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No. OSA-1

Vol. I of XVI

# DIRECTORATE OF SCIENCE & TECHNOLOGY HISTORY

(TITLE OF PAPER)
History of the Office of Special Activities
Table of Contents
Chapters I, II, and III
(PERIOD)
From Inception to 1969

## DO NOT DESTROY

Controlled by : DDS&T

Date prepared : 1 April 1969

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Robert O'Hern

~~TOP SECRET~~



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TABLE OF CONTENTS



NOTE

This OSA History was delivered as a first draft to the Chairman of the DD/S&T Historical Board, [REDACTED] in April 1969. It has never been critically edited for errors of fact or form, and therefore should be considered in this light by any future readers.

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[REDACTED]  
Helen H. Kleyla

May 1974



~~TOP SECRET~~

Chapter Headings:

- I. Background
- II. Initial Approval
- III. Organization and Project Management Staff
- IV. Budgeting and Planning
- V. Development and Procurement: Contracting  
for the U-2
- VI. Communications
- VII. Security and Cover
- VIII. Test Program, Watertown
- IX. Materiel
- X. Contract Pilots
- XI. Detachment A
- XII. Detachment B
- XIII. British Participation in the U-2 Program
- XIV. The May Day 1960 Incident
- XV. Detachment C
- XVI. Detachment G
- XVII. Chinese Participation in the U-2 Program
- XVIII. Amalgamation of Air Activities, 1959-1962
- XIX. Intelligence Acquired from U-2 Program  
and Its Effect on U. S. National Policy
- XX. Project OXCART

HANDLE VIA BYEMAN  
CONTROL SYSTEM

~~TOP SECRET~~



~~TOP SECRET~~CONTENTS

	Page
Chapter I. Background	
Surprise Attack	1
Land Panel Proposal	2
Lockheed CL-282 Profile	3
Optics Research	6
Annex 1. Land Panel Proposal, 5 November 1954. (TS-115018/A)	
Annex 2. Profile of CL-282 High Altitude Aircraft, prepared by Lockheed Aircraft Corp., 5 March 1954. (LAC Report No. 9732)	
Annex 3. Photoequipment Specifications, prepared by Dr. James G. Baker, 14 January 1955. (TS-103230)	
Chapter II. Initial Approval	
USAF/CIA Approval	1
White House Approval	3
Annex 4. Memorandum for the Record on luncheon meeting with the Secretary of the Air Force prepared by Gen. C. P. Cabell, DDCI, 19 November 1954. (TS unnumbered)	
Annex 5. Memorandum for the Record on meeting with Gen. Twining prepared by Gen. C. P. Cabell, DDCI, November 1954. (TS unnumbered)	
Annex 6. Memorandum (for the President), Subject: Reconnaissance, signed by the Director of Central Intelligence, 24 November 1954. (TS-103085)	

~~TOP SECRET~~

Handle via BYEMAN  
Control System



~~TOP SECRET~~

(II contd)

Page

- Annex 7. Memorandum, Subject: Intelligence, signed by seven members of the Intelligence Advisory Committee, 23 November 1954. (TS unnumbered)
- Annex 8. Memorandum for the Record on meeting at the White House prepared by Gen. C. P. Cabell, DDCI, 24 November 1954. (TS unnumbered)

## Chapter III. Organization and Project Management Staff

The Project Director	1
Project Outline	4
Project Staff and Headquarters	6
Air Force/CIA Agreement	8
Personnel	16
Military Personnel	18
Contract Personnel (Techreps)	21
Full Complement Achieved	23
PCS and TDY Basis for Field Assignment	24
Cutbacks and Later Increases	27
Annex 9. Curriculum Vitae, Richard M. Bissell, Jr.	
Annex 10. AQUATONE Project Outline, 7 January 1955. (TS-103219)	
Annex 11. Memorandum for Deputy Chief of Staff, Operations, U. S. Air Force, from Richard M. Bissell, Jr., 25 March 1955. (TS-103292/A)	

ii

~~TOP SECRET~~

Handle via BYEMAN  
Control System



~~TOP SECRET~~

Page

(III contd)

- Annex 12. Memorandum for Assistant Secretary of the Air Force for Research and Development with attached proposal for organizational arrangements for AQUATONE/OILSTONE, from R. M. Bissell, Jr., dated 29 June 1955. (TS-103-600)
- Annex 13. Memorandum for Director of Central Intelligence, subject, organizational concept for Project AQUATONE, from R. M. Bissell, Jr., dated 7 July 1955. (TS-103613)
- Annex 14. CIA/USAF Agreement, "Organization and Delineation of Responsibilities Project OILSTONE", dated 2 August 1955 (TS-142557/D)
- Annex 15. First Table of Organization, Project AQUATONE, 28 April 1955. (TS-103542)
- Annex 16. Summary of Table of Organization (on board versus authorized strength), 14 October 1960. (Secret, unnumbered)
- Annex 17. Headquarters Notices establishing and outlining the mission for the Deputy Director (Research), and of the Office of Special Activities (OSA) with organizational chart of OSA. (HN 1-9, 16 February 1962; HN 1-23, 30 July 1962) Headquarters Notice announcing renaming of Deputy Director (Research) as Deputy Director for Science and Technology. (HN 1-36, 5 August 1963)
- Annex 18. Memorandum for Director of Personnel from Director of Special Activities setting forth proposed reorganization of headquarters and field detachments of the Office of Special Activities, 13 July 1966. (BYE-2548)

iii

~~TOP SECRET~~**Handle via BYEMAN  
Control System**



~~TOP SECRET~~

	Page
Chapter IV. Budgeting and Planning	
Initial Funding: Use of Agency Reserve	1
Air Force Support	3
Project Comptroller	8
First Budget Presentation: FY 1955-56	9
FY 1957	12
FY 1958	15
FY 1959	18
FY 1960	23
FY 1961	26
FY 1962	28
FY 1963	29
FY 1964: NRO	34
FY 1965	36
FY 1966	38
FY 1967	39
NRO Establishment: Principal Events to December 1966 - Background	40
NRO Agreements and Procedures	42
Monthly Forecast (NRP)	61
Land Panel for Overview of NRP	61
NRO Agreement of August 1965	62

~~TOP SECRET~~



~~TOP SECRET~~

Page

(IV contd)

Withheld under statutory authority of the  
 Central Intelligence Agency Act of 1949 (50  
 U.S.C., section 403g)

- Annex 19. Letter to Director of Central Intelligence from Special Assistant to the Secretary of the Air Force for Research and Development, Mr. Trevor Gardner, 27 December 1954. (Secret, unnumbered)
- Annex 20. Memorandum to the Project Director from the Project Comptroller, [REDACTED] Subject: USAF Contribution to AQUATONE, 8 August 1957. (TS-164616)  
Statement of estimated cost of project for FY 1955-56-57, prepared by Richard M. Bissell, Jr., 24 March 1956. (SAPC-4637)
- Annex 21. Major Materiel Commitments and Budget FY 1955-1956, prepared by Project Comptroller 28 June 1955. (TS-103608)
- Annex 22. Memorandum for Director of Central Intelligence from Richard M. Bissell, Jr., Subject: High Level Meeting on Project AQUATONE, 3 May 1957. (TS-164228/A with attachments TS-164231/A, TS-164227/A, and TS-164229)
- Annex 23. Memorandum to Chief of Staff, USAF, from the Director of Central Intelligence, Subject: Future Plans for Project AQUATONE/OILSTONE, 29 July 1957. (TS-158820)
- Annex 24. Headquarters Notice establishing the office of Special Assistant to the Director for Planning and Development, 8 April 1958. (N-1-110-11)
- Annex 25. Memorandum for Director of Central Intelligence from Richard M. Bissell, Jr., Subject: Financing of Special Projects, FY 1959 (DPS-3074, 12 August 1958); and Memorandum for Director of Central Intelligence from R. M. Bissell, Jr., Subject: Identification of Special Projects, 13 August 1958. (TS-155106)

v

~~TOP SECRET~~

Handle via BYEMAN  
Control System



~~TOP SECRET~~

Page

- Annex 26. Headquarters Notice establishing the Development Projects Division under DD/P 18 February 1959. (N-1-120-2)
- Annex 27. Memorandum for Director of Central Intelligence from Richard M. Bissell, Jr., Subject: DPD Activity Programs FY 1960, 30 November 1959. (DD/P 4-9575)
- Annex 28. Memorandum for Deputy Director for Science and Technology from Deputy Director of Special Activities, Subject: TAGBOARD Program, 17 August 1967. (BYE-2559-67)
- Annex 29. Memorandum for Director of Central Intelligence from Deputy Director for Science and Technology, Subject: Abolition of the Office of Special Activities, Pros and Cons, 7 October 1963. (BYE-0206-63)
- Annex 30. Memorandum for Director, NRO from Director, Program B, Subject: IDEALIST Program Summary, 3 February 1965. (BYE-2165-65)
- Annex 31. Memorandum for Director of Central Intelligence from Richard M. Bissell, Jr., Subject: Meeting with Messrs. Quarles and Gardner on 14 November 1955, 11 November 1955. (TS-142628)
- Annex 32. Letter to Director of Central Intelligence from Deputy Secretary of Defense, Roswell L. Gilpatric, Subject: Management of the National Reconnaissance Program, 6 September 1961. (TS unnumbered)
- Annex 33. Draft statement of "Division of Responsibility Within NRO" prepared by Mr. E. P. Kiefer of DPD, 5 December 1961. (TS unnumbered)

vi

~~TOP SECRET~~**Handle via BYEMAN  
Control System**



~~TOP SECRET~~

Page

- Annex 34. Agreement between Secretary of Defense and Director of Central Intelligence on Responsibilities of the NRO(TS), 2 May 1962. (BYE-1166-62)
- Annex 35. Memorandum for NRO Program Directors and Director, NRO Staff, from Director, NRO, Joseph V. Charyk, 23 July 1962. (BYE-1733-62)
- Annex 36. Agreement between the Secretary of Defense and the Director of Central Intelligence on Management of the National Reconnaissance Program, 13 March 1963. (BYE 6655-63)
- Annex 37. Method of Operation for the DD/NRO, 10 May 1963. (BYE 4924-63)
- Annex 38. Agreement for Reorganization of the National Reconnaissance Program, signed by Deputy Secretary of Defense Cyrus Vance and Director of Central Intelligence W. F. Raborn, 11 August 1965. (BYE 5678-65)
- Annex 39. Letter to Director, NRO, Alexander Flax, from Director of Central Intelligence, W. F. Raborn, concerning the establishment of the office of Director of CIA Reconnaissance Programs, 1 October 1965 (BYE 0337-65/A); and Memorandum for Huntington D. Sheldon from Director of Central Intelligence, Subject: Assignment of Responsibilities for NRO Matters, 12 January 1966. (BYE 0571-65).
- Chapter V. Development and Procurement: Contracting for the U-2

Lockheed Contract	1
-------------------	---

Perkin-Elmer Contract	4
-----------------------	---

vii

~~TOP SECRET~~

**Handle via BYEMAN  
Control System**

~~TOP SECRET~~

(V contd)

	Page
Ramo-Wooldridge Contract	9
Other Contracts:	
Westinghouse Electric	16
Eastman Kodak	17
Baird Atomic, Inc.	18
Lovelace Foundation	18
Firewel Co. /David Clark Co.	18
General Precision Laboratories	19
Procurement for Air Force and Navy	20
General Counsel Opinion on Early U-2 Contracting	24
Later Air Force Procurement	25
Development of Contract Management Staff	27
Procurement of Additional U-2's	31
Annex 40. Letter to Director of Central Intelligence from Deputy Chief of Staff, Development, USAF, Lt. Gen. Donald L. Putt, Subject: Project AQUATONE Photographic Equipment, 14 January 1955. (DX-TSC-1048)	
Annex 41. Record of Negotiations, Lockheed Aircraft Corporation, Contract No. SP-1913, prepared by George F. Kucera, Contracting Officer. (TS-103301)	
Annex 42. Historical Review, Lockheed Aircraft Corp. Contract No. SP-1913, prepared by Mr. C. L. Johnson (LAC). (BYE-1260-62)	

viii

~~TOP SECRET~~

Handle via BYEMAN  
Control System



~~TOP SECRET~~

(V contd)

Page

Withheld under statutory authority of the  
 Central Intelligence Agency Act of 1949 (50  
 U.S.C., section 403g)

- Annex 43. Electronic Equipment, U-2 Program, 1955-1966, prepared for this history from material available in OSA files.
- Annex 44. U-2 Camera Systems: a listing of the various photographic systems which have been developed and/or procured between 1955 and 1966; prepared by [redacted] OSA/DR&D.
- Annex 45. Letter to the Secretary of the Air Force, Donald A. Quarles, from the Director of Central Intelligence, Allen W. Dulles, Subject: procurement by CIA on behalf of the Air Force, 30 January 1956. (TS-142959)
- Annex 46. History of USAF Funds Transferred to CIA/OSA for U-2 and Systems Procurement from 29 February 1956 cumulative through 31 December 1966. (TS unnumbered)
- Annex 47. Memorandum for Director of Central Intelligence from the General Counsel, Mr. Lawrence R. Houston: A summary of the contracting procedures used in the initial stages of AQUATONE and the legal aspects of these procedures. Dated 5 June 1956. (SAPC-6688)
- Annex 48. Organization Chart, Development and Procurement Staff, as of June 1957. (Attachment to SAPC-16511, 11 June 1957)
- Annex 49. Status of Contracts, 30 December 1966. (TS unnumbered)
- Annex 50. Memorandum for Director, National Reconnaissance Office from Directors of Programs B and D, 21 June 1965, Subject: Future Needs for U-2 Aircraft. (BYE 2614-65)

ix

~~TOP SECRET~~

Handle via BYEMAN  
 Control System

~~TOP SECRET~~

	Page
Chapter VI. Communications	
Agreement with Director of Communications, CIA	1
HBJAYWALK Channel	3
Test Site Communications	4
AACS Support	6
Growth of Cable Traffic Volume	8
Support for Staging Operations	11
In Praise of Commo	13
Annex 51. Communications Outline Plan, October 1955, Annex 6 to TS-142636.	
Annex 52. HBJAYWALK Directory	
Annex 53. Communications Annex to Ops Order 7-64 for Project BIG BARREL III, dated 23 November 1964. (TS)	

## Chapter VII. Security and Cover

Development Period	1
Plant Security	3
Security Responsibility: Agreements	4
Clearance Procedures	8
Security at Watertown Test Site	14
MATS Shuttle: Burbank to Watertown	17

x

~~TOP SECRET~~

Handle via BYEMAN  
Control System



~~TOP SECRET~~

(VII contd)

	Page
Security Support in the Field	21
Security Support at Headquarters	22
Cover	25
Emergency Procedures	34
Cover Activities in the Weather Field	35
Erosion of Cover: Incidents and Press Stories	37
Development of the BYEMAN System	44
Annex 54. Sanitized cover story for use during development stage, dated 26 January 1955. (TS-103234)	
Annex 55. Memorandum to Mr. Bissell from Brig. Gen. M. A. Preston, Deputy Director, Operations, USAF, Subject: USAF R-17 Program (assignment of USAF U-2 aircraft to the 4080th Strategic Reconnaissance Wing, Light), 14 December 1956. (TS-158772)	
Annex 56. Newspaper clipping on MATS Shuttle crash, 17 November 1955.	
Annex 57. Major U-2 Accident Chronology, 1956-1968 (prepared for this history).	
Annex 58. Memorandum to Suppliers, Subject: Release of Project Developed Systems, Sub-systems, Components, Techniques and Technical Know-How to Department of Defense, 21 December 1956. (SAPC-11628)	

~~TOP SECRET~~

Handle via BYEMAN  
Control System

~~TOP SECRET~~

(VII contd)

Page

- Annex 59. Project Cover Story. 26 March 1956.  
(TS-143267/1)
- Annex 60. Unclassified Cover Story, and  
background information and press  
release for 7 May 1956.
- Annex 61. Procedures to be followed in the event  
of an aircraft loss over hostile territory,  
29 June 1956. (TS-143486/Final)
- Annex 62. Typhoon-Eye Cloud Patterns as Viewed  
from Above, by Bundgaard, Fletcher  
and Smith of the Air Weather Service,  
reprinted from Weatherwise, Vol. 12,  
No. 2, April 1959; and Post-Analysis  
Report on Typhoon Vera, 20-27 Sep-  
tember 1959, prepared by WRSP(III)  
And Air Weather Service.
- Annex 63. Clippings from Japanese aviation  
publications concerning the U-2.

## Chapter VIII. Test Program, Watertown

Selection of a Test Site	1
AEC Agreement	4
Construction at Watertown	6
Delivery of the First U-2	7
First Flight	8
Additional Construction	10
Engine Development: Fuel Control Problems	12

xii

~~TOP SECRET~~

Handle via BYEMAN  
Control System



~~TOP SECRET~~

(VIII contd)

Page

J-57/P-37 Engine Versus J-57/P-31 13

Organization and Lines of Command  
at Watertown 15

Phase-out of Watertown 22

Annex 64. Memorandum of Understanding between  
Atomic Energy Commission and CIA  
on support at Watertown, 14 August 1955.  
(TS-142573)

## Chapter IX. Materiel

Early Planning 1

Materiel Support to Field Units 4

Depot Support 6

Headquarters Materiel Staff 9

Annex 65. Operational Plan, 4070th Support Wing  
(SAC group set up to support Project  
AQUATONE) 15 December 1955.  
(TS-PG-TSC-3121)

## Chapter X. Contract Pilots

Foreign Versus U.S. Pilots 1

Recruiting Procedures 5

50X1 and 6, E.O.13526

7

Pilot Cover 10

Pilot Morale 12

xiii

~~TOP SECRET~~Handle via BYEMAN  
Control System

~~TOP SECRET~~

(X contd)

	Page
Pilot Contracts	13
Insurance and Death Benefits	18
Pilot Emergency Procedures	21
Aeromedical Support	29
Annex 66. Terms of Original Contract Signed by U-2 Pilots, January 1956, as amended in March 1956.	
Annex 67. Terms of Pilot Contract as Amended Effective 1 January 1961.	
Annex 68. Operations Policy Letter No. 6, Subject: Intelligence Briefings, Including Policy for Pilots Forced Down in Hostile Territory, 8 May 1956. (TS-143464)	
Annex 69. Headquarters Directive 50-1055-24, Policy Governing Conduct of Resistance to Interrogation Training and Guidance for Project Pilots Forced Down in Hostile Territory, 27 October 1965. (TS)	
Annex 70. Roster of U-2 Pilots, 1956-1966. (TS)	

## Chapter XI. Detachment A

Organization, Manning and Training of First Field Unit	1
SAC Training Unit at Watertown	3
Selection of Base for First Operations: Early Survey of Turkish Bases	7
Approval Sought to Operate from the U. K.	10

xiv

~~TOP SECRET~~

Handle via BYEMAN  
Control System  
CONTROL SYSTEM



~~TOP SECRET~~

(XI contd)

	Page
Detachment A Combat Ready	15
Deployment to England	17
Move of Detachment A to Germany	21
Approval to Begin Overflights	23
First Missions over the Soviet Union	29
Soviet Tracking Capability	30
Russian Protest	32
Detachment A Command and Morale Problems	36
Future Plans for AQUATONE	38
Middle East Activity: Postponement of Further Soviet Overflights	39
Annex 71. Memorandum for the Secretary of State from Director of Central Intelligence transmitting proposed text of a note to the British concerning use of U. K. base, 8 February 1956. (TS-142961)	
Annex 72. Memorandum prepared by Mr. Bissell for information of the White House, entitled "AQUATONE Operational Plans", dated 31 May 1956. (TS-143443/B)	
Annex 73. Memorandum for the Record by Mr. Bissell, Subject: Conversation with Col. Andrew J. Goodpaster, Dr. James Killian and Dr. Edwin Land, 21 June 1956. (TS-143448)	

xv

~~TOP SECRET~~

Handle via BYEMAN  
Control System

~~TOP SECRET~~

(XI contd)

Page

- Annex 74. Russian Protest Note of 10 July 1956 and Department of State reply.
- Annex 75. Memorandum for Director of Central Intelligence from Richard M. Bissell, Jr., with changes suggested by Gen. Cabell (DDCI), Subject: Decision on Project AQUATONE, dated 8 August 1956. (TS-143450 Rev. 1)

## Chapter XII. Detachment B

Organization and Training	1
Flight Restrictions Placed on Col. Perry	3
Turkish Approval for Operations at Incerlik Air Base	5
Deployment to Incerlik	7
First Operations: Middle East Coverage	12
Problems with Commanding Officer, Detachment B	14
First Staging From Pakistan	18
Operation SOFT TOUCH	19
Change of Command, Detachment B	21
Second Staging Planning	23
Staging from Norway: Planned and Postponed	25
Project NEW MOON	27

xvi

~~TOP SECRET~~

Handle via BYEMAN  
Control System



~~TOP SECRET~~

(XII contd)

