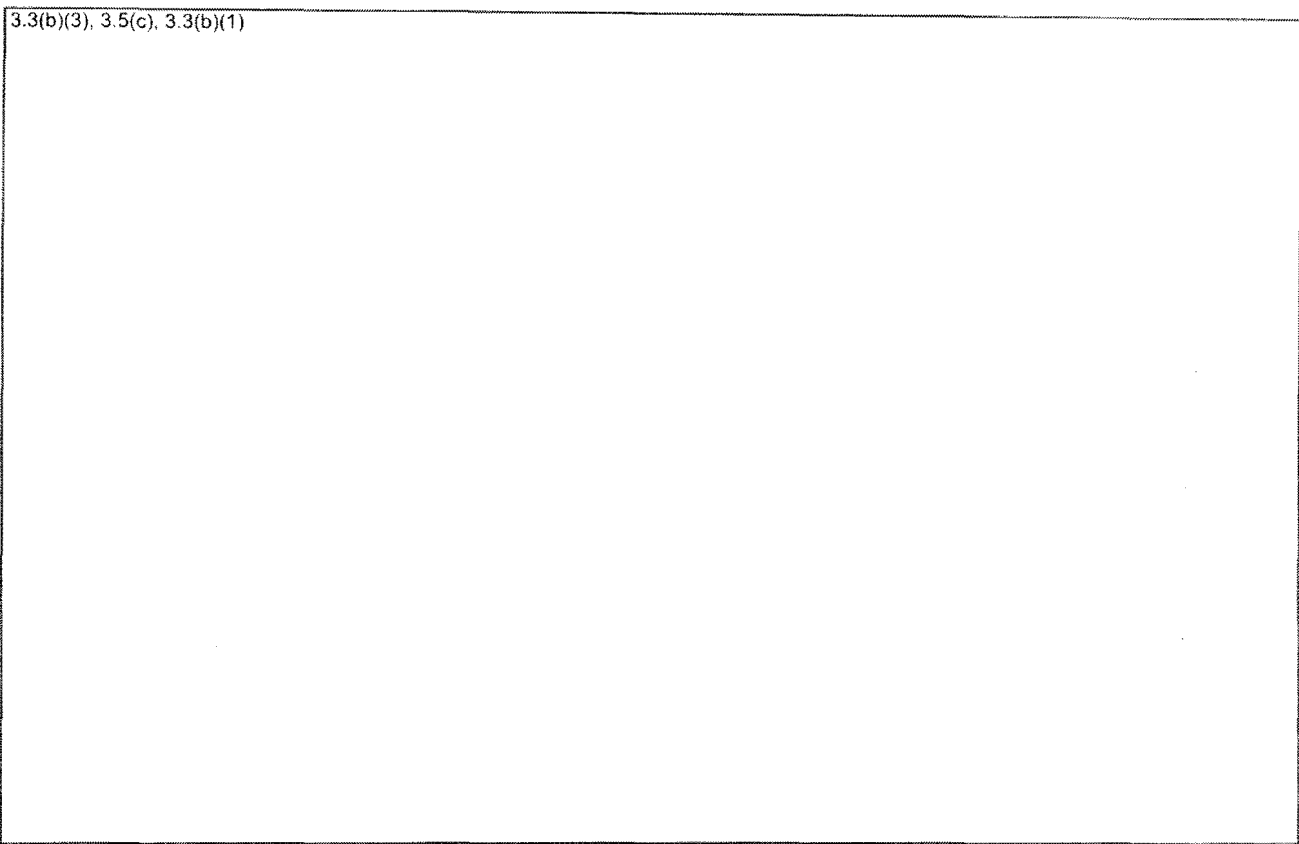
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3.3(b)(3), 3.5(c), 3.3(b)(1)



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Memorandum of Understanding for NSA/SAFSP [3.3(b)(1)]
Automated Data Processing Equipment (ADPE)
Acquisition Activity (C-COMPLEX)

On 20 March 1974, a Memorandum of Understanding between NSA and SAFSP [3.3(b)(1)] was signed which described the terms of reference for NSA/[3.3(b)(1)] Automatic Data Processing Equipment (ADPE) Acquisition Activity. Under the Agreement, a team from NSA/CSS (Central Security Service) acts as a focal point for the formal negotiations of price and terms for purchase and rentals of Automatic Data Processing (ADP) equipment, to include system software. The objective of the understanding was to provide "more beneficial terms to the Government for ADP procurement by having one Government organization represent the combined ADP requirements of NSA and NSA associated activities in the [3.3(b)(1)]".¹ Additionally, [3.3(b)(1)] will make provision in his contractual arrangements for the prime contractor to execute the acquisition as negotiated by the NSA team. The NSA team acts, only at the request of [3.3(b)(1)] on behalf of the Government to:

"a. Achieve lowest common prices for purchases and rentals of ADPE and system software.

b. Assist in a unified ADP plan which would show future ADP related purchases/rentals for the Government on SP-8 and NSA related programs, assuring minimal conflicts in procurement.

c. Act as the primary representative for the Government in discussions leading to cost minimization and other favorable terms and conditions for use in execution of ADP procurement.

d. Provide to the [3.3(b)(1)] or their designated contractor, the terms and conditions obtained in discussions with ADP vendors.

¹ Memorandum of Understanding for NSA, [3.3(b)(1)] ADPE Acquisition Activity, 20 March 1974.

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e. Assure all available information necessary to the preparation of a SADPPO (Senior Automatic Data Processing Procurement Officer) package is made available to appropriate individuals within NSA, and that the package is prepared.

f. Provide the [3.3(b)(1)] with information on all appropriate technological advances in the computer field which are related to NSA [3.3(b)(1)] associated efforts.

OTHER: Costs associated with designated contractor procurements (i.e. system integration and test) will be negotiated and contracted for by [3.3(b)(1)] will provide the team with all related contractor studies and evaluations necessary to the successful negotiation and procurement of ADPE and system software.¹

Under the Agreement, these terms of reference apply only to those ADPE/software procurements related to NSA [3.3(b)(1)] associated activities, which are directly the responsibility of [3.3(b)(1)]

¹ Memorandum of Understanding for NSA [3.3(b)(1)] ADPE Acquisition Activity, 20 March 1974.

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APPENDIX A

LEGEND

MISSION NO.

7000 Series	Aft-Rack Vulnerability Payloads (includes SOCTOP Series)
3.3(b)(1)	Program 770C 3.3(b)(1) (POPPY)
7150-7199 Series	Program 698BK/770A (Air Force Prime Booster Program)
7200 Series	Piggyback (front rack or aft-rack)
7300 Series	Program 989 (P-989) - (P11's)

3.3(b)(1), 3.3(b)(3), 3.5(c)

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<u>MISSION NUMBER</u>	<u>PAYLOAD/ NAME</u>	<u>VEHICLE NUMBER</u>	<u>LAUNCH VEHICLE</u>	<u>DATE</u>
	GRAB I	-	Transit 2A Thor-Able Star	22 June 60
	SOCTOP I	1057	Thor-Agena A Discoverer 13	10 Aug 60
	SOCTOP II	1058	Thor-Agena A Discoverer 15	13 Sep 60
	SAMOS I	2101	Atlas-Agena A	11 Oct 60
	SOCTOP II	1061	Thor-Agena B Discoverer 16	26 Oct 60
	SOCTOP III	1062	Thor-Agena B Discoverer 17	12 Nov 60
	GRAB	-	Transit 3A Thor-Able Star	30 Nov 60
	SAMOS II/698 BK 1	2102	Atlas-Agena A	31 Jan 61
	SOCTOP V	1105	Thor-Agena B Discoverer 22	30 Mar 61
	SOCTOP IV	1106	Thor-Agena B Discoverer 24	8 June 61

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8 NOVEMBER 2017

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<u>MISSION NUMBER</u>	<u>PAYLOAD/ NAME</u>	<u>VEHICLE NUMBER</u>	<u>LAUNCH VEHICLE</u>	<u>DATE</u>
	TAKI I	1107	Thor-Agena B Discoverer 25	16 June 61
	GRAB II (POPPY I)	-	Transit 4A Thor-Able Star	29 June 61
	WILDBILL I	1109	Thor-Agena B Discoverer 26	7 July 61
	TAKI	1111	Thor-Agena B Discoverer 28	3 Aug 61
	TEXAS PINT I	1112	Thor-Agena B Discoverer 29	30 Aug 61
	TOPSOC I	1113	Thor-Agena B Discoverer 30	12 Sep 61
	TOPSOC II	1114	Thor-Agena B Discoverer 31	17 Sep 61
	TOPSOC III	1115	Thor-Agena B Discoverer 32	13 Oct 61
	TOPSOC IV	1117	Thor-Agena B Discoverer 34	5 Nov 61

3.3(b)(1), 3.3(b)(3), 3.5(c)

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<u>MISSION NUMBER</u>	<u>PAYLOAD/ NAME</u>	<u>VEHICLE NUMBER</u>	<u>LAUNCH VEHICLE</u>	<u>DATE</u>
	GRAPEJUICE I	1119	Thor-Agena B Discoverer 36	12 Dec 61
	SOCTOP	2203	Atlas-Agena B Reflector	22 Dec 61
	TAKI	1120	Thor-Agena B Discoverer 37	13 Jan 62
	POPPY II		Thor-Able Star	24 Jan 62
7151	698 BK II	2301	Thor-Agena B	21 Feb 62
	WILDBILL	1123	Thor-Agena B Discoverer	27 Feb 62
	SOCTOP	2204	Atlas-Agena B Reflector	7 Mar 62
	GRAPEJUICE II	1124	Thor-Agena B Discoverer 39	17 Apr 62
	TAKI II	1125	Thor-Agena B Discoverer 40	29 Apr 62
7152	698 BK III	2312	Thor-Agena B	18 June 62
	NEW JERSEY I	1131	Thor-Agena B+ Aft-Rack	27 July 62

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<u>MISSION NUMBER</u>	<u>PAYLOAD/ NAME</u>	<u>VEHICLE NUMBER</u>	<u>LAUNCH VEHICLE</u>	<u>DATE</u>
	GRAPEJUICE III	1133	Thor-Agena B+ Aft-Rack	17 Sep 62
7201	PLYMOUTH ROCK I	1135	Thor-Agena B+ Aft-Rack	24 Nov 62
7203	VINO I	1155	Thor-Agena D+ Aft-Rack	4 Dec 62
3.3(b)(1)	POPPY III	2351	Thor-Agena D	12 Dec 62
7202	WILDBILL II	2351	Agena Aft Rack	12 Dec 62
7204	TAKI III	1156	Thor-Agena D+ Aft-Rack	14 Dec 62
7205	NEW JERSEY II	1157	Thor-Agena D+ Aft-Rack	7 Jan 63
7153	698 BK IV	2313	Thor-Agena D	16 Jan 63
7206	VINO	1159	TAT-Agena D+ Aft-Rack	28 Feb 63
7005	STOPPER	1165	Thor-Agena D+	18 May 63
7207	WILDBILL III	1161	TAT-Agena D+ Aft-Rack	12 June 63

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3.3(b)(1)	POPPY IV	2353	Thor-Agena D	15 Jun 63
7216	WILDBILL IV	2353	Agena Aft-Rack	15 Jun 63
7006	STOPPER	1166	TAT-Agena D+	26 Jun 63
7154	698 BK V	2314	TAT-Agena B	29 Jun 63
7208	PLYMOUTH ROCK II	2314	Agena Aft-Rack	29 Jun 63
7007	STOPPER	1167	TAT-Agena D+	30 Jul 63
7006	STOPPER	-	TAT-Agena D+	25 Aug 63
7301	PUNDIT I	4001	TAT-Agena D+	29 Oct 63
7219	LONG JOHN II	1171	Thor-Agena D+ Aft-Rack	27 Nov 63
7302	PUNDIT II	4101	TAT-Agena D+	21 Dec 63
7218	LONG JOHN I	1168	TAT-Agena D+ Aft-Rack	21 Dec 63
3.3(b)(1)	POPPY V	2354	TAT-Agena D	11 Jan 64
7210	HAYLOFT	2354	Agena Front Rack	11 Jan 64

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<u>MISSION NUMBER</u>	<u>PAYLOAD NAME</u>	<u>VEHICLE NUMBER</u>	<u>LAUNCH VEHICLE</u>	<u>DATE</u>
7222	LONG JOHN III	1174	TAT-Agena D+ Aft-Rack	15 Feb 64
7233	NEW HAMPSHIRE			Never Flew
7156	698 BK VII	2316	TAT-Agena D	27 Feb 64
7212	BIRD DOG I	2316	TAT-Agena D	27 Feb 64
7008	STOPPER	2316	Add-on Aft-Rack Agena	27 Feb 64
7224	LONG JOHN IV	1606	TAT-Agena D+	13 Jun 64
7155	698 BK VI	2315	TAT-Agena D	2 Jul 64
7211	BIRD DOG I	2315	TAT-Agena D	2 Jul 64
7009	STOPPER	2315	Add-on Aft-Rack Agena	2 Jul 64
7304	NOAH'S ARK	4301	Atlas-Agena D+	6 Jul 64
7215	OPPORKNOCKITY I	1603	TAT-Agena D+ Aft-Rack	21 Aug 64
7051	BIT	1170	TAT-Agena D+	5 Oct 64
7303	PUNDIT III	4102	Atlas-Agena D+	8 Oct 64

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<u>MISSION NUMBER</u>	<u>PAYLOAD NAME</u>	<u>VEHICLE NUMBER</u>	<u>LAUNCH VEHICLE</u>	<u>DATE</u>
7305	STEP 13	4302	Atlas-Agena D+	23 Oct 64
7306	PLYMOUTH ROCK III	4302	Atlas-Agena D+	23 Oct 64
7010	STOPPER	-	Atlas-Agena D+	23 Oct 64
7052	BIT	1173	TAT-Agena D+	2 Nov 64
7157	698 BK VIII	2317	TAT-Agena D	3 Nov 64
7213	BIRD DOG II	2317	TAT-Agena D	3 Nov 64
7053	BIT	1180	TAT-Agena D+	18 Nov 64
7054	BIT	1607	TAT-Agena D+	19 Dec 64
7055	BIT	1608	TAT-Agena D+	15 Jan 65
7056	BIT	1611	TAT-Agena D+	25 Feb 65
3.3(b)(1)	POPPY VI	2352	Thor-Agena D	9 Mar 65
7057	BIT	1612	TAT-Agena D+	25 Mar 65
7309	PUNDIT IV	4401	Atlas-Agena D+	28 Apr 65
7058	BIT	1614	TAT-Agena D+	29 Apr 65
7060	BIT	1615	TAT-Agena D+	18 May 65

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<u>MISSION NUMBER</u>	<u>PAYLOAD NAME</u>	<u>VEHICLE NUMBER</u>	<u>LAUNCH VEHICLE</u>	<u>DATE</u>
7059	BIT	1613	TAT-Agena D+	9 Jun 65
7307	FANION I	4402	Atlas-Agena D+	25 Jun 65
7308	TRIPPOS I	4402	Atlas-Agena D+	25 Jun 65
7158	Program 770 698 BK	2702	TAT-Agena D	16 Jul 65
7226	BIRD DOG III	2702	TAT-Agena D	16 Jul 65
7011	STOPPER	2702	Aft-Rack Agena	16 Jul 65
7061	BIT	1617	TAT-Agena D+	19 Jul 65
7312	MAGNUM	4403	Atlas-Agena D+	3 Aug 65
7062	BIT	1618	TAT-Agena D+	17 Aug 65
7063	BIT II	1619	TAT-Agena D+	22 Sep 65
7225	SQUARE 20	1620	TAT-Agena D+ Aft-Rack	28 Oct 65
7064	BIT II	1623	TAT-Agena D+	2 Feb 65 ⁶⁶
7160	Program 770	2703	TAT-Agena D	9 Feb 66
7228	SETTER I	2703	TAT-Agena D	9 Feb 66
7065	BIT II	1622	TAT-Agena D+	9 Mar 66

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<u>ON R</u>	<u>PAYLOAD NAME</u>	<u>VEHICLE NUMBER</u>	<u>LAUNCH VEHICLE</u>	<u>DATE</u>
	BIT II	1627	TAT Agena D+	7 Apr 66
	LEIGE	4404	ATLAS-Agena D+	14 May 66
	PLICAT	4404	ATLAS-Agena D+	14 May 66
	BIT II	1630	TAT-Agena D+	23 May 66
	BIT II	4826	ATLAS-Agena D+	3 Jun 66
	BIT II	1626	TAT-Agena D+	21 Jun 66
	BIT II	1631	Thorad-Agena D+	9 Aug 66
	SAMPAN I	4405	ATLAS-Agena D+	16 Aug 66
	SOUSEA I	4405	ATLAS-Agena D+	16 Aug 66
	FANION II	4406	ATLAS-Agena D+	16 Sep 66
	TRIPOS II	4406	ATLAS-Agena D+	16 Sep 66
	BIT II	1628	TAT Agena D+	20 Sep 66
	BIT II	1632	TAT Agena D+	8 Nov 66
	MULTIGROUP I	2731	TAT-Agena D	28 Dec 66
	SETTER IA	2731	TAT-Agena D	28 Dec 66
	BIT II	1629	TAT Agena D+	14 Jan 67
	BIT IV	1635	TAT Agena D+	22 Feb 67

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<u>MISSION NUMBER</u>	<u>PAYLOAD/ NAME</u>	<u>VEHICLE NUMBER</u>	<u>LAUNCH VEHICLE</u>	<u>DATE</u>
7075	BIT IV	1636	TAT Agena D+	30 Mar 67
7319	FANION III (PENNON)	4408	LTTAT-Agena D+	9 May 67
7316	SLEWTO	4408	LTTAT-Agena D+	9 May 67
7076	BIT II	1634	LTTAT Agena D+	9 May 67
3.3(b)(1)	POPPY VII	2704	Thor-Agena D	31 May 67
7320	SAVANT I	4409	LTTAT-Agena D+	16 Jun 67
7077	BIT IV	1633	LTTAT Agena D+	16 Jun 67
7162	MULTIGROUP II	2732	TAT-Agena D	24 Jul 67
7230	SETTER 1B	2732	TAT-Agena D	24 Jul 67
7231	DONKEY	2732	TAT-Agena D	24 Jul 67
7078	BIT IV	1637	LTTAT Agena D+	7 Aug 67
7079	BIT IV	1641	LTTAT Agena D+	15 Sep 67
7321	FACADE	4410	LTTAT-Agena D+	2 Nov 67
7080	BIT IV	1639	LTTAT-Agena D+	2 Nov 67

3.3(b)(1), 3.3(b)(6), 3.5(c)

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<u>MISSION NUMBER</u>	<u>PAYLOAD/ NAME</u>	<u>VEHICLE NUMBER</u>	<u>LAUNCH VEHICLE</u>	<u>DATE</u>
7082	BIT IV	4760	TITAN 3B AgenaD+	5 Dec 67
7081	BIT IV	1642	LTTAT Agena D+	9 Dec 67
7163	MULTIGROUP III	2733	TAT-Agena D	17 Jan 68
7232	SETTER 1B	2733	TAT-Agena D	17 Jan 68
7083	BIT IV	4761	TITAN 3B Agena D+	18 Jan 68
7324	TIVOLI I	4412	LTTAT-Agena D+	24 Jan 68
7084	BIT IV	1640	LTTAT Agena D+	24 Jan 68
7085	BIT V	4762	TITAN 3B Agena D+	13 Mar 68
7322	LAMPAN I	4411	LTTAT-Agena D+	14 Mar 68
7323	SAMPAN II	4411	LTTAT-Agena D+	14 Mar 68
7086	BIT IV	1638	LTTAT-Agena D+	14 Mar 68
7087	BIT IV	4763	TITAN 3B Agena D+	17 Apr 68
7088	BIT IV	1643	LTTAT Agena D+	1 May 68
7090	BIT V	4764	TITAN 3B Agena D+	5 Jun 68

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<u>MISSION NUMBER</u>	<u>PAYLOAD/ NAME</u>	<u>VEHICLE NUMBER</u>	<u>LAUNCH VEHICLE</u>	<u>DATE</u>
7091	BIT IV	1645	LTTAT Agena D+	20 Jun 68
7326	TRIPOS III	4420	LTTAT Agena D+	20 Jun 68
7327	SOUSEA II	4420	LTTAT Agena D+	20 Jun 68
7092	BIT V	4765	TITAN 3B Agena D+	6 Aug 68

3.3(b)(1)

7092	BIT IV	1644	LTTAT Burner II+	7 Aug 68
7093	BIT V	4766	TITAN 3B Agena D+	10 Sep 68
7325	VAMPAN I	4413	TAT Agena D+	18 Sep 68
7096	BIT IV	1647	TAT Agena D+	18 Sep 68
7164	STRAWMAN/ THRESHER I	2734	LTTAT-Agena D	5 Oct 68
7233	REAPER I	2734	LTTAT Agena D	5 Oct 68
7238	CONVOY I	2734	LTTAT Agena D	5 Oct 68