Page

	British Join Detachment B	30
	Elint Missions	30
	Further Operations, 1959	31
	Soviet Missile Launch Site Covered Again	31
	British Operations	33
	Project Relations with Norwegians	34
	Planning for Spring 1960 Operations	35
	Operation GRAND SLAM	39
	Efforts to Remain Operational at Adana	46
Annex 76.	Department of State Cable to Charge at Ankara with instructions on approach to Prime Minister Menderes concerning use of Turkish base, 28 April 1956. (ADIC-1917, OUT 50888)	
Chapter XIII.	British Participation in the U-2 Program	
	Background	1
	Project OLDSTER	2
	Political Approvals	4
	OLDSTER Operational Phase	12
	RAF Liaison Officer at Project Headquarters	14
	Continuation of British Participation: JACKSON (1961 to date)	17
Annex 77.	Proposed Project CHALICE/KEEPER Plan A, dated 16 June 1958. (CHAL-0164)	

~~TOP SECRET~~

~~TOP SECRET~~

(XIII contd)

Page

- Annex 78. CHALICE/OLDSTER Operational Plan, dated 28 October 1958. (TS/CHAL-0397)
- Annex 79. Memorandum of Understanding with the British, Subject: Integration of Project JACKSON Pilot Personnel into Project IDEALIST Detachment at Edwards Air Force Base, California, 25 May 1961. (IDEA-0303)
- Annex 80. IDEALIST/JACKSON Operational Plan, dated 18 May 1961 (DDI(B)TS. 5013)
- Annex 81. Memorandum for Deputy Director for Science and Technology from Acting Assistant Director, Special Activities, Subject: Continuation of the JACKSON Program, 9 June 1965. (BYE 2628-65)

## Chapter XIV. The May Day 1960 Incident

In Moscow	1
In Washington	1
In Turkey	4
Third Country Involvement: Pakistan	5
Soviet Disclosures: Washington Reactions	6
Third Country Involvement: Norway	11
Congressional Briefing, 9 May 1960	12
Further Moscow Revelations	13
Damage Assessment	14
President Eisenhower's Press Conference, 11 May 1960	15

xviii

~~TOP SECRET~~

Handle via BYEMAN  
Control System



TOP SECRET

(XIV contd)

Page

Further Third Country Problems	18
Paris Summit Conference	18
Preparation for the Defense of Powers	23
Propaganda for the Defense	25
Ad Hoc Committee on Powers Trial	29
The Trial and Subsequent Events	34
NBC White Paper	39
Trouble with Barbara	40
The Abel/Powers Exchange	42
Intelligence Star Awarded	54
Annex 82. Statement by Chairman Khrushchev to the Supreme Soviet Concerning the Shootdown of U-2, 5 May 1960.	
Annex 83. "Don't Play with Fire, Gentlemen" (from the concluding words of Khrushchev to the Fifth Session of the Supreme Soviet USSR, Fifth Convocation, 7 May 1960).	
Annex 84. Text of State Department Release following Khrushchev statement on downing of U-2, 7 May 1960, 1800 hrs.	
Annex 85. Statement to the press by the Secretary of State, 9 May 1960 (No. 254); and Statement by Mr. Allen W. Dulles at briefing of Congressional Leaders, 9 May 1960.	

xix

TOP SECRET

Handle via **BYEMAN**  
Control System

~~TOP SECRET~~

(XIV contd)

Page

- Annex 86. Memorandum for Deputy Director (Plans) from Special Investigation Group, Subject: U-2 Incident (Estimate and Analysis of Compromise of Agency Classified Information), 27 June 1960. (CHAL-1052-60)
- Annex 87. Book Dispatch No. 1996 to Chiefs of Certain Stations and Bases, from DCI, Subject: U-2 Incident, 15 June 1960.
- Annex 88. Written and Oral Communications Between the US, USSR, and other Governments in Connection with the U-2 Incident, prepared by the State Department, 12 August 1960. (RSB MM-O 203, Secret NOFORN)
- Annex 89. Text of President Eisenhower's Address on Collapse at the Summit, 25 May 1960.
- Annex 90. Memorandum for the Record by John N. McMahon, Personnel Officer, DPD, Subject: The Legal Defense of Francis Gary Powers, 30 June 1960. (DPD 5262-60)
- Annex 91. Propaganda Guidance to Stations and Bases on Powers Trial (from Bi-Weekly Guidance Issue of 1 August 1960, para. 272)
- Annex 92. Summary of Transcript of Trial of Francis Gary Powers (prepared by the CI Staff from translation of "The Trial of the U-2"), 13 October 1960.
- Annex 93. NBC White Paper #1, The U-2 Affair, Broadcast 29 November 1960, 10:00 p.m. EST.
- Annex 94. Exchange of letters between Mr. Oliver Powers and Col. Rudolf I. Abel, June 1960.

xx

~~TOP SECRET~~Handle via BURNHAM  
Control System



~~TOP SECRET~~

(XIV contd)

Page

- Annex 95. Release Procedures--Francis Gary Powers, prepared by the Ad Hoc Committee on the Powers Trial, 23 February 1961. (Attachment to IDEA-0189)
- Annex 96. Memorandum for the Secretary of State from Acting Director of Central Intelligence Subject: Powers-Abel Exchange, 2 November 1961. (ER 61-8690)
- Annex 97. Letter from Secretary of State Rusk to the Attorney General concerning method of seeking a Powers-Abel exchange, 24 November 1961.
- Annex 98. Negotiation of Powers/Abel exchange by Mr. James Donovan as described in the cable traffic between Headquarters and Berlin Base, 3 - 10 February 1962.
- Annex 99. Account of Events at Glienecker Bridge, 10 February 1962, by E. Allan Lightner, Jr., U.S. Mission, Berlin.
- Annex 100. Account of Powers/Abel exchange as told by Mr. Fred T. Wilkinson of the Federal Bureau of Prisons, Abel's escort.
- Annex 101. Hearing before the Committee on Armed Services, United States Senate, 87th Congress, 2nd Session, on Francis Gary Powers, 6 March 1962. (Committee Print) ✓

## Chapter XV. Detachment C

Activation and Training	1
Base Selection	2

xxi

~~TOP SECRET~~

Handle via BYEMAN  
Control System

~~TOP SECRET~~

(XV contd)

Page

Squeeze Between SAC's U-2 and BLACK KNIGHT Programs	4
Deployment and Shake-down	16
Operational Period: Staging from Alaska	20
Theater and Detachment Command Changes: 1957	20
Operations: Second Year Russian Protest	23
Operation ROBIN HOOD	25
Typhoon Hunting	26
Further Operations: 1958	27
1959 Operations: MILL TOWN; SOUTH GATE	29
Fujisawa Accident and Publicity	30
QUICK KICK	31
1960 Operations TOPPER; <span style="border: 1px solid black; display: inline-block; width: 150px; height: 1em; vertical-align: middle;"></span>	31
Post May Day Activities in Japan: Withdrawal of Detachment C	33

50X1, E.O.13526

Annex 102. Memorandum for Director of Central  
Intelligence from R. M. Bissell, Jr.,  
Subject: Status of Project AQUATONE,  
24 January 1957. (TS-158780)

Annex 103. Soviet protest notes of 5 March and  
21 April 1958, and U.S. replies thereto.

xxii

~~TOP SECRET~~

Handle via BYEMAN  
Control System



~~TOP SECRET~~

	Page
Chapter XVI. Detachment G	
Activation of WRSP (IV)	1
Continued Test Programs at Edwards:	
Radar Camouflage	2
Camouflage Paint	4
Test Programs 1957-1960	5
U. S. Mule	6
Electronic Countermeasures and Collection Systems	7
Conversion of U-2 to J-75 Engine	8
Reorganization of Detachment G - September 1960	10
Inflight Refueling Capability, 1961	11
Beginning of Detachment G Operations: Cuba, 1960	13
Other Activities, 1960	16
Further Cuban Coverage: Counter- Revolution Fails	17
Vietnam Coverage, 1961-64	17
Operation NIMBUS: Cuba During the Missile Build-up	19
Sino-Indian Border Coverage, 1962-64	26
Coverage of Venezuela and British Guiana	35
U-2 Carrier Version and Its Operations	36
Dual Staging Capability at Detachment G	38

xxiii

~~TOP SECRET~~

Handle via BYEMAN  
Control System

~~TOP SECRET~~

(XVI contd)

Page

Build-up of Facilities at  
Detachment G, 1964-66 39

Continued Development and Testing  
at Edwards, 1963-66:  
Improved Camera Systems 40

Product Improvement Program:  
Auto Pilot 42  
Instrument Panel 42  
Improved Seat Pack 43

Postscript on U-2 Airframe 44

Annex 104. Memorandum for Deputy Director of  
Central Intelligence from Richard M.  
Bissell, Jr., Subject: Bombing Capa-  
bility for the U-2, 18 February 1959.  
(CHAL-0573)

Annex 105. Memorandum for Chief, Security  
Branch, DPD, from James A.  
Cunningham, Jr., Asst. Chief, DPD,  
Subject: Briefing of Policy Officials  
on DPD Activities, 26 July 1961.  
(IDEA-0397)

Annex 106. Normal U-2 Mission Operations Plan,  
and listing of Detachment G overflight  
missions, October 1960 to April 1968.

#### Chapter XVII. Chinese Participation in the U-2 Program

Background	1	✕
White House Approval	8	
Cover	13	

xxiv

~~TOP SECRET~~

Handle via BYEMAN  
Control System



~~TOP SECRET~~

(XVII contd)

Page

Deployment of Detachment H	17
Agreement with the Chinese: Memorandum of Understanding	21
Chinese Pilots and Training	25
Death Benefits	30
Detachment H Materiel Support	37
Operations: Delay in Obtaining Approval	41
First Missions Approved	44
First TACKLE Mission Loss and Stand-Down	47
Operations 1963	50
Second Mainland Loss	51
Operations Resumed: Third Mainland Loss	53
Fourth Loss over Mainland	58
1965 Operations	60
Operations 1966	63
New CAF/CIA TACKLE Agreement	70
Fifth Mainland Loss	72

Annex 107. Memorandum of Understanding, Project  
RAZOR (TACKLE), 25 January 1961.

xxv

~~TOP SECRET~~

Handle via BYEMAN  
Control System

~~TOP SECRET~~

(XVII contd)

Page

Annex 108.	Schedule of TACKLE Pilots	
Annex 109.	Project Headquarters Directive 50-10-25, Establishment of a GRC U-2 Pilot Training Program at Detachment G, dated 17 June 1966. (BYE-2483-66)	
Annex 110.	Major Aircraft Accidents, TACKLE Program (March 1961-September 1967)	
Annex 111.	Procedures for Project DEN MOTHER (materiel support plan for Detachment H) from Head- quarters 13th Air Force, 20 May 1963, and re- vision to procedures dated 25 August 1966. (TS-155923)	
Annex 112.	Listing of Project TACKLE Overflights 1962-68	
Annex 113.	Interdepartmental Cover Support to Operation TACKLE, 13 January 1965. (BYE 2086-65)	
Annex 114.	United States-Chinese "Project RAZOR" Agreement, effective 18 March 1967	
Chapter XVIII.	Amalgamation of Air Activities, 1959-1962	
	Early Proposal - 1956	1
	Amalgamation Effected:	6
	Tab 6	7
	Organization Guidelines	7
	Relocation of the EAOB	8
	50X1, E.O.13526	10
	Stockpiling	11
	DPD Assumption of Far East Air Support (STBARNUM, STPOLLY)	11

xxvi

~~TOP SECRET~~HANDLE VIA BYEMAN  
CONTROL SYSTEM



~~TOP SECRET~~

(XVIII contd)

	Page
Detachment 2 Established at Kadena	20
Operations, 1959-1962	21
Laotian Operations	22
Vietnam Air Operations	24
Detachment 1 Activities, 1959-61	25
Cuban Operations	25
Pre-Invasion Strike Base	28
DPD Mop-up Operations	31
Establishment of Air Proprietary Branch	33
Aircraft Inventory, September 1961	35
Air Support Reverts to SOD/DDP	36
Annex 115. Memorandum to ADDP, C/PP, C/EE, C/FE and C/DPD from Richard M. Bissell, Jr., DD/P, Subject: Organization and Control of CIA Air Operations, 12 May 1959. (DD/P 4-5791)	
Annex 116. Memorandum for Deputy Director (Plans) from AC/DPD and C/FE, Subject: Joint Agreement Between Far East Division and Development Projects Division Delineating Functions and Responsibilities for Air Activities in the Far East, 24 November 1959. (DPD-7675-59)	

xxvii

~~TOP SECRET~~

Handle via BYEMAN  
Control System

~~TOP SECRET~~

	Page
Chapter XIX. Intelligence Acquired from U-2 Program and Its Effect on U.S. National Policy	
Requirements for Photo Intelligence	1
Processing U-2 Photography	5
Photo Interpretation and Exploitation: Project HTAUTOMAT	9
Field PI Units	14
Elint Requirements	15
Elint Missions	18
Comint/NSA Support	19
Accomplishments of the U-2 Program	21
Annex 117. Memorandum for Col. Albert M. Welsh, Director of Operations from Richard M. Bissell, Jr., Project Director, Subject: Procedure for Determining Intelligence Requirements for AQUATONE, 1 December 1955. (SAPC-2699)	
Annex 118. Memorandum for Brigadier General Andrew J. Goodpaster from Director of Central Intelligence, Allen W. Dulles, Subject: Statistics Relating to the U-2 Program, 19 August 1960. (CHAL-1138/1-60) Also attachment "Accomplishments of the U-2 Program" dated 27 May 1960. (TCS-7519-60-b)	
Annex 119. "Mission to Birch Woods, Seven Tents, and New Siberia" by Henry S. Lowenhaupt, OSI	
Annex 120. Listing of CIA U-2 Missions Flown, 1956-66	

xxviii

~~TOP SECRET~~Handle via BYEMAN  
Control System



~~TOP SECRET~~

	Page
Chapter XX. Project OXCART	
Introduction to U-2 Follow-on Vehicle	1
Early OXCART Development	21
Continuing Development:	
Selection of Test Site	39
CIA/USAF Agreement on OXCART	45
USAF Procurement: LRI Version of the A-12	46
Area 51 Designated	47
OXCART Pilot Selection	48
Build-up Area 51	51
Delivery Schedule Delays	51
Events of 1962-1964:	
Detachment 1, 1129th (USAF) Special Activities Squadron Established	58
First Flight of the A-12	61
First A-12 Loss	69
USAF A-12 Procurement	70
A-11 Aircraft Program Surfaced by White House	72
OXCART Pilots	76
Further Construction at Area 51	78
Continued Flight Testing	78
Project SKYLARK	80
Flight Test Achievements	84
Events of 1965:	
OXCART Develops Operational Capability	85
Project BLACK SHIELD Initiated	89
OXCART Accomplishments in 1965	97
In-Flight Refueling (IFR) Techniques	99
Mission Planning	101
Events of 1966:	
ZI Air Traffic Control Procedures	104
OXCART Pilot Training	107
Deployment and use of OXCART Opposed	110

xxix

~~TOP SECRET~~Handled via EYEGRAM.  
Control System

~~TOP SECRET~~

	Page
(XX contd) Further Development and Testing of the A-12 System	113
OX CART Deployment, Operations and Termination	119
Summary of OXCART Accomplishments	128
Postscript	129
OX CART Phase-Out	130
OX CART Auxiliary System Development:	
Electronic Warfare Systems	147
A-12 Camera Development	151
Inertial Navigation System	155
Automatic Flight Control	155
Side-Looking Radar	156
OX CART Life Support Equipment	158
Annex 121. Proposed Advanced Reconnaissance, 19 November 1957, prepared by Mr. Richard M. Bissell, Jr. ( <del>TS</del> -164671)	
Annex 122. Memorandum for Mr. Allen Dulles from the Deputy Secretary of Defense, 26 November 1957. ( <del>TS</del> -164678)	
Annex 123. Memorandum for Dr. James R. Killian from the Land Panel, 15 November 1958. (GUS-0070)	
Annex 124. Memorandum of Understanding, Subject: Funding of Project GUSTO, FY 1959 and FY 1960, signed by CIA and BOB 16 Decem- ber 1958. (GUS-0073)	
Annex 125. Memorandum for Director of the Budget from DCI, 8 March 1960, with transmittal Memorandum for DCI from Col. William Burke, 24 February 1960, Subject: BOB Request for DCI Memorandum Concerning OX CART Presidential Approval. (OXC-0323)	

xxx

~~TOP SECRET~~

Handle via BYEMAN  
Control System



~~TOP SECRET~~

(XX contd)

Page

- Annex 126. Memorandum for Deputy Director (Plans)  
Subject: Competitive Bidding on Certain  
OXCART Components, from Acting Chief,  
DPD, 8 December 1959. (OXC-0152)
- Annex 127. Organization and Delineation of Responsi-  
bilities Project OXCART, 14 October 1960.  
(BYE 2608-66; OXC-0321)
- Annex 128. Memorandum for Deputy Director (Plans)  
Subject: Price Overrun on Pratt & Whitney  
Engines, Contract No. TT-1002, from  
Col. Stanley W. Beerli, Acting Chief, DPD,  
17 October 1961. (OXC-2401)
- Annex 129. Memorandum for Mr. L. C. Mallet, General  
Manager, Pratt & Whitney Aircraft Division,  
Subject: Relocation - JT11D-20 Engine Devel-  
opment Program, from Richard M. Bissell,  
Jr., 29 November 1961. (OXC-2661)
- Annex 130. Memorandum for Col. Robert J. Holbury,  
Subject: Instructions, from Richard M.  
Bissell, Jr., 25 November 1961. (OXC-2623)
- Annex 131. Newspaper clippings concerning OXCART  
crash in Nevada, 25 May 1963.
- Annex 132. Chronology of Press and Industry Awareness of  
A-12 Program
- Annex 133. Examples of Industry Awareness of Project  
OXCART.
- Annex 134. Memorandum for Deputy Director for  
Science and Technology, subject SKYLARK,  
from Lt. Gen. Marshall S. Carter, DDCI,  
22 August 1964. (BYE-4631-68)

xxxi

~~TOP SECRET~~HANDLE VIA  
BYEMAN CONTROL

~~TOP SECRET~~

(XX contd)

- Annex 135. Memorandum for Deputy Director for Science and Technology, Subject: Aerial Reconnaissance of Communist China, from the DDCI, 22 March 1965. (BYE-4546) (Attachment: DCI Memorandum for the Record of meeting with Messrs. McNamara and Vance of 18 March 1965.)
- Annex 136. Memorandum for the Under Secretary of the Air Force, Subject: OXCART Operation Okinawa, from Deputy Secretary of Defense Cyrus Vance, 7 June 1965. (BYE-5461-65)
- Annex 137. Memorandum for the Under Secretary of the Air Force, Subject: Continuing requirement for reconnaissance of North Vietnam, from Secretary of Defense McNamara, 3 June 1965. (BYE-5451-65)
- Annex 138. Memorandum for the Secretary of Defense, Subject: Use of OXCART over China and Southeast Asia, from D/NRO Brockway McMillan, 8 June 1965. (BYE-36530-65)
- Annex 139. Letters to General Jack C. Ledford, Director of Special Activities, from OXCART supplier companies attesting to the operational readiness and reliability of the OXCART system.
- Annex 140. Memorandum for Members of the 303 Committee, Subject: OXCART Far East Deployment - CAROUSEL, from D/NRO Flax, 2 December 1965. (BYE-3065-65)
- Annex 141. Memorandum for the Record, Subject: Minutes of the Meeting of the 303 Committee, 3 December 1965, by Peter Jessup, dated 6 December 1965. (BYE-6300-65)

xxxii

~~TOP SECRET~~**Handle via BYEMAN  
Control System**



~~TOP SECRET~~

Withheld under statutory authority of the  
 Central Intelligence Agency Act of 1949 (50  
 U.S.C., section 403g)

(XX contd)

- Annex 142. Memorandum for the Deputy Director of Central Intelligence, Subject: OXCART Briefing of Prime Minister and Defense Minister of Canada, from [REDACTED] Special Assistant for Liaison, OSA, 4 September 1963. (BYE-3194-63)
- Annex 143. OXCART: Project Pilot Selection, Phasing and Training (as of June 1968). (TS unnumbered)
- Annex 144. Memorandum for the Record, Subject: Minutes of the Meeting of the 303 Committee, 17 February 1966, by Peter Jessup, dated 21 February 1966. (BYE-66701/66)
- Annex 145. Memorandum for the Record, Subject: Minutes of the Meeting of the 303 Committee, 28 March 1966, by Peter Jessup, dated 29 March 1966. (BYE-66703/66)
- Annex 146. Memorandum for the Record, Subject: Minutes of the Meeting of 303 Committee, 11 May 1966, by Peter Jessup, dated 12 May 1966. (BYE-66704/66)
- Annex 147. Memorandum for the Record, Subject: Minutes of the Meeting of the 303 Committee, 24 June 1966, by Peter Jessup, dated 27 June 1966. (BYE-67018/66)
- Annex 148. Memorandum for Director of Central Intelligence, Subject: Presidential decision against deployment of OXCART, from W. W. Rostow, 12 August 1966. (BYE-27019/66)
- Annex 149. Memorandum for the Director of Central Intelligence, Subject: OXCART test flights over Cuba, from Secretary of Defense, 31 August 1966. (BYE-5513-66)

xxxiii

~~TOP SECRET~~

**Handle via BYEMAN  
Control System**

~~TOP SECRET~~

(XX contd)