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<u>MISSION NUMBER</u>	<u>PAYLOAD/ NAME</u>	<u>VEHICLE NUMBER</u>	<u>LAUNCH VEHICLE</u>	<u>DATE</u>
3.3(b)(1)				
7330	TIVOLI II	4418	LTTAT-Agena D+	19 Mar 69
3.3(b)(1)				
7328	LAMPAN II	4417	Thorad Agena D+	1 May 69
7329	SAMPAN III	4417	Thorad Agena D+	1 May 69
3.3(b)(1)				
7165	STRAWMAN/ THRESHER II	2735	Thorad-Agena D	31 Jul 69
7234	REAPER II	2735	Thorad-Agena D	31 Jul 69
7239	CONVOY II	2735	Thorad-Agena D	31 Jul 69
3.3(b)(1)				

3.3(b)(1), 3.3(b)(3), 3.5(c)

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<u>MISSION NUMBER</u>	<u>PAYLOAD/ NAME</u>	<u>VEHICLE NUMBER</u>	<u>LAUNCH VEHICLE</u>	<u>DATE</u>
7336	SAVANT II	4419	Thorad Agena D+	22 Sep 69
3.3(b)(1)				
3.3(b)(1)	POPPY VIII	2706	Thorad Agena D	30 Sep 69
7313	WESTON	4407	Thorad Agena D	30 Sep 69
	BIT IV	-	Thorad Agena D	30 Sep 69
3.3(b)(1)	BIT IV	-	TITAN IIIB Agena D+	24 Oct 69
	BIT IV	-	Thorad Agena D	4 Dec 69
	BIT IV	-	TITAN IIIB Agena D+	14 Jan 70
7335	TIVOLI III	4422	Thorad Agena D+	4 Mar 70
3.3(b)(1)	BIT IV	-	TITAN IIIB Agena D+	15 Apr 70
7332	TRIPPOS IV	4421	Thor-Agena D+	20 May 70
7333	SOUSEA III	4421	Thor-Agena D+	20 May 70
3.3(b)(1)				

3.3(b)(1), 3.3(b)(3), 3.5(c)

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<u>MISSION NUMBER</u>	<u>PAYLOAD/ NAME</u>	<u>VEHICLE NUMBER</u>	<u>LAUNCH VEHICLE</u>	<u>DATE</u>
3.3(b)(1)	BIT IX	-	TITAN IIIB Agena D+	25 Jun 70
	BIT IV	-	TITAN IIIB Agena D+	23 Jul 70
	BIT IV	-	TITAN IIIB Agena D+	18 Aug 70
7166	STRAWMAN/ THRESHER III	2736	Thorad-Agena D	26 Aug 70
7235	REAPER III	2736	Thorad-Agena D	26 Aug 70
3.3(b)(1)				
3.3(b)(1)	BIT IV	-	TITAN IIIB Agena D+	23 Oct 70
3.3(b)(1)				
3.3(b)(1)	BIT IV-7	-	TITAN IIIB Agena D+	21 Jan 71
3.3(b)(1)				
3.3(b)(1)	BIT IV-7	-	TITAN IIIB Agena D+	24 Mar 71
	BIT IV	-	TITAN IIIB Agena D+	22 Apr 71

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<u>MISSION NUMBER</u>	<u>PAYLOAD/ NAME</u>	<u>VEHICLE NUMBER</u>	<u>LAUNCH VEHICLE</u>	<u>DATE</u>
3.3(b)(1)				
7167	STRAWMAN/ THRESHER IV	2737	Thorad-Agena D	16 July 71
7236	REAPER IV	2737	Thorad-Agena D	16 July 71
7240	HARVESTER	2737	Thorad-Agena D	16 July 71
3.3(b)(1)				
	BIT IV-7	-	TITAN IIIB Agena D+	12 Aug 71
7337	ARROYO	4427	LTAT-Agena D+	10 Sep 71
3.3(b)(1)				
	BIT IV-7	-	TITAN IIIB Agena D+	23 Oct 71
3.3(b)(1)				
3.3(b)(1)				
	POPPY IX	2707	Thorad-Agena D	14 Dec 71
7339	MABELI	4424	TITAN IIID	20 Jan 72
3.3(b)(1)				

3.3(b)(1), 3.3(b)(3), 3.5(c)

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<u>MISSION NUMBER</u>	<u>PAYLOAD/NAME</u>	<u>VEHICLE NUMBER</u>	<u>LAUNCH VEHICLE</u>	<u>DATE</u>
3.3(b)(1)				
3.3(b)(1)	BIT IV-7	-	TITAN IIIB+	17 Mar 72
	BIT IV-7	-	Thorad-Agena +	20 Apr 72
	BIT IV-7	-	Thorad-Agena +	25 May 72
7338	URSALA I	4425	TITAN IIID+	7 Jul 72
3.3(b)(1)				
3.3(b)(1)	BIT IV-7	-	TITAN IIIB Agena +	1 Sep 72
3.3(b)(1)				
3.3(b)(1)	BIT IV-7	-	TITAN IIIB Agena +	21 Dec 72
3.3(b)(1)				

3.3(b)(1), 3.3(b)(3), 3.5(c)

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MISSION NUMBER	PAYLOAD/ NAME	VEHICLE NUMBER	LAUNCH VEHICLE	DATE
3.3(b)(1)				
3.3(b)(1)	BIT IV-7	-	TITAN IIIB Agena D+	16 May 73
3.3(b)(1)				
3.3(b)(1)	BIT IV-7	-	TITAN IIIB Agena D+	27 Sep 73
7342	URSALA II	4426	TITAN IIID+	10 Nov 73
3.3(b)(1)				
3.3(b)(1)	BIT IX-6	-	-	13 Feb 74
7340	TOPHAT II	4428	TITAN IIIB+	10 Apr 74
3.3(b)(1)				
3.3(b)(1)	BIT IX-6	-	-	6 Jun 74
	BIT IX-6	-	-	14 Aug 74
7341	RAQUEL I	4429	TITAN IIIB+	29 Oct 74
3.3(b)(1)				

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APPENDIX B

BYE-19122-74

MEMORANDUM OF AGREEMENT
BETWEEN THE NRO AND THE NSA

I. PURPOSE

This agreement authorizes the 3.3(b)(1)
 and
management responsibilities.

II. 3.3(b)(1) MISSION

3.3(b)(1)

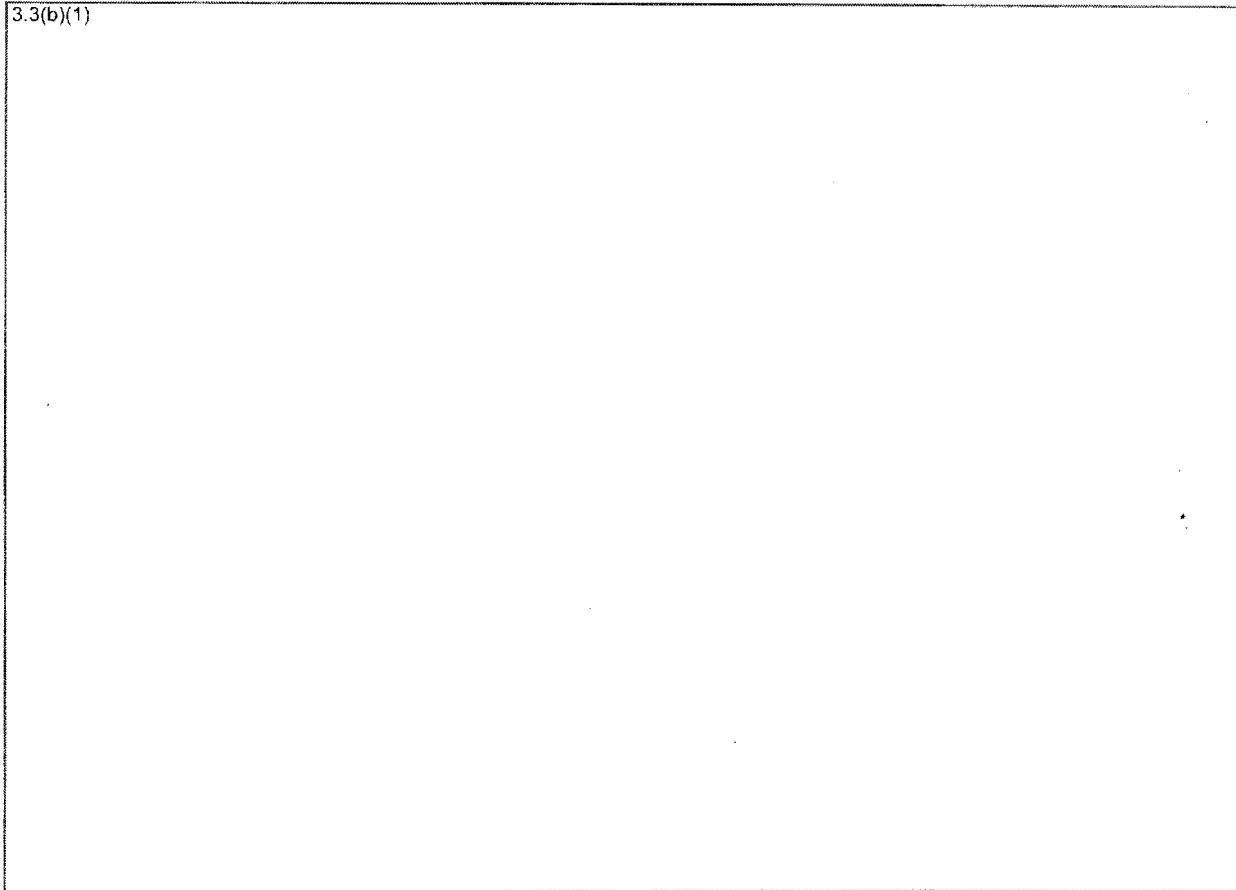
HANDLE VIA BYEMAN CHANNELS ONLY

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3.3(b)(1)



/S/

J. W. PLUMMER
Director
National Reconnaissance Office
Date: 23 August 1974

/S/

LEW ALLEN, JR.
Lieutenant General, USAF
Director, NSA/Chief, CSS
Date: 1 August 1974

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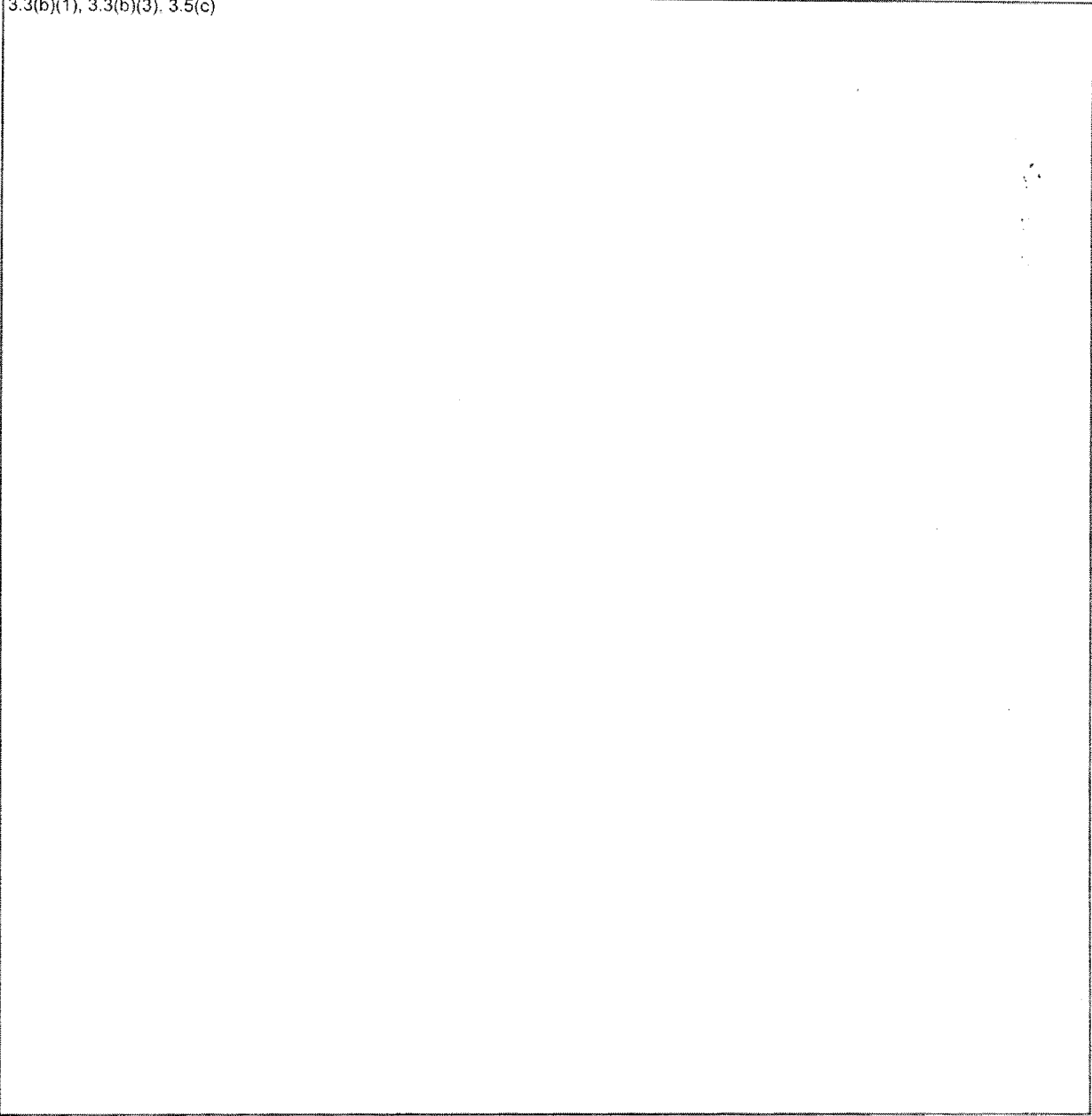
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APPENDIX C

3.3(b)(1), 3.3(b)(3), 3.5(c)



HANDLE VIA BYEMAN/TALENT KEYHOLE
COMINT CONTROL SYSTEMS JOINTLY

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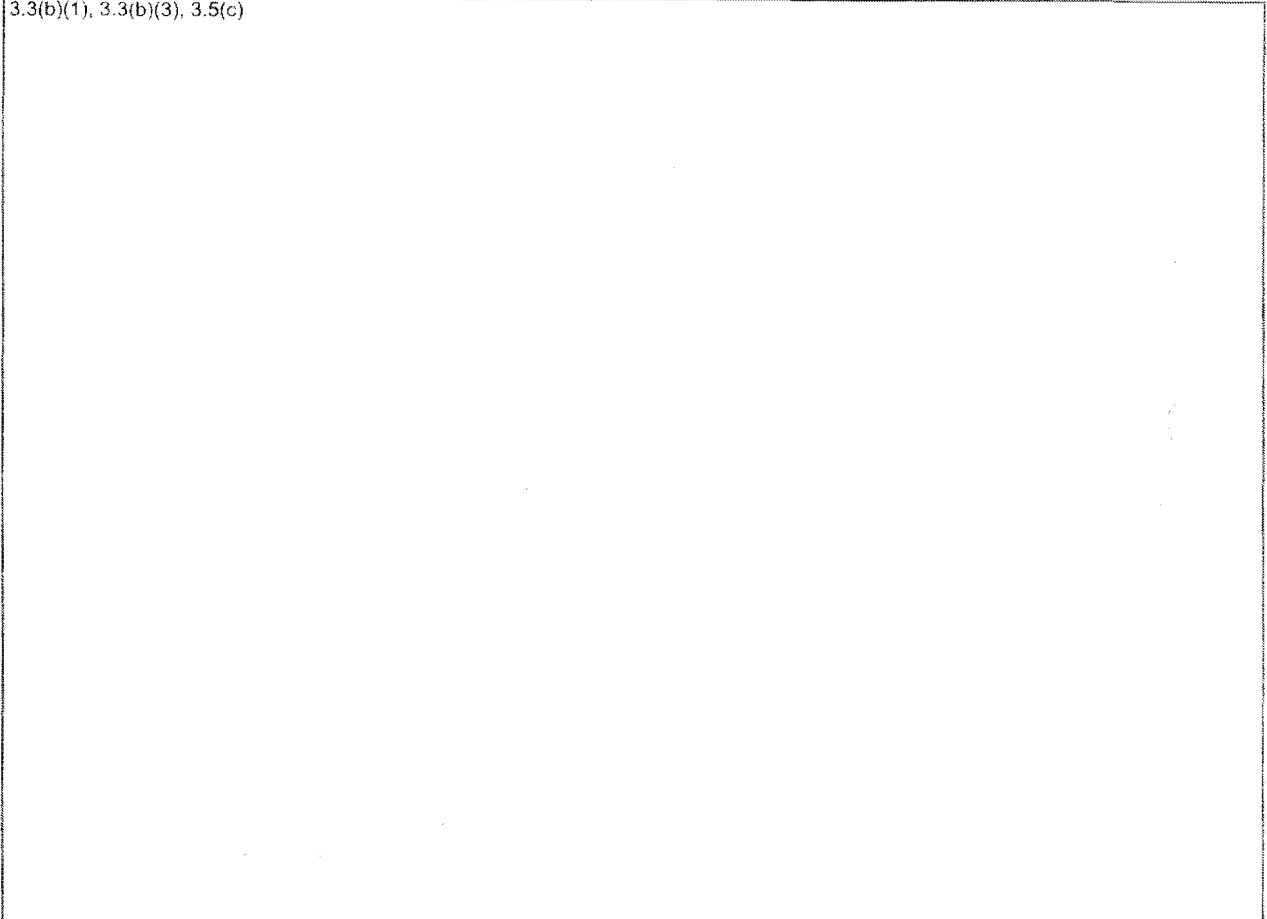
HANDLE VIA BYEMAN/TALENT KEYHOLE
COMINT CONTROL SYSTEMS JOINTLY

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3.3(b)(1), 3.3(b)(3), 3.5(c)