- Annex 150. Newspaper Clippings concerning OXCART crash in Nevada, 7 January 1967.
- Annex 151. Memorandum for Members of the 303 Committee, Subject: OXCART Reconnaissance of North Vietnam, from Mr. Richard Helms, 15 May 1967. (BYE-2369-67)  
Attachment: "Black Book" proposal for 303 Committee approval.
- Annex 152. Memorandum for the Record, Subject: Minutes of the Meeting of the 303 Committee, 12 May 1967, by Peter Jessup, dated 18 May 1967. (BYE-66736/67-B)
- Annex 153. BLACK SHIELD Reconnaissance Missions 31 May - 15 August 1967. (BYE-44232/67, 22 September 1967.)
- Annex 154. BLACK SHIELD Reconnaissance Missions 16 August - 31 December 1967. (BYE-1296/68, 31 January 1968.)
- Annex 155. BLACK SHIELD Reconnaissance Missions, 1 January - 31 March 1968. (BYE-1330/68, 30 April 1968.)
- Annex 156. Memorandum for Interdepartmental Contingency Planning Committee, Subject: Contingency and Cover Plan for BLACK SHIELD Operations, from Acting Director of Special Activities (Mr. Parangosky), 29 May 1967. (BYE-2417-67, Rev. #2)
- Annex 157. Newspaper clippings concerning missing OXCART vehicle in Philippine Sea, June 1968.
- Annex 158. Aircraft Losses, OXCART Program, as of June 1968. (~~28~~ unnumbered)

xxxiv

~~TOP SECRET~~

Handle via BYEMAN  
Control System



~~TOP SECRET~~

(XX contd)

- Annex 159. Activities Report, Station "D", August, 1967. (~~Secret~~)
- Annex 160. Memorandum to the Director of the Budget, Subject: High Altitude Reconnaissance Systems, from Military Division and International Division of the Bureau of the Budget, 10 November 1965. (~~TS~~ BYEMAN unnumbered)
- Annex 161. Minutes of Meeting of NRP Executive Committee held September 29, 1967, prepared by B/G Russell A. Berg. (BYE-52712-67)
- Annex 162. Memorandum for the Deputy Secretary of Defense, Subject: OXCART Phase Down Extension and Related SR-71 Considerations, from Alexander H. Flax, D/NRO, 3 October 1967. (BYE-52716-67)
- Annex 163. Memorandum for the Deputy Secretary of Defense, Subject: Study of Options for Continuing Operation of the OXCART Aircraft in Fiscal Year 1969, from D/NRO Alexander H. Flax, 7 March 1968. (BYE-12721-68)
- Annex 164. Memorandum for Mr. Nitze and Dr. Hornig, Subject: Considerations Affecting OXCART Program Phaseout, from DCI Richard Helms, 18 April 1968. (BYE-6441-68)
- Annex 165. Minutes of NRP Executive Committee Meeting held April 29, 1968, prepared by James Q. Reber. (BYE-13013-68)

xxxv

~~TOP SECRET~~

Handle via BYEMAN  
Control System

~~TOP SECRET~~

(XX contd)

Appendix I. Report - OXCART A-12 Aircraft  
Experience Data and Systems  
Reliability, prepared by the Office  
of Special Activities, DD/S&T,  
15 January 1968. (BYE-8725-68)

Appendix II. Advanced Reconnaissance Aircraft Study -  
The Fischer-Benington-Parangosky  
Report. November 1966. (BYE-2856-66)

xxxvi

~~TOP SECRET~~

Handle via BYEMAN  
Control System



~~TOP SECRET~~OFFICE OF SPECIAL ACTIVITIES  
1954-1968CHRONOLOGY1954

- 1 Feb Mr. Richard M. Bissell, Jr., is named Special Assistant to the Director for Planning and Coordination (SA/PC/DCI) by the Director of Central Intelligence, Mr. Allen W. Dulles.
- 1 Jul SA/PC/DCI absorbs the Office of Intelligence Coordination (except the Intelligence Advisory Committee Secretariat) and the Assistant Director for Intelligence Coordination, Mr. James Q. Reber, joins the Planning and Coordination Staff as Mr. Bissell's Assistant.
- 4 Jul The Hoover Commission on Organization of the Executive Branch establishes a task force under General Mark Clark to investigate CIA and answer Congressional criticism of the Agency. A Special Study Group, chaired by General James H. Doolittle, is assigned to investigate CIA's covert activities.
- 30 Sep The Doolittle group reports on its investigation of CIA and expresses the belief that every known technique should be used, and new ones developed, to increase U.S. intelligence by high altitude photographic reconnaissance and other means.
- 9 Oct A Technological Capabilities Panel of the Office of Defense Mobilization's "Surprise Attack Committee" under Dr. James R. Killian is set up with Dr. Edwin H. Land, President of Polaroid, as Chairman.
- 5 Nov The Technological Capabilities Panel, Project 3, in a letter to the DCI, proposes a program of photo reconnaissance flights over the USSR and recommends that CIA, with Air Force assistance, undertake such a program.
- 19 Nov CIA and USAF agree to pursue the TCP's proposal jointly; a meeting is held in the office of Secretary of the Air Force Harold Talbott with the DCI and DDCI present.

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- 23 Nov Members of Intelligence Advisory Committee (IAC) (forerunner to USIB) sign an open memorandum in support of a program of photographic reconnaissance of the Soviet Bloc.
- 24 Nov A meeting is held at the White House with President Eisenhower to present the CL-282 photo reconnaissance proposal of the Land Panel; the President approves the proposal as presented subject to a final look after the materiel is procured and before launching operations; approval is given verbally, not in writing.
- 3 Dec Mr. R. M. Bissell, Jr., having been directed by the DCI to take charge of the photo reconnaissance project, meets with Mr. Herbert I. Miller, Chief, Nuclear Energy Division, OSI, to arrange for management of the project on the CIA side.
- 4 Dec A meeting is held in the Pentagon to launch the joint CIA/USAF reconnaissance project; go-ahead is given to Lockheed and to Pratt & Whitney to proceed with manufacture of the aircraft and jet engines by Mr. Trevor Gardner, Assistant to the Secretary of the Air Force for R&D.
- 6 Dec Cryptonym AQUATONE is assigned to the CL-282 project under Mr. Bissell's direction; a first headquarters of the project is set up as an adjunct to SA/PC/DCI in Administration (East) Building at 2430 E St., N. W.; Messrs. [redacted] Assistants to Mr. Bissell, and Miss Helen Hill, secretary, comprised the initial project staff.
- 27 Dec A letter from Mr. Trevor Gardner to the DCI promises that the Air Force will furnish jet engines for the CL-282 aircraft as part of its contribution to the joint project.
- 27 Dec Mr. Bissell meets with the Director of the Budget, Mr. Rowland R. Hughes, to obtain release from the CIA Contingency Reserve of \$35 million for Project AQUATONE.
- 29 Dec The Bureau of the Budget approves withdrawal of \$35 million from the Reserve for aircraft and equipment.

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- 2 Jan The DCI invokes provisions of Section 10(b), Public Law 110 with regard to certification of costs under the Lockheed contract for 20 aircraft.
- 3 Jan Letter contract with Lockheed is signed; negotiations carried out by Mr. Lawrence Houston for CIA and Mr. Robert Bias, Lockheed Vice President; signed by General C. P. Cabell (in alias) for CIA.
- 10 Jan AQUATONE Project Outline, drafted by Mr. Bissell, is signed by the DCI, Mr. Allen W. Dulles; sets forth in broad terms the plans for the management and operation of the project.
- 10 Jan Lockheed Aircraft Corporation presents the Work Statement for production of 20 aircraft, reconnaissance type (no model designation yet assigned).
- 14 Jan Summary of plans and specifications for photographic equipment to be carried by the AQUATONE aircraft is presented by Dr. James G. Baker, Professor of Physics, Harvard University, and member of the Land Technological Capabilities Panel.
- 14 Jan Lt. Gen. Don Putt, Deputy Chief of Staff for Development, USAF, endorses the proposed photographic equipment.
- 26 Jan First cover story for Project AQUATONE is promulgated by Project Staff and distributed to cleared staff and contractor personnel.
- 7 Feb The Director of the FBI, J. Edgar Hoover, is briefed on AQUATONE and CIA interest, particularly with regard to activities at the Lockheed Burbank plant; Los Angeles FBI office assigns espionage squad officers to monitor.
- 2 Mar Definitive contract is signed with Lockheed for 20 aircraft by Contracting Officer George F. Kucera in alias, for estimated price of \$22.5 million.
- 2 Mar Approval is obtained from the Deputy Director for Support (Col. Lawrence K. White) for AQUATONE to operate as a special project with personnel and operating costs segregated from regular accounts.

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 U.S.C., section 403g)

- 7 Mar A CIA/USAF meeting to discuss AQUATONE organization considers, without reaching a decision, the use of the Strategic Air Command as the USAF entity to support the project. Mr. Bissell recommends against, but the Chief of Staff of the Air Force, Gen. Nathan Twining, is in favor.
- 17 Mar Director of Communications, CIA, Gen. Harold M. McClelland, submits support plan for project communications and names [redacted] of the Office of Communications as Project Communications Officer.
- 31 Mar Definitive contract is signed with Ramo-Wooldridge (forerunner to TRW) for 12 sets of Elint System I.
- 6 Apr Chairman Lewis Strauss of the Atomic Energy Commission is briefed on AQUATONE and agrees to the use as a test site of a dry lake bed area (Groom Lake) inside the Nevada Proving Ground.
- 13 Apr An inspection group of Lockheed and Project AQUATONE leaders choose a site on the west side of Groom Lake known as "Watertown" on which to build the test base.
- 23 Apr Discussions are initiated with Eastman Kodak Company officials looking toward a contract for processing AQUATONE film.
- 25 Apr Col. Robert B. J. Hopkins is nominated by the DD/S as Project AQUATONE Administrative Officer; he is relieved after two weeks at his own request due to poor health. Replaced by James A. Cunningham, Jr.
- 28 Apr First Table of Organization for AQUATONE provides for a Headquarters, a U.S. Field Test Site, and three foreign field bases, with 357 total personnel.
- 29 Apr Agreement is signed with USAF/OSI and the Office of Naval Intelligence that CIA will have primary responsibility for all security for the project.
- 1 May Project AQUATONE staff sets up headquarters in the small red brick building at 2210 E St., N. W., on the third floor.

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 U.S.C., section 403g)

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- 5 May Definitive contract is signed with Perkin-Elmer for 75 various type cameras to be carried by the AQUATONE aircraft; target price is \$5,085,000.
- 12 May [redacted] is assigned as Project AQUATONE Comptroller by Mr. Edward R. Saunders, CIA Comptroller, with the approval of Project Director Bissell, and is named Certifying Officer for project accounts.
- 2 Jun AEC agrees to arrange for housekeeping and maintenance services at the test site through their contract with Reynolds Electric and Equipment Company (REECO), reimbursable by CIA.
- 3 Jun Contract is initiated, on recommendation of the Land Panel, with Westinghouse Electric for an APQ-56 side-looking radar for the AQUATONE aircraft.
- 13 Jun Deputy Chief of Staff, Personnel, USAF, Lt. Gen. Emmett O'Donnell, agrees to the recruitment of USAF Reserve pilots from SAC for the AQUATONE program.
- 17 Jun Contract is initiated with Eastman Kodak Co. for an engineering study of film processing and data recording operations, and design and installation of equipment; cost estimate, \$250K(+).
- 27 Jun Secretary of the Air Force letter urges Gen. Twining and his Deputy Chiefs to reach agreement with CIA on AQUATONE management, and names Col. Osmond J. Ritland to head the Air Force group and serve as deputy to the senior project officer, Mr. Bissell.
- 29 Jun Contract is initiated with Eastman Kodak Co. for procurement of film and other supplies; a new thin base film is developed under this contract.
- 21 Jul Watertown Strip joins the HBJAYWALK communications network established for Project AQUATONE; cable address is KWCABLE.
- 25 Jul First U-2 aircraft is delivered to Watertown by USAF C-124 from Burbank; because of water on lake bed, landing is made on new runway before it is sealed and armored leaving deep wheel marks.

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~~TOP SECRET~~1955 (cont'd)

- 27 Jul Lt. Gen. Lucian K. Truscott, Jr. (retiring Senior Representative, CIA, Germany) temporarily placed on Mr. Bissell's Planning and Coordination Staff, O/DCI.
- 1 Aug First taxi trials of first U-2 are held; plane, on high speed taxi run, inadvertently leaves the ground by 30 feet and flies 1200 feet. Transition to flight is so smooth pilot does not notice, and a hard landing results when pilot cuts power at low speed and tires blow on landing.
- 3-4 Aug "Organization and Delineation of Responsibilities" with regard to Project AQUATONE is signed by General Twining for the Air Force 3 August and by DCI Allen W. Dulles for CIA on 4 August 1955.
- 3 Aug Col. Russell A. Berg, USAF, is named to head the Air Force Project Group, acting in the name of the Chief of Staff, USAF, and SAC, to support AQUATONE in the training and operational phases.
- 4 Aug Col. Osmond J. Ritland, USAF, is confirmed as Deputy Project Director for AQUATONE by Chief of Staff, USAF, Gen. Twining; position and title are ratified in the USAF/CIA agreement.
- 5 Aug First flight of U-2 No. 1 for approximately 30 minutes is successfully and smoothly accomplished. Further low level tests are run on 6 August.
- 8 Aug U-2 No. 1 performs successfully at 35,000 feet; Mr. Bissell and Headquarters party are observers.
- 12 Aug Agreement with AEC for reimbursable housekeeping, new construction and maintenance, at Watertown Strip is signed by Mr. Bissell for CIA, and Col. Alfred D. Starbird for AEC.
- 19 Aug Executive Order 10633 authorizes the setting aside of the prohibited area required for the Project AQUATONE test site.
- 1 Sep U-2 No. 1 reaches 60,000 feet.



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- 2 Sep Letter from Headquarters, USAF, to AEC, copy to Flight Service, establishes Watertown Strip (Unclassified) as a USAF installation assigned for classified functions; prior approval of Headquarters, USAF, is required for its use.
- 7 Sep General Orders No. 1 of 1007th Air Intelligence Service Group, HEDCOM, designate Watertown Strip base complement as "Flight D, Project Squadron Provisional." (Later changed to Detachment D.) Also designated is Flight A (later Detachment A), the first group to train for overseas operations.
- 8 Sep U-2 No. 1 reaches initial design altitude for take-off weight -- 65,600 feet.
- 22 Sep First engine flame-out is experienced on the U-2; descending from 64,000 feet, engine flames out at 60,000 feet, and restarts promptly at 35,000 feet according to specifications.
- 1 Oct Contract is initiated with Eastman Kodak for the operation and maintenance of the film processing plant to handle U-2 mission film at Rochester.
- 1 Oct Col. Frederic E. McCoy, USAF, assumes command of Watertown Strip, at the same time having initial responsibility as Commander of Detachment A.
- 3 Oct Landline communications are established between Watertown Strip and Burbank, California.
- 3 Oct MATS inaugurates air shuttle from Burbank to Watertown for transporting contract employees and project staff to and from the test site, using an Air Force C-54 and cleared crew.
- 3 Oct Project Staff re-establishes Project Headquarters in Wings A and C of Quarters Eye, on Ohio Drive, West Potomac Park, Washington. Col. Osmond J. Ritland, Deputy Project Director, physically joins the staff at the new Project Headquarters.
- 17 Oct Contract is initiated with Baird Atomic, Inc., for production of an automatic celestial navigation

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- 7 -

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- system; initial order for 8 increased to 24, including sextants, spare parts, rear view mirrors, and the overseas services of company techreps.
- 21 Oct Proposal for a central interpretation unit to handle film from AQUATONE missions is presented to the DCI for approval (Project HTAUTOMAT).
- 7 Nov First recruitment trip for USAF Reserve pilots from SAC is made by project team to Turner Air Force Base, Albany Georgia, netting four candidates.
- 11 Nov Mr. R. M. Bissell, Jr., suggests creation of a single operating organization to carry out all peacetime overflight activities, using civilian personnel in a clandestine manner; a joint task force outside the framework of the regular military services but with the Air Force owning a majority of the common stock.
- 11 Nov Agreement is reached between the DCI (Dulles) and the Secretary of the Air Force (Quarles) that CIA will continue to be responsible for AQUATONE budget and management through FY 1957 to avoid the disruption of a change of command just prior to the beginning of overseas operations.
- 17 Nov The MATS shuttle from Burbank to Watertown Strip crashes on the south slope of Mt. Charleston and all 14 aboard are killed, including the Project Security Officer, Mr. William H. Marr.
- 19 Nov Decision is made to use American pilots for AQUATONE overflights, keeping a few foreign pilots in reserve (those then available ); this decision has the approval of General Cabell, the DDCI.
- 50X1 and 6, E.O.13526
- 28 Nov Contract is initiated with the Lovelace Foundation, Albuquerque, N. M., for medical and clinical services at the Watertown test base, and for U-2 pilot physical and psychological examinations.

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- 1 Dec Ad Hoc Requirements Committee (ARC) is established by Project Director Bissell with the DDCI's approval and concurrence of USAF. Mr. James Q. Reber is named Chairman.
- 15 Dec SAC's 4070th Support Wing issues its Operational Plan for training, deployment, and operational support for AQUATONE detachments.
- 22 Dec Col. Landon B. McConnell, USAF, is assigned as Base Commander at Watertown Strip.

1956

- 1 Jan Decision becomes effective making Washington the permanent station of AQUATONE personnel on temporary duty at Watertown Strip, in order to try to equalize per diem rates for all categories of personnel.
- 10 Jan Mr. R. M. Bissell, Jr., visits London to seek permission from the British to operate with AQUATONE Detachment A out of a SAC base in England. Informal approaches are made to MI-6 and to the RAF and USAF commanders.
- 11 Jan Initial three contract pilots arrive at the test site and begin transition training to the U-2.
- 11 Jan USAF (through Mr. Trevor Gardner) requests CIA assistance in procuring U-2 aircraft for SAC, through AQUATONE procurement channels; approval is given by the DCI on 30 January 1956.
- 26 Jan General Counsel Lawrence R. Houston of CIA reviews legal aspects of CIA procurement on behalf of the Air Force of U-2 aircraft systems and renders the opinion to the DCI that, in the national interest, there is legal authority for CIA to enter into such an arrangement on a reimbursable basis.
- 1 Feb First full-dress meeting of the Ad Hoc Requirements Committee (ARC) for AQUATONE targets is held.
- 2 Feb Discussion of AQUATONE by DCI Dulles with British Foreign Secretary Selwyn Lloyd is held; Mr. Lloyd is favorably disposed but says Prime Minister Eden must approve.

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~~TOP SECRET~~1956 (cont'd)

- 8 Feb Basic understanding between CIA and Air Force is reached in connection with procurement under the U-2 project; contained in Memorandum for Record TS-143314.
- 8 Feb Secretary of State John Foster Dulles is requested by the DCI to approach the British through their Ambassador in Washington, Sir Roger Makins, for a report on the British position with regard to cooperating in Project AQUATONE. The Secretary makes a verbal request to Makins rather than a written one drafted by CIA.
- 25 Feb Project Headquarters AQUATONE is again moved, this time to the 5th floor, Matomic Building, at 1717 H Street, N. W.
- 27 Feb AQUATONE Special Signal Center (serving the HBJAYWALK channel) is opened in new Project Headquarters with ZI communications channels open to Watertown Strip, Lockheed Burbank, Ramo-Wooldridge, Hycon, [redacted] Pratt & Whitney, and with overseas stations [redacted].  
[redacted] Commo Net cleared to receive AQUATONE (HBJAYWALK) traffic.
- 29 Feb Cover story for U-2 overseas mission is promulgated; it is reviewed and revised in March to include Air Weather Service recommendations.
- 1 Mar Project HTAUTOMAT (Photo Interpretation Center) is activated at the Steuart Building, 5th and K Sts., N.W., with a staff of 30.
- 1 Mar Contract is initiated with Eastman Kodak for equipment required to set up film processing centers at Eastman Rochester, and at PIC.
- 2 Mar British Ambassador Makins delivers indefinite response to request for U.K. cooperation; on same day Acting Secretary of State Herbert Hoover, Jr., sends Project-drafted request to British for definite answer, and meanwhile, fall-back plans are instituted looking toward basing in Germany.