HANDLE VIA BYEMAN/TALENT KEYHOLE
COMINT CONTROL SYSTEMS JOINTLY

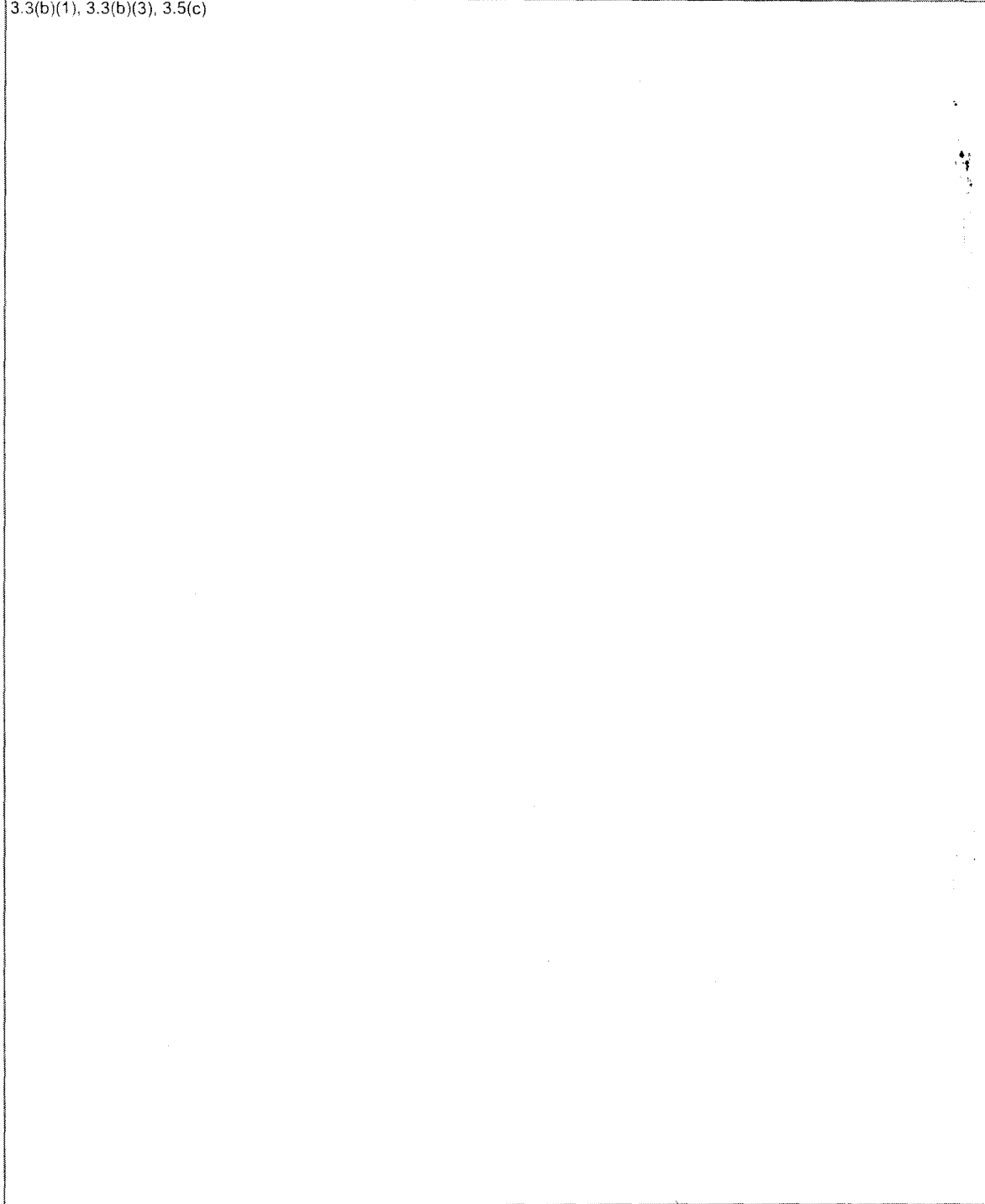
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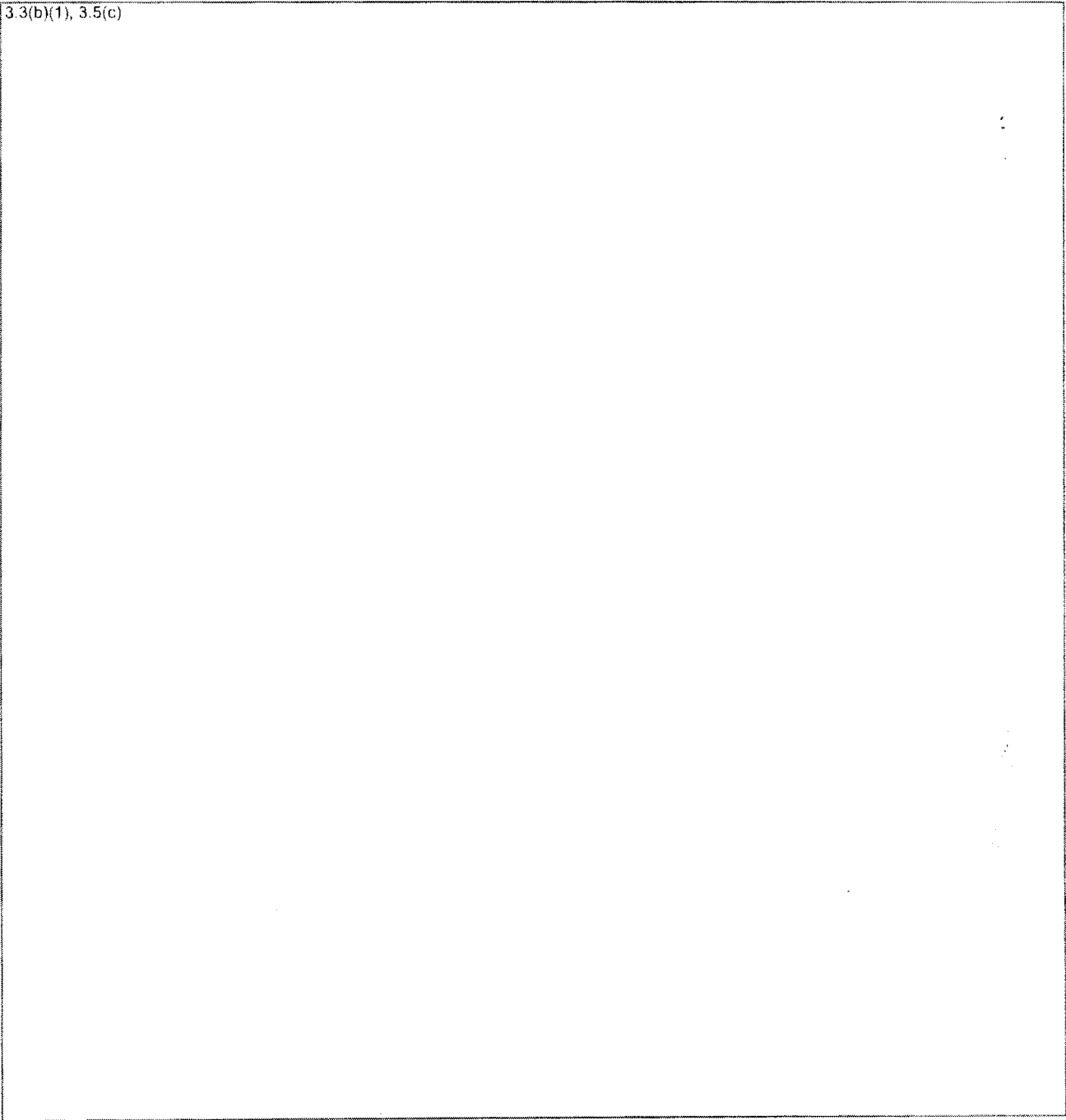
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3.3(b)(1), 3.3(b)(3), 3.5(c)

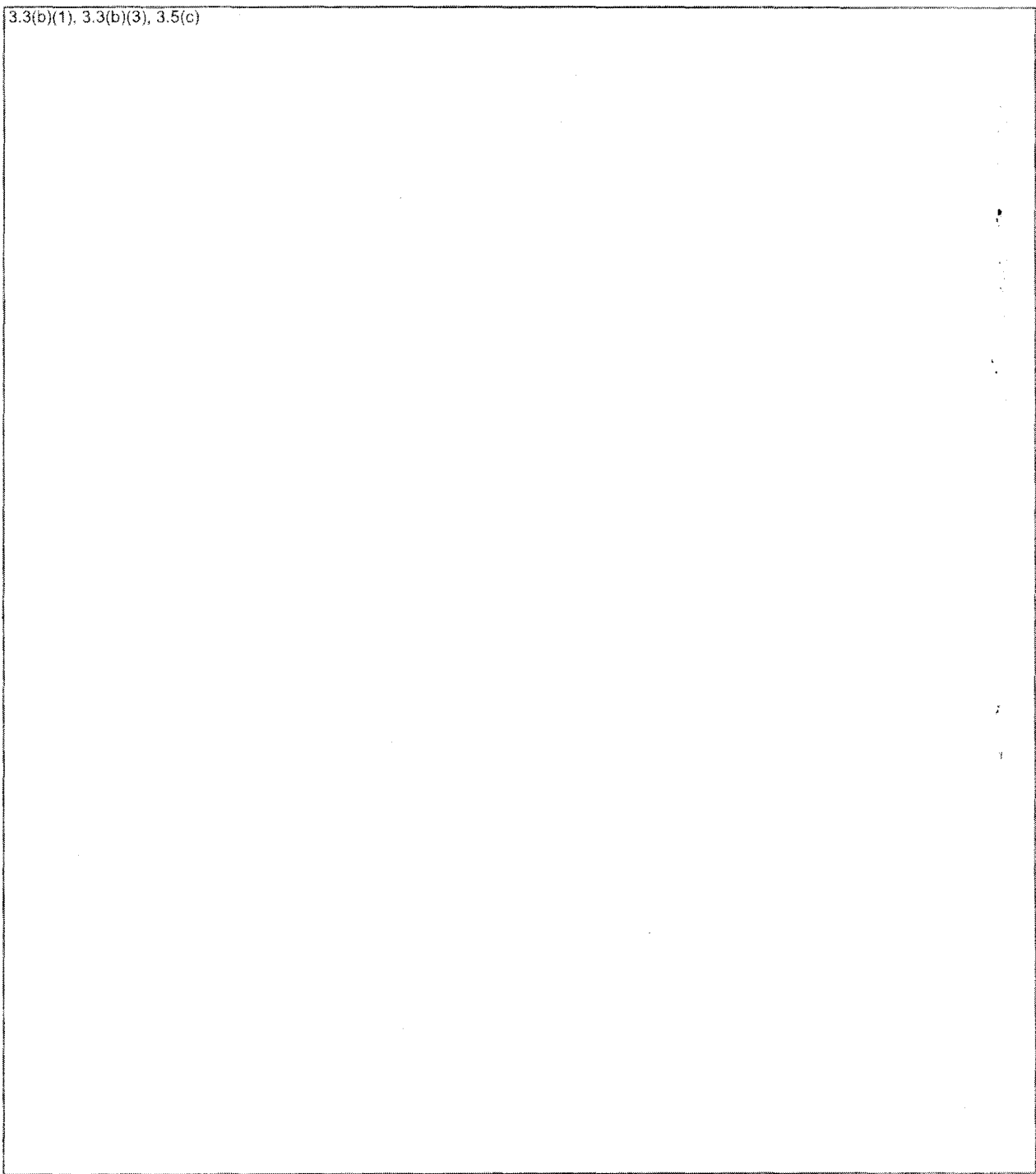
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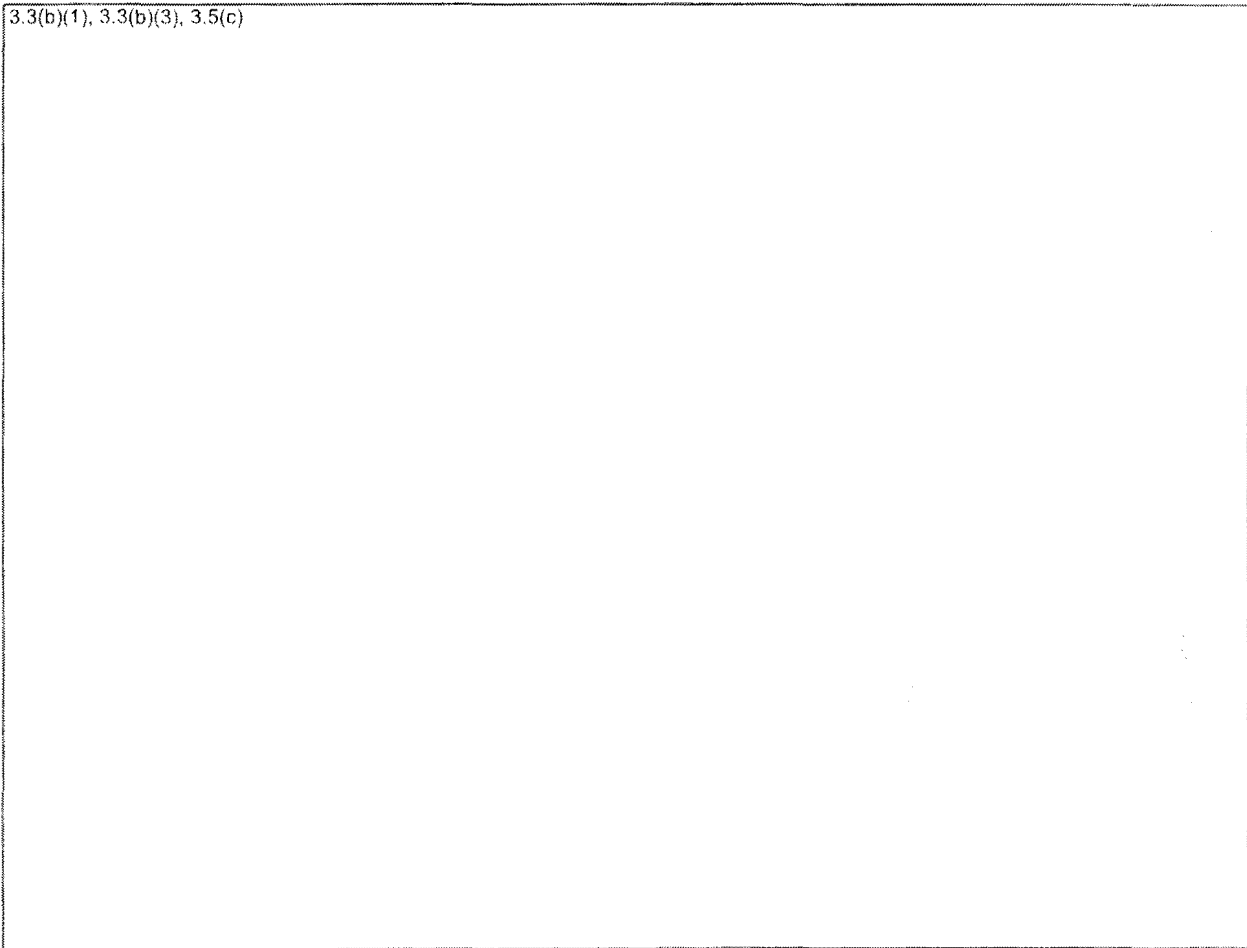
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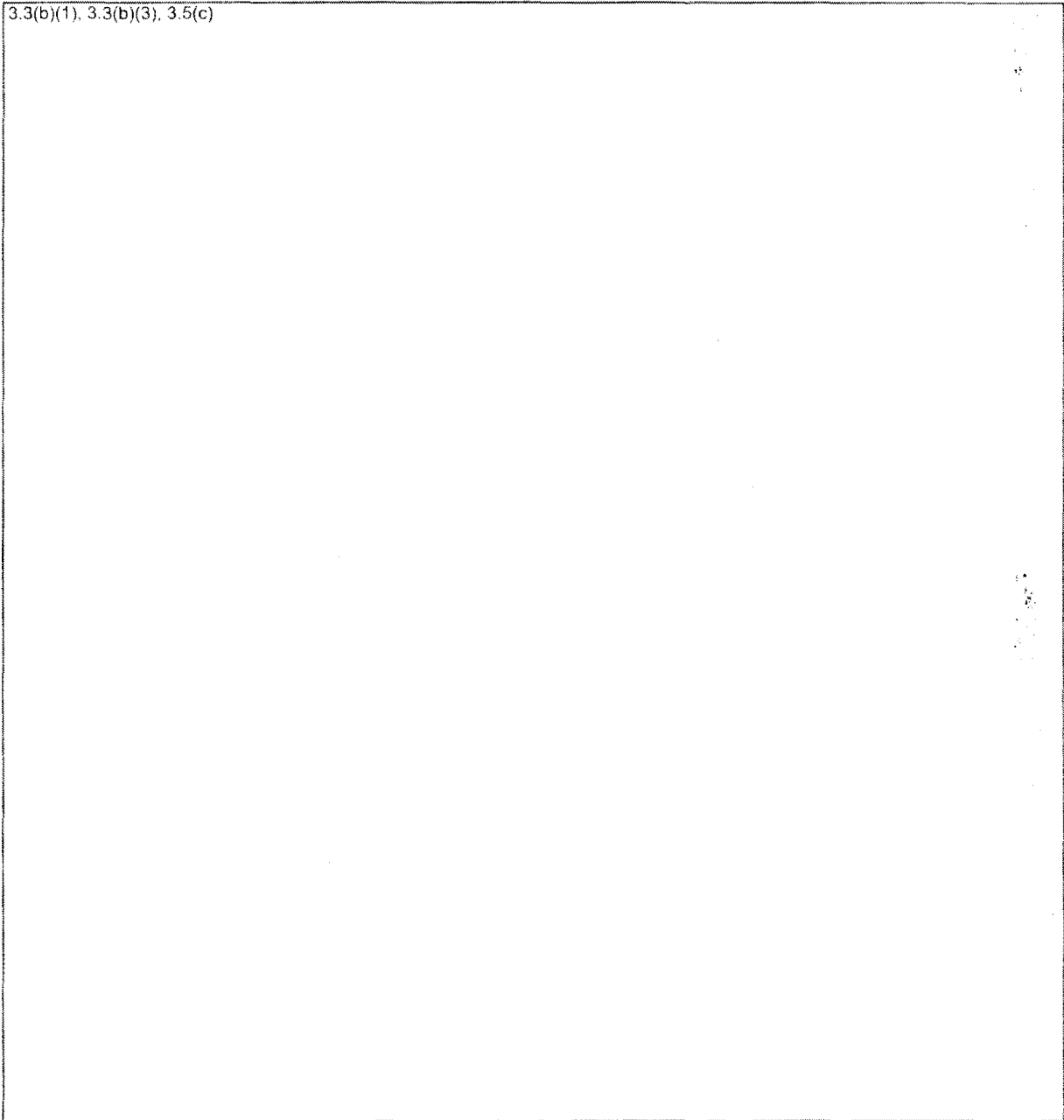
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APPENDIX F

3.3(b)(1), 3.3(b)(3), 3.5(c)



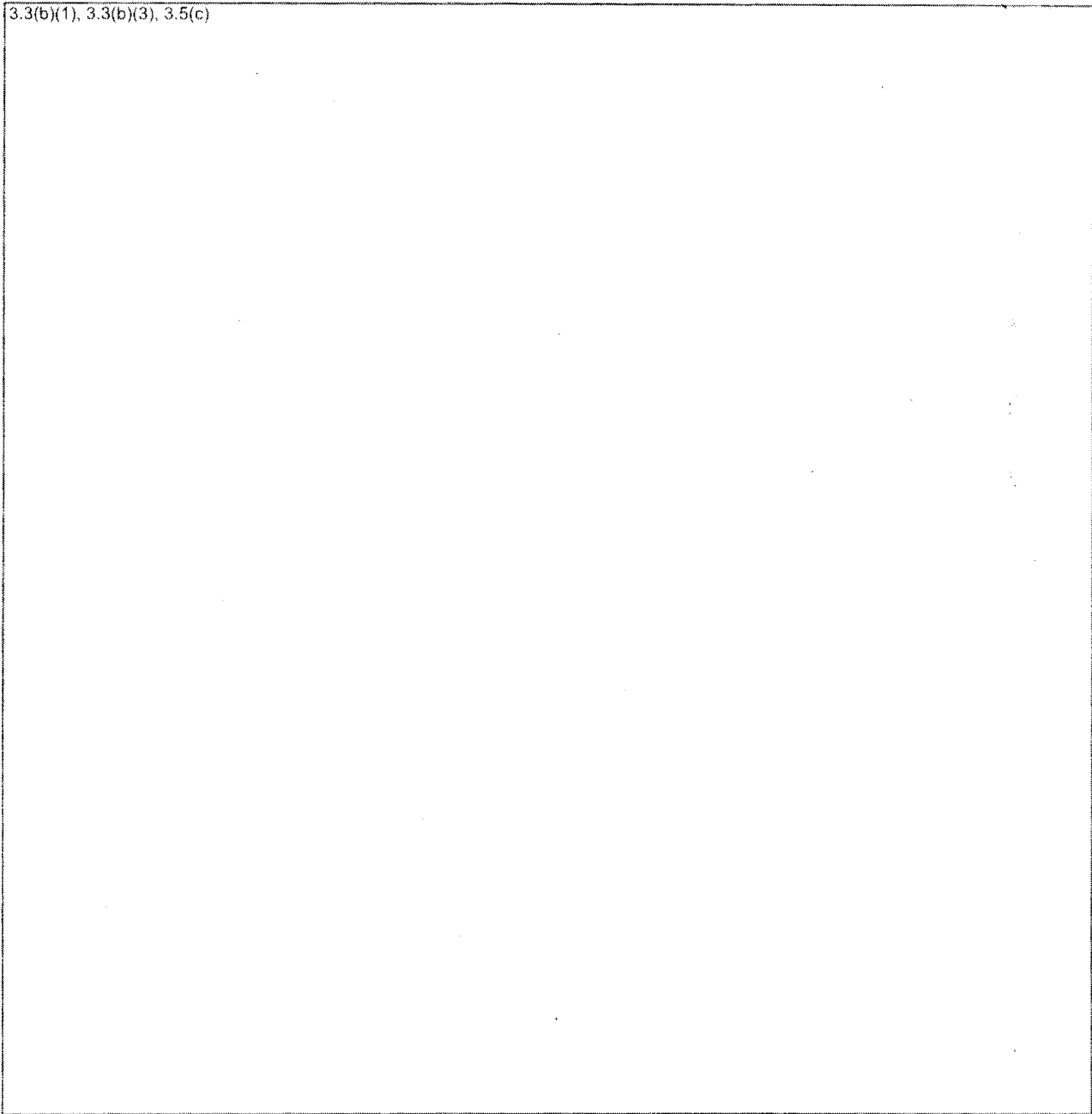
HANDLE VIA BYEMAN/TALENT KEYHOLE
COMINT CONTROL SYSTEMS JOINTLY

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HANDLE VIA BYEMAN/TALENT KEYHOLE
COMINT CONTROL SYSTEMS JOINTLY

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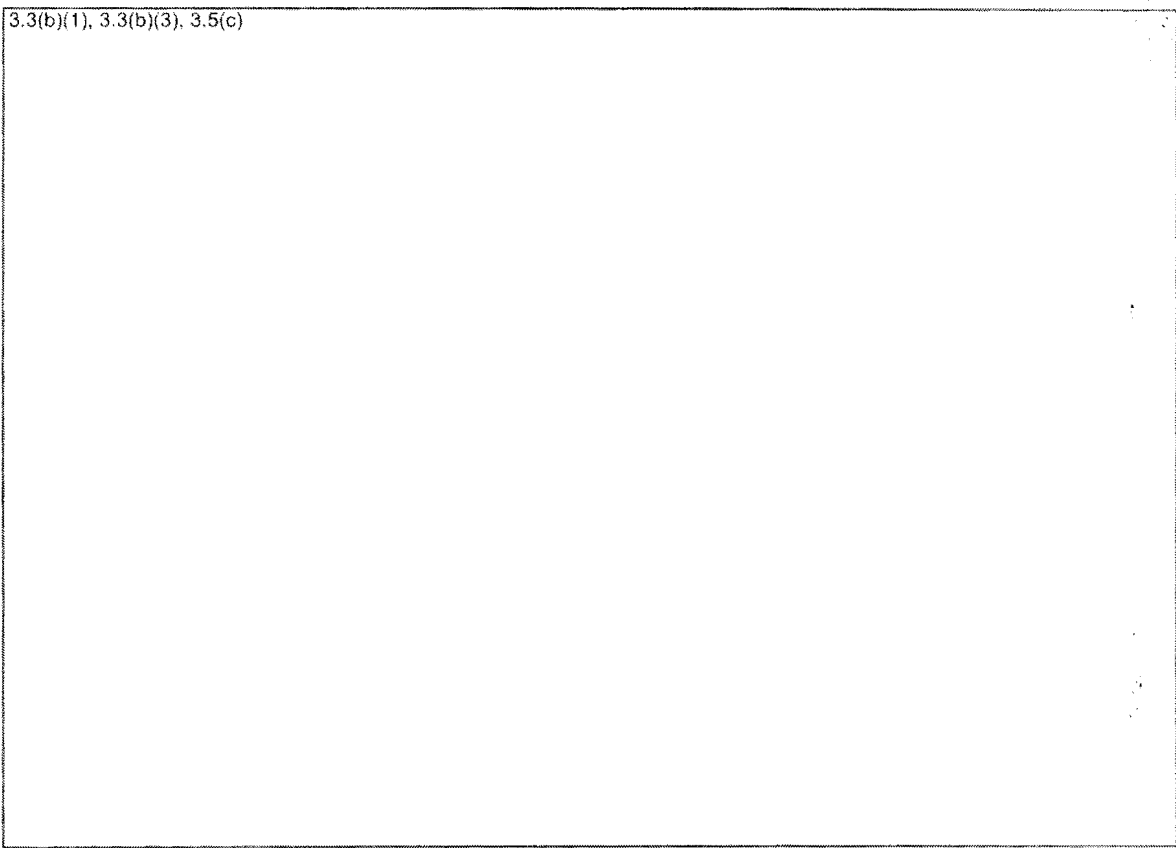
HANDLE VIA BYEMAN/TALENT KEYHOLE
COMINT CONTROL SYSTEMS JOINTLY

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COMINT CONTROL SYSTEMS JOINTLY

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COMINT CONTROL SYSTEMS JOINTLY

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3.3(b)(1)



HANDLE VIA BYEMAN/TALENT KEYHOLE
COMINT CONTROL SYSTEMS JOINTLY

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3.3(b)(1)



HANDLE VIA BYEMAN/TALENT KEYHOLE
COMINT CONTROL SYSTEMS JOINTLY

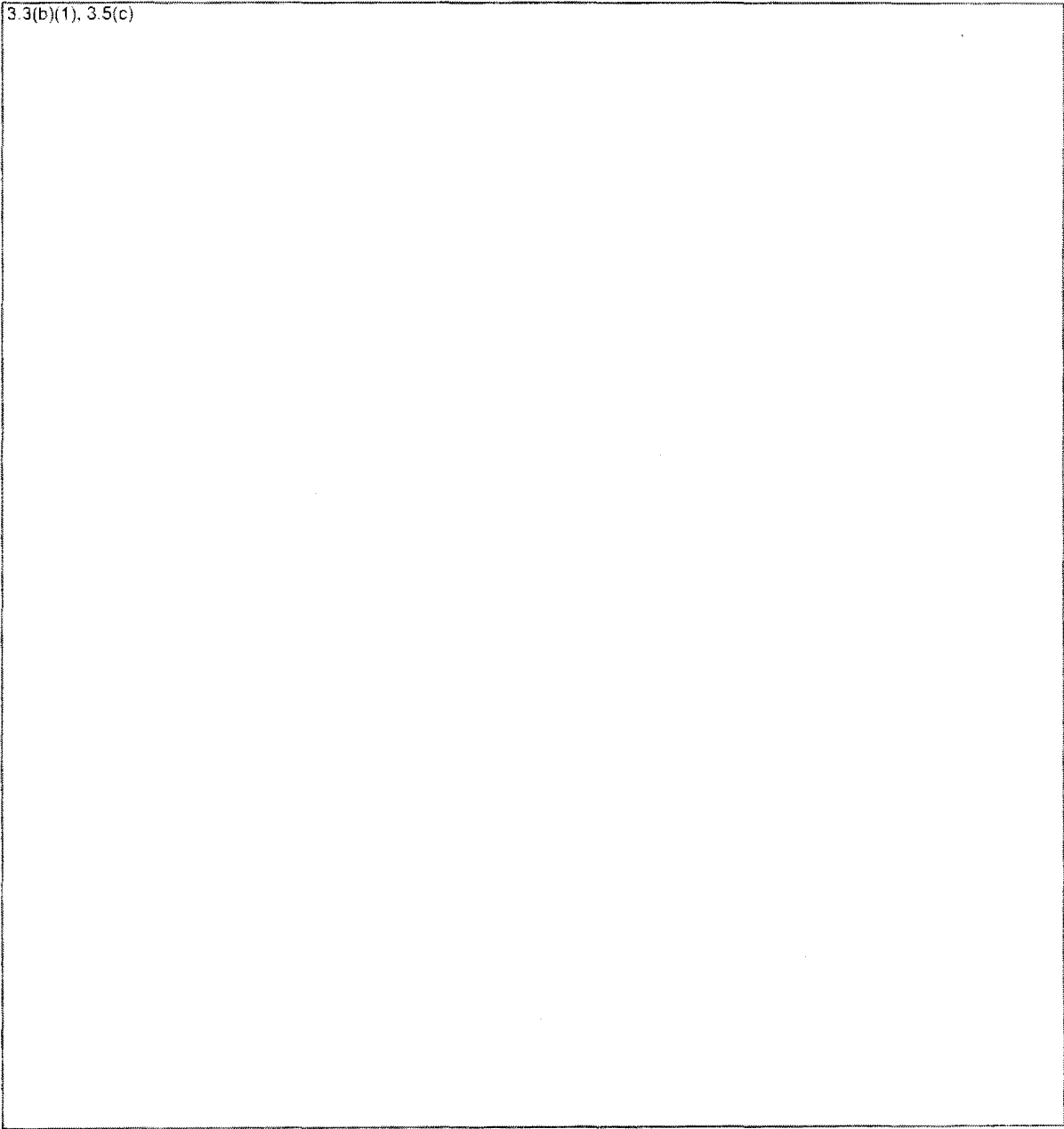
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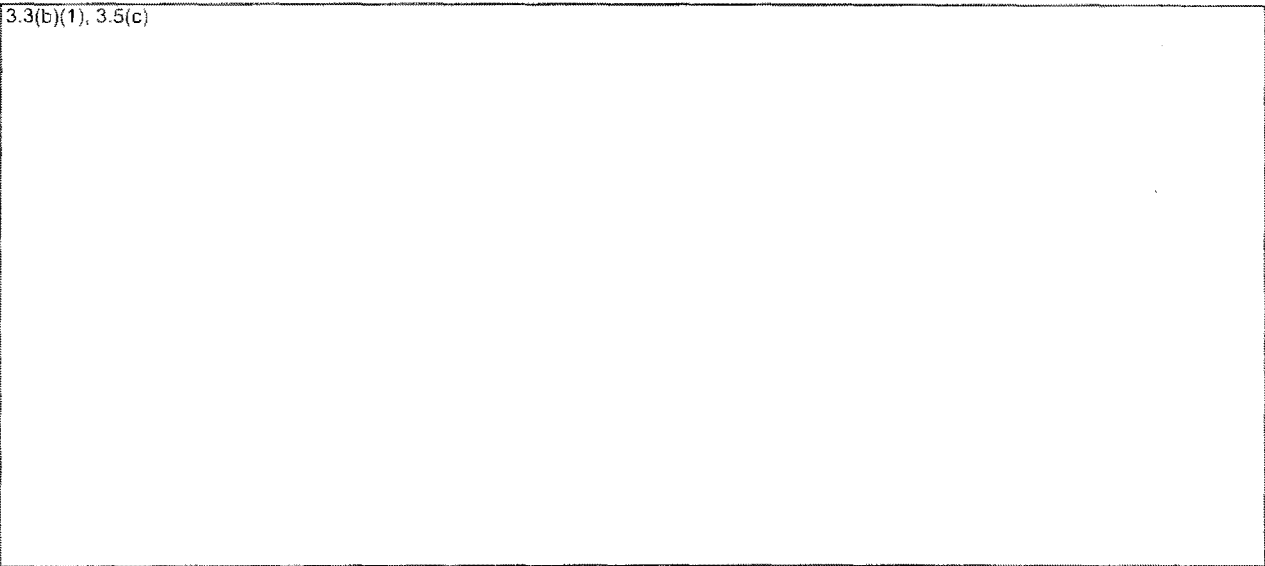
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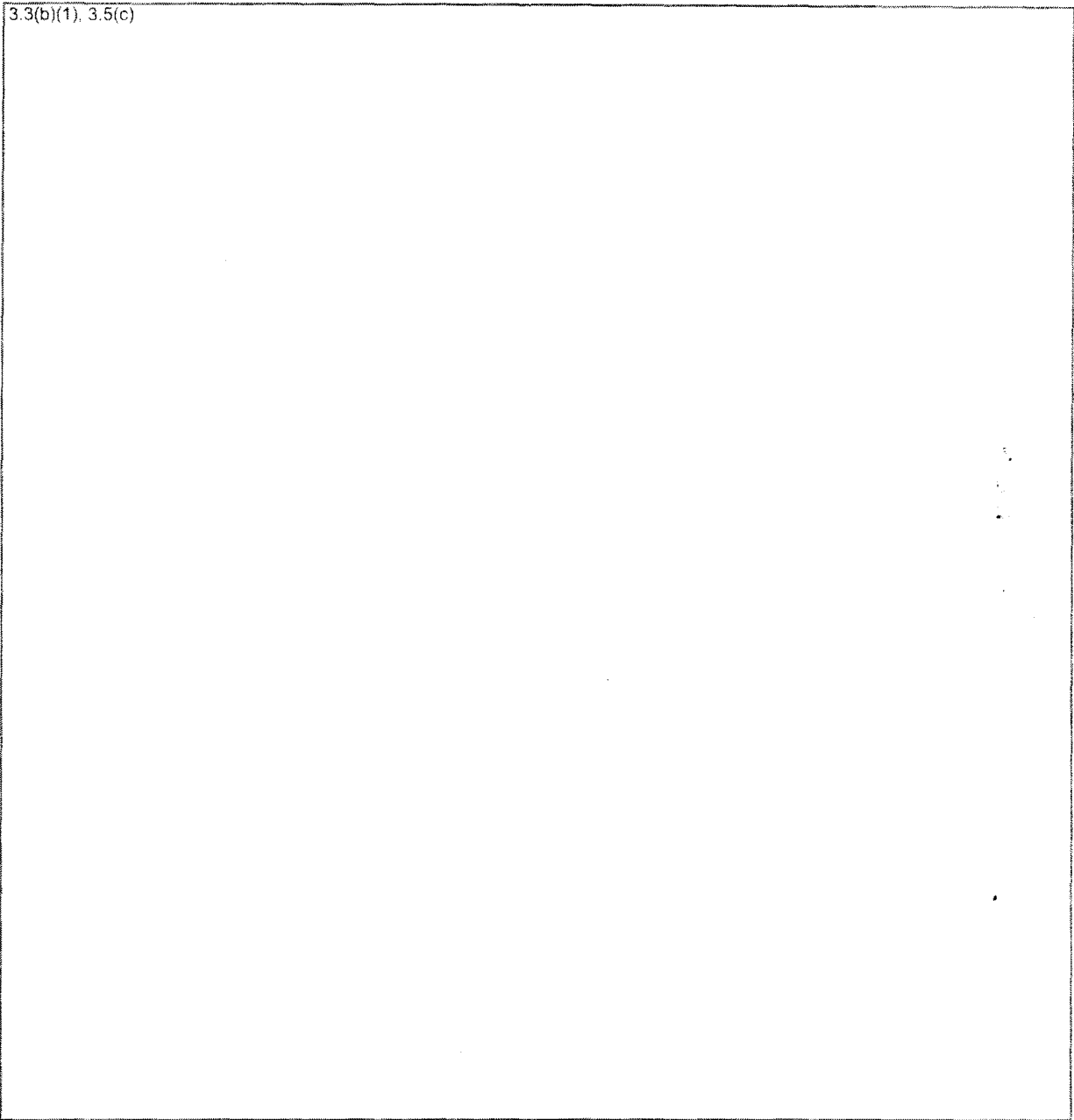
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3.3(b)(1), 3.5(c)



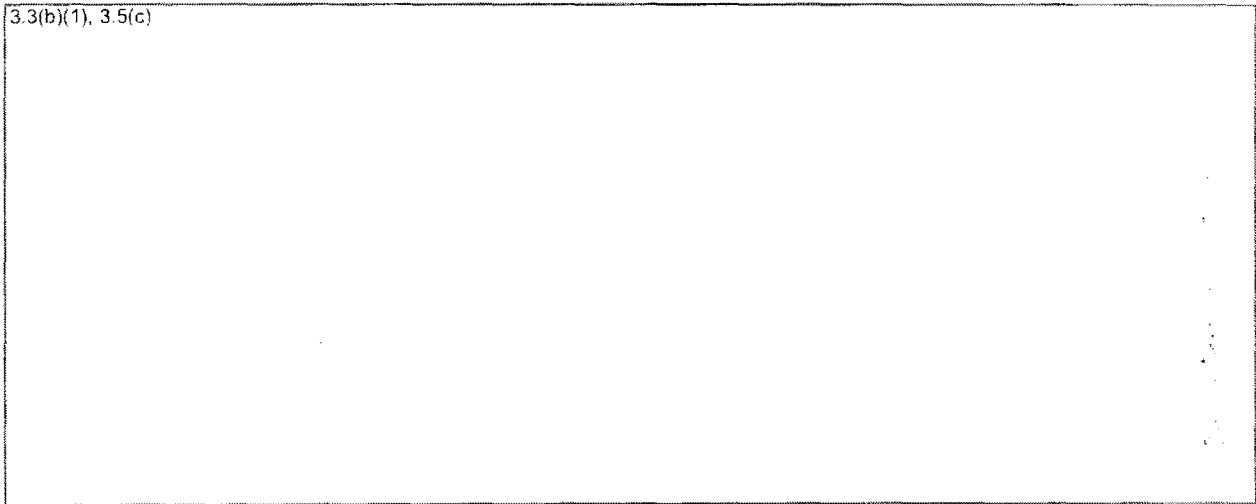
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3.3(b)(1), 3.5(c)



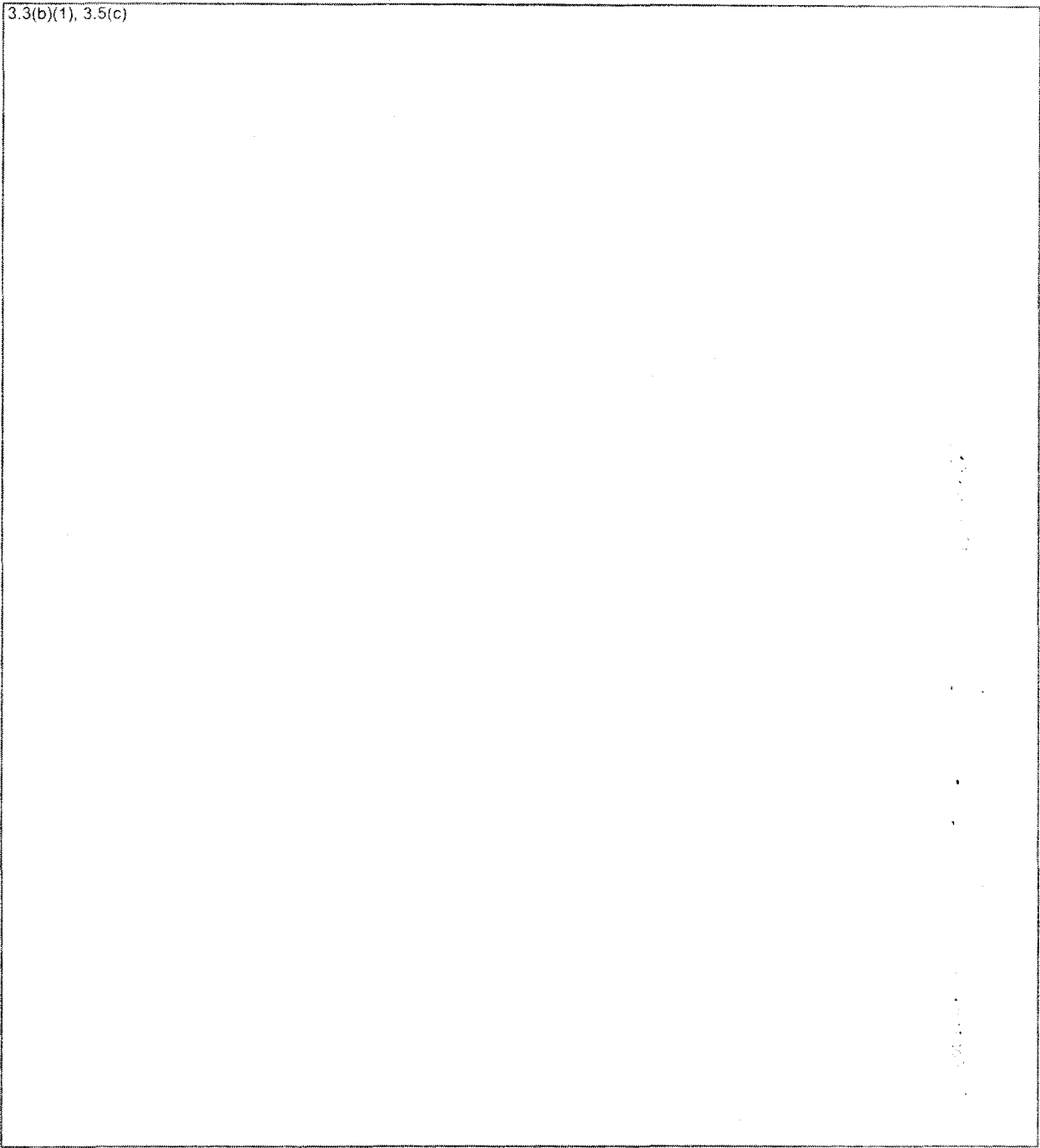
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3.3(b)(1), 3.5(c)



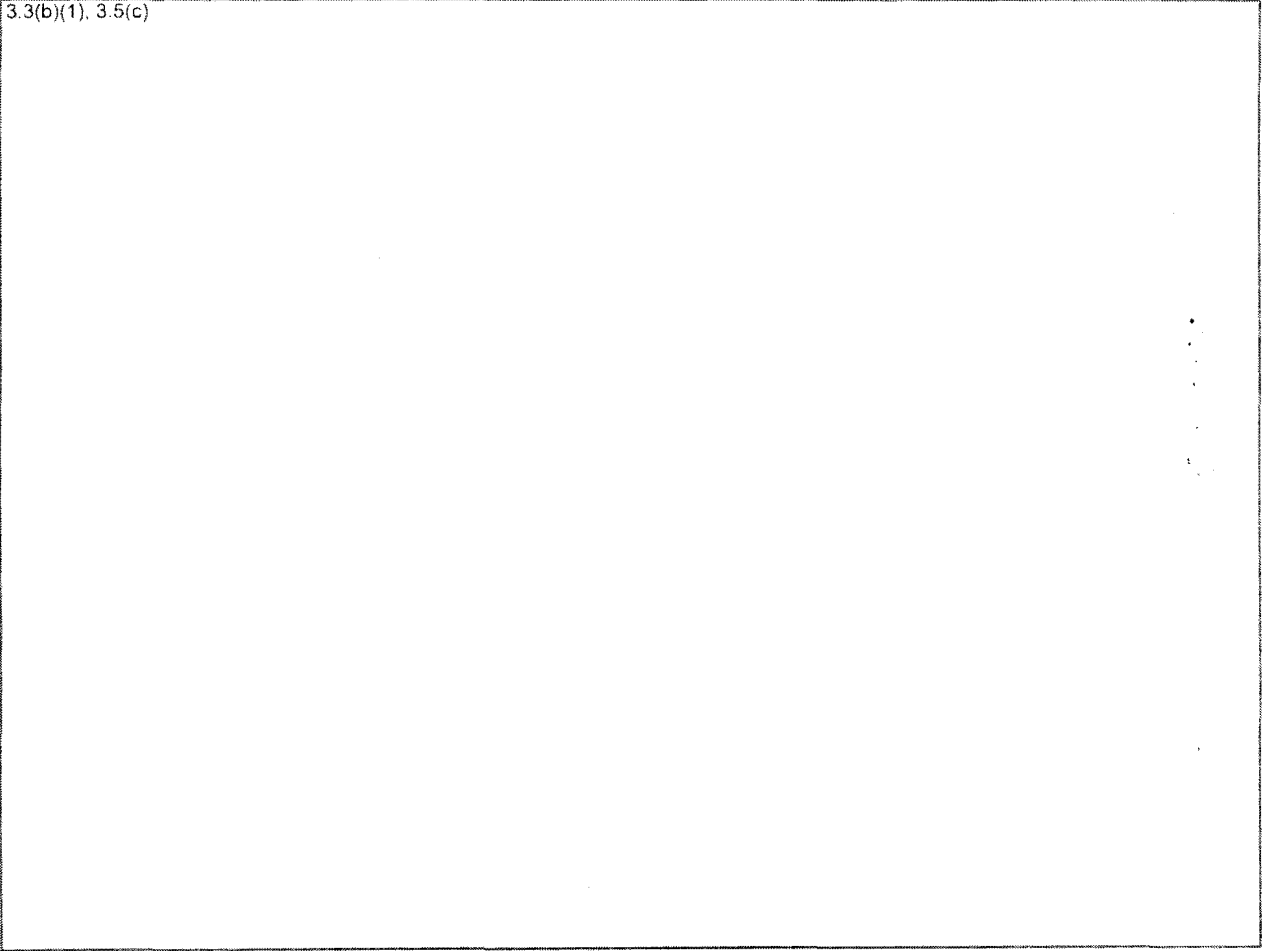
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3.3(b)(1), 3.5(c)