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~~TOP SECRET~~1956 (cont'd)

- 5 Mar Director of Communications, General McClelland, recommends use of Army-Airways Communications System personnel to reinforce CIA commo technicians, in short supply, to service Project AQUATONE; Mr. Bissell agrees as a temporary measure but recommends that O/C recruit and train replacements.
- 6 Mar Col. Edward A. Perry, USAF/SAC, is assigned as Commanding Officer of Detachment B (WRSP II).
- 6 Mar  approval by the British for operations by Detachment A from Lakenheath RAF Base.
- 50X1, E.O.13526
- 29 Mar Detachment A is reconstituted under the name "Weather Reconnaissance Squadron, Provisional (1st)" by authority of Air Weather Service General Order No. 7.
- 30 Mar Deputy Project Director, Col. Osmond J. Ritland, USAF, returns to the Air Force and is replaced by Col. Jack A. Gibbs, USAF.
- 4 Apr Contract is initiated with General Precision Laboratories for Radan equipment for the U-2 and P2V programs.
- 12 Apr Cover for the contract U-2 pilots is achieved by arrangements with Lockheed for the ostensible hiring and salary payments to the pilots as "Flight Test Consultants."
- 24 Apr Unit Simulated Combat Mission tests by Detachment A are completed and the unit is declared operationally ready.
- 29 Apr Deployment of Detachment A to Lakenheath Air Base in England begins; it is completed 7 May 1956.
- 1 May Approval for Detachment B to operate from a Turkish base is obtained from Prime Minister Menderes by U.S. Chargé Foy Kohler, after an attempt to gain permission at the USAF/Turkish Air Force level is abandoned because the Prime Minister's approval is required in any event.

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~~TOP SECRET~~1956 (cont'd)

- 2 May Instructions are issued to Detachment Commander, WRSP I, concerning use of lethal device ("L Pill") by pilots.
- 5 May British frogman incident is surfaced by Soviet protest note; the ensuing furor causes Prime Minister Eden to cancel permission for Detachment A to operate from a base in the U.K.
- 7 May National Advisory Committee for Aeronautics (NACA) issues press release detailing program of high altitude research using Lockheed U-2, as part of the AQUATONE cover plan.
- 7 May Weather Reconnaissance Squadron, Provisional, II, (also known as Detachment B) is activated at Watertown Strip.
- 15 May First U-2 loss is suffered, No. 345, with Wilburn Rose, trainee pilot. Pogos fail to release after take-off and in second effort to release them, pilot fails to maintain adequate airspeed and altitude, and crashes near Watertown Strip.
- 15 May Contingency procedures in the event of pilot emergency are issued as Operations Policy Letter No. 6, giving permissible and impermissible information to be disclosed by a captured pilot and other emergency procedures to be followed.
- 16 May Prime Minister Eden writes to President Eisenhower requesting postponement of Detachment A operations from the U.K. because of his current embarrassment with the frogman incident vis-a-vis the USSR.
- 31 May Government Employees Health Association (GEHA) rules AQUATONE contract pilots ineligible for UBLIC insurance coverage.
- 11 Jun Detachment A is airlifted from Lakenheath to Wiesbaden AFB as an interim measure until a more permanent and suitable base at Giebelstadt is made ready; the airlift is completed 13 June.

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~~TOP SECRET~~1956 (cont'd)

- 22 Jun White House approval to proceed with operational flights is received via Col. Goodpaster, speaking for the President; no deep penetration of the USSR is to take place, however, until Chancellor Adenauer is briefed, and agrees to such flights from West Germany.
- 26 Jun General Albert Gruenther, head of NATO forces, is briefed on AQUATONE by Mr. Bissell and Gen. Cabell, particularly concerning a possible approach to the Norwegians for use of a base to operate against the USSR. Gruenther is not encouraging, but says the approach, if made, should be made at the highest level of the Norwegian Government.
- 26 Jun First U-2 overflight mission from Wiesbaden over Poland and return is flown by Carl Overstreet, using the A-2 camera, with good photographic results.
- 27 Jun Chancellor Konrad Adenauer and Foreign Minister Hans Globke are briefed on AQUATONE and approve operations from West Germany. Present: Gen. Cabell, Mr. Bissell, Mr. Tracy Barnes (COS, Frankfurt), and  Interpreter.
- 29 Jun Emergency procedures in the event of aircraft loss over hostile territory are issued to Detachment A.
- 4 Jul First U-2 overflight of Russia by Hervey Stockman with targets Moscow and Leningrad is flown with cloud cover being experienced over Moscow.
- 5 Jul Second U-2 overflight of Russia by Carmine Vito, covers Moscow with weather clear and photography excellent.
- 11 Jul General Reinhard Gehlen, Chief of West German Intelligence, is briefed on AQUATONE by Chief of Station, Frankfurt, Mr. Tracy Barnes.
- 11 Jul Ambassador Georgi N. Zaroubin presents protest note to Secretary of State charging a "twin-engine medium bomber of the United States Air Force" had

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- 13 -

BYE-8888-69/Chron

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~~TOP SECRET~~1956 (cont'd)

grossly violated Soviet air space on 4, 5, and 9 July with flights up to 200 miles into Soviet territory. Secretary of State, on the President's instruction, calls for grounding of all overflight operations immediately.

15 Jul Col. William Yancey (USAF/SAC), Training Unit Commander for U-2 pilot training, rules four  unqualified to continue in U-2 program due partly to language difficulties.

50X1 and 6, E.O.13526

16-21 Jul Polish and Czech Governments deliver notes of protest to the State Department on overflights of their territory 4, 5, 9, and 10 July 1956.

1 Aug FY 1956 requirement for AQUATONE of \$15.8 million is supplied from the Contingency Reserve after presentation of the budget to the CIA Comptroller and to the BOB for approval.

8 Aug Col. Stanley W. Beerli, USAF/SAC, is assigned as Commanding Officer, Detachment C (WRSP III); his tour with CIA extends eventually to 10 August 1962.

13 Aug Detachment B begins deployment to Incerlik AFB at Adana, Turkey.

31 Aug Second U-2 loss is suffered, No. 354, with Frank G. Grace, trainee pilot. On night training flight, pilot loses night vision in initial climb, left wing drops and aircraft stalls into the ground.

11 Sep First U-2 operational mission is flown by Detachment B covering Middle East targets.

17 Sep Third U-2 loss is suffered, No. 346, with Howard Carey, Detachment A pilot. After take-off from Wiesbaden, the U-2 is seen by two American pilots in T-33's and four Canadian pilots in a flight of RCAF F-86's at 35,000 feet, after which the plane disintegrates with wreckage falling over a wide area; cause not definitely determined; sabotage investigated and ruled out.

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~~TOP SECRET~~1956 (cont'd)

- 17 Sep President Eisenhower is briefed on AQUATONE to date and is asked to approve further overflights; he postpones his decision.
- 30 Oct Decision at highest level is to deny the British any further intelligence from U-2 collections over the Middle East due to the trend of British/French action in the Suez area.
- 28 Nov Chief of Staff, USAF, Gen. Nathan Twining, turns down the AQUATONE request for base rights in the Far East.
- 5 Dec Gen. Twining agrees, with DCI and DDCI persuasion, to allow Detachment C to deploy to the Far East, but not to Yokota. Atsugi Naval Air Station is then sought, and CNO, Adm. Arleigh Burke, gives his blessing provided the Air Force agrees.
- 15 Dec DCI memorandum establishes procedures for scheduling certification of AQUATONE vouchers for covert procurement by the DCI, thus eliminating voucher audit by the General Accounting Office.
- 18 Dec Project BLACK KNIGHT (SAC RB-57D overflight program) runs its first and last mission, using three aircraft over Soviet Far East territory and provoking a protest which halts the program and also delays Detachment C's deployment still further.
- 19 Dec Fourth U-2 loss is suffered, No. 357, non-fatal to Robert Ericson, Detachment B trainee pilot. Excessive oxygen consumption leads pilot to make emergency descent during which airspeed exceeds limits, causing buffet and loss of control; pilot is blown out as plane disintegrates, descends without serious injury, and is picked up near Grant's Pass.
- 22 Dec First U-2 mission solely for Elint collection is flown from Adana, Turkey, along the Soviet Border carrying Elint System V.
- 31 Dec Project AQUATONE staff reaches the high point of 600 personnel.

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- 18 Jan The DCI approves underwriting GEHA payment of death benefits to contract AQUATONE pilots with CIA funds; a reserve is set up under the code name JBMAYBUSH and \$1,000 per man per year in the form of premiums is paid in. (JBMAYBUSH closed 1 June 1964 when GEHA accepts pilots for coverage.)
- 2 Feb Agreement is reached with USAF for deployment of Detachment C to Japan; USAF is persuaded to act due to SAC's desire to get Detachment C out of Watertown Strip so that SAC's U-2 group can begin their training there.
- 22 Mar Air Research and Development Command, USAF, agrees to the transfer of residual U-2 test and training activities to Edwards Air Force Base (North), California.
- 27 Mar WRSP III (Detachment C) completes deployment to Atsugi Naval Air Station, Japan, with all personnel and equipment in place.
- 4 Apr Fifth U-2 loss is suffered: No. 341 with Robert Sieker, Lockheed test pilot; on test flight from Watertown, pilot believed to have suffered hypoxia due to malfunction of one or more systems, radio contact between base and aircraft lost, and aircraft crashed in the desert.
- 19 Apr Project Director Bissell recommends to DCI that he seek high level decision on project's future, whether to remain under civilian control or be transferred to the military, and whether to maintain standby capability or begin to phase project out of existence.
- 19 Apr Mr. Bissell advises the DCI that the surfacing of the Air Force U-2 capability will compel the liquidation of Project AQUATONE under its NACA/AWS cover.
- 6 May A meeting is held with the President on the future of AQUATONE, ending with Agency and Air Force participants putting different interpretations upon the President's intent, which had to be ironed out at a subsequent meeting on 29 May. At the 6 May meeting approval for further overflights of the USSR is given.

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~~TOP SECRET~~1957 (cont'd)

- 10 May Detachment G, residual Watertown group, is reconstituted as Weather Reconnaissance Squadron, Provisional, IV, with Lt. Col. Roland L. ("Si") Perkins, USAF, as Commanding Officer.
- 29 May A meeting of CIA and USAF principals is held to reach agreed interpretation of the President's intention with regard to the future of AQUATONE. The conclusion reached is that higher authority, for political reasons, wishes the project to remain under civilian direction.
- 3-7 Jun Project AQUATONE team visits Pakistan and obtains permission from President Mirza and Prime Minister Suhrawardy to stage Detachment B operations from Lahore.
- 10 Jun The SAC group training in USAF U-2's at Watertown Strip departs for its new base at Laughlin AFB, Del Rio, Texas, with assignment to the 4080th Strategic Reconnaissance Wing (Light), 4028th Squadron.
- 20 Jun First U-2 overflight by Detachment C is staged from Eielson AFB, Alaska, over Kamchatka Peninsula of the USSR.
- 20 Jun Detachment G (WRSP IV) completes move to Edwards Air Force Base (North) from Watertown Strip.
- 21 Jun Watertown Strip, having been evacuated by CIA and SAC U-2 units, is mothballed under a caretaker in preparation for a nuclear test series planned by AEC for the Nevada Proving Ground.
- 18 Jul Memorandum of Understanding on procurement for the Navy by Project AQUATONE Staff is signed by the DCI, following the same lines as for Air Force procurement.
- 19 Jul The DDCI, Gen. C. P. Cabell, meets with Air Force Generals Bergquist, LeMay, and Lewis to argue the case for civilian control of AQUATONE and succeeds in getting their acceptance on the basis of agreed interpretation of the President's and Secretary of State's intent that the project remain under CIA.

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~~TOP SECRET~~1957 (cont'd)

- 29 Jul DCI Dulles advises General Thomas D. White, Chief of Staff, USAF, that Project AQUATONE will maintain two detachments at reduced strength under continued CIA direction, in accordance with the wishes of the White House and State Department.
- 2 Aug The DDCI, Gen. Cabell, approves CNO Adm. Burke's recommendation for developing a carrier-based U-2 capability. A later Navy approach for USAF approval to carry this out is turned down by the Air Force.
- 4-28 Aug Nine overflight missions (Operation SOFT TOUCH), principally over the USSR, are carried out from Lahore Air Base, West Pakistan, by Detachment B.
- 16 Sep Second staging by Detachment C from Eielson AFB, Alaska is carried out with one successful mission over Klyuchi, USSR.
- 16 Sep VHF recorder developed as a COMINT collection package for the U-2 by Ramo Wooldridge (System III) is eliminated from the program by the Project Director as of less than marginal intelligence value.
- 24 Sep The Deputy Director for Support is asked to approve the decision to allow dependents of AQUATONE detachment personnel to accompany their sponsors overseas; approval is given.
- 11 Oct Electronic System IV, unattended airborne FERRET system, is first used over the Barents Sea with good results; all System IV equipment is transferred to the Air Force U-2 group in March 1962.
- 11-13 Oct Last two overflights performed by Detachment A from Giebelstadt are flown over the Barents Sea (System IV covering Soviet Navy Maneuvers), and over Murmansk (the A-2 camera).
- 15 Nov Detachment A operations are phased out, all personnel and equipment are returned to the ZI and the facility at Giebelstadt is turned back to the U.S. Air Force.
- 19 Nov An advanced reconnaissance system study (Project GUSTO), developed from radar camouflage studies

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~~TOP SECRET~~1957 (cont'd)

(RAINBOW) is reported by Mr. Bissell to Deputy Secretary of Defense Quarles, who agrees that it be reported to the President's Board of Consultants on Foreign Intelligence Activities.

26 Nov Deputy Secretary of Defense Donald Quarles supports CIA efforts for a low reflectivity reconnaissance aircraft (GUSTO/OXCART) and expresses desire to participate in definitive design decision; the A-12/SR-71 aircraft resulted.

27 Nov British Prime Minister Macmillan and members of his cabinet are briefed on intelligence obtained from Detachment B's SOFT TOUCH operation from Pakistan.

1958

50X1, E.O.13526

7 Feb

[redacted]  
is requested to approach Air Vice Marshal MacDonald, Assistant Chief of the Air Staff for Intelligence, with a view to possibly training 3 to 5 British pilots for future operational use in the U-2.

21 Feb

Permission to operate from Peshawar, West Pakistan, is negotiated with President Mirza and Prime Minister Noon [redacted] and Robert W. King, Assistant to Mr. Bissell. Operation is called off due to Soviet protest of Detachment C mission over USSR 1 March 1958.

50X1, E.O.13526

1 Mar

First (and last) overflight of the USSR from Japan by Detachment C, over Khabarovsk, Komsomolsk, and Ukraina, is tracked and protested in note delivered to Department of State by Ambassador Menshikov; all U-2 overflights ordered to cease indefinitely by highest authority.

28 Mar

Deployment of Detachment C to Cubi Point Naval Air Station, Philippines, begins; 30 missions flown over the islands of Indonesia, ending 11 June 1958 with return to Atsugi.

1 Apr

Mr. R. M. Bissell, Jr., is given additional duties in stimulating exploitation in CIA of advanced

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- 19 -

BYE-8888-69/Chron

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~~TOP SECRET~~1958 (cont'd)

technology, and retitled "Special Assistant to the Director for Planning and Development (SA/PD); at the same time AQUATONE staff becomes the Development Projects Staff.

- 1 Apr A new cryptonym, CHALICE, is assigned to the U-2 project, and AQUATONE is cancelled.
- 1 Jun Col. William Burke, USAF, is named Deputy Project Director of CHALICE and Chief of the Development Projects Staff vice Col. Jack A. Gibbs, who returns to the Air Force.
- 16 Jun Project KEEPER is jointly agreed between the British (Air Ministry and MI-6) and CIA representatives. (Name changed to Project OLDSTER due to conflict discovered with a British cryptonym.)
- 26 Jun Contract is let with Granger Associates for an electronic countermeasures device for the P2V and the U-2 (Granger Model 504) which returns false angle information to airborne intercept radars. (This equipment is aboard U-2 #360 when it is shot down over Sverdlovsk.)
- 30 Jun Supply depot for U-2-peculiar equipment and supplies is shifted from [redacted] with Maj. Robert Welch, USAF, continuing in charge.
- 10 Jul Hycon subcontract with Perkin-Elmer for the first order of U-2 cameras is settled for \$4,106,000; dealings with Hycon thereafter are by direct contract with Project CHALICE.
- 14 Jul First of four typhoons over the South Pacific is tracked and photographed by Detachment C with A-1 camera; Winnie, Alice, Grace, and Ida are covered between July and September.
- 15 Jul U. S. Marines are ordered by President Eisenhower to Beirut to protect Lebanon's independence. (British intervene in Jordan with paratroopers on 17 July.)

50X1, E.O.13526

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~~TOP SECRET~~1958 (cont'd)

- 23 Jul First Perkin-Elmer prime contract for U-2 cameras is settled for \$2.6+ million; 6 $\frac{1}{2}$ % of cost represents procurement for the Air Force.
- 31 Jul Advisory panel with Dr. Edwin H. Land as Chairman is organized by Mr. Bissell to advise on a successor reconnaissance aircraft to the U-2; holds its first meeting but no firm recommendations come out of it.
- 27 Aug Prime Minister Harold Macmillan approves British participation in Project CHALICE, provided missions are flown by civilian pilots without RAF markings and no operational flights are made without his specific permission. President Eisenhower approves British participation the same day, subject to the Secretary of State's concurrence.
- 29 Aug President Eisenhower is briefed on results of U-2 China Mainland coverage and agrees to the continuation of tactical missions over China.
- 2 Sep Bureau of the Budget questions the continuance of the U-2 project under CIA instead of its transfer to the Air Force and requests statement outlining past, present, and future plans for CHALICE; reply delivered to BOB 2 September 1958 satisfies this request.
- 11 Sep Prime Minister Adnan Menderes of Turkey is briefed on the plan to add British element to Detachment B at Adana and raises no objection.
- 15 Sep Detachment B staging party arrives at Bodo Air Force Base in Norway, performs one air sampling mission over Greenland, two Elint collections over the Kara Sea, and the Baltic Sea, and returns to Adana on 6 November 1958.
- 12 Nov Land Advisory Panel recommends investigation of Convair proposal for small aircraft to be launched from a B-58, and of Lockheed proposal for a supersonic unstaged design (the A-3).
- 10 Dec Critical Collections Problems Committee and USIB Elint Committee approve initiation of System VII for intercept and recording of missile telemetry signals during pre-burnout stage of missile launching.

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~~TOP SECRET~~1958 (cont'd)

- 12 Dec USAF/SAC initiates proposal to JCS for Chinese Nationalist participation in a U-2 overflight program.
- 16 Dec BOB/CIA agreement is signed for \$75 million DOD FY 1959-60 funds to be made available for the second phase of GUSTO (OXCART) if approval is received from higher authority. These funds are not to be a part of FY 1960 CIA budget and in no way affect the Agency Reserve, but CIA is to have effective control over use of the money just as though it were from the CIA Reserve.
- 31 Dec British pilot flies the first operational mission over Middle East targets. The British fly a total of 28 missions with Detachment B (4 weather missions over England, 2 photo reconnaissance missions over the USSR from Peshawar, and the balance over the Middle East.)

1959

- 1 Jan Mr. R. M. Bissell, Jr., is named Deputy Director for Plans, succeeding Mr. Frank Wisner.
- 16 Feb Development Projects Division is established as a division of DD/P, effective 16 February 1959, amalgamating all Agency air operations including special projects CHALICE and CORONA.
- 16 Feb Col. William Burke, USAF, is appointed Acting Chief of Development Projects Division, DPD/DDP. Mr. James Q. Reber is appointed Chief, Special Requirements Staff, and continues as Chairman of the Ad Hoc Requirements Committee (ARC).
- 1 Mar Conversion is begun to put Pratt & Whitney J-75 engines in the U-2 aircraft to add 2,500 feet altitude; conversion is to be done in small increments of three or four aircraft at a time.
- 6 Mar Consideration of development of a bombing capability for the U-2 is discontinued with the concurrence of the DCI.

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~~TOP SECRET~~1959 (cont'd)

- 22 Mar Mr. John Parangosky is assigned as Deputy Chief, Development Branch, DPD; formerly Executive Officer of Detachment B at Adana.
- 12-14 May Two missions are staged by Detachment C from Cubi Point, Philippines, covering Tibet and Southwest China in support of FE Division, DD/P, projects.
- 18 May CIA/USAF working level technical panel is formed, at the request of Gen. Thomas D. White, to provide expert advice looking toward design selection for GUSTO (renamed OXCART in development/operational phase).
- 22 May The DDCI, Gen. C. P. Cabell, approves the DD/P proposal for a combat air asset stockpiling program including the procurement of AD, P2V, B-26 and F-86 aircraft; Development Projects Division is made responsible.
- 25 May Establishment of Detachment 1 at Eglin Air Force Base, Florida, is approved by the DDCI; activated as 1045th Operations Evaluation and Training Group, Detachment 1, with Col. Theodore Erbe, USAF, in command; composed of personnel and assets transferred to Eglin from the European Air Operations Base at Wiesbaden (7405th Support Group).
- 29 May First shoot-down of a P2V aircraft occurs over China Mainland; flown by CAF pilot assigned to the 34th Squadron of CAF at Hsinchu Air Base, Taiwan.
- 9 Jun Joint collection mission by CIA and USAF is flown by CHALICE U-2 with System VII and SAC RB-47, successfully acquiring missile telemetry on Soviet ICBM launching, the first such intercept recorded by the U.S. Intelligence Community.
- 17 Jun The 1007th Air Intelligence Service Group (AISG), HEDCOM, is replaced as cover unit for DPD Air Force assignees by the 1149th Special Activities Squadron, HEDCOM.
- 23 Jun  replaces Mr. George F. Kucera as Chief, Contracts Branch, DPD.