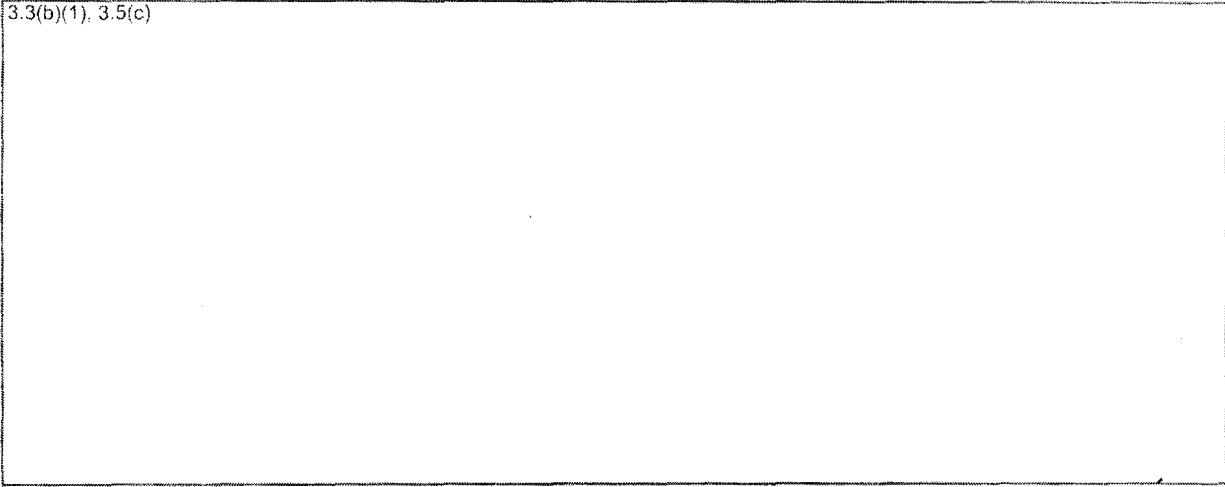
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3.3(b)(1), 3.5(c)



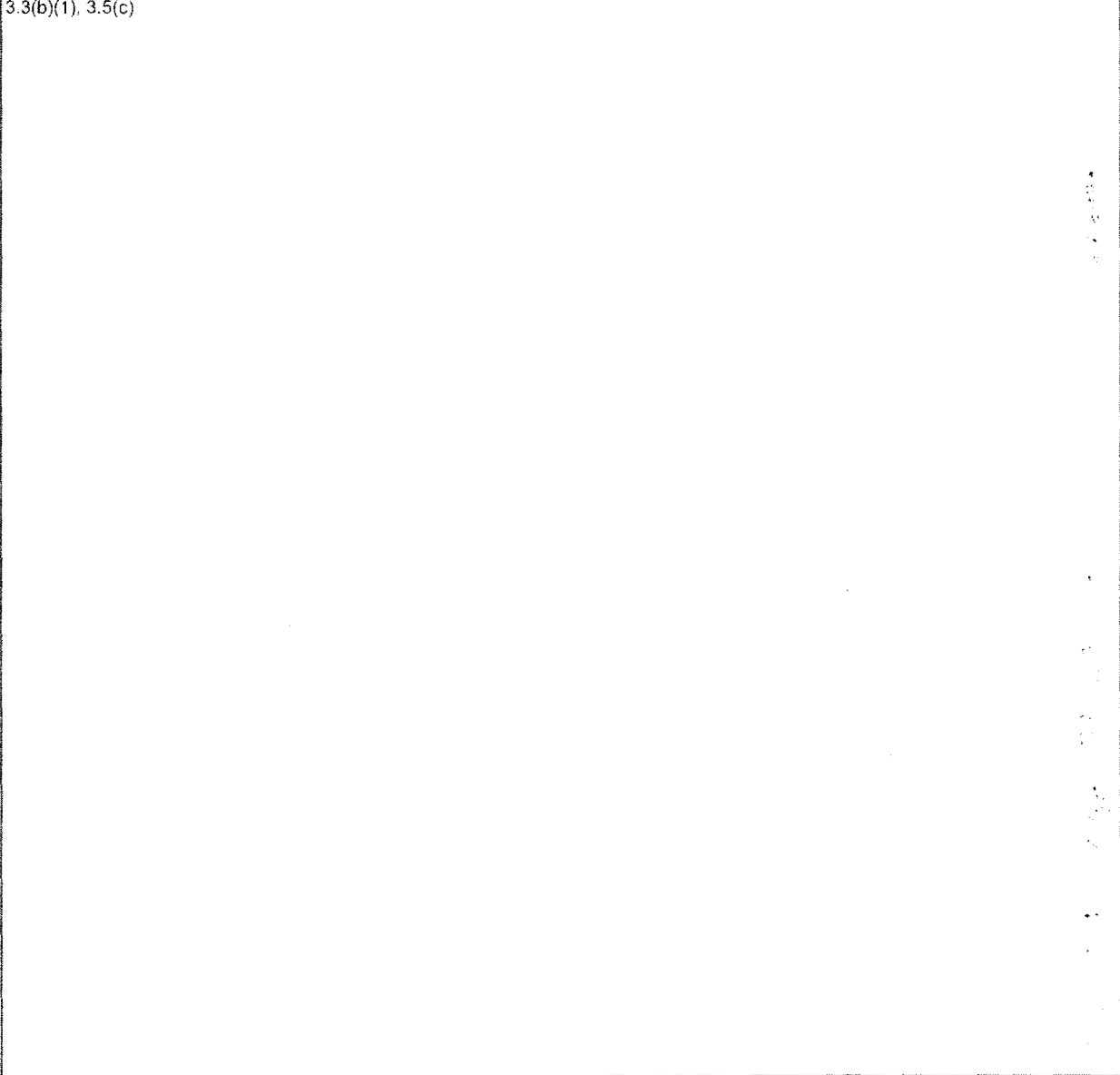
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3.3(b)(1), 3.5(c)



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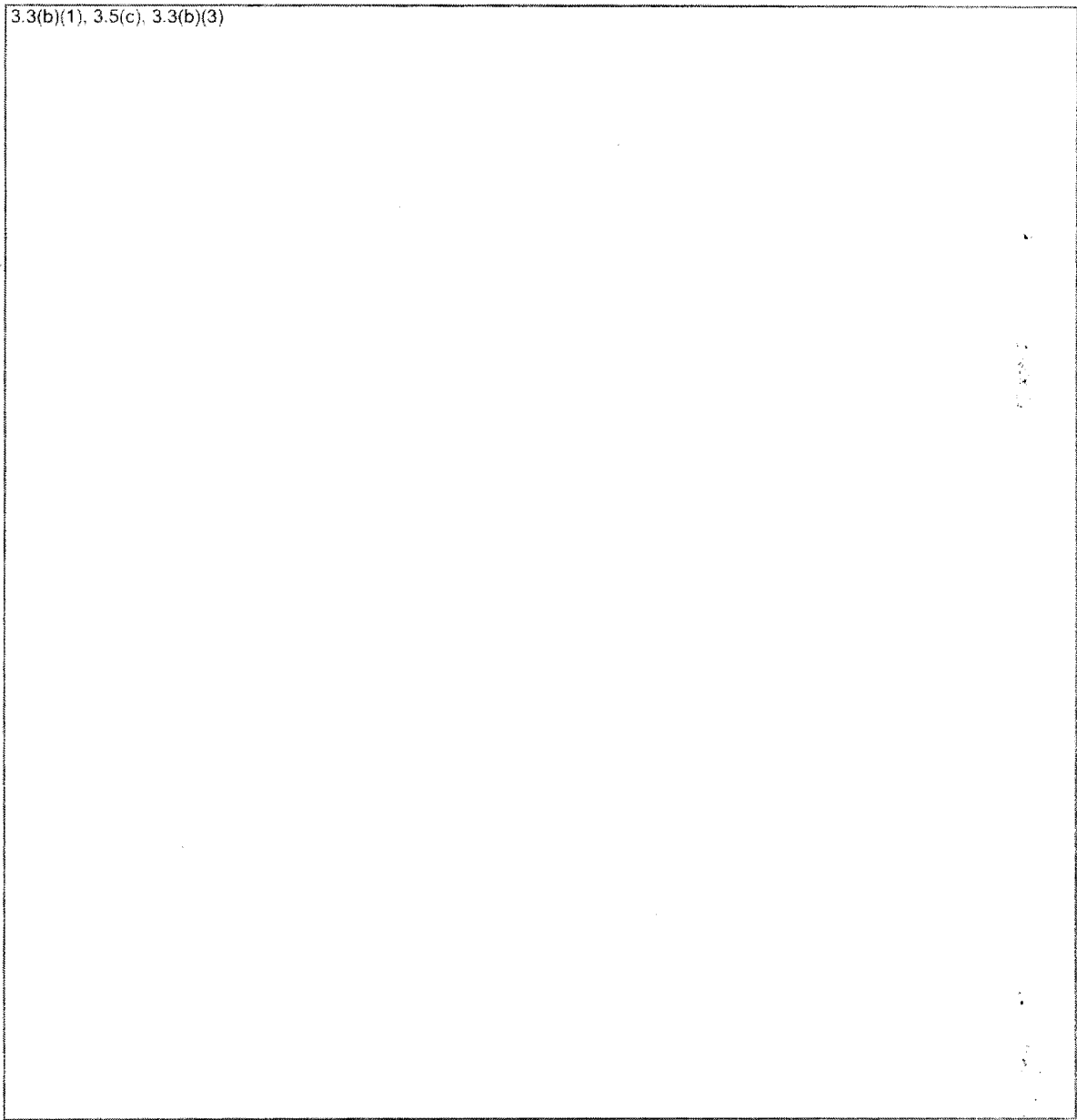
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APPENDIX H

3.3(b)(1), 3.5(c), 3.3(b)(3)



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3.3(b)(1), 3.3(b)(3), 3.5(c)

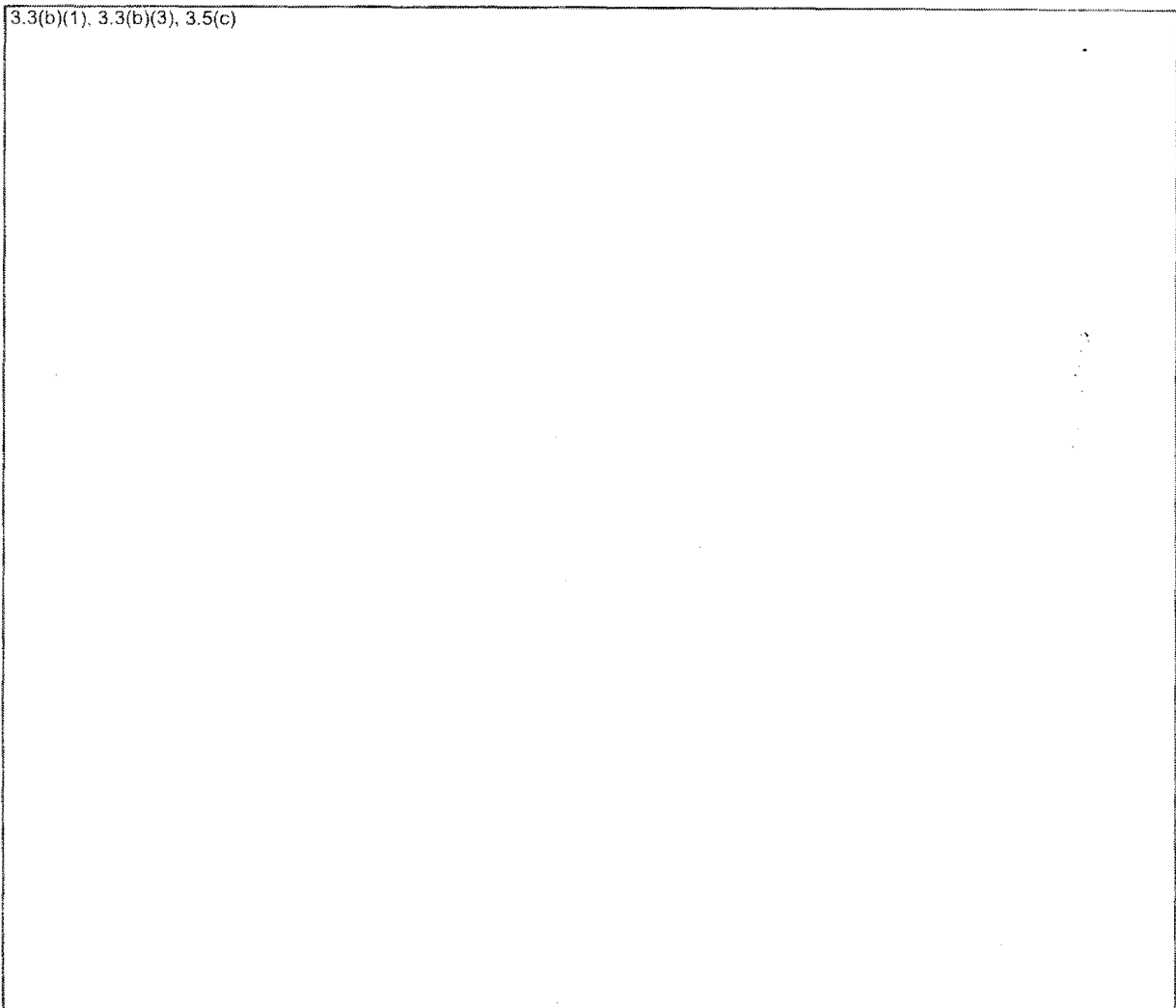
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COMINT CONTROL SYSTEMS JOINTLY

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3.3(b)(1), 3.3(b)(3), 3.5(c)



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COMINT CONTROL SYSTEMS JOINTLY

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APPENDIX I

3.3(b)(1), 3.3(b)(3), 3.5(c)

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3.3(b)(1)



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3.3(b)(1)



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3.3(b)(1)

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3.3(b)(1)



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3.3(b)(1)



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APPENDIX K

COMSEC EQUIPMENT LAUNCHED AS OF JANUARY 1975 ON SIGINT SATELLITES

<u>EQUIPMENTS</u>	<u>FUNCTION</u> <u>TYPE</u>	<u>DATA</u> <u>RATES</u>	<u>PROGRAMS</u>	<u>LAUNCH</u> <u>DATES</u>	<u>NUMBER</u> <u>OF</u> <u>LAUNCHES</u>	<u>TOTAL</u> <u>UNITS</u> <u>FLOWN</u>
KG-400A	SEC-DL	100 KB	VINO I	4 Dec 62	1	1
			VINO II	28 Feb 63	1	1
			OPPORKNOCKITY	21 Aug 64	1	1
KG-400B	SEC-DL	200 KB	989/PUNDIT I	29 Oct 63	1	4
			PUNDIT II	21 Dec 63	1	
			PUNDIT III	8 Oct 64	1	
			PUNDIT IV	28 Apr 65	1	
KW-26	SEC-DL	10 MB	HAYLOFT	11 Jan 64	1	2
			698 BK-7	28 Feb 64	1	
KGR-29	SEC-UL & Auth	1 KB	SGLS Flt Dem	12 Oct 66	2	2
			770-34	5 Oct 68	1	3
			770-35	30 Jun 69	1	3
KGT-28	SEC-DL	1 MB	SGLS Flt Dem	12 Oct 66	2	2
		200 MB	770/DONKEY	24 Jul 67	1	2

3.3(b)(1)

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COMINT CONTROL SYSTEMS JOINTLY

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COMSEC EQUIPMENT LAUNCHED AS OF JANUARY 1975 ON SIGINT SATELLITES (continued)

<u>EQUIPMENTS</u>	<u>FUNCTION</u> <u>TYPE</u>	<u>DATA</u> <u>RATES</u>	<u>PROGRAMS</u>	<u>LAUNCH</u> <u>DATES</u>	<u>NUMBER</u> <u>OF</u> <u>LAUNCHES</u>	<u>TOTAL</u> <u>UNITS</u> <u>FLOWN</u>
		3.3(b)(1)			1	2
		128 KB	770-34	5 Oct 68	1	2
		128 KB	770-35	30 Jun 69	1	2
		100 KB	989-WESTON	30 Sep 69	1	3
		100 KB	TOPHAT I	18 Nov 70	1	1
		100 KB	TOPHAT II	10 Apr 74	1	1

3.3(b)(1)

NOTE: 3.3(b)(1) TOPHAT II still functioning

UL = Uplink

DL = Downlink

Auth = Authentication

SGLS = Space Ground Link Subsystem

3.3(b)(1)

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COMINT CONTROL SYSTEMS JOINTLY

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COMSEC EQUIPMENT INTEGRATION
AS OF JANUARY 1975
ON SIGINT SATELLITES

<u>PROGRAMS</u>	<u>TYPE</u>	<u>NO. PER VEHICLE</u>	<u>INTEGRATING CONTRACTOR</u>
770	KGR-29	3	LMSC
	KGT-28	2	LMSC
3.3(b)(1)			
989 (TOPHAT)	KGT-28	2	LTV/LMSC
3.3(b)(1)			

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COMINT CONTROL SYSTEMS JOINTLY

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COMSEC EQUIPMENT IN OPERATIONAL GROUND SITES
AS OF JANUARY 1975
ON SIGINT SATELLITES

<u>LOCATION</u>	<u>PROGRAM SUPPORT</u>	<u>TYPE EQUIPMENT</u>	
		<u>OGE</u>	<u>GSE</u>
Vandenberg Tracking Station (2 operational sites)	All	KGT-29 KGR-28 KIT-23	KT-40 KT-7 ST-19 KT-8 KIX-23
New Hampshire Tracking Station (2 operational sites)	All	Same as above	
Hawaii Tracking Station (2 operational sites)	All	Same as above	
Kodiak Tracking Station	All	Same as above	
Guam Tracking Station	All	Same as above	
Thule Tracking Station	All	Same as above	
Indian Ocean	All	Same as above	

3.3(b)(1)

NOTE: All of the above stations, 3.3(b)(1)
are SCF sites.