Withheld under statutory authority of the  
Central Intelligence Agency Act of 1949 (50  
U.S.C., section 403g)

- 23 -

BYE-8888-69/Chron

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~~TOP SECRET~~1959 (cont'd)

- 20 Jul President Eisenhower is briefed on GUSTO (later renamed OXCART) and approves continuation of studies if funds are available.
- 30 Jul The DCI approves establishment of a 45-man detachment at Kadena Air Force Base, Okinawa, under Air Force cover as the 1045th Operations Evaluation and Training Group, Detachment 2; mission, to serve as a central air operations support base
- 50X1, E.O.13526
- 31 Jul Col. William Shelton, USAF, replaces Col. Stanley W. Beerli, USAF, as Commander of Detachment B at Adana.
- 20 Aug DOD/USAF/CIA selection board on GUSTO/OXCART approves the Lockheed design (A-12) as the follow-on system to the U-2.
- 21 Aug The cryptonym OXCART is assigned to the development phase of the A-12 advanced reconnaissance system.
- 29 Aug Detachment C stages from Atsugi to Ban Takhli, Thailand, flies 6 missions over Tibet, Northwest China, North Vietnam, and Laos, and returns to Atsugi 12 September 1959.
- 31 Aug Project GUSTO's termination is announced.
- 3 Sep Letter contract with Lockheed Aircraft Company is initiated for design and production of the A-12 aircraft.
- 24 Sep Non-fatal U-2 accident of No. 360. Returning to base at Atsugi from test flight with too little fuel, Detachment C pilot makes emergency landing in a potato field; he is not injured and aircraft is repairable.
- 18 Nov Ambassador to Norway, Miss Frances Willis, recommends briefing Norwegian Cabinet members on U-2 in order to circumvent the use of Col. Evang as a sole source of approval for U-2 operations from Norway; this recommendation is not carried out and Evang is again approached for use of Bodo in February 1960 looking toward April operations by Detachment B.

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~~TOP SECRET~~1959 (cont'd)

- 24 Nov Joint agreement is signed between Far East Division and Development Projects Division, delineating functions and responsibilities regarding Far East air operations of DD/P.
- 6 Dec First mission over Russia by Detachment B U-2 with British pilot is flown staging through Peshawar, and covers Kuybyshev and Kapustin Yar with excellent results.
- 23 Dec The DD/P approves the reopening and renovation of Watertown Strip for use as the OXCART test and training facility.

1960

- 14 Jan U. S. Ambassador to Tokyo, Douglas McArthur, is briefed on CHALICE by Mr. Bissell. The Ambassador does not at that time recommend withdrawal of Detachment C from Japan.
- 30 Jan Lockheed Aircraft Company is given firm go-ahead for the production of 12 OXCART aircraft.
- 5 Feb Second overflight of the USSR by U-2 with British pilot, staging from Peshawar, is carried out by Detachment B, covering Tyura Tam, Kazan, and Ukraine with excellent results.
- 19 Feb Presidential approval is given for one of three planned overflight missions of the USSR in order of priority, subject to take-off, route, and terminal weather; third choice is finally flown over Sary Shagan from Peshawar on 19 April 1960.
- 25 Mar P2V7 aircraft #7101 crashes into mountain in South Korea on ferry flight from Hsinchu to Kunsan; aircraft and full crew, 11 CAF officers and men assigned to STPOLLY overflight program, are lost.
- 5 Apr Non-fatal U-2 accident, No. 349. Detachment C pilot on mission flown from Ban Takli crashlanded in rice paddy short of base; pilot is not injured and aircraft is retrieved in sections, aided by natives with oxcarts, requiring a nine day trek.

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~~TOP SECRET~~1960 (cont'd)

- 25 Apr Presidential approval is given for one out of three planned missions before midnight 1 May 1960: (1) TIME STEP; (2) GRAND SLAM; and (3) SUN SPOT. Long-range weather forecast is against (1), so planning goes ahead for (2).
- 1 May Operation GRAND SLAM, postponed due to weather from 27 April to 1 May 1960, takes off from Peshawar at 0159Z; Soviet tracking begins at the border and continues without interruption until last reported position of aircraft at 0629Z.
- 1 May Sixth U-2 loss is suffered, No. 360, non-fatal to pilot, Francis Gary Powers, Detachment B. Aircraft is downed near Sverdlovsk, USSR, by surface-to-air missile action, pilot ejects as aircraft disintegrates and lands uninjured.
- 2 May Press release by C/O of Detachment B announces a U-2 missing as drafted and cabled from Headquarters; it is not published in the press until 3 May with an Istanbul dateline.
- 4 May Gen. Ayub Khan, President of Pakistan, is briefed on U-2 loss because the flight departed from Peshawar; briefing is given by [REDACTED] Mr. Frank Wisner. 50X1, E.O.13526
- 5 May FBIS picks up Soviet broadcast on Radio Moscow of announcement by Khrushchev of shooting down of American plane which had crossed the Soviet frontier "from Turkey, Iran or Pakistan."
- 7 May Soviet radio broadcast says Russians have captured the spy pilot alive and are interrogating him; this fact is revealed in a speech by Khrushchev at the 5th Session of the Supreme Soviet's Fifth Convocation.
- 7 May Detachment B is directed by Headquarters, Washington, to remove British cadre from Turkey by black flight to London, for Air Ministry debriefing and further disposition.

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~~TOP SECRET~~1960 (cont'd)

- 9 May Congressional leaders are briefed by DCI Dulles on the U-2 May Day incident.
- 10 May Director of Personnel, CIA, certifies to the Comptroller, CIA, that Francis G. Powers qualifies under the terms of P.L. 490, 77th Congress for status as a Missing Person and the benefits related thereto.
- 11 May President Eisenhower holds a press conference and, on his own unilateral initiative, admits to pre-knowledge and agreement to the U-2 overflights of the USSR.
- 15 May Cryptonym IDEALIST is assigned to the U-2 program in lieu of CHALICE which has been exposed.
- 23 May General Chiang Ching-kuo on behalf of his father, Generalissimo Chiang Kai-shek, suggests the U-2 aircraft based in Japan be moved to Taiwan and assures complete cooperation of the GRC.
- 25 May President Eisenhower addresses the nation on the collapse of the Summit Meeting scheduled to be held in Paris May 16, but which Khrushchev refuses to attend.
- 31 May The DCI testifies regarding the U-2 May Day incident before the Senate Foreign Relations Committee in closed session with testimony classified Secret.
- 1 Jun Col. Stanley W. Beerli, USAF, is assigned as Acting Chief, DPD, vice Col. William Burke, who returns to the Air Force.
- 8 Jun Ambassador McArthur recommends that Detachment C U-2's be withdrawn from Japan immediately; the State Department favors phased withdrawal on a schedule put forward by CIA.
- 14 Jun Senator John F. Kennedy, in a speech on the collapse of the Summit due to the U-2 affair, issues his challenge to Republicans and Democrats to engage in a "Great Debate" on the issues before the United States.

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~~TOP SECRET~~1960 (cont'd)

- 23 Jun The DDCI approves expenditure from Agency funds of \$50,000 in defense of Frank Powers, through cover mechanism; only \$30,000 is advanced to the lawyers and only \$23,094.31 of that is expended.
- 27 Jun The CI Staff and Office of Security submit initial assessment of damage from the U-2 incident.
- 1 Jul Soviets shoot down USAF RB-47 over the Barents Sea.
- 7 Jul Indictment of Frank Powers is published by the USSR and trial set for 17 August 1960.
- 8 Jul Japanese Foreign Office formally requests the removal of U-2 aircraft from Japan due to public pressure on the government.
- 9 Jul Detachment C U-2 aircraft are removed from Atsugi by C-124 airlift and returned to the U.S.
- 11 Jul Development Projects Division's Air Support Branch establishes a separate unit (JMCLEAR) to support Western Hemisphere Division's Cuban counterrevolutionary invasion project.
- 18 Aug Francis Gary Powers, U-2 pilot, is sentenced by Soviet judges to ten years' loss of liberty, the first three years to be spent in prison.
- 19 Aug The last of Detachment C staff departs from Atsugi and the facility is turned back to the Navy.
- 26 Aug Proposal in principle for a Taiwan-based U-2 detachment is approved by the State Department and by President Eisenhower.
- 13 Sep Generalissimo Chiang Kai-shek approves the proposal for a joint US/GRC U-2 project as outlined by the Chief of Station, Taipei, Dr. Ray Cline.
- 27 Sep Mr. Oliver Powers, father of Frank, reads a letter to Khrushchev on the NBC Morning Show, asking for his son's release.

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~~TOP SECRET~~1960 (cont'd)

- 27 Sep New security guidance is issued in light of the U-2 trial revelations in order to prevent further damage to the project.
- 11 Oct Continued British participation in the U-2 program is approved by the U.K. Foreign Ministry (although Project Headquarters felt the Prime Minister should approve). A new codeword for British participation is assigned -- JACKSON in lieu of OLDSTER.
- 14 Oct Organization and delineation of responsibilities for Project OXCART are formalized. Direction and control is to be exercised jointly by the DCI and the Chief of Staff, USAF, subject to guidance from higher authority and coordination with other departments as appropriate.
- 24 Oct The cryptonym TACKLE is assigned to the joint US/GRC U-2 project.
- 26 Oct First operational mission by Detachment G is flown over Cuba (one of five missions) from staging base at Laughlin AFB, Del Rio, Texas.
- 4 Nov President Eisenhower approves joint US/GRC U-2 project. General Goodpaster informs CIA of the approval on 8 November 1960.
- 9-28 Nov Air sampling missions are flown by Detachment G from Hawaii [redacted]  
[redacted]
- 50X1, E.O.13526
- 10 Nov Phase-out of Detachment B to a small holding unit at Adana is begun. Efforts to unground the U-2 for further flights from Turkey, although approved by the Special Group in August 1961, do not receive Turkish approval.
- 18 Nov President-elect Kennedy is briefed on CIA operations by DCI Dulles and Mr. R. M. Bissell, Jr., at Palm Beach, Florida.
- 22 Nov GRC officials (President Chiang, General Chiang Ching-kuo, Maj. Gen. S. K. Hu, Lt. Gen. Ch'en Chia-shang, and Maj. Gen. I Fu-en) are given

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~~TOP SECRET~~1960 (cont'd)

a TALENT briefing by Cdr Robert Neasham of PIC, to impress on them the value of sophisticated film processing, as well as the capabilities of the U-2.

- 29 Nov NBC "White Paper" - "The U-2 Affair" -- aired for one hour on TV.
- 7 Dec Export license issued for shipment of two U-2 aircraft to the GRC by Lockheed through arrangements with State Department and Commissioner of Customs.
- 14 Dec Detachment H (U-2) is established on Taiwan at Tao Yuan Air Base jointly with the GRC's CAF.

1961

- 1 Jan Logistics support for CIA U-2 operations and SAC U-2 operations are consolidated under a single Weapons System Support Center at Warner Robins Depot, Georgia, in order to separate U-2 and A-12 materiel operations, and to effect economies.
- 3 Jan President Eisenhower severs relations with Cuba.
- 3 Jan First U-2 coverage of North Vietnam by Detachment G staging out of Cubi Point Naval Air Station, Philippines, is carried out.
- 7 Jan State Department White Paper on U.S. aid to Laos forms the basis for a joint CIA/DOD program to build up a Laos Air Force, from a nucleus of B-26 aircraft stored in the Far East.
- 25 Jan Joint agreement reached between U.S. and GRC, couched in sterile terms, unsigned, and one copy held by COS Taipei, one by CAF.
- 31 Jan Military Aide to the President, Brig. Gen. Chester V. Clifton, USA, briefed on IDEALIST and other reconnaissance programs at request of Gen. Goodpaster by Mr. William J. Cotter, Chief, DPD Security.

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~~TOP SECRET~~1961 (cont'd)

- Gen. Clifton is advised by Goodpaster that Mr. Bissell will be his contact on overflight programs, but that Mr. McGeorge Bundy will coordinate all IDEALIST flights for the White House.
- 1 Feb U-2 modification to allow for in-flight refueling is initiated in order to add to aircraft's range.
- 10 Feb Vice President Lyndon B. Johnson is briefed by Mr. William Cotter of DPD Security on IDEALIST and the satellite program, but not on OXCART; the Vice President's military aide, Col. Howard Burris, USAF, is also briefed at the same level.
- 13 Feb DPD/Contracts and USAF/Air Materiel Command sign memorandum of understanding on consolidation of materiel support for CIA and SAC U-2's at Warner Robins Depot, Georgia.
- 18 Feb USAF/CIA agreement on OXCART management is signed by DCI Allen W. Dulles for CIA, having been signed on 15 February by General Thomas D. White, Chief of Staff, USAF.
- 19 Feb Operations Coordinating Board is dissolved by President Kennedy and the Special Group for coordinating covert activities is reactivated under Mr. McGeorge Bundy (who receives CIA briefing along with NSC members on 14 February); Thursday meetings of the Special Group are initiated 23 February 1961.
- 21 Feb First instructions are issued for handling documents in the BYEMAN Control System.
- 19 Mar Seventh U-2 loss is suffered (first under TACKLE), No. 351, with CAF pilot, Maj. Chih. On night transition landing practice, pilot allows wing to drop and aircraft is flown into the ground and demolished by fire, and pilot is fatally injured.
- 5-30 Apr Detachment G flies 15 missions covering the Cuban counterrevolutionary activities.
- 12 Apr President Kennedy pledges non-intervention in Cuba.

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~~TOP SECRET~~1961 (cont'd)

- 16 Apr Dr. Miro Cardona, Cuban exile leader in the U.S. announces invasion of Cuba by counterrevolutionaries.
- 17-19 Apr Attempted landings without expected air cover turns into fiasco at "Bay of Pigs" and counterrevolutionaries are massacred by Castro forces.
- 11 May Special Group of NSC approves indefinite continuation of STPOLLY (P2V) flights under the Special Group's continual and mission-by-mission scrutiny and evaluation.
- 23 May Detachment G begins its U-2 coverage of the Cuban missile build-up and accomplishes 28 overflights up through 7 October 1963.
- 28 Jun General Maxwell D. Taylor is appointed Chairman of the NSC Special Group (and Military Representative of the President).
- 30 Jun CI Staff of CIA recommends to DCI that proposed exchange of Col. Rudolf Abel for Francis Gary Powers not be negotiated due to Abel's being a potential source of information of great value.
- 16 Aug U-2 flights over Vietnam are initiated by Detachment G from Cubi Point, Philippines. Intermittent coverage of Vietnam is continued by CIA to 1968.
- 6 Sept Initial NRO agreement is signed by Gen. Cabell for CIA and Deputy Secretary of Defense Roswell Gilpatric for DOD.
- 14 Sep Eighth U-2 loss is suffered, No. 353, with Detachment G pilot, Buster Edens. Returning from an air sampling mission to Edwards AFB, the aircraft stalls and strikes the ground short of the runway; pilot ejects and is uninjured; aircraft burned beyond repair.
- 4 Oct President's Foreign Intelligence Advisory Board recommends Special Group re-evaluate proposal for photographic coverage of selected China Mainland targets; President Kennedy approves the Board's recommendation.

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~~TOP SECRET~~1961 (cont'd)

- 2 Nov Acting DCI Cabell, in a letter to Secretary of State Dean Rusk, recommends pursuit of a prisoner exchange of Abel for Powers using the channel set up through correspondence between Attorney James Donovan and Col. Abel's wife, who is apparently under Soviet control.
- 15 Nov Col. Robert J. Holbury, USAF, is assigned to duty as Chief of Base at Watertown Strip with status of Commanding Officer, Detachment 1, 1129th (USAF) Special Activities Squadron.
- 24 Nov Secretary of State Rusk recommends to Attorney General Robert Kennedy that efforts for Abel/Powers exchange be pursued through the James Donovan/Mrs. Helen Abel correspondence channel.
- 29 Nov Mr. John A. McCone becomes Director of Central Intelligence on retirement of Mr. Allen W. Dulles.
- 20 Dec BYEMAN Control Manual is issued to the Intelligence Community.

1962

- 5 Jan The Special Group of the NSC approves three TACKLE U-2 missions from Taiwan with the proviso that each mission must have specific approval prior to launch from the Special Group.
- 12 Jan First U-2 flight over China Mainland by CAF pilot covers the Shuang Ch'eng Tzu Missile Test Range.
- 20 Jan The PFIAB registers the concern of the President for the security of the sensitive reconnaissance projects being conducted by CIA; Mr. Bissell replies, citing the setting up of the BYEMAN control system for those sensitive projects.
- 10 Feb Exchange of Soviet spy, Col. Rudolf Abel, for U-2 pilot, Francis Gary Powers, is consummated at the center of the Glienecke Bridge connecting East and West Berlin, having been engineered on behalf of the U.S. Government by New York Attorney James Donovan.

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~~TOP SECRET~~1962 (cont'd)

- 17 Feb Resignation of Mr. R. M. Bissell, Jr., as DD/P is effective this date; he is replaced by Mr. Richard Helms.
- 19 Feb Office of Deputy Director (Research) is established.
- 5 Mar Mr. Bissell recommends to DCI that division of DPD projects and assets between DD/P and DD/R be as follows: special reconnaissance projects and R&D to support their operation to go to DD/R; air support to the Clandestine Services to stay in DD/P.
- 15 Apr Development Projects Division's special reconnaissance projects, including CORONA, are transferred to the DD/R.
- 26 Apr First flight of the A-12 (#121) is performed satisfactorily for a duration of 40 minutes.
- 30 Apr First official flight of the A-12, with Lockheed test pilot, Louis Chalk, takes off with gross weight of 72,000 pounds, climbs to 30,000 feet, and achieves top speed of 340 knots, with a flight duration of 59 minutes.
- 29 May Project OXCART is added to the BYEMAN/BYECOM systems for control of documentation and communications.
- 12 Jun First Ramo-Wooldridge contract for U-2 electronic systems is settled in the amount of \$20.4+ million; this includes costs incurred on behalf of the Air Force, the Office of Communications, and STPOLLY.
- 27 Jul CSN 1-494 establishes Special Operations Division, DD/P, which takes over the air support functions for the Clandestine Services previously carried out by Development Projects Division; [redacted] is named Chief of SOD.
- 30 Jul Office of Special Activities is established under the DD/R; Development Projects Division activities other than air support functions transferred to SOD are made the responsibility of the new Office of Special Activities.

Withheld under statutory authority of the  
Central Intelligence Agency Act of 1949 (50  
U.S.C., section 403g)

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~~TOP SECRET~~1962 (cont'd)

- 1 Aug Mr. James A. Cunningham, Jr., is named Acting Assistant Director for Special Activities, DD/R.
- 29 Aug Detachment G mission over Cuba confirms the existence of numerous SAM sites.
- 1 Sep OSA Contracts Staff [ ] at Headquarters and [ ] on the West Coast) are authorized by the Acting DCI, General Marshall Carter, to do covert procurement in furtherance of NRP objectives.
- 4 Sep Col. Jack C. Ledford, USAF, is named Assistant Director for Special Activities, DD/R, and Mr. James A. Cunningham, Jr., is named Deputy Assistant Director for Special Activities, DD/R.
- 4 Sep Special Security Center is established by Office of Security and OSA Security Staff is relieved of record-keeping and paper work involved with clearances which it had previously been responsible for, with the exception of those instigated by OSA.
- 9 Sep Ninth U-2 loss is suffered, No. 378, with CAF pilot, Lt. Col. Ch'en. Lost on operational mission over Nanchang, China, cause unknown.
- 30 Sep Reorganization of OSA is completed, reducing number of division and staff heads reporting directly to the front office (10) to a more manageable arrangement. Materiel is placed under Field Activities.
- 7 Oct Last CIA-operated U-2 mission is flown over Cuba by Detachment G.
- 8-9 Oct Although weather is good for coverage of Cuba, no U-2 aircraft are in commission and no flights are made.
- 10 Oct The Joint Chiefs of Staff and USIB meet on the Cuban situation.
- 10-12 Oct Weather is unfavorable for Cuban coverage. Detachment G supervises requalification of two SAC pilots in CIA's U-2C aircraft at Edwards AFB in preparation of future Cuban coverage by SAC.

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~~TOP SECRET~~1962 (cont'd)

- 12 Oct Recommendation by the JCS to turn Cuban coverage over to SAC is ordered carried out by Secretary of Defense McNamara and agreed by the White House.
- 14 Oct Overflight of Cuba by SAC pilot in a CIA U-2, flying a mission as plotted by OSA/Operations Intelligence Staff, brings back photography which proves the presence of a Soviet MRBM in Cuba.
- 15 Oct A special meeting of the NSC Special Group approves two U-2 missions for Cuba for 16 October.
- 16 Oct A meeting at 1300 in Secretary McNamara's office to consider stepping up coverage of Cuba results in authorization by McNamara of up to 6 missions of all types each day for the 17th and 18th of October.
- 17 Oct Management and operation of all FIRE FLY drones against Cuba under NRO supervision is assigned to DOD with CIA assistance in Elint, contracting, and security.
- 17 Oct The AQ-12 drone project management is assigned to the Director of Program B (CIA), Col. Jack Ledford, with Lt. Col. Henry Howard of the NRO Staff as Project Officer.
- 22 Oct President Kennedy makes public disclosure of the presence of offensive weapons in Cuba and invokes a quarantine on shipping to Cuba.
- 20 Nov The NRO Ad Hoc Cover Committee is established to coordinate contingency procedures for all NRO reconnaissance operations.
- 5 Dec First coverage of Tibet by Detachment G is carried out from Ban Takhli, Thailand. Six missions are flown between 5 December and 22 January 1963 covering Tibet, Kashmir, and the NEFA.
- 17 Dec The Special Group assumption for FY 1963-64 includes requirement for photo coverage of Mainland China and maintenance of two operational aircraft by Detachment H for the TACKLE U-2 program.

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~~TOP SECRET~~1962 (cont'd)

18 Dec OSA Activity Program 63-1 is approved for an Electronic Data Processing Branch in OSA Operations Division to do flight planning for OXCART and IDEALIST, and ephemeris plotting for satellite projects.

1963

15 Jan First A-12 flight is made using a J-58 engine.

Mar Prime Minister Nehru, having been briefed in January and March on Detachment G's Sino-Indian border coverage, informs the Indian Parliament of the Chinese border movements disclosed by U-2 photography (without attribution of source); however UPI publishes story surmising use of U-2 by U.S. from Okinawa, or Chinese from Taiwan.

24 May First A-12 loss is suffered. Pilot bails out and lands unhurt during routine training flight from Area 51 (formerly Watertown Strip), due to erroneous air speed indication.

20 Jul A-12 achieves Mach 3 in flight test at Area 51.

23 Jul General Marshall Carter, DDCI, approves the OSA staff study and recommendation for initiation of a development program for a carrier-based U-2.

3 Aug First flight of U-2G from deck of Aircraft Carrier USS KITTY HAWK is successfully accomplished by Lockheed test pilot, Bob Schumacher, retrieving at Burbank.

29 Aug Canadian Prime Minister Lester B. Pearson and Defense Minister Paul Hellyer are briefed on OXCART/KEDLOCK programs in order to obtain approval for any necessary overflights of Canadian air space by the A-12.

29 Sep First of four missions flown by Detachment G over India to cover Tibet, Kashmir, and the NEFA. with refueling at Charbatia approved by the Indians. Series of missions completed 10 November 1963.

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~~TOP SECRET~~1963 (cont'd)

- 1 Nov Tenth U-2 loss is suffered, No. 355, with CAF pilot, Maj. Yeh. Returning from coverage of SCTMTR, tracking stopped southeast of Nanchang; fate of pilot unknown.
- 30 Nov DCI McCone sees President Johnson and receives his reaffirmation of the Special Group's approval of TACKLE U-2 overflights; the Special Group reaffirms approval on 6 December 1963 and State Department approves on 9 January 1964.
- 30 Nov Special Group approves six missions to cover guerilla build-up across the northeast Venezuelan border into British Guiana; Detachment G stages missions from Ramey AFB, Puerto Rico.
- 3-19 Dec Detachment G coverage of Venezuela/British Guiana guerrilla activities is carried out.

1964

- 1 Jan Supply depot for A-12-peculiar equipment and supplies is moved from 50X1, E.O.13526 and the Air Force Logistics Command at Wright-Patterson assumes full manpower and logistics control at the new depot for OXCART, TAGBOARD, and the SR-71.
- 3 Jan NRP Monthly Forecast of all reconnaissance overflights for approval by the Special Group is promulgated.
- 3 Feb The A-12 sustains flight at design conditions of Mach 3.2 at 83,000 feet for 10 minutes.
- 29 Feb President Johnson surfaces the existence of the A-11 (YF-12A) version of the OXCART aircraft to the press and public.
- 12 Mar OSA prepares a report on the vulnerability of satellites to the Soviet threat.
- 16 Mar First operational use is made of the BIRDWATCHER on U-2 mission over South China.

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~~TOP SECRET~~1964 (cont'd)

- 22 Mar Eleventh loss of U-2 is suffered, No. 356, with CAF pilot, Capt. Liang. Aircraft and pilot are lost off the south coast of Taiwan on a training mission.
- 24 Apr The Special Group approves an operation to obtain coverage of the French Nuclear Test Area, Tuamotu Archipelago.
- 30 Apr Detachment G activates a staging base at Charbatia, India; the staging team arrives at base 19 May 1964.
- 19-22 May Detachment G carries out coverage of the French nuclear test at Tuamotu Archipelago with Operation FISH HAWK, launched from the USS RANGER in the Pacific.
- 24 May Detachment G accomplishes one successful mission from Charbatia over Tibet and Lhasa; the mission U-2 aircraft is damaged on landing.
- 27 May Prime Minister Nehru dies; Detachment G operations from Charbatia are called off and the staging party returns to home base.
- 7 Jul Twelfth U-2 loss is suffered, No. 362 (U-2G) with CAF pilot, Lt. Col. Lee. Aircraft and pilot are lost on operational mission over East Coast of China across the Straits of Quemoy.
- 9 Jul Second A-12 loss is suffered, No. 133. Lockheed test pilot ejects safely as aircraft crashes on approach to runway at Area 51.
- 1 Sep Executive Committee, NRP, votes against procurement of new U-2 version and puts it off in favor of a temporary, piece-meal solution of modifications.
- 5 Nov A limited capability of the A-12 to cover Cuba, if required, is established, but decision is made not to expose this capability until the A-12 has reached its maximum operational capabilities.
- 16 Dec Detachment G begins 3-mission coverage of Tibet, Lhasa, and the NEFA from Charbatia, ending on 20 December 1964.

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~~TOP SECRET~~1965

- 10 Jan Thirteenth U-2 loss is suffered, No. 358 (U-2C) with CAF pilot, Maj. Chang. Aircraft and pilot are lost on infra-red camera mission over Pao Tou, probable cause believed to be a hit by surface-to-air missile.
- 3 Feb Col. Jack C. Ledford, Director of Program B under NRO, forecasts the life expectancy of the U-2 to be about two more years; no successor with the U-2's capability is expected to be available in the immediate future.
- 18 Mar DOD/CIA heads agree to take preparatory steps toward operating the A-12 over Communist China, flying out of Okinawa.
- 25 Apr Fourteenth loss of U-2 is suffered, No. 382 (U-2G), with Detachment G pilot, Buster Edens. Test flight of carrier-configured aircraft goes out of control, pilot bails out but chute does not open.
- 28 Apr Admiral William F. Raborn replaces John A. McCone as Director of Central Intelligence; Mr. Helms replaces Gen. Carter as DDCI.
- 21 Jun Recommendation for procurement of an improved version of the U-2 is made to the DNRO by Director, Program B (Col. Ledford), and Director, Program D (Col. Leo P. Geary).
- 27 Jul Title of Assistant Director, OSI, is changed to Director, OSA, along with similar changes in all DDS&T Offices.
- 15 Sep Office of Special Projects (OSP) is established and satellite activities previously under OSA's direction are transferred to OSP. OSA retains manned reconnaissance programs.
- 1 Oct Joint agreement between OSP and OSA on management concept and transfer of resources, responsibilities, and authorities regarding satellite activities is signed.

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~~TOP SECRET~~1965 (cont'd)

- 2 Oct Joint OSA/OSP agreement is signed giving OSP responsibility for development and modification of computer programs in support of satellite operations and for response to Satellite Operations Center requirements; OSA to supply programmers and computer operators for OSP input data.
- 6 Oct Headquarters Notice is issued announcing the establishment of OSP.
- 22 Oct Fifteenth loss of U-2 is suffered, No. 352 (U-2C), with CAF pilot, Col. John Wang. On a training mission from Taiwan, pilot and aircraft are lost in the sea off Taiwan, cause uncertain.
- 15 Nov Revised guidance for project pilots down in hostile territory is approved within CIA and cleared with the NSC Special Group on 16 December 1965.
- 20 Nov The A-12 aircraft reliability validation is completed for deployment to the Far East and certified by contractor engineers.
- 3 Dec The Special Group (303 Committee) approves all steps being taken toward OXCART Far East deployment short of actually moving the aircraft to Okinawa.
- 28 Dec Third A-12 loss is suffered, No. 124. Aircraft crashes following take-off due to faulty wiring connection in yaw and pitch gyros; pilot ejects safely.

1966

- 17 Feb Sixteenth U-2 loss is suffered, No. 372, (U-2F), with CAF pilot, Maj. Wu. Training mission crashes after overshooting runway on landing following flame-out and emergency landing; pilot is killed, plane demolished.
- 25 Feb Seventeenth U-2 loss is suffered (non-fatal to pilot), No. 342 (U-2F), with Mr. Hall of Detachment G. Structural failure to aircraft occurs following practice refueling with KC-135, aircraft disintegrates, pilot bails out safely.

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~~TOP SECRET~~1966 (cont'd)

- 16 May DDS&T recommends to DNRO that U-2R as described in Lockheed 27 December 1965 proposal be procured. No action is taken until August 1966.
- 17 Jun Chinese pilot training program in the U-2 is re-located at Detachment G Headquarters at Edwards North Base, being withdrawn from the Air Force training program at Davis-Monthan AFB, Tucson, Arizona.
- 21 Jun Eighteenth U-2 loss is suffered, No. 384 (U-2C), with CAF pilot, Maj. Yu. On training flight from Taiwan, aircraft goes out of control, pilot bails out too low and chute fails to open. Both aircraft and pilot fall into the sea off Naha, Okinawa.
- 30 Jun Mr. Richard Helms is appointed DCI, vice Adm. Raborn.
- 21 Jul Revised BYEMAN Control System Manual is issued.
- 1 Aug NRP Executive Committee approves a first U-2R procurement of 8 aircraft with the understanding that additional procurement will be considered in conjunction with the 1968 budget.
- 1 Aug OSA staff changes occur: Col. Paul N. Bacalis, USAF, is named Director, OSA, vice Brig. Gen. Jack C. Ledford, who returns to the Air Force; Mr. John Parangosky is appointed Deputy Director, OSA, vice Mr. J. A. Cunningham, Jr., reassigned to O/DDS&T; and [redacted] is appointed Deputy for Technology of OSA, vice Mr. Parangosky.
- 12 Aug Divergent views on deployment of OXCART to the Far East to cover North Vietnam and South China are presented for Presidential decision and Mr. Johnson decides against deployment for the time being.
- 15 Sep The 303 Committee votes not to commit OXCART aircraft to Cuban coverage as it might disturb the existing calm prevailing in that area of foreign affairs.
- 26 Sep Mr. Carl E. Duckett is appointed Acting DDS&T vice Dr. A. D. Wheelon, resigning to return to industry.

Withheld under statutory authority of the  
Central Intelligence Agency Act of 1949 (50  
U.S.C., section 403g)

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Withheld under statutory authority of the  
Central Intelligence Agency Act of 1949 (50  
U.S.C., section 403g)

1966 (cont'd)

- 15 Oct [redacted] is named Chief, Contracts Division, OSA, vice [redacted] reassigned to the West Coast office.
- 23 Nov The NRP Executive Committee approves procurement of 4 additional U-2R's with total of 12 deliveries to be stretched out in order to maintain a follow-on procurement order for the next year.
- 12 Dec At a meeting to consider the Fischer-Bennington-Parangosky Report on OXCART/SR-71 comparison, Messrs. Vance (DOD), Schultze (BOB), and Hornig (White House) vote to cancel OXCART; Mr. Helms (CIA) votes to share the eventual fleet of A-12 and SR-71 aircraft between SAC and CIA.
- 20 Dec DCI letter to Mr. Schultze, BOB, states the view that CIA should remain in the reconnaissance business.
- 22 Dec The British JACKSON unit, in a meeting at OSA office, favors continuance of British participation with the Middle East and Africa being named as likely areas where the British could obtain approval for operations.
- 28 Dec President Johnson accepts the recommendations of Messrs. Vance, Hornig and Schultze and directs the termination of OXCART by 1 January 1968. (A six-month extension of OXCART occurs due to the SR-71 system not being prepared to take over on time.)
- 31 Dec The OSA T/O ceiling shows 761 authorized, largely for OXCART; only 130 are engaged in U-2 activities.

1967

- 5 Jan Fourth A-12 loss is suffered, No. 125, with contract pilot Walter L. Ray. Pilot ejects when aircraft crashes near Leith, Nevada, but failure of separation from ejection seat causes his death on impact. News release describes aircraft as SR-71 operating out of Edwards AFB with Lockheed test pilot.

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~~TOP SECRET~~1967 (cont'd)

- 17 Mar Revised TACKLE agreement for operation of joint US/GRC U-2 project is signed by Lt. Gen. Yang Shao-lien, COS, CAF, [REDACTED].
- 50X1, E.O.13526
- 20 Apr Mr. C. E. Duckett is confirmed as DDS&T.
- 16 May Presidential approval is received for immediate deployment of OXCART BLACK SHIELD contingent to obtain photo coverage of North Vietnam.
- 17-19 May Airlift to Kadena, Okinawa, of BLACK SHIELD contingent is accomplished. First A-12 is ferried over on 22 May, second on 24 May, third on 26 May. Total of 260 personnel are deployed.
- 31 May First BLACK SHIELD mission is flown over North Vietnam and the DMZ. Seventy of 190 known SAM sites in North Vietnam are photographed and nine out of 27 COMIREX top priority targets are covered.
- 30 Jul All property of IDEALIST is removed from Charbatia, India, and the operation there is closed out.
- 8 Sep Nineteenth U-2 loss is suffered, No. 373, with CAF pilot, Capt. Huang. On operational mission over Mainland China, aircraft is shot down in vicinity of Shanghai by surface-to-air missile; fate of pilot unknown but presumed dead.
- 30 Oct Post-flight inspection of A-12 aircraft reveals that a piece of metal penetrated the lower wing surface--possibly part of the debris from a missile detonation, since 8 missiles were reported launched during the aircraft's mission.
- 6 Nov Discovery of cracked wing in a SAC U-2 at Bien Hoa causes grounding of all U-2's effective 6 November 1967 and subsequent ultrasonic inspection at Lockheed to check metal fatigue. (Mr. C. L. "Kelly" Johnson had estimated the wing life of the U-2 at about 5,000 hours.)

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~~TOP SECRET~~1968

- 21 Jan OSA moves from the 6-B corridor of Langley to the Tyler Building at Westgate, Tyson's Corner.
- 16 Mar Last U-2 overflight of China Mainland is flown by CAF pilot; flights later restricted to peripheral offshore missions.
- 18 Apr DCI Helms expresses the view to the NRP Executive Committee that the OXCART capability should be maintained at Area 51 under CIA management.
- 29 Apr SAC's SR-71 deployment to Kadena without incident is reported to the NRP Executive Committee.
- 29 Apr DCI Helms recommends retention of Area 51 for exotic testing, such as the MIG-21.
- 8 May Last mission flown by an A-12 aircraft from Kadena covers North Korea.
- 16 May Secretary of Defense reaffirms the necessity to terminate the OXCART program on budgetary grounds.
- 21 May President Johnson reconfirms the cancellation of the OXCART program.
- 4 Jun Fifth A-12 loss is suffered, No. 129, with contract pilot Jack W. Weeks. Lost on overwater test flight after engine change; last known position 520 n.m. east of the Philippines.
- 26 Jun Intelligence Star for Valor is awarded to OXCART pilots Collins, Layton, Murray, Sullivan, and Vojvodich, and posthumously to Jack W. Weeks, accepted by his widow, in a presentation held at Area 51.
- 12 Jul Col. Donald H. Ross, USAF, is designated Director of Special Activities, DDS&T, vice Brig. Gen. Paul N. Bacalis, who returns to the Air Force SR-71 program.
- 13 Nov The NRP Executive Committee votes a 50-50 split of U-2R's between CIA and SAC and maintenance of 6 active U-2's by each with the U-2/C-G versions to be used as replacements for losses. A grant of \$1 million FY 1970 funds for OSA's [redacted] [redacted] is approved and \$500K for a QRC program.

50X1, E.O.13526

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CHAPTER I. BACKGROUND



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CHAPTER I. BACKGROUND

Surprise Attack

During the year 1954, as for some years previous to that time, the urgent problem of defense against surprise attack by the Soviet Union continued to occupy the attention of all those in Washington who bore the responsibility for the nation's security. High level commissions, whose memberships represented the best minds in the country, continually met in Washington to study every facet of cold war strategy and advise the President. There was no lack of brainpower available for this task, but there was one shortage which was recognized by all concerned and which came to be known as the "Intelligence Gap".

The existence of the Iron Curtain and the growing hostility of the Soviet Union toward the West had made it increasingly difficult to mount classic intelligence collection operations against the U. S. S. R. How, then, was the United States to obtain the vital intelligence on major military, political and economic activities within the Soviet Union which it must have to maintain its own national security? In the summer of 1954 the U. S. Intelligence Community had come around to the view that the only prospect of gaining this vital intelligence was through systematic aerial reconnaissance over the U. S. S. R.

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The Special Study Group of the Hoover Commission set up under the chairmanship of General James H. Doolittle to investigate CIA's covert activities, in its report of 30 September 1954 expressed the belief that every known technique should be used, and new ones developed, to increase our intelligence by high altitude photographic reconnaissance and other means, and that no price would be too high to pay for the knowledge to be derived therefrom.

Land Panel Proposal

On 5 November 1954, Dr. Edwin H. Land, Chairman of the "Project 3" Technological Capabilities Panel,<sup>1/</sup> wrote to Mr. Allen W. Dulles, Director of Central Intelligence, proposing a program of photo reconnaissance flights over the U.S.S.R., and recommending that CIA, with Air Force assistance, undertake to carry out such a program. The Land Panel's proposal (Annex I), entitled "A Unique Opportunity for Comprehensive Intelligence", recognized the risk of provocation toward war that such an intensive program of overflights might run, as well as the dangers involved should one of our military arms engage in such activities, especially in view of the tense political situation existing vis-a-vis the Soviet Union.

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<sup>1/</sup> This Panel was a sub-group under the Office of Defense Mobilization's "Surprise Attack Committee".

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"On the other hand," the proposal continued, "because it is vital that certain knowledge about industrial growth, strategic targets, and guided missile sites be obtained at once, we recommend that CIA, as a civilian organization, undertake (with the Air Force assistance) a covert program of selected flights. Fortunately a jet-powered glider has been carefully studied by Lockheed Aircraft Corporation for overflight purposes. This manufacturer proposes to take full responsibility for the design, mock-up, building, secret testing and field maintenance of this extraordinary and unorthodox vehicle, making it feasible for a CIA task force to undertake this vital activity... The Lockheed super glider will fly at 70,000 feet, well out of reach of present Russian interception and high enough to have a good chance of avoiding detection. The plane itself is so light (15,000 pounds), so obviously unarmed and devoid of military usefulness, that it would minimize affront to the Russians even if through some remote mischance it were detected and identified." <sup>1/</sup>

Appended to the Panel's proposal were photographs that demonstrated the great information content of pictures taken from extreme

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<sup>1/</sup> Annex 1, page 2. of Attachment 1.

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altitude. The proposal affirmed that a single mission of the Lockheed vehicle with cameras employing the most recently developed optical designs could photograph in revealing detail a strip of the Soviet Union 200 miles wide by 2,500 miles long, clearly identifying roads, railroads, power lines, industrial plants, airfields, parked aircraft, missile sites, etc., and detailing concentrated areas down to objects as small as a man.

In Dr. Land's letter to Mr. Dulles submitting the proposal he made clear the Panel's belief that this activity was appropriate for CIA (always with Air Force assistance) and was "the kind of action and technique that is right for the contemporary version of CIA; a modern and scientific way for an Agency that is always supposed to be looking to do its looking. Quite strongly, we feel that you must always assert your first right to pioneer in scientific techniques for collecting intelligence--and choosing such partners to assist you as may be needed. This present opportunity for aerial photography seems to us a fine place to start." <sup>1/</sup>

The Panel's recommendation was for immediate action, through CIA covert means, to procure the aircraft and equipment and set up

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<sup>1/</sup> Annex I.

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a task force. The opportunity for safe overflight was estimated as only a few years since the Russians were expected to develop radars and interceptors or guided missiles which would reach to the 70,000 foot region.