3.3(b)(1)

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PRESENT AND PLANNED USE OF COMSEC ON SIGINT SATELLITES

<u>PROGRAM</u>	<u>ORGANIZATION</u>	<u>EQUIPMENT</u>
3.3(b)(1)		
989 (Some launches)	3.3(b)(1)	KG-28
3.3(b)(1)		

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COMINT CONTROL SYSTEMS JOINTLY

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APPENDIX L

COMSEC EQUIPMENT LAUNCHED AS OF JANUARY 1975 ON NON-SIGINT SATELLITES

<u>EQUIPMENTS</u>	<u>FUNCTION</u> <u>TYPE</u>	<u>DATA</u> <u>RATES</u>	<u>PROGRAMS</u>	<u>LAUNCH</u> <u>DATES</u>	<u>NUMBER</u> <u>OF</u> <u>LAUNCHES</u>	<u>TOTAL</u> <u>UNITS</u> <u>FLOWN</u>
SS-1	OTC	100 BPS	201/698BJ	7 Mar 62	6	6
KI-5	OTC	100 BPS	622A/162/241/846	17 Sep 62	67	402
KI-2	Auth	16 KB	435/TRANSIT	18 Dec 62	11	11
KI-4	MOTC	1 KB	698 AL/206	6 Sep 63	35	35
KI-5	OTC	100 BP	698 AL/206	6 Sep 63	35	105
KI-4A	MOTC	1 KB	110	29 Jun 66	22	44
KI-10	MOTC	1 KB	110	29 Jun 66	22	44
KI-20	Auth	16 KB	435/TRANSIT	17 Aug 66	6	6
RGR-29	SEC-UL & Auth	1 KB	191	9 Feb 69	1	2
MOD IV	MOTC	2 KB	110	23 Dec 69	2	4
KI-10	MOTC	2 KB	110	23 Dec 69	2	4
KGT-28	SEC-DL	512 KB	417	10 Feb 70	1	2

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COMINT CONTROL SYSTEMS JOINTLY

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COMSEC EQUIPMENT INTEGRATION
AS OF JANUARY 1975
ON NON-SIGINT SATELLITES

<u>PROGRAMS</u>	<u>TYPE</u>	<u>NO. PER VEHICLE</u>	<u>INTEGRATING CONTRACTOR</u>
110	MOD IV	2	LMSC
	KI-10	2	LMSC
417	KGX-28	2	RCA
467	MOD IV	2	LMSC
	KI-10	2	LMSC
647	KGR-29	2	TRW
	KGX-28	4	TRW
777	KIR-23	2	TRW
	KGX-28A	2	TRW
TRANSIT/435	KI-20	1	APL
SKYNET	KIR-23	2	BRITISH
NATO	KIR-23	2	NATO

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ADC
SAFSS (Pentagon)
SAFSP 3.3(b)(1)
USN
CIA
Chief, A (2)
Chief, B
Chief, C
Chief, G
Chief, V
Chief, W
W2
D5
V5
R2
P2
N2
C6
K3
R24
V41 (2)
V394
C5 (Reference Library)

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COMSEC EQUIPMENT IN OPERATIONAL GROUND SITES
FOR NON-SIGINT SATELLITES

<u>LOCATION</u>	<u>PROGRAM SUPPORT</u>	<u>TYPE EQUIPMENT</u>	
		<u>OGE</u>	<u>GSE</u>
Pt. Mugu, California	TRANSIT/435	KI-2A	
Rosemount, Minnesota	TRANSIT/435	KI-2A	
S.E.A. (3 sites and other overseas sites)	417	KGR-28	KGT-7 ST-19

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PRESENT AND PLANNED USE OF COMSEC FOR NON-SIGINT SATELLITES

<u>PROGRAM</u>	<u>ORGANIZATION</u>	<u>EQUIPMENT</u>
110	3.3(b)(1)	
417	SAMSO/SMUH	KI-23, KGX-28 or KI-23, BAYLESS, KGX-28
435	USN-SP	KI-20, possible updated version
467	SP-7	MOD IV-A, KI-10
647	SAMSO/SMUB	KG-29, KGX-28 or CI-1
777	SAMSO/SMRD	KI-23, KGX-28A
SKYNET II	UK	KI-23, KGX-28A
GPS	SAMSO/SMA	KG-28, KG-29 BAYLESS
NATO III	SAMSO	KI-23
SDS	SAMSO	KG-28, KI-23
DSCS III	SAMSO	CI-1, KG-29, KI-23
Fleet Sat Com	USN	KI-23

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APPENDIX M
March 23, 1962

DEPARTMENT OF DEFENSE DIRECTIVE

SUBJECT Security and Public Information Policy for
Military Space Programs ~~(S)~~

I. PURPOSE AND SCOPE

This directive establishes security and public information policy for military space programs and is applicable to all components of the Department of Defense.

II. GENERAL POLICY

A. Adequate protection of military space programs is vital to the security of the United States. This requires the capability to launch, control, and recover space vehicles without public knowledge of the timing of these actions or of the specific mission involved. It is impractical to selectively protect certain military space programs while continuing an open launch policy for others since to do so would emphasize sensitive projects.

B. The security principle of need-to-know for military space projects must be vigorously enforced within DoD, DoD advisory groups, and by Defense contractors.

C. Rigorous care must be taken to insure that information revealing the identification, mission, scope, or capability of specific military space projects and programs does not appear in unclassified documents and presentations.

D. Unauthorized public discussion by Defense and Defense contractor personnel of the results, effectiveness, capabilities and potentialities of specific military space projects and programs must be eliminated.

III. PROCEDURES

A. Military space projects and space vehicles henceforth will be identified by means of numerical and alphabetical designators selected and assigned at random; except for boosters, names or nicknames no longer will be used.

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1. Military space projects will be identified by a numerical designator.

2. Military space vehicles will be identified by an alphabetical prefix followed by a numerical designator, such as Orbital Vehicle (OV-7), Final Stage Vehicle (FSV-2), etc.

B. The new method of identifying military space vehicles and projects will not be associated with their payload or mission except under the most strict security procedures and will be published in as few documents as possible. Titles of project documents will not refer to the mission or payload associated with the project. Launch or recovery schedules and funding for specific payloads or mission areas will be classified SECRET or higher.

C. All public information news releases on military space programs will be cleared through a single office, and normally no releases will be made until after experiments have been conducted and after preliminary analyses of data have been completed.

D. Preparation and dissemination of over-all reports, development plans, and other documents on military space projects and programs will be severely limited and controlled. Detailed need-to-know justification will be required on the basis of need for specific information, rather than for particular documents. The number of persons authorized a blanket need-to-know will be sharply curtailed and continuously controlled.

IV. RESPONSIBILITIES

A. The heads of all DoD components having responsibilities for military space projects and programs are responsible for insuring adherence to the provisions of this directive.

B. The Secretary of the Air Force is responsible for:

1. Determining and assigning identification nomenclature for all military space projects and vehicles.

2. Maintaining a central registry of all military space project numbers and space vehicle designators.

C. The Assistant Secretary of Defense (Public Affairs) is responsible for maintaining the single office through which all public information news releases on DoD space projects and programs will be cleared.

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D. The Assistant Secretary of Defense (Comptroller) is responsible for developing and issuing program and budgetary guidance consistent with the provisions of this directive.

V. EFFECTIVE DATE AND IMPLEMENTATION

A. This directive is effective immediately. Existing documentation on military space projects and programs will be superseded by new documents as rapidly as they can be prepared and issued.

B. Every component of the Department will revise its regulations and other instructions to conform with the provisions of this directive.

/s/

Deputy Secretary of Defense

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APPENDIX N

EXTRACT FROM NSCID 6, DATED 15 SEPTEMBER 1958

"6. The National Security Agency

a. The COMINT and ELINT missions of the National Security Agency (NSA) shall be to provide an effective, unified organization and control of the (1) COMINT and (2) ELINT intercept and processing activities of the United States, to provide for integrated operational policies and procedures pertaining thereto and to produce COMINT information and ELINT information in accordance with objectives, requirements and priorities established by the U.S. Intelligence Board.

b. NSA shall be administered by a Director, designated by the Secretary of Defense after consultation with the Joint Chiefs of Staff, whose appointment shall be for a term of four years. The Director shall be a career commissioned officer of the armed services on active or reactivated status, and shall enjoy at least 3-star rank during the period of his incumbency. The Director shall have a civilian Deputy.

7. The Director, National Security Agency.

a. The Director of NSA shall be responsible for accomplishing the mission of NSA. For this purpose all COMINT and ELINT intercept and processing activities of the United States are placed under his operational and technical control. When action by the Chiefs of the operating agencies of the Services or civilian departments or agencies is required, the Director shall normally issue instructions pertaining to COMINT and ELINT operations through them. However, because of the unique technical character of COMINT and ELINT operations, the Director is authorized to issue direct to any operating elements under his operational control task assignments and pertinent instructions which are within the capacity of such elements to accomplish. He shall also have direct access to, and direct communications with, any elements of the Service or civilian COMINT or ELINT agencies on any other matters of operational and technical control as may be necessary, and he is authorized to obtain such information and intelligence

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material from them as he may require. All instructions issued by the Director under the authority provided in this paragraph shall be mandatory, subject only to appeal to the Secretary of Defense by the Chief of Service or head of civilian department or agency concerned.

b. Specific responsibilities of the Director of NSA include the following:

(1) Formulating necessary operational plans and policies.

(2) Conducting research and development to meet the needs of NSA and the departments and agencies which are engaged in COMINT or ELINT activities; and coordinating the related research and development conducted by such departments and agencies.

(3) Determining and submitting to the authorities responsible for logistic support for NSA, requirements together with specific recommendations as to what each of the responsible departments and agencies of the Government should supply.

(4) Within NSA's field of authorized operations prescribing requisite security regulations covering operating practices, including the transmission handling and distribution of COMINT material within and among the COMINT elements under his operational or technical control; and exercising the necessary monitoring and supervisory control, including inspections if necessary, to ensure compliance with the regulations.

(5) Making such reports and furnishing such information from time to time to the Board, either orally or in writing, as the Board may request, and bringing to the attention of the Board either in such reports or otherwise any new major policies or programs in advance of their adoption by him.

(6) Except on matters which have been decided by the Board, the Director of NSA shall discharge his responsibilities in accordance with his own judgment, subject to the direction of the Secretary of Defense.

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c. To the extent he deems feasible and in consonance with the aims of maximum overall efficiency, economy, and effectiveness, the Director shall centralize or consolidate the performance of COMINT and ELINT functions for which he is responsible. It is recognized that the Armed Forces and other departments and agencies being served require direct COMINT and ELINT support of various kinds. In providing this support, operational control of specified COMINT and ELINT facilities and resources will at times be delegated by the Director, for such periods and for such tasks as are determined by him, to an appropriate agent. Each member department or agency is responsible for stating to the Director, NSA its requirements for direct support.

d. The Director shall make provision for participation by representatives of each of the Board members in those offices of NSA where the Director, NSA establishes priorities of intercept and processing.

e. It is the intent of this directive that NSA not engage in the production and dissemination of finished intelligence, as distinguished from intelligence information. The production and dissemination of finished intelligence are the responsibilities of departments and agencies other than NSA."¹

¹ NSCID 6, dated 15 September 1958.

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APPENDIX N

NATIONAL SECURITY COUNCIL
Washington, D.C. 20505

February 17, 1972

MEMORANDUM FOR

The Secretary of State
The Secretary of the Treasury
The Secretary of Defense
The Attorney General
The Director of Central Intelligence
The Director, Office of Science and Technology
The Chairman, President's Foreign Intelligence Advisory
Board
The Chairman, U.S. Atomic Energy Commission

SUBJECT: Issuance of Revised NSCID's

In accordance with the President's memorandum of November 5, 1971, directing a reorganization of the intelligence community, the staffs of the NSC, DCI, and OMB, in consultation and coordination with the President's Foreign Intelligence Advisory Board, have prepared revisions of National Security Council Intelligence Directives 1-8. These revisions have been approved, and the revised NSCID-6 is attached. This supersedes all previous versions of this NSCID.

The revised NSCID's 1-5 and 7-8 have been distributed separately.

/S/

Henry A. Kissinger

Attachment

cc: The Director, Office of Management
and Budget

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NATIONAL SECURITY COUNCIL INTELLIGENCE
DIRECTIVE NO. 6¹

SIGNALS INTELLIGENCE
(Effective 17 February 1972)

Signals Intelligence (SIGINT), which comprises Communications Intelligence (COMINT) and Electronics Intelligence (ELINT) and the activities pertaining thereto are national responsibilities and must be so organized and managed as to exploit to the maximum the available resources of the Government, to satisfy the intelligence needs of the National Security Council and the departments and agencies of the Government, and to provide for efficiency and economy in the use of technical resources. Therefore, pursuant to the National Security Act of 1947, as amended, the National Security Council authorizes and directs that SIGINT activities shall be conducted as prescribed herein.

1. Definitions

For the purpose of this directive, the terms "Communications Intelligence" or "COMINT" shall be construed to mean technical and intelligence information derived from foreign communications by other than the intended recipients.

COMINT activities shall be construed to mean those activities that produce COMINT by the collection and processing of foreign communications passed by radio, wire or other electromagnetic means, with specific exceptions stated below, and by the processing of foreign encrypted communications, however transmitted. Collection comprises search, intercept and direction finding. Processing comprises range estimation, transmitter/operator identification, signal analysis, traffic analysis, cryptanalysis, decryption, study of plain text, the fusion of these processes, and the reporting of results.

COMINT and COMINT activities as defined herein shall not include (a) any intercept and processing of unencrypted written communications, press and propaganda broadcasts, or (b) censorship.

¹ This Directive supersedes NSCID No. 6 dated 15 September 1958, revised 18 January 1961.

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ELINT activities are defined as the collection (observation and recording), and the processing for subsequent intelligence purposes, of information derived from foreign, non-communications, electromagnetic radiations emanating from other than atomic detonation or radioactive sources. ELINT is the technical and intelligence information product of ELINT activities.

2. The Director of Central Intelligence

Consistent with his responsibilities as set forth in NSCID Nos. 1, 2 and 3, the Director of Central Intelligence shall:

a. Establish with the advice of the United States Intelligence Board and issue appropriate intelligence objectives, requirements and priorities to guide the conduct of all United States SIGINT activities.

b. Review the needs and performance of United States SIGINT activities as a basis for preparing a consolidated intelligence program budget.

c. Establish policies and procedures for the conduct of SIGINT arrangements with foreign governments with the advice of the United States Intelligence Board.

d. Develop and establish policies and procedures for the protection of SIGINT including the degree and type of security protection to be given SIGINT activities through the protection of information about them or derived from them.

3. The Secretary of Defense

a. The Secretary of Defense is designated as Executive Agent of the Government for the conduct of SIGINT activities in accordance with the provisions of this directive and for the direction, supervision, funding, maintenance and operation of the National Security Agency. The Director of the National Security Agency shall report to the Secretary of Defense and shall be the principal SIGINT advisor to the Secretary of Defense, the Director of Central Intelligence, and the Joint Chiefs of Staff. The Secretary of Defense may delegate in whole or part authority over the Director of the National Security Agency within the Office of the Secretary of Defense.

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b. The Secretary of Defense may determine, after consultation with the Secretary of State and the Director of Central Intelligence, that a SIGINT matter forwarded by the Director of Central Intelligence to the National Security Council for decision presents a problem of an emergency nature and requires immediate action. His action will be implemented and will govern, pending a decision by the National Security Council.

4. The National Security Agency

a. There is established under the Secretary of Defense and subject to his authority and control a National Security Agency with a Director who shall be head thereof and a Deputy Director who shall act for, and exercise the powers of, the Director during his absence or disability. The Director and Deputy Director shall be designated by the Secretary of Defense subject to the approval of the President. The duration of their appointments shall be at the pleasure of the President. The Director shall be a commissioned officer of the armed services, on active or reactivated status and shall enjoy not less than three star rank during the period of his incumbency. The Director shall have a Deputy who shall be a career civilian with SIGINT experience.

b. It shall be the duty of the Director of the National Security Agency to provide for the SIGINT mission of the United States, to establish an effective unified organization and control of all SIGINT collection and processing activities of the United States, and to produce SIGINT in accordance with objectives, requirements and priorities established by the Director of Central Intelligence with the advice of the United States Intelligence Board. No other organization shall engage in SIGINT activities except as provided for in this directive.

c. Except as provided in paragraphs 5 and 6 of this directive, the Director of the National Security Agency shall exercise full control over all SIGINT collection and processing activities, except the operation of mobile SIGINT platforms which will normally be exercised through appropriate elements of the military command structure. The Director of the National Security Agency is authorized to issue direct to any

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operating elements engaged in SIGINT operations such instructions issued by the Director under the authority provided in this paragraph shall be mandatory, subject only to appeal to the Secretary of Defense.

d. In consonance with the aims of maximum overall efficiency, economy and effectiveness, and to the extent he deems necessary and desirable, the Director shall centralize and consolidate the performance of SIGINT functions for which he is responsible. To this end, there is established a Central Security Service under the Director of the National Security Agency, which shall be organized in accordance with a plan approved by the Secretary of Defense. It shall be principally collection oriented and shall include SIGINT functions previously performed by various Military Department and other United States governmental elements engaged in SIGINT activities. The Director of the National Security Agency shall determine the appropriate division of responsibilities among the elements under his direction.

e. The Armed Forces and other departments and agencies often require timely and effective SIGINT. The Director of the National Security Agency shall provide information requested, taking all necessary measures to facilitate its maximum utility. As determined by the Director of the National Security Agency or as directed by the Secretary of Defense, the Director of the National Security Agency shall provide such SIGINT either through the direction of activities under his control or through the delegation to an appropriate agent of specified SIGINT facilities and resources from among the elements under his direction for such periods and for such tasks as appropriate.

f. Specific responsibilities of the Director of the National Security Agency include the following:

- (1) Formulating necessary operational plans, policies and procedures to provide for integrated operations.
- (2) Managing SIGINT resources, personnel and programs.
- (3) Conducting research and development to meet the needs of the United States for SIGINT.

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(4) Determining and submitting to the authorities responsible for logistic support for activities under his control requirements together with specific recommendations as to what each of the responsible departments and agencies of the Government should supply.

(5) Prescribing within his field of authorized operations requisite security regulations covering operating practices, including the transmission, handling and distribution of SIGINT material within and among the elements under his control; and exercising the necessary monitoring and supervisory control to ensure compliance with the regulations.

(6) Providing the Director of Central Intelligence with such information as he may require on the past, current and proposed plans, programs and costs of the SIGINT activities under the control of the Director of the National Security Agency.

g. The intelligence components of individual departments and agencies may continue to conduct direct liaison with the National Security Agency in the interpretation and amplification of requirements and priorities within the framework of objectives, requirements and priorities established by the Director of Central Intelligence.

h. It is the intent of this directive that the National Security Agency not engage in the production and dissemination of finished intelligence, but be limited to the production and dissemination of COMINT and ELINT.

5. Relationship to other SIGINT Activities

a. The Director of Central Intelligence with the advice of the United States Intelligence Board shall determine the requirements and priorities for collection by SIGINT satellites that shall be developed, launched and maintained in operation by the National Reconnaissance Office. The Director of the National Security Agency, with respect to his technical and operational control of the intercept payload, and the Director of the National Reconnaissance Office, with respect to his control of spacecraft operations, shall provide for the tasking of these satellites based on guidance provided

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by the Director of Central Intelligence. The National Security Agency shall process the collected data.

b. Nothing in this directive shall be construed to encroach upon or interfere with the unique requirements for

3.3(b)(1)

To the extent practicable, however, information pertaining to the activities and derived therefrom shall be handled so as to give suitable protection to related SIGINT activities. Material collected under these circumstances that would have been considered COMINT or ELINT will be passed to the National Security Agency to the extent desired by the Director of the National Security Agency as soon as special requirements of the collector have been satisfied.

c. The Director of the National Security Agency shall conduct such COMINT and ELINT activities as are required to support electronic warfare activities. The conduct of such search, intercept, direction-finding, range-estimation, and signal analysis of non-communications electromagnetic radiation as must be undertaken to permit immediate operational use of the information in support of electronic measures and countermeasures and rescue operations, if delegated by the Director of the National Security Agency, shall be the responsibility of the Military Departments or Commands, as appropriate. The responsibility for such activities with respect to electromagnetic radiations of COMINT interest shall normally not be delegated and shall remain the responsibility of the Director of the National Security Agency.

6. The Federal Bureau of Investigation

Nothing in this directive shall be construed to encroach upon or interfere with the unique responsibilities of the Federal Bureau of Investigation in the field of internal security, including such intercept and processing activities as may be undertaken by the Federal Bureau of Investigation in connection with its functions.

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APPENDIX O

UNITED STATES INTELLIGENCE BOARD
SIGINT COMMITTEE
Office of the Chairman

10 July 1967

MEMORANDUM FOR THE UNITED STATES INTELLIGENCE BOARD

SUBJECT: SIGINT Overhead Reconnaissance Activities

REFERENCES: (a) USIB-D-5.1/8, 1 June 1967
(b) DCID No. 6/1, 23 April 1965

1. The SIGINT Committee has established a new permanent instrumentality to assist the Committee in the timely performance of functions which were transferred from COMOR to the SIGINT Committee, effective 1 July 1967 in accordance with Paragraph 1.b. of reference (a).

2. The charter for this new Subcommittee, to be known as the "SIGINT Overhead Reconnaissance Subcommittee" (SORS), has been approved unanimously by the SIGINT Committee and is forwarded herewith for the information of USIB Members.

3. With the concurrence of the Director of Central Intelligence, Mr. Ernest J. Zellmer of CIA has been designated as the Chairman of the Subcommittee; and Mr. ^{3.5(c)} [redacted] CIA, will serve as the Executive Secretary to the Subcommittee.

/S/

[redacted]
3.5(c)

Chairman

Attachment
a/s

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UNITED STATES INTELLIGENCE BOARD

SIGINT COMMITTEE

SIGINT OVERHEAD RECONNAISSANCE SUBCOMMITTEE

1. Pursuant to the objectives and provisions of DCID No. 6/1 there is established the SIGINT Overhead Reconnaissance Subcommittee as a permanent subcommittee of the SIGINT Committee to advise, assist and, as directed, act for SIGINT Committee in all matters pertaining to SIGINT overhead reconnaissance* activities and such other matters as may be referred by the SIGINT Committee.