Lockheed Profile

The aircraft proposal by Lockheed, which was the basis for the Land Panel recommendation, envisaged a modification of the F-104 (Lockheed Starfighter) with long, glider-like wings, powered by a single jet engine. (The Pratt & Whitney J57/P37 was later chosen as the power plant and was provided through an existing USAF contract.) The drawing board concept of this aircraft, designated by Lockheed as the CL-282, originated with Mr. Clarence L. (Kelly) Johnson, chief design engineer and head of Lockheed's Advanced Development Projects group. (CL-282 profile is Annex 2.) It was submitted to the Air Force early in 1954 along with several other design proposals, some of which were accepted; however the CL-282 was shelved by the Air Force at that time.

Later in 1954, when the Land Panel was searching for a technical capability for collecting intelligence on the U.S.S.R., the CL-282 proposal was reviewed with Mr. Johnson and the Panel concluded

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that such a program was feasible and should be pursued by the U. S. Government. In presenting their recommendation to the CIA the Panel noted that no proposal or program that they had investigated appeared to hold as much promise for acquiring as much vital intelligence information at so little risk and at so little cost. They believed that the proposed aircraft could go where it was needed to go efficiently and safely, and that no amount of fragmentary and indirect intelligence could be pieced together to be equivalent to the positive photographic evidence obtainable by this reconnaissance system.

Optics Research

For some years prior to the Land Panel's establishment, optical systems and photographic techniques had been the subject of intensive study by specialists in the armed services as well as those in civilian organizations engaged in research and development and fabrication of photographic systems. Dr. Land, President of the Polaroid Corporation, and Dr. James G. Baker, Professor of Physics at Harvard University, both as members of civilian organizations thus engaged and as members of the United States Air Force Scientific Advisory Board, had continuously reviewed all the advances made, the possible course of future developments, and the application of these to photo reconnaissance overflights.

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Dr. Baker pointed out in a paper summarizing the types of photographic equipment to be built (see Annex 3) that camera configuration "A" would be made up from standard equipment already available, in accordance with the desire of all concerned to make use of cameras with proven reliability, as well as to make sure of having some equipment ready to meet the program's deadline. The other configurations, "B" and "C", were being specifically designed for the vehicle and missions contemplated and would not duplicate other developments. Dr. Baker emphasized that these new developments would be welcome and readily taken over by the Air Force. In some cases they were years ahead of present research and development, but on the other hand these systems were the outgrowth of many years of experience gathered from Air Force sponsorship of basic research and development programs and were therefore implicitly Air Force products. This was particularly true with regard to achievements in the electronic computing of optical systems by a joint research effort between the Air Force and the Perkin-Elmer Corporation of Norwalk, Connecticut. The development of the "C" configuration, for instance, would have taken years using the old German methods, or months using desk calculators. With the IBM CPC computer, however,

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Dr. Baker and his co-workers were able to do their computations in about 16 days.

When the Land Panel proposal was submitted to CIA, the design results obtained by Dr. Baker were considered by him to be adequate for providing satisfactory pictures, but seeking the ultimate in quality, he continued his research and computations as the program developed.

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ANNEX 1

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November 5, 1954

Mr. Allen W. Dulles  
Central Intelligence Agency  
Washington 25, D. C.

Dear Mr. Dulles:

Here is the brief report from our panel telling why we think overflight is urgent and presently feasible. I am not sure that we have made it clear that we feel there are many reasons why this activity is appropriate for CIA, always with Air Force assistance. We told you that this seems to us the kind of action and technique that is right for the contemporary version of CIA; a modern and scientific way for an Agency that is always supposed to be looking, to do its looking. Quite strongly, we feel that you must always assert your first right to pioneer in scientific techniques for collecting intelligence--and choosing such partners to assist you as may be needed. This present opportunity for aerial photography seems to us a fine place to start.

With best wishes,

/s/ Edwin H. Land

Edwin H. Land, Chairman

For: Project 3, Technological  
Capabilities Panel  
Office of Defense Mobilization  
Executive Office of the President

Project Members:

E. H. Land  
James G. Baker  
Joseph W. Kennedy  
Edward M. Purcell  
John W. Tukey

1 Attachment  
Report

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Attachment 1

5 November 1954

MEMORANDUM FOR: Director of Central Intelligence

SUBJECT: A Unique Opportunity for Comprehensive Intelligence

For many years it has been clear that aerial photographs of Russia would provide direct knowledge of her growth, of new centers of activity in obscure regions, and of military targets that would be important if ever we were forced into war. During a period in which Russia has free access to the geography of all our bases and major nuclear facilities, as well as to our entire military and civilian economy, we have been blocked from the corresponding knowledge about Russia. We have been forced to imagine what her program is, and it could well be argued that peace is always in danger when one great power is essentially ignorant of the major economic, military, and political activities within the interior zone of another great power. This ignorance leads to somewhat frantic preparations for both offensive and defensive action, and may lead to a state of unbearable national tension. Unfortunately, it is the U.S., the more mature, more civilized, and more responsible country that must bear the burden of not knowing what is happening in Russia. We cannot fulfill our responsibility for maintaining the peace if we are left in ignorance of Russian activity.

While aerial photography could be the most powerful single tool for acquiring information, it has until now been dangerous to fly over Russia. Up till now, the planes might rather readily be detected, less readily attacked, and possibly even destroyed. Thus no statesman could have run the risk of provocation toward war that an intensive program of overflights might produce. The Air Force has, for a long time, studied a program of overflight as a natural aspect of its Reconnaissance mission and has, in recent months, considered several proposals for airplanes designed for this purpose. While it is important that such research and development continue in the Air Force, for the present it seems rather dangerous for one of our military arms to engage directly in extensive overflight.

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On the other hand, because it is vital that certain knowledge about industrial growth, strategic targets, and guided missile sites be obtained at once, we recommend that CIA, as a civilian organization, undertake (with the Air Force assistance) a covert program of selected flights. Fortunately a jet-powered glider has been carefully studied by Lockheed Aircraft Corporation for overflight purposes. This manufacturer proposes to take full responsibility for the design, mock-up, building, secret testing and field maintenance of this extraordinary and unorthodox vehicle, making it feasible for a CIA task force to undertake this vital activity. Such a task force requires highly specialized and able guidance in procurement and operation (by Air Force officers for aircraft, by scientists for photographic and electronic equipment). The Lockheed super glider will fly at 70,000 feet, well out of reach of present Russian interception and high enough to have a good chance of avoiding detection. The plane itself is so light (15,000 lbs.), so obviously unarmed and devoid of military usefulness, that it would minimize affront to the Russians even if through some remote mischance it were detected and identified.

Since the proposed mission of this plane is first of all photographic, and only secondarily electronic, a word should be said about the information expected from the photographs, as well as about the effects of the cloud cover over Russia. Photographs are appended that demonstrate the large information content of pictures taken from these great altitudes. A single mission in clear weather can photograph in revealing detail a strip of Russia 200 miles wide by 2,500 miles long. Cloud cover will reduce completeness, of course, but clouds are not a serious obstacle because one can afford to wait for good weather; alternate routes over clear areas can be selected in flight; and finally, the number of intelligence targets accessible during a single mission is so large that even a partial sampling would yield an extraordinary amount of intelligence.

The opportunity for safe overflight may last only a few years, because the Russians will develop radars and interceptors or guided missile defenses for the 70,000 foot region. We therefore recommend immediate action through special channels in CIA in procuring the Lockheed glider and in establishing the CIA task force. No

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proposal or program that we have seen in intelligence planning can so quickly bring so much vital information at so little risk and at so little cost. We believe that these planes can go where we need to have them go efficiently and safely, and that no amount of fragmentary, and indirect intelligence can be pieced together to be equivalent to such positive information as can thus be provided.

It is recommended that

(a) The Central Intelligence Agency establish an initial task force to complete any necessary feasibility studies in a few weeks, and that, assuming successful completion of the studies, the following further actions be taken.

(b) A permanent task force, including Air Force supporting elements, be set up under suitable cover to provide guidance on procurement, to consolidate requirements and plan missions in view of priority and feasibility, to maintain the operation on a continuing basis, and to carry out the dissemination of the resulting information in a manner consistent with its special security requirements.

(c) The procurement of a coordinated system from Lockheed, consisting of CL-282 aircraft with photographic and electronic equipment, be authorized.

(d) Such high altitude overflights be authorized in principle.

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A UNIQUE OPPORTUNITY FOR COMPREHENSIVE INTELLIGENCE -- A SUMMARY

OPPORTUNITY

Collection of large amounts of information at a minimum of risk through prompt development of a special, high altitude airplane. Assurance of thousands of photographs that will yield critical analysis of vast Soviet complexes. Protection of mission by decisive altitude advantage over Soviet interception. This protection good for only a few years, thus assured only through very prompt action.

OBJECTIVES

Providing adequate locations and analyses of Russian targets including those newly discovered.

More accurate assessment of Soviet Order of Battle and of early warning indicators, thus improving our defenses against surprise attack.

Appraising Soviet guided missile development (through photos of test range, etc.).

Improving estimates of Soviet ability to deliver nuclear weapons and of their capacity to produce them.

Disclosing new developments which might otherwise lead to technological surprise.

Appraising Soviet industrial and economic progress.

ORGANIZATION

Secret task force under Central Intelligence Agency with strong Air Force staff assistance to equip and carry out entire mission up to point where flow of useful new intelligence is established. Task force to include top experts selected from Government agencies, armed services, universities and industry to provide for most effective application of science and technology toward fulfillment of this objective.

VEHICLE

Special "powered glider" CL-282 aircraft proposed by Lockheed. ALTITUDE - 70,000 feet. SPEED - 500 kt. RANGE - 3,000 n.mi. GROSS WEIGHT - 15,000 lbs. TAKE-OFF DISTANCE - 1,200 feet. CREW - lone pilot in heated, pressurized suit. AVAILABILITY - four aircraft for field use in 17 months assured by Lockheed.

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CAMERAS

Standard Trimetrogon for charting entire overflow strip. Focal lengths from 12 - 48 inches to be used in multiple mounts for main work load. Special long focal length spotting camera for detailing concentrated areas down to objects as small as a man. Clear identification of Roads, Railroads, Power Lines, Industrial Plants, Airfields, Parked Aircraft, Missile Sites and the like within a strip 200 miles wide by 2,500 miles long per flight.

ELECTRONICS

Electronics intercept and communications intercept data to be recorded on special automatic recorders preset for selected frequencies. More extensive electronic data available by optional use of additional electronic gear in place of photographic gear.

SCHEDULE

New intelligence to start flowing within twenty months.

COST

\$22,000,000 to initial flow of significant intelligence. (Includes procurement of design, development and test of six CL-282 aircraft, training and operation of special task force and initial logistic support.)

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ANNEX 2



Because of the folio size of Annex 2,  
Lockheed Aircraft Corporation's  
specifications for the U-2, it is  
included with the Appendices at the  
back of this history.

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DATE 10/11/01 BY 60322 UCBAW

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ANNEX 3



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14 January 1955

PHOTOEQUIPMENT

The following is a brief summary of equipment and planning. The Hycon perspective and lay-out drawings of January 13 should be referred to for more complete details.

For reasons discussed below we have planned for a total of 20 separate payloads made up from 8 kinds of payloads. The tentative designation and the distribution are as follows:

A-1a	A-1b	A-2a	A-2b	A-3a	A-3b	B	C
2	2	2	2	2	2	4	4

After considerable study and numerous revisions we have found that minimum weight and maximum logistical simplicity are obtainable if each payload has its own bottom with its own windows for the camera bay. Thus, we must have made up 20 separate bottoms of which there are 8 kinds.\* The bottoms are to be designated with the same notation used above, such as A-1a, etc. Although it is possible to have but a single kind of bottom servicing all kinds of payloads, the plane would be carrying quite a lot of dead weight for the simpler missions, there would be much increased danger of window breakage and loss of pressurization, and finally, there would result a much increased cost in manufacture of the numerous windows and possible delays in procurement.

The "A" designation comprises payloads made up from standard equipment in accordance with everyone's desire to make use of cameras with proved reliability. "B" refers to the intermediate reconnaissance camera combining intermediate focal length with maximum coverage. "C" refers to the long focal length spotting camera to be used for limited coverage at maximum resolving power.

The quantities given above are derived from a concept of outfitting 3 widely separated and independent bases with adequate equipment to provide for the missions of pioneer search and mapping, intermediate reconnaissance and spotting of critical areas. Furthermore, at all times we must strive

\* A 9th kind is probably needed.  
See below.

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to obtain the maximum information return per mission, picking a few days with exceptionally clear air, and making use of these vigorously when they occur. For that reason each base ought to have at least two or at most four aircraft, having available the 5 payloads (A-1a, A-2a, A-3a, B and C, or the equivalent). Maintenance should be accomplished during the numerous photographically unfavorable days of which there will be many suitable for check flights. Any one of the first four payloads covers a wide area, so that as many as four planes can be sent in simultaneously to photograph as many as 2 million square miles in 6 hours at altitude. Even "C" can be used right away for going after known critical targets, or for covering a small target area in great detail, or for following along rivers, roads or rail lines for associated industrial complexes. The various payloads are interchangeable among the 2 to 4 aircraft as needed, the change-over time amounting at most to several hours.

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A-1a. Camera Bay #1 contains a rockable K-38 with 24-inch lens cone, making use of a modified A8-B magazine with 2000' of thin base film. Bay #2 contains both a split vertical pair of 12-inch cameras, and a single vertical 6-inch K-17. Bay #3 contains the side oblique 6-inch K-17's completing the Tri-Met installation.

A-1b. The same, except that the rockable K-38 has a 36-inch cone.

A-2a. Camera Bay #1 contains the rockable K-38 with 24-inch lens cone again, but the mount now is changed to go with another rockable K-38 with 24-inch lens cone in Bay #2. The forward K-38 is for the right-looking obliques, and the center K-38 for the left-looking obliques. Bay #3 now contains the split vertical 12-inch pair. Bay #4 contains a small charting camera to be described below.

A-2b. The same, except that the two K-38's are equipped with 36-inch lens cones.

A-3a. Camera Bays #1 and 2 still contain the rockable K-38's. Bay #3 now has a fixed vertical K-38. Bay #4 has the charting camera.

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A-3b. The same, except that the 3 K-38's are equipped with 36-inch cones.

B. This is an entirely new camera where intermediate focal length and extreme coverage are combined. The optical system is light for what it accomplishes. The maximum film load of 9000' per spool, or 18000' altogether, accounts for more than 60% of the weight of the payload, including windows. Hence, the maximum information return per pound has been realized. By the same token, the payload can only be made lighter by decreasing the film supply, but for extreme altitude missions, or later retake missions of smaller areas, a reduced film supply will be satisfactory. Some further attention might be given to use of still thinner film, say of 2 mil base thickness, to take away another 75 lbs. B makes use of a 36-inch lens. Space is provided for substitution later of a 48-inch lens, if found desirable. The format is essentially 18x18, but is covered by two 9x18's photographed simultaneously. The 18x18 permits slower cycling and twice the stereo base line. The use of 9-inch film is better all around, particularly with thin base film. The two spools are contra-winding to maintain the c.g. accurately without further mechanical parts.

The transverse coverage in B is provided by means of a rockable 45-degree mirror that assumes any one of 7 transverse positions in turn and then resets. The windows are small and discrete at these 7 positions. Because of weight restrictions we have discarded the heavy double dove prism, and instead must put up with having the field rotate on the 18x18 format, and with a reversed image. Both can be overcome in later laboratory printing without loss of information. B is accompanied by the charting camera with its total coverage. Further study of programming technique will probably reduce the film weight.

C. This is also an entirely new camera. The problem has been to get the longest possible focal length in round numbers into the camera compartment given us, the maximum format size, and the maximum number of pictures. The result has been a 200-inch lens of f/16 speed covering an 18x18 format, and film spools accommodating up to 4000 pictures. From altitude each picture will cover approximately one square mile and show a resolution at least as good as one foot on the ground, which corresponds to about 3 seconds

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of arc. We are gunning for 1 second, however. The camera has a side-sweeping quartz mirror giving access to transverse coverage from horizon to horizon. The pilot is to select the interesting areas through a periscope having two degrees of freedom. Thus, he can look ahead and sweep from side to side to pick out suitable targets up to a minute ahead of time. When he centers the area on his cross-wires and pushes a button, he programs the camera to take the picture when the area crosses the transverse line. Thus, the pilot can stay comfortably ahead of picture time by an arbitrary number of seconds, and not worry about more than simple "shooting."

C can be programmed to take a number of pictures in a burst, or continuously. One might simply fly along a river and take high resolution pictures of both river banks for hundreds of miles. The same holds true for roads and rail lines. The pilot simply can keep the river on his cross-wires, more or less, when he flies.

C is also accompanied by the charting camera that will help determine later just where the large pictures were taken.

Reference to the summaries of equipments given in the Hycon report indicates the magnitude of the camera and optical work to be accomplished. Although A is always comprised of standard equipment, we plan to make many modifications to lighten the systems, improve reliability, increase film capacity, image quality\* and to perfect hundreds of windows and filters. The large windows for C must be exceptionally precise, allowing no optical deviations greater than a fraction of a second of arc, and slightly wedged to eliminate image twinning due to pressurization. The other windows are fairly easily made to optical standards but there are several hundred of them. The shutter problem must be given considerable attention owing to the large numbers of exposures. A full mission may bring back as many as 6,000 pictures or a 4-plane sortie may bring back as many as 20,000 pictures in six hours. Even one plane in six hours

\* Lenses and filters will be matched and calibrated. Lenses will be set at f/8, adjusted and figured for optimum performance. Magazine platens will be curved as needed.

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can bring back the equivalent of our present annual take in peripheral photography all in 6 hours, not to mention location. Hence, the equipment must be 100% reliable.

Considerable attention will be given to vibration elimination and to control of the low frequency oscillations. We plan to develop a triggering device that makes exposures during selected moments of minimum angular rate of the airplane. The larger cameras are in isolated mounts more or less on a c.g. principle, and have IMC. C will contain quartz mirrors in invar mount to stabilize focus thermally. Very close attention must be given to thermostating the cameras, providing proper environmental conditions for the film, and keeping windows clean and free of moisture. The periscope design and linkages with the camera must be done with extreme care, and provision must be made to allow the pilot to see essential instruments while using his periscope. In addition there will be a good deal of ground equipment needed, including maintenance facilities, spare parts, film storage, some processing units etc. Also, we plan to have test devices made up for checking the vibration and resolution performance of the various installations. It will be necessary to construct collimators for focusing cameras in the field. Hycon plans to train tech representatives for field service and to equip CFE vans with everything needed. When all this is accomplished, we shall have a most extraordinary means for gathering information, and in particular for obtaining the most information per hour at altitude. It will take only a few missions on perfect days to return more information than we have ever managed to collect photographically from earlier efforts, range excepted, and this information will all be up-to-date. Weather observations should begin even right away in order to determine what the frequency distribution seasonally is of "perfect" days where there is minimum haze. It should be emphasized that minimizing atmospheric haze by selection of observing times is much more important than further increase in quality of optics, and that a few perfect hours in the air are more important than dozens of days where haze is present. In the overall planning, expert weather analysis and weather information gathering should be given as much attention as the aircraft and camera effort, or the data reduction effort.

Charting Camera. This is a small panoramic system making use of 1000' of 70 mm film. Each picture is a sweep from

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horizon to horizon transverse to the line of flight. The successive pictures have 60% overlap. The film supply will provide continuous coverage for up to 4000 miles. The pictures will be useful for recording navigational and weather conditions, as well as helping tremendously in the plotting of the thousands of larger scale pictures. The charting camera will be indispensable with C for locating the critical areas photographed somewhat at random by the pilot in flight. This is a brand new development. The camera will be very useful later to the Air Force in low altitude coverage, being small and light, and providing complete coverage. For this latter reason, attention ought to be given to fast cycling rate, or at least designing the camera in such a way that fast cycling can later be incorporated.

Part of the optical development will include laboratory copying systems for projection printing and preparation of master negatives from which contact printing can be done. Two systems in this country operated full time can accommodate all of the work in the field, and hence should be located in the main processing center.

We believe that we have as good a team as can be found in the country for carrying through this large photographic program on a crash basis. Already by this date we have completed the basic plans and are ready to start detailing of many parts. The design of the optics for C is well along, 11 days of electronic computing already having been put in, with about 5 more to go. Materials will shortly be ordered for windows and mirrors. More effort will soon be required in the problem of the thin film base and special emulsions, and particularly on the elimination of vibration from the pictures. Now that the basic plans are in hand, we know what the task is for isolation of the inertial mass, damping, and exposure control, and can go into this problem in the greatest detail. We are targeting for 60 lines/mm on the special lenses, including the 36-inch f/8 modified standard lens, and at least for 25 lines at f/8 with the standard lenses. This is to be compared with an average of 10 lines/mm in the usual course of events in previous practice. Furthermore, we shall know why we cannot do better, from vibration analysis, contrast studies, and film properties.