FUNCTIONS

2. The Subcommittee shall advise and assist the SIGINT Committee and act for it as directed, on matters within the jurisdiction of the SIGINT Committee, particularly:

3.3(b)(1)

* As referred to in this charter the term "SIGINT overhead reconnaissance" comprises reconnaissance by satellite, aircraft, or other reconnaissance vehicle over denied areas, as well as over such other areas of priority intelligence interest as may be determined by USIB, for the purpose of SIGINT collection. It does not include peripheral reconnaissance by aircraft or reconnaissance in direct support of actively combatant forces.

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3.3(b)(1)

c. Evaluation

(1) To monitor and keep the SIGINT Committee appropriately advised of the responsiveness and potential responsiveness of SIGINT overhead reconnaissance systems and programs for collection, processing, and reporting of SIGINT data to USIB needs for intelligence information.

(2) To prepare appropriate advice concerning the need to change collection and processing priorities and guidance in order to improve program effectiveness and the satisfaction of USIB requirements.

In the development of a. through c. above, the Subcommittee will take into account costs, trade-offs, changing national requirements and circumstances, the relation of other SIGINT collection activities and all other factors which may be pertinent thereto.

SECURITY

3. The Subcommittee will review and make recommendations to the SIGINT Committee on any special SIGINT security matters which might arise as the result of SIGINT satellite operations.

COORDINATION

4. The Subcommittee will conduct appropriate liaison and coordination with operational, technical and processing elements, other USIB committees, and with other subcommittees of the SIGINT Committee, on matters of joint interest.

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ORGANIZATION AND PROCEDURES

5. The Subcommittee shall be composed of the Chairman and a representative from the Department of State, the Central Intelligence Agency, the Defense Intelligence Agency, the National Security Agency, the United States Air Force, the United States Army, the United States Navy and the National Reconnaissance Office.

6. The Chairman of the Subcommittee shall be designated by the Chairman of the SIGINT Committee in consultation with the Director of Central Intelligence.

7. The Subcommittee shall meet at the call of the Chairman, or at the request of any member.

8. The Subcommittee shall be supported by a full-time support staff of professional and secretarial personnel, as appropriate, headed by an Executive Secretary who shall be appointed by the Chairman of the Subcommittee in consultation with the Chairman of the SIGINT Committee.

9. Each Agency represented on the Subcommittee shall advise the Subcommittee of all programs, activities and other data which are pertinent to the effective performance of the Subcommittee's mission.

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APPENDIX P

THE SECRETARY OF DEFENSE

Washington

6 September 1961

MEMORANDUM FOR THE SECRETARY OF THE ARMY
THE SECRETARY OF THE NAVY
THE SECRETARY OF THE AIR FORCE
THE DIRECTOR OF DEFENSE RESEARCH AND ENGINEERING
THE CHAIRMAN OF THE JOINT CHIEFS OF STAFF
THE GENERAL COUNSEL

SUBJECT: ~~(TS)~~ Assistant for Reconnaissance

Reference the attached Agreement between the Secretary of Defense and the Director of the Central Intelligence Agency entitled Management of the National Reconnaissance Program.

The Under Secretary of the Air Force is hereby designated my Assistant for Reconnaissance, and is delegated full authority for management of this program. In this regard, he will act as my direct representative both within and outside the Department of Defense. He will be given any support that he requires from normal staff elements, although these staff elements will not participate in program matters except as he specifically requests. He will, however, keep pertinent key officials informed on a regular basis on the status of these programs.

Because of the extreme sensitivity of the projects involved in the National Reconnaissance Program, particular care must be taken to protect the Security of the arrangements described herein. The existence of the referenced Agreement, its contents and the organizational implementation employed for its execution are all classified TOP SECRET. This information will not be disclosed to anyone to whom such disclosure is not mandatory in order to carry out actions required by the terms of the referenced Agreement or by my Assistant for Reconnaissance in carrying out his responsibilities in the National Reconnaissance Program.

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All Department of Defense satellite or overflight photographic reconnaissance, mapping, geodesy, and electronic signal collection programs will be handled in accordance with the referenced Agreement, and existing project assignments will be brought into conformity and present directives will be revised at the earliest date that such action can be taken with plausible overt appearance.

A new public relations policy for satellite launches will be announced as a separate action to minimize political vulnerability of these programs.

Robert S. McNamara

1 Att.
Agreement

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THE SECRETARY OF DEFENSE
Washington

6 September 61

The Honorable Allen W. Dulles
Director of Central Intelligence
Washington, D.C.

Re: Management of the National Reconnaissance Program

Dear Mr. Dulles:

This letter confirms our agreement with respect to the setting up of a National Reconnaissance Program (NRP), and the arrangements for dealing both with the management and operation of this program and the handling of the intelligence product of the program on a covert basis.

1. The NRP will consist of all satellite and overflight reconnaissance projects whether overt or covert. It will include all photographic projects for intelligence, geodesy and mapping purposes, and electronic signal collection projects for electronic signal intelligence and communications intelligence resulting therefrom.

2. There will be established on a covert basis a National Reconnaissance Office to manage this program. This office will be under the direction of the Under Secretary of the Air Force and the Deputy Director (Plans) of the Central Intelligence Agency acting jointly. It will include a small special staff whose personnel will be drawn from the Department of Defense and the Central Intelligence Agency. This office will have direct control over all elements of the total program.

3. Decisions of the National Reconnaissance Office will be implemented and its management of the National Reconnaissance Program made effective: within the Department of Defense, by the exercise of the authority delegated to the Under Secretary of the Air Force; within the Central Intelligence Agency, by the Deputy Director (Plans) in the performance of his presently assigned duties. The Under Secretary of the Air Force will be designated Special Assistant For Reconnaissance to the Secretary of Defense and delegated full authority by me in this area.

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4. Within the Department of Defense, the Department of the Air Force will be the operational agency for management and conduct of the NRP, and will conduct this program through use of streamlined special management procedures involving direct control from the office of the Secretary of the Air Force to Reconnaissance System Project Directors in the field, without intervening reviews or approvals. The management and conduct of individual projects or elements thereof ^{3.3(b)(1)} may be assigned to the Central Intelligence Agency as the operational agency.

5. A Technical Advisory Group for the National Reconnaissance Office will be established.

6. A uniform security control system will be established for the total program by the National Reconnaissance Office. Products from the various programs will be available to all users as designated by the United States Intelligence Board.

7. The National Reconnaissance Office will be directly responsive to, and only to, the photographic and electronic signal collection requirements and priorities as established by the United States Intelligence Board.

8. The National Reconnaissance Office will develop suitable cover plans and public information plans, in conjunction with the Assistant Secretary of Defense, Public Affairs, to reduce potential political vulnerability of these programs. In regard to satellite systems, it will be necessary to apply the revised public information policy to other non-sensitive satellite projects in order to insure maximum protection.

9. The Directors of the National Reconnaissance Office will establish detailed working procedures to insure that the particular talents, experience and capabilities within the Department of Defense and the Central Intelligence Agency are fully and most effectively utilized in this program.

10. Management control of the field operations of various elements of the program will be exercised directly, in the case of the Department of Defense, from the Under Secretary of the Air Force to the designated project officers for each program and, in the case of the Central Intelligence Agency, from the Deputy Director (Plans) to appropriate elements of the Central Intelligence Agency. Major program elements and operations of the National Reconnaissance Office will be

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reviewed on a regular basis and as special circumstances require by the Special Group under NSC 5412.

If the foregoing is in accord with your understanding of our agreement, I would appreciate it if you would kindly sign and return the enclosed copy of this letter.

/s/

Roswell L. Gilpatric
Deputy Secretary of Defense

1 Atch:
Chart "Single Mgmt for
National Reconnaissance
Programs (TS)

CONCUR:

C. P. Cabell, General, USAF
Acting Director
Central Intelligence Agency

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APPENDIX Q

THE SECRETARY OF DEFENSE
WASHINGTON

October 20, 1961

MEMORANDUM FOR SECRETARY OF THE ARMY
SECRETARY OF THE NAVY
SECRETARY OF THE AIR FORCE
DIRECTOR OF DEFENSE RESEARCH AND ENGINEERING
CHAIRMAN, JOINT CHIEFS OF STAFF
GENERAL COUNSEL
DIRECTOR, NATIONAL SECURITY AGENCY
SPECIAL ASSISTANT FOR RECONNAISSANCE TO THE SECRETARY
OF DEFENSE

SUBJECT: Space Vehicle Electronics Intelligence Program

The attached document entitled "Space Vehicle Electronic Signal Collection Responsibilities and Resources" is approved and will be implemented within the Department of Defense by all departments, agencies, and special activities.

This documentation is provided as an additional basis for understanding the relationships, responsibilities and working arrangements applicable to space vehicle electronic signal collection and data processing that is in consonance with the responsibilities set forth in my memorandum of 6 September 1961, subject: "Assistant for Reconnaissance". As used within this document, the term "Department of the Air Force (SAFMS)" specifically refers to that activity for which the Under Secretary of the Air Force has been designated as my Assistant for Reconnaissance.

1 Attachment

As stated, w/tabs A and B

cc: OSD/DDR&E, Dr. Eugene G. Fubini
OSD/OSO, Mr. Clyde W. Elliott
ACSI, D/A, Maj Abram V. Rinearson, III, USA
ONI, D/N, Capt D. M. Showers, USN
SAFMS, D/AF, Lt Col Edwin J. Istvan, USAF
USA, Mr. Herbert L. Conley

3.5(c)

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SPACE VEHICLE ELECTRONIC SIGNAL COLLECTION
RESPONSIBILITIES AND RESOURCES

- References:
- (a) National Security Council Intelligence Directive No. 6
 - (b) National Security Council Memo, dated 1 Sep 60, Subject: Reconnaissance Satellite Program
 - (c) DOD Directive 5160.32, Development of Space Systems
 - (d) DOD Directive 5160.34, Reconnaissance and Geodetic Programs
 - (e) Secretary of Defense Memo, dated 6 Sep 61, with Inclosures

1. The utilization of space vehicles as a means for collection of electronic signal information is a special augmentation to other signal intelligence resources of the U.S. Government. In order that the present and future intelligence collection capabilities of earth satellites and other space vehicles can be vigorously explored and developed to add to the total U.S. intelligence posture, the procedures used for management, direction, and technical supervision of this intelligence collection medium will:

a. Assure that appropriate planning takes place for both collection and processing systems in a well-coordinated fashion.

b. Provide a means whereby immediate advantage is taken of break throughs in either the collection or processing state-of-the-art.

2. Present approved collection and processing programs, through CY 1962 are essentially complementary and will not be modified, except as supplementary programs are developed in accordance with the responsibilities and procedures contained herein.

3. Security considerations affecting this medium will provide that the sensitivity of the projects can be protected, and that full dissemination is made of extracted intelligence information to elements having a genuine need.

4. To provide for accomplishment of management, direction, and technical supervision in accordance with the above, the following responsibilities and arrangements are defined.

a. The Department of the Air Force (SAFMS) will be solely responsible for the research, development, planning, and operations for electronic signal collection by space vehicles, taking into consideration

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the effective utilization of all resources available to the U.S. Government. This responsibility will be implemented in accordance with Tab A hereto.

b. The Department of the Air Force (SAFMS) will develop the over-all collection effort to satisfy electronic signal collection requirements established by the U.S. Intelligence Board. The National Security Agency will review USIB electronic signal (COMINT and ELINT) requirements and will recommend to the Department of the Air Force (SAFMS) those which, in NSA's opinion, can best be fulfilled by means of overhead reconnaissance. The over-all collection program prepared by the Department of the Air Force (SAFMS) will be subject to approval by the USIB.

c. The National Security Agency will be solely responsible for the research, development, planning, and operations for processing of electronic signal data (COMINT and ELINT) collected from space vehicle sources, taking into consideration the effective utilization of all processing resources available to the U.S. Government. The processing will include technical feedback to the Department of the Air Force (SAFMS) as well as extraction of intelligence data, but technical feedback from other sources may be provided. This responsibility will be implemented in accordance with Tab B hereto.

d. The Department of the Air Force (SAFMS) will determine the data format for the electronic signal collection products in close consultation with the National Security Agency so as to optimize the match between collection and processing.

5. All applicable resources of the Department of Defense will be used in fulfillment of the above responsibilities. The resources of all other components of the U.S. Government engaged in electronic signal intelligence activity will be utilized as feasible.

2 Incls:

1. Tab A - Implementation of Collection Responsibilities
2. Tab B - Implementation of Processing Responsibilities

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TAB A

IMPLEMENTATION OF COLLECTION RESPONSIBILITIES

1. The Department of the Air Force (SAFMS) collection responsibilities include all aspects of the research, development, planning and operation of electronic signal collection by earth satellites or other space craft. These responsibilities encompass all aspects of the collection systems and include necessary ground support functions and equipment incident to the proper operation of the space craft and/or payload and as may be required to recover, transmit, convert, reformat and technically correct or reconstruct the collected data in order to yield a usable collection product for exploitation by the processor.

2. The Department of the Air Force (SAFMS) will utilize all resources within the U.S. Government in the accomplishment of its collection responsibilities.

3. The Department of the Air Force (SAFMS) will establish, organize and manage the electronic signal collection effort in accordance with USIB approved requirements and priorities, and will exercise technical direction, program planning, funding, security, and operational control of the collection programs.

4. The Department of the Air Force (SAFMS) will accomplish payload configuration control and mission planning. In accomplishing these functions, the Department of the Air Force (SAFMS) may utilize the services of a technical advisory group.

5. The collection products of this effort will be placed under a single unified security control system.

6. All original (record) copies of the collection product will be maintained in a repository designated by the Department of the Air Force (SAFMS).

7. The collection product of this effort will be made available by the Department of the Air Force (SAFMS) to the NSA for fulfillment of processing responsibilities, and to such other activities designated by NSA or specifically authorized by USIB.

8. No basic changes to existing collection programs scheduled through calendar year 1962 will be made. Augmentations to the collection effort will be in accordance with the procedures and responsibilities outlined herein.

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9. The Department of the Air Force (SAFMS) will consult with the National Security Agency, in a timely manner, concerning the anticipated product and format from each electronic collection effort to facilitate planning for the exploitation processing in accordance with the responsibilities assigned to the National Security Agency, and will provide technical assistance to facilitate accomplishment of the exploitation processing.

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TAB B

IMPLEMENTATION OF PROCESSING RESPONSIBILITIES

1. The National Security Agency processing responsibilities include all aspects of the research, development, planning, and operation of the processing effort for electronic signal collection products provided by the Department of the Air Force (SAFMS). These responsibilities encompass all aspects of the processing of collection product, including the distribution of end product information reports as authorized by USIB.

2. The National Security Agency will establish, organize, and supervise the electronic signal processing effort in accordance with the requirements and priorities established by the USIB and will exercise technical direction, program planning, security control, and supervision of the processing program.

3. The National Security Agency will take cognizance of all resources within the U.S. Government in accomplishment of its processing responsibilities. To achieve maximum effectiveness, the National Security Agency will be responsible for specifying those U.S. resources to be applied to the processing of space vehicle collection products. In accomplishing its responsibility, the Director, National Security Agency may utilize the services of a technical advisory group.

4. No basic changes to presently existing approved processing programs scheduled through calendar year 1962 will be made. Additions or augmentations to the processing effort will be in accordance with the procedures and responsibilities outlined herein.

5. The National Security Agency will place the end product information reports of the processing effort under a security control system to safeguard the source of the material. Such a system will be subject to USIB approval.

6. The National Security Agency will provide specified technical or other feedback as required by the Department of the Air Force (SAFMS).

7. In the exercise of the responsibility for processing the collection product, the National Security Agency shall assign tasks to appropriate organizations of the United States Government. An organization within the Department of Defense may not refuse to apply available resources for the accomplishment of a particular task on the basis that it will require the diversion of such resources from the accomplishment of other missions, unless such refusal is approved by the Secretary of the Military Department or the Commander of the Unified or Specified Command concerned. Assignment of tasks to organizations outside the Department of Defense will be subject to the approval of the head of the particular organization concerned.

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8. In those cases where NSA delegates processing responsibility, the NSA will:

a. Provide appropriate planning support, and will furnish required operational and technical instructions.

b. Assure that specified feedback as required by the Department of the Air Force (SAFMS) is provided.

c. Arrange for each processing element to provide results to NSA, in one of two forms, either (1) as data to be integrated with other information into NSA distributed reports, or (2) as a finished report to be provided to all authorized customers. In either case, distribution will be made as authorized by USIB. The reports of type (2) above will be distributed in an NSA reporting series but will contain a designator showing the organization of origin.

d. As authorized by USIB, provide appropriate processing units with instructions for "sanitization" in order that information produced can be provided under appropriate classification to all intelligence users, including the unified and specified commands and their operating elements.

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APPENDIX R

MEMORANDUM OF AGREEMENT CONCERNING
NSA PARTICIPATION IN THE
~~(S)~~ NATIONAL RECONNAISSANCE OFFICE

1. In the course of discussions between Dr. Charyk, Dr. Scoville, Admiral Frost and Dr. Tordella on 25 May 1962, it was made known that the ~~(S)~~ National Reconnaissance Office in its SIGINT program will respond only to requirements levied by the United States Intelligence Board. Further, that the NRO will request the USIB to determine which subordinate committee on the Board (COMOR or SIGINT Committee) will be responsible for applicable SIGINT requirements.

2. During these discussions, it was agreed that:

a. NSA will provide advice and consultation to the NRO on how best to meet requirements which are levied by the Board.

b. NSA will nominate one of its personnel to become a full-time member of the NRO.

c. After discussion with the NSA the NRO may assign primary responsibility for development of certain aspects of the SIGINT collection program to NSA.

d. NSA will be responsible for advising the NRO on desired format of the SIGINT material to be collected. NSA will also be responsible for accomplishing or supervising analysis and reporting of collected SIGINT materials.

e. Security safeguards required for the handling of NRO collected SIGINT materials can be provided as described in memorandum from Director, NRO, to Chairman USIB; dated 31 May 1962; Subject: Security Handling of SIGINT Collected by Reconnaissance Satellites.

/s/

LOUIS W. TORDELLA
Acting Director

Concur. /s/ Herbert Scoville, Jr.

Concur. /s/ Joseph V. Charyk

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APPENDIX S

11 August 1965

AGREEMENT FOR REORGANIZATION OF THE
NATIONAL RECONNAISSANCE PROGRAM

A. The National Reconnaissance Program

1. The NRP is a single program, national in character, to meet the intelligence needs of the Government under a strong national leadership, for the development, management, control and operation of all projects, both current and long range for the collection of intelligence and of mapping and geodetic information obtained through overflights (excluding peripheral reconnaissance operations). The potentialities of U.S. technology and all operational resources and facilities must be aggressively and imaginatively exploited to develop and operate systems for the collection of intelligence which are fully responsive to the Government's intelligence needs and objectives.

2. The National Reconnaissance Program shall be responsive directly and solely to the intelligence collection requirements and priorities established by the United States Intelligence Board. Targeting requirements and priorities and desired frequency of coverage of both satellite and manned aircraft missions over denied areas shall continue to be the responsibility of USIB, subject to the operational approval of the 303 Committee.

B. The Secretary of Defense will:

1. Establish the NRO as a separate agency of the DoD and will have the ultimate responsibility for the management and operation of the NRO and the NRP;

2. Choose a Director of the NRO who will report to him and be responsive to his instructions;

3. Concur in the choice of the Deputy Director of the NRO who will report to the DNRO and be responsive to his instructions;

4. Review and have the final power to approve the NRP budget;

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5. Sit with members of the Executive Committee, when necessary, to reach decisions on issues on which committee agreement could not be reached.

C. The Director of Central Intelligence will:

1. Establish the collection priorities and requirements for the targeting of NRP operations and the establishment of their frequency of coverage;

2. Review the results obtained by the NRP and recommend, if appropriate, steps for improving such results;

3. Sit as a member of the Executive Committee;

4. Review and approve the NRP budget each year;

3.3(b)(1)

D. National Reconnaissance Program Executive Committee

1. An NRP Executive Committee, consisting of the Deputy Secretary of Defense, the Director of Central Intelligence, and the Special Assistant to the President for Science and Technology, is hereby established to guide and participate in the formulation of the NRP through the DNRO. (The DNRO will sit with the Executive Committee but will not be a voting member.) If the Executive Committee can not agree on an issue the Secretary of Defense will be requested to sit with the Committee in discussing this issue and will arrive at a decision. The NRP Executive Committee will:

a. Recommend to the Secretary of Defense an appropriate level of effort for the NRP in response to reconnaissance requirements provided by USIB and in the light of technical capabilities and fiscal limitations.

b. Approve or modify the consolidated National Reconnaissance Program and its budget.

c. Approve the allocation of responsibility and the corresponding funds for research and exploratory development for new systems. Funds shall be adequate to ensure that a vigorous research and exploratory development effort is achieved and maintained by the Department of Defense and CIA to design and construct new sensors to meet intelligence requirements aimed at the acquisition of intelligence data. This effort shall be carried out by both CIA and DoD.

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d. Approve the allocation of development responsibilities and the corresponding funds for specific reconnaissance programs with a view to ensuring that the development, testing and production of new system is accomplished with maximum efficiency by the component of the Government best equipped with facilities, experience and technical competence to undertake the assignment. It will also establish guidelines for collaboration between departments and for mutual support where appropriate. Assignment of responsibility for engineering development of sensor subsystems will be made to either the CIA or DoD components in accordance with the above criteria. The engineering development of all other subsystems, including spacecraft, reentry vehicles, boosters and booster interface subsystems shall in general be assigned to an Air Force component, recognizing, however, that sensors, spacecraft and reentry vehicles are integral components of a system, the development of which must proceed on a fully coordinated basis, with a view to ensuring optimum system development in support of intelligence requirements for overhead reconnaissance. To optimize the primary objective of systems development, design requirement of the sensors will be given priority in their integration within the spacecraft and reentry vehicles.

e. Assign operational responsibility for various types of manned overflight missions to CIA or DoD subject to the concurrence of the 303 Committee.

f. Periodically review the essential features of the major program elements of the NRP.

2. The Executive Committee shall meet on the call of either the Deputy Secretary of Defense or the Director of Central Intelligence. All meetings will be attended by the DNRO and such staff advisors as the Deputy Secretary of Defense or the Director of Central Intelligence consider desirable.

E. National Reconnaissance Office

1. To implement the NRP, the Secretary of Defense will establish the NRO as a separate operating agency of the DoD. It shall include the SOC which shall be jointly manned.

2. The Director of the NRO shall be appointed by the Secretary of Defense. The Director NRO will:

a. Subject to direction and control of the Secretary of Defense and the guidance of the Executive Committee as set forth in Section D above, have the responsibility for managing the NRO and executing the NRP.

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b. Subject to review by the Executive Committee, and the provisions of Section D above, have authority to initiate, approve, modify, redirect or terminate all research and development programs in the NRP. Ensure, through appropriate recommendations to the Executive Committee for the assignment of research and development responsibilities and the allocation of funds, that the full potentialities of agencies of the Government concerned with reconnaissance are realized for the invention, improvement and development of reconnaissance systems to meet USIB requirements.

c. Have authority to require that he be kept fully and completely informed by all Agencies and Departments of the Government of all programs and activities undertaken as part of the NRP.

d. Maintain and provide to the members of the Executive Committee records of the status of all projects, programs and activities of the NRP in the research, development, production and/or operational phases.

e. Prepare a comprehensive budget for all aspects of the National Reconnaissance Program.

f. Establish a fiscal control and accounting procedure to ensure that all funds expended in support of the National Reconnaissance Program are fully accounted for and appropriately utilized by the agencies concerned. In particular, the budget shall show separately those funds to be applied to research and exploratory design development, systems development, procurement, and operational activities. Funds expended or obligated under the authority of the Director of Central Intelligence under Public Law 110 shall be administered and accounted for by CIA and will be reported to DNRO in accordance with agreed upon procedures.

g. Sit with the USIB for the matters affecting the NRP.

3. The Deputy Director NRO shall be appointed by the DCI with the concurrence of the Deputy Secretary of Defense and shall serve full time in a line position directly under the Director NRO. The Deputy Director shall act for and exercise the powers of the Director, NRO during his absence or disability.

4. The NRO shall be jointly staffed in such a fashion as to reflect the best talent appropriately available from the CIA, the three military departments and other Government agencies. The NRO staff will report to the DNRO and DDNRO and will maintain no allegiance to the originating agency or Department.

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F. Initial Allocation of Program Responsibilities

1. Responsibility for existing programs of the NRP shall be allocated as indicated in Annex A attached hereto.

(signed) Cyrus Vance
Deputy Secretary of Defense

(signed) W. F. Raborn
Director of Central Intelligence

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ANNEX A

The following assignments for the development of new optical sensor subsystems are made to take full advantage of technical capability and experience of the agencies involved.

1. The CIA will develop the improvements in the CORONA general search optical sensor subsystems.
2. Following the selection of a concept, and a contractor, for full-scale development, in the area of advanced general search, the CIA will develop the optical sensor subsystem for that system.
3. The Air Force (SAFSP) will develop the G-3 optical sensor subsystem for the advanced high-resolution pointing system.
4. SAFSP will develop the optical sensor subsystems (manned and unmanned) for the MOL program.

The Director, NRO will, in managing the corresponding overall systems developments, ensure that:

1. The management of an contracting for the sensors is arranged so that the design and engineering capabilities in the various contractors are most efficiently utilized.
2. The sensor packages and other subsystems are integrated in an overall system engineering design for each system, with DNRO having responsibility for systems integration of each overall system.

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APPENDIX T
January 21, 1963

DEPARTMENT OF THE NAVY
OFFICE OF THE CHIEF OF NAVAL OPERATIONS
WASHINGTON 25, D.C.

From: Director of Naval Intelligence
To : Director, National Reconnaissance Office(s)

Subj: System POPPY, reassignment of responsibilities for (TS)

Ref: (a) Missions operations Directive ^{3.3(b)(1)} (BYE-4337-62) of 6 Nov 62
(b) Your memo subj: "Organization and Functions of NRO (S)" of
23 July 62
(c) DNI ltr subj: "Project POPPY; assignment of responsibilities
for (TS)" of 10 September 62

1. The responsibilities delineated by reference (a) necessitate a realignment of the organizational information requested by reference (b) and supplied by reference (c). Accordingly, reference (c) is hereby cancelled and superseded.

2. System POPPY of Project EARPOP is currently the only NRP assignment within Program C.

3. One formal agreement has been made between the Director of Naval Intelligence and the Director, National Security Agency regarding interrogation of POPPY satellites. This agreement authorizes the NSA to direct POPPY satellite interrogation ^{3.5(c), 3.3(b)(3)}

Although this is the only formal agreement entered into an additional informal understanding has been made with the National Security Agency. This understanding permits the allocation of U.S. Army, U.S. Air Force and U.S. Navy cryptologic personnel to man and operate Navy furnished electronic equipment ^{3.3(b)(3), 3.5(c)}

EO 13526 3.3(b)(1), 25Yrs, 3.5(c)

In accordance with these understandings the respective services ^{3.3(b)(1), 3.5} man the equipment with their regularly assigned personnel when the POPPY satellites are transmitting and when the stations are tape recorded and couriered to the NSA for analysis. Operations resulting from these informal understandings have proven entirely satisfactory.

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4. The specific responsibilities of the organization/individuals associated with the project are as follows:

a. The Program Director's Staff (Technical Operations Group):

(1) This group of specialists provides the Program Director, through the Project Director, the necessary technical information and guidance. This includes advising the Director of Intelligence requirements, satellite instrumentation, missile rocketry, orbital requirements, field station operations, and signal processing. In addition, this group insures that overt research and development programs, approved by the Director, Program C, are conducted in a proper manner to support System POPPY.

(2) Designated members of the Program Director's Staff (TOG) shall meet with the Deputy Director for Operations, NRO, as required, to prepare routine tasking schedules for the operational control of the POPPY satellite after it has achieved orbit. Activation of the satellite and appropriate collection facilities will be accomplished by this staff as directed by the Satellite Operations Center (SOC), NRO. The non-routine interrogation required in the event of indications requiring quick reaction will be accomplished as set forth in paragraph 3 above.

(3) The Staff will report, as occurring, any significant changes in the technical capability of the satellites to the Director, Program C.

b. The Director of Naval Intelligence is responsible for:

(1) Providing the Project Director

(a) The Project Director's responsibilities are to supervise and administer all aspects of the project subject to the approval of the Program Director.

(2) Providing the Product Control Representative

(a) The Product Control Representative is normally attached to the Scientific and Technical Intelligence Center of ONI and is responsible for informing the Project Director of intelligence requirements. Additionally, he is responsible for disseminating quality control technical data to the field stations, for monitoring the signal analysis program, and for supervision of in-house signal analysis support where required.

c. The Director, Naval Research Laboratory is responsible for:

(1) Providing the Project Technical Representative.

(a) The Project Technical Representative is responsible for establishing such liaison with the Naval Research Laboratory as will provide the following:

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1. Overall Instrumentation concepts, including the satellite.
2. Provision of all equipments required for collection and interrogation, including but not limited to, the shipment and supply of technical expendables and spare parts to the field stations.
3. Coordination of vehicle and mission payload integration, and the preparation including the monitoring of the launch thereof.
4. The training of all personnel involved in collection and interrogation.
5. Operational control of the satellite prior to its launch.

d. The Director, Naval Security Group is responsible for:

(1) Providing the Project Operational Representative whose responsibilities are:

(a) The direction and coordination of field station operations. These responsibilities include insuing project planning and operational-directives to the field stations and keeping each of these stations advised of the tasking requirements necessary to perform the project mission.

(2) Acting as the focal point for all electrical communications associated with the project. This includes all operational, technical and logistical traffic.

(3) Providing operating personnel at the Navy collection sites.

e. The Director, National Security Agency is responsible for:

(1) Providing a representative who shall act as an advisor to the Project Director's staff.

(2) Processing all collected data and developing an ELINT product therefrom.

(3) Disseminating, through specified security channels, any intelligence information derived from the data as initially agreed upon by the Project Director and Director, National Security Agency.

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(4) Interpreting National Intelligence Requirements into technical ELINT requirements and making recommendations to the staff for operational tasking of the satellite.

(5) Providing magnetic tapes to field collection sites on a continuing basis.

f. The Chief, Bureau of Naval Weapons is responsible for:

(1) Providing the Project Fiscal Representative whose responsibilities are:

(a) Budget preparation and submission. He is responsible for the disbursement of project funds to the U.S. Naval Research Laboratory and, further, for the submission of expenditure statements to the Program Director.

g. The Air Force Security Service is responsible for:

(1) Providing sites and the support facilities at these sites for a collection hut. This includes physical security and utilities.

(2) Providing operating personnel at the Air Force collection sites.

(3) Providing one qualified individual who may act with authority and may coordinate Air Force operations in coordination with the Project Director.

h. The Army Security Service is responsible for:

(1) Providing sites and the support facilities at these sites for a collection hut. This includes physical security and utilities.

(2) Providing operating personnel at the Army collection sites.

(3) Providing one qualified individual who may act with authority and may coordinate Army operations in coordination with the Project Director.

3.3(b)(1)

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3.3(b)(1)

V. L. LOWRANCE

Copy to:
Director, National Security Agency
Director, Naval Security Group
Director, Naval Research Laboratory
OIC, Scientific and Technical Intelligence Center

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APPENDIX U

5 November 1971

NRO/NSA/CIA/USN
MANAGEMENT AGREEMENT FOR THE POPPY SYSTEM

I. PURPOSE:

The purpose of this agreement is to define the organizational responsibilities and the lines of authority associated with the management of the POPPY System Project.

II. BACKGROUND:

The Navy Space Project (PM-16) was established by the Chief of Naval Operations under the Chief of Naval Material. The Manager, Navy Space Project, is also the Director of NRO, Program C. As the Director, Program C, he is supported by elements of the National Security Agency, the Central Intelligence Agency, and the United States Navy in fulfilling his responsibilities under the National Reconnaissance Program.

III. RESPONSIBILITIES:

The Director, Program C, is responsible to the Director, National Reconnaissance Office, for the overall management of the POPPY Project. The Director, National Security Agency, is responsible for the processing, analysis, and reporting of POPPY collected data. The Director, Central Intelligence Agency, is responsible for the administration and operational functions at the Tacksman site. The Director, Naval Research Laboratory, is responsible to the Director, Program C, for the engineering and technical support in the design, development, fabrication, test, and on-orbit operation of the system. The Commander, Naval Security Group Command, while functioning in support of the NRO, exercises for the Director, Program C, in flight operational control of the

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POPPY system, executing the tasking directions of the NRO and processing priorities of NSA.

/S/
John L. McLucas
Director
National Reconnaissance Office

5 November 1971

/S/
Noel Gayler
Vice Admiral, USN
Director
National Security Agency
27 October 1971

/S/
Carl E. Duckett
Deputy Director for
Science and Technology
16 July 1971

/S/
Robert A. Frosch
Assistant Secretary of the Navy
(Research and Development)
25 June 1971

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SPECIFIC RESPONSIBILITIES IN SUPPORT OF THE POPPY SYSTEM

1. The Director, Program C, is responsible to the Director of the National Reconnaissance Office (DNRO) for overall management of the POPPY Project. Included in his responsibilities are the following:
 - a. Establishes the policy for the management of the POPPY Project.
 - b. Coordinates all aspects of the project to ensure optimum effective employment of the system.
 - c. Develops requirements for POPPY mission concepts, personnel, ground support equipment, facilities, etc., and submits proposals to the DNRO for approval.
 - d. Prepares a coordinated plan for the design, development, construction, and implementation of approved concepts.
 - e. Coordinates, prepares, and submits the POPPY budget.
 - f. Allocates NRO funds as required for the design, development, and support of the project in accordance with DNRO Program and fund approvals.
 - g. Monitors the technical development, test, production, quality assurance, maintenance, training, and other logistic support matters to meet system objectives.
 - h. Provides guidance to COMNAVSECGRU for his responsibilities in the execution of POPPY operations.
 - i. Keeps the DNRO advised of the status, trends, accomplishments, problems, and any other important aspects of the project.
 - j. Furnishes requirements information and basic planning data to elements of the POPPY Project.
 - k. Performs continuous evaluation of progress against plans, cost against funds available, and capability against design objectives. Initiates corrective actions whenever necessary.
 - l. Ensures efficient utilization of manpower, materials, and funds pertaining to the project.
 - m. Provides guidance and review of security controls within the POPPY Project.

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2. The Director, Naval Research Laboratory, is responsible to the Director, Program C, for the engineering and technical support in the design, development, fabrication, test, and on-orbit operation of the POPPY system. His responsibilities include the following:

- a. Prepares mission concepts for submission to the Director, Program C.
- b. Initiates system engineering design to support approved concepts in the space and ground systems.
- c. Designs, develops, and fabricates satellite vehicles and provides on-board equipment required to implement approved concepts.
- d. Provides ground support equipment and repair parts required in the collection and interrogation functions of POPPY ground sites, ensuring appropriate interface between collection and processing functions.
- e. Assures complete engineering coordination between spacecraft and launch vehicle.
- f. Provides pre-launch technical coordination and monitoring of the POPPY launch.
- g. Monitors satellite telemetry to assess on-orbit spacecraft systems and reports as required.
- h. Prepares funding data as required by the Director, Program C.

3. The Commander, Naval Security Group Command, while functioning in support of the NRO, exercises for the Director, Program C, in-flight operational control of the POPPY system, executing the tasking directions of the NRO and processing priorities of NSA. His responsibilities include the following:

- a. Exercises management authority over POPPY field stations.
- b. Develops, plans, programs, and coordinates as required for current and future requirements for equipment, materials, supplies, facilities, maintenance, and administrative support services (other than that directly involved in collection and processing functions), housing, barracks, and messing needed for the POPPY operational mission.
- c. Plans and programs for manpower requirements at POPPY field stations.

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d. Develops procedures for executing the tasking directives of the NRO Satellite Operations Center and initiates guidance to field stations in response to NSA policy on processing priorities and other matters concerning field processing functions.

e. Monitors the operations of POPPY field activities to ensure the maintenance of high standards of performance.

f. Coordinates with NRL and NSA regarding all collection and processing equipment for POPPY field stations and monitors all installation plans and schedules for its impact on station facilities and service requirements.

g. Provides for routine repair and upkeep of POPPY operations equipment and interfaces with NRL regarding non-routine maintenance and repair.

h. Plans and programs for communications facilities to support POPPY operations.

i. Provides for the physical security facilities and services required to maintain authorized SI, TK, and BYEMAN control centers at the POPPY field stations.

j. Develops and administers, in coordination with Chief of Naval Personnel, the requisite training programs for officer and enlisted personnel assigned to POPPY field stations. Administers the personnel security program for these personnel.

4. The Director, National Security Agency, has overall responsibility for the processing, analysis, and reporting of POPPY collected data. Included in his responsibilities are the following:

a. Provides SIGINT technical guidance and feedback to the POPPY Processing System to ensure its effectiveness in conjunction with other satellite and non-satellite SIGINT operations.

b. Plans the technical and fiscal management of the processing and analysis functions of the POPPY system to include the manpower resources of the POPPY field sites. As such, he determines processing equipment requirements at the sites and coordinates with NRO, NRL, and NSG in the procurement, installation, and operational use of the equipment.

c. Budgets for the procurement and repair parts for POPPY processing and analysis equipment.

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d. Interfaces with the NRO; Director, Program C; NRL; and NSG in the development of future POPPY concepts as they relate to processing and analysis functions.

e. Processes, analyzes, and publishes data collected from the POPPY system.

3.3(b)(1)



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APPENDIX V

28 February 1967

MEMORANDUM OF UNDERSTANDING

SUBJECT: SIGINT Satellite Processing Relationships Among Prod Groups A, B, and G

1. ADP Memorandum NSA-BYE/60022-67, SIGINT Satellite Responsibilities within PROD, dated 10 January 1967, has assigned to PROD Groups A, B, and G responsibilities in SIGINT satellite exploitation equivalent to their SIGINT mission. Among these responsibilities are the levying of requirements, analysis of processed data, and input to various functions for which PROD 3.3(b)(1) has prime cognizance.

2. This memorandum of understanding provides a basis for coordination and coparticipation by A, B, and G in discharging their responsibilities. It takes into account several pertinent factors:

a. PROD Group A has inbeing capabilities which can and will continue to be used to the benefit of Groups B and G as required.

b. In general, the nature of SIGINT satellites is such that within a given payload, orbit, or task the interests of Group A, B, and G may all be involved and may affect one another.

c. Similarly, the nature of collected data is such, that usually a determination of analytic and reporting responsibility can be made on the basis of emitter parameters and coordinates provided. This initial analysis function (i.e. emitter identification and location) will be performed by the Group responsible for SIGINT exploitation of targets in the area involved (except if a Group requests this function to be performed by another Group). The application of unique knowledge and talent within each Group is of fundamental importance.

d. Requirements provided to 3.3(b)(1) should be fully coordinated with A, B, and G for any payload in question, as well as inputs to payload evaluation.

e. The primary objective of initial analysis is to provide accurate emitter identification and locations to the analysts of the Group responsible for exploitation, to enter data into the Standardized History Files, and to satisfy the basic payload objectives, e.g. EOB.

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f. The NSA representative to the COMOR SIGINT Working Group should be cognizant of PROD Group requirements and evaluations and arrange for participation of Group representatives when matters affecting them are discussed.

3. As an initial step towards implementing ADP Memorandum dated 10 January 1967, it is agreed that:

a. PROD Group A (A65/A67) will perform initial analysis of COMINT and ELINT on all targets of interest within A Group geographical areas, and will continue to use its overall inbeing capabilities as required by B and G on suspect targets in their areas of interest.

b. PROD Group B will perform initial analysis on all incoming COMINT and ELINT material, including emitter identification and location, technical and end-product reporting on all targets of interest within B Group geographical areas. Assistance will be provided by A67 and particularly A65 as required by B for some time in the near future.

c. PROD Group G will exploit material provided by A65/A67, and will work towards SIGINT Satellite capabilities as warranted. G04 will act as Project II contact point.

d. The initial analysis function will carry with it for a specific payload the specification of collection, processing, and signal analytic requirements, and inputs to ELINT History File, payload evaluation, support of payload and processing system design, etc. Project II responsibilities of A65, A67, B/SPO, and G04 will provide an inbeing coordination mechanism for these ancillary functions.

e. Depth and fusion analysis and reporting will be performed by the Group having substantive responsibility for the subject undertaken. The Group(s) performing depth and fusion analysis will place coordinated signal analysis requirements upon 3.3(b)(1)

f. PROD Group A will provide overall History File input interrogation support and the development of a COMINT targetting data base as required and to the extent necessary.

g. A65, A67, B/SPO, and G04 are designated as Group contact and coordination points for all SIGINT Satellite actions relating to their respective Groups.

h. In view of the nature of the SIGINT Satellite problem, maximum possible coordination will be effected among the Groups, and special care will be exercised to keep other Groups informed of actions which could affect their interests. To this end, A65, A67, B/SPO, and G04 will constitute a standing committee for the purpose of exchanging

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information, coordination, specification of priorities, and review of requirements for processing. Initially the NSA CSWG Representative will serve as chairman of committee meetings.

ARTHUR LEVENSON
Chief, A

B. K. BUFFHAM
Chief, B

F. RAVEN
Chief, G

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Pages 246 through 251 redacted for the following reasons:

3.3(b)(1)