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We should like to emphasize that the developments referred to above are very desirable ones for the Air Force and can be taken over readily. These developments in some cases are years ahead of the present R & D program. Conversely, the above systems are the outgrowth of many years of experience gathered from Air Force sponsorship of basic R & D programs, and are therefore implicitly Air Force products. This is particularly true of the electronic computing of optical systems, where for several years the Air Force has backed fundamental research with the Perkin-Elmer Corporation. The development of the complicated optical system in C would have taken years in Germany by the older methods, and many months here by design methods using desk calculators, but now is about to be accomplished in 16 full working days with our IBM computers (the CPC), which in a year or two might be reduced to only a few hours. Already, the design results obtained would provide quite satisfactory pictures, but we seek extreme quality.

Recent work indicates that the use of high contrast emulsions with finer grain will help overcome resolution and contrast losses caused by haze. We fully expect to use the new technique in B and C, where the optical systems are designed to have almost no vignetting. For B where wide angle coverage is involved, we can only increase gamma slightly above previous practice, and hence can employ ordinary exposure control. For C with its narrow angle coverage, we can use quite high gammas, but must have a photoelectrically operated shutter. Such a shutter is planned as part of the program.

On scheduling it seems easily possible to meet the aircraft scheduling with the A configurations. We expect also that the first B and C units will be ready before the end of the year in time for field use with the first several airplanes as needed and for tests. The A units are given priority, however, in order to be 100% sure that we have reliable payloads at hand.

Weight Restrictions:

We have followed a policy in planning that it is easier to take out a camera to reduce weight than it is to add one later for a more effective use of the mission at somewhat reduced altitude. Therefore, it is not surprising that our

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present weight figures add up to something more than the 550 lbs. allowed for the reduced altitude maximum weight, and substantially more than the 450 lbs. for extreme altitude. Furthermore, since so much planning has gone into fitting the space allowed us with logistically acceptable and practicable configurations, we have not really had the time to begin cutting weight. For one thing our film capacities are at maximum values in footage and weight, and later missions over territory already covered will, in general, use less film. For example, one B mission per year may be all that is required over a given flight line, and other uses of B in the interval will be for much smaller film supplies.

Before long we shall have much more carefully prepared weight figures on the various configurations, with additional columns to show weight figures for partially stripped configurations, and reduced film supply. Thereafter, judgment in the field will be all that is required to meet altitude performance where weight is a factor. For example, in A-1a the K-38 can be eliminated in about ten minutes of working time, and the resulting payload comes down to less than 400 lbs. In an extreme case, only the charting camera might be taken along, reducing the payload to 40 lbs. or so.

We have agreed to and will certainly follow the 450-lb. limit placed on the payload for maximum altitude, and will therefore list the partially stripped configurations that will meet this requirement. Similarly, we expect to give maximum attention to meeting the 550-lb limit for full payload. Perhaps we have given a wrong impression of our good intentions in meeting weight requirements by describing mostly the maximum payloads, but it is the latter that has occupied our attention because of systems planning. It is hoped that this description will clarify matters.

For most mapping runs, it is recommended that we use the thicker base film on the new low shrinkage base manufactured by Eastman, instead of trying to do mapping with thin base film. The 600' spools with standard film thickness are already adequate to cover the entire mission, and the extra weight will not be serious for the advantages gained.

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We might have planned for a lighter A-1 configuration if we used only one 6-inch K-17 with 1000' thin film magazine, in a rockable mount for the equivalent of a Tri-Met installation. However, we might lose precision in so doing, and certainly lose simultaneity on which mapping precision depends, and would have to use the thin base film. We feel we have made the better choice in spite of the weight problem.

As a final comment, we probably should get a ninth kind of bottom for C, consisting of a single horizontal large window for maximum spotting precision for near vertical photography. Missions sent out to obtain technical intelligence over very restricted areas ought to obtain the very best optical results, and the split window in our C system above is not at all desirable. We have used the split pair of windows to provide maximum resolution for the longest range side looks, and the vertical results through the V will still be very good. However, if we are really looking for details in terms of inches on ground objects such as missiles, aircraft, etc., we should have the single horizontal window that allows a plus or minus ten degree transverse sweep with full aperture and perfect optics. The decision as to getting the ninth bottom ought to be made soon as a request from the planning group, since already the aircraft people feel hardpressed by our requirements.

Prepared by Dr. James G. Baker

Addendum:

	Maximum payload return	
A-1a	5,250	pictures
A-1b	"	"
A-2a	6,000	"
A-2b	"	"
A-3a	4,750	"
A-3b	"	"
B	7,000	" (all 18x18)
C	5,000	" (all 18x18)

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CHAPTER II. INITIAL APPROVAL



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## CHAPTER II. INITIAL APPROVAL

### USAF/CIA Approval

In the two weeks following the Land Panel's submission of its proposal to CIA, discussions took place between the Agency and the Air Force as to the feasibility of undertaking the recommended program. On 19 November 1954, a luncheon meeting was held in the office of Secretary of the Air Force Harold E. Talbott. Those present included Mr. Dulles and General Cabell for CIA; Secretary Talbott, Mr. Trevor Gardner, Assistant to the Secretary for Research and Development, Mr. Fred Ayers, Jr., Assistant to the Secretary for Intelligence, and Lieutenant General Donald L. Putt, Deputy Chief of Staff, Development, for the Air Force; and Mr. C. L. (Kelly) Johnson of the Lockheed Aircraft Corporation.

Agreement was reached at the meeting that the CL-282 proposal was practical and desirable and should be contracted for (along with the modified Canberra recommended by General Nathan F. Twining, Chief of Staff of the Air Force). It was further agreed that the project should be a joint Air Force/CIA effort and that regardless of the source of the funds to support it, CIA unvouchered channels should be employed for passing the funds. (See Annex 4).

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A separate meeting was held with General Twining and Major General John A. Samford, Director of Intelligence, USAF, attended by Mr. Dulles and General Cabell for CIA. This meeting also resulted in agreement that the project was essential and that it should be undertaken jointly by CIA and the Air Force. (See Annex 5). General Cabell agreed to prepare a memorandum for the President, outlining the project for his consideration and requesting his approval to proceed with it. The final version of the memorandum for the President was cleared for the Air Force by General Samford, Lieutenant General Frank F. Everest, Deputy Chief of Staff for Operations, and General Thomas D. White, Vice Chief of Staff, and was signed by the Director of Central Intelligence, Mr. Dulles. The text of this memorandum is at Annex 6.

Mr. Dulles, on 23 November 1954, also obtained from the Intelligence Advisory Committee (IAC) a memorandum for the President in support of the proposed reconnaissance program (Annex 7). The members of the IAC expressed the belief that a substantially improved capability for filling the "Intelligence Gap" on the Soviet Bloc could be achieved through the use of aerial reconnaissance and photography.

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White House Approval

An appointment was made for 24 November and the members of the group waiting upon the President to present the reconnaissance proposal were: the Secretary and Chief of Staff of the Air Force, and the Director and Deputy Director of CIA. Also present were Secretary of State John Foster Dulles, Secretary of Defense Charles E. Wilson, and the President's Aide, Brigadier General Andrew J. Goodpaster. General Goodpaster, during the course of the project, came to be the principal White House liaison officer and acted in many instances as the transmitter and interpreter of Presidential decisions concerning the project during the Eisenhower Administration.

The only document relating to the meeting at the White House which was placed in the CIA files at the time was a hand-written memorandum for the record, penned by General Cabell, which simply stated that the project was approved subject to the reservation of the Secretary of Defense that a final look should be taken before the operation was actually launched, but after the materiel etc. were procured and readied (Annex 8). The memorandum submitted to the President contained the following specific recommendations: that the President would

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"a. Approve the existence of a national requirement for the above reconnaissance overflights.

"b. By approval of this document, direct the Secretary of the Air Force and the Director of Central Intelligence to establish as a matter of urgency, a collaborative project for the procurement and testing of the necessary aircraft and equipment, and for the procurement and training of the necessary crews (such crews to be non-U.S. nationals to the extent practicable). The Director of Central Intelligence is also hereby authorized to obligate in Fiscal Year 1955 an amount not to exceed \$35 million from the Reserve Fund for aircraft procurement, and it is expected as the project develops, additional authority will be sought by him for funds for maintenance, training, operations, etc.

"c. By approval of this document, direct the Secretary of the Air Force and the Director of Central Intelligence, subject to appropriate policy guidance as directed, to conduct at the earliest possible date, the reconnaissance overflights, and to do so in such a way as to reduce the risk of involvement of the U.S. to the minimum practicable." 1/

Although these recommendations received the verbal approval of the President at the meeting of 24 November, his signature does not appear on any project documentation showing either the initial approval in principle, or subsequent approvals for expenditures of funds or for specific overflight missions.

1/ Annex 6, page 3.

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ANNEX 4

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/HAND-WRITTEN MEMORANDUM FOR RECORD BY THE  
DEPUTY DIRECTOR OF CENTRAL INTELLIGENCE/

19 Nov 54

Memorandum for Record:

Following attended luncheon given by Secretary of Air Force, Talbot:

Mr. Trevor Gardner, Asst. to Sec. AF  
Lt. Donald Putt, AF /should be Lt. Gen./  
Dr. Land  
Mr. Clarence Kelly Johnson, Lockheed A/C Co.  
Mr. Fred Ayers, Asst. to Sec. AF  
" Allen Dulles, DCI  
Lt. Gen. C. P. Cabell, DDCI

It was agreed that the special item of materiel described by Lockheed was practical and desirable & would be sought in addition to the materiel item suggested by Gen. Twining at the earlier meeting with him.

It was agreed that the Project should be a joint Air Force-CIA one but that regardless of the source of the funds, whether A.F. or CIA, CIA unvouchered channels would be needed to pass the funds.

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19 Nov 54

## Memorandum for Record:

Following attended luncheon given  
by Secretary of Air Force, Talbot:

~~Mr. Twining, A.F. C.P.~~

Mr. Trevor Gardner, asst. to Sec. A.F.

Lt. Donald Pett A.F.

Dr. Land

Mr. Clarence Kelly Johnson, Lockheed A/C Co.

Mr. Fred Myers, asst. to Sec. A.F.

" Allen Dulles D.C.I.

Lt. Gen. C.P. Cabell D.D.C.I.

It was agreed that the special  
item of material described by  
Lockheed was practical & desirable  
& would be sought in addition  
to the material item suggested by  
Gen. Twining at the earlier meeting  
with him.

It was agreed that the Project should  
be a joint Air Force - CIA one but  
that regardless of the source of the funds,  
whether A.F. or CIA, CIA unvouchered channels  
would be needed to pass the funds.

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ANNEX 5



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/HAND-WRITTEN MEMORANDUM FOR RECORD BY THE  
DEPUTY DIRECTOR OF CENTRAL INTELLIGENCE/

Nov 54

Memorandum for Record:

Following met with Gen. Twining in his office:

Mr. Allen Dulles, DCI  
Lt. Gen. C. P. Cabell, DDCI  
Maj. Gen. John Samford, AF

Project was discussed and all agreed that it was essential and should be pursued jointly by the Air Force & CIA.

I was to prepare a draft memo for consideration by higher authority. I did so and later showed copy to Samford, who in turn discussed it with Gen. Thomas D. White & Lt. Gen. Frank Everest. Corrections were suggested by them which were incorporated in final draft submitted to higher authority.

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Nov 56

## Memorandum for Record:

Following met with Gen Twining  
in his office:

Mr. Allen Dulles, DCI

Lt. Gen C.P. Cabell, DDCI

Maj. Gen John Sampford, AF.

Project was discussed and all  
agreed that it was essential and  
should be pursued jointly  
by the Air Force + CIA.

I was to prepare a draft  
memo. for consideration by  
higher authority. I did so and  
later showed copy to Sampford.  
who in turn discussed it with  
Gen. Thomas D. White + Lt. Gen.  
Frank Buerst. Corrections were  
suggested by them which were  
incorporated in final draft  
submitted to higher authority.

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ANNEX 6

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## CENTRAL INTELLIGENCE AGENCY

Washington, D. C.

Office of the Director

24 November 1954

## MEMORANDUM

SUBJECT: Reconnaissance

You are familiar with the large gaps in our Intelligence coverage of the Soviet Union which prevent us from obtaining adequate knowledge of Soviet intentions and, in important respects, of Soviet capabilities; and in particular, with respect to their capabilities and intentions to launch nuclear attacks on the United States. You are familiar, too, with the current and growing difficulties in the way of filling those gaps by the more classic means.

In my considered judgment, as well as that of the other members of the Intelligence Community, there is not the prospect of gaining this vital Intelligence without the conduct of systematic and repeated air reconnaissance over the Soviet Union itself. (Even this does not assure adequacy, but will certainly provide a much closer approach to adequacy.) The members of the Doolittle Committee in their report, expressed their belief that every known technique should be used and new ones developed to increase our Intelligence by high altitude photographic reconnaissance and other means, and that no price would be too high to pay for the knowledge to be derived therefrom. Thus, there is a definite and urgent National requirement for photographic and electronic reconnaissance overflights of the Soviet Bloc.

While we have been considering the problem for a long time (you may recall a discussion I had with you some months ago concerning overflights), Dr. James R. Killian, Jr., and members of Project 3, Technological Capabilities Panel, Office of Defense Mobilization, (E. H. Land, James G. Baker, Joseph W. Kennedy, Edward M. Purcell and John W. Tukey) have independently arrived

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at essentially the same conclusion. I have also discussed it with Secretary Talbott and with General Twining. We are all agreed that the requirement is an urgent one and that with suitable direction and support, it is feasible of accomplishment with minimum risk.

An existing Air Force aircraft type (the Canberra) is considered capable of modification to give it a ceiling of around 65,000 feet. At such an altitude now, the expectation that it would be detected is very low indeed, and the possibility that it would be intercepted and shot down is practically nil. The possibility of forced landing in enemy territory exists, but the chances of that are low. The repercussions of its falling into enemy hands can be mitigated if the aircraft should be manned by non-official U.S. personnel. To the extent practicable, we would try to man the aircraft with Poles or other non-U.S. nationals. The aircraft itself, if not completely destroyed, would bear no markings that would clearly identify its origin. (The Canberra itself is nearly identical with its British prototype.)

As a follow-on to the Canberra, we would simultaneously proceed with the procurement of specially designed reconnaissance aircraft with more advanced performance characteristics, that would take it to around 70,000 feet.

In addition to this high altitude day reconnaissance, we would resort to very low altitude reconnaissance at night with appropriate aircraft. Whereas the night reconnaissance would not provide a substitute for the high altitude day photography, nevertheless it would give an opportunity for supplementary reconnaissance, exploiting such technical developments as infrared photography and certain electronics techniques.

Of course, not even the 70,000 foot opportunity will be of indefinite duration. Our problem will be one of keeping ahead and creating new opportunities as the old disappear.

We are all agreed also that, in order to attain a status of readiness to launch these flights as early as

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desired, and then to conduct them, extraordinary procedures would have to be adopted for aircraft, crew and equipment procurement, testing, training, and for operations. This would require the greatest possible collaboration between the Air Force and the Central Intelligence Agency.

I recommend that you:

a. Approve the existence of a National requirement for the above reconnaissance overflights.

b. By approval of this document, direct the Secretary of the Air Force and the Director of Central Intelligence to establish as a matter of urgency, a collaborative project for the procurement and testing of the necessary aircraft and equipment, and for the procurement and training of the necessary crews (such crews to be non-U.S. nationals to the extent practicable). The Director of Central Intelligence is also hereby authorized to obligate in Fiscal Year 1955 an amount not to exceed \$35 million from the Reserve Fund for aircraft procurement, and it is expected as the project develops additional authority will be sought by him for funds for maintenance, training, operations, etc.

c. By approval of this document, direct the Secretary of the Air Force and the Director of Central Intelligence, subject to appropriate policy guidance as directed, to conduct at the earliest possible date, the reconnaissance overflights, and to do so in such a way as to reduce the risk of involvement of the U.S. to the minimum practicable.

(Signed)

ALLEN W. DULLES  
Director

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ANNEX 7



23 November 1954

## MEMORANDUM

SUBJECT: Intelligence

In our opinion there are serious gaps in our Intelligence covering the Soviet Bloc areas, particularly in relation to our ability to determine the capabilities of the Soviet Union to launch nuclear attacks against the U. S. and to detect indications of their intentions to do so. We believe that we could have a substantially improved capability of filling these gaps through the use of aerial reconnaissance and photography, and that today these methods are the most practicable additional means to this end.

*Allen W. Dulles*  
ALLEN W. DULLES  
Director of Central  
Intelligence

*W. Mark Armstrong, Jr.*  
W. MARK ARMSTRONG, JR.  
Spec. Asst. for Intelligence  
Department of State

*Arthur G. Trudeau*  
ARTHUR G. TRUDEAU  
Major General, USA  
Asst. Chief of Staff, G-2  
Department of the Army

*John A. Sanford*  
JOHN A. SANFORD  
Major General, USAF  
Director of Intelligence  
Department of the Air Force

*Carl F. Espe*  
CARL F. ESPE  
Rear Admiral, USN  
Director of Naval Intelligence

*Edwin T. Layton*  
EDWIN T. LAYTON  
Rear Admiral, USN  
Dep. Director for Intelligence  
The Joint Staff, JCS

*Harry S. Traynor*  
HARRY S. TRAYNOR  
Atomic Energy Commission  
Representative to the IAC

RALPH R. ROACH  
Acting Asst. to the Director  
Federal Bureau of Investigation

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ANNEX 8

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/HAND-WRITTEN MEMORANDUM FOR RECORD BY THE  
DEPUTY DIRECTOR OF CENTRAL INTELLIGENCE/

24 Nov. 54

Memo. for the Record:

The Intelligence project was discussed in the President's office this date. Attending were:

The President  
" Secretary of State  
" " " Defense  
" " " the Air Force  
Mr. Allen Dulles, DCI  
Gen. Nathan Twining, AF  
Lt. Gen. Donald Putt, AF  
" " C. P. Cabell, DDCI  
Brig. " Goodpaster, Aide to the Pres.

The project was approved subject to the reservation of the Secretary of Defense that a final look should be taken before the operation is actually launched, but after the materiel etc. are procured and readied.

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14 Nov. 54

Memo. for the Record:

The Intelligence project was discussed in the President's office this date. Attending were:

The President

" Secretary of State

" " " Defense

" " " the Air Force

Mr. Allen Dulles, DCI

Gen. Nathan Twining, A.F.

Lt. Gen. Donald Pugh, A.F.

" " C.P. Caswell, DDCI

Mr. " Goodposter, Aide to the Pres.

The project was approved subject to the reservation of the Secretary of Defense that a final look should be taken before the operation is actually launched, but after the material etc. are procured and ready.

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CHAPTER III. ORGANIZATION AND  
PROJECT MANAGEMENT STAFF



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CHAPTER III. ORGANIZATION AND PROJECT  
MANAGEMENT STAFF

The Project Director

Shortly after the President's approval of the project was obtained, three additional CIA officers were brought into the knowledgeable circle by General Cabell to assist in planning: Mr. Herbert I. Miller, Chief of the Nuclear Energy Division of the Office of Scientific Intelligence; Mr. Edward Saunders, Comptroller of CIA; and Col. George O. McCafferty, Chief of the Air Maritime Division, DDP/CIA. At that point, before any substantive action had been taken towards organizing a joint task force with the Air Force, General Cabell had to be away on Agency business in South America. During his absence, the Director, prompted by the need to move ahead on the project with all speed, called in Mr. Richard M. Bissell, Jr., Special Assistant to the Director for Planning and Coordination, and asked him to take charge of the project. (See Annex 9 for biographic summary on Mr. Bissell). After laying great stress on the security aspects, Mr. Dulles gave Mr. Bissell some documents to read, including the Land Panel recommendation, a copy of the Director's Memorandum for the President, and some hand-written notes by General Cabell.

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Having received his directive, Mr. Bissell's first action was to meet on 3 December 1954, with Mr. Herbert Miller who, it developed, had until that time been under the impression, as a result of conversations with General Cabell, that he was to manage the project. At the meeting the two men quickly patched up a temporary working agreement between them, in General Cabell's absence. (Mr. Miller, once the project staff was set up, became the Executive Officer and served as an expeditor in all the engineering and development aspects of the project for a number of years.)

The following day, 4 December 1954, Mr. Bissell represented the Agency at a meeting in the Pentagon called to launch the project by Mr. Trevor Gardner. As the moving spirit on the Air Force side, Mr. Gardner during the meeting took the initiative to telephone Lockheed and Pratt & Whitney and tell them that the project had been approved and that they should go ahead with plans for producing the air frames and engines. No mention was made as to availability of funds. The discussion during the meeting concerned itself principally with the technological aspects rather than the management and financing of the project. Convinced that the first thing needed to get the project off the ground was money, Mr. Bissell went back to the Director with

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the recommendation that he arrange to draw funds from the Agency Reserve and that he authorize Mr. Bissell to go back to the Air Force planning group and say that the Agency would pay the major part of the project costs. This was done, and as a result the Agency project staff held the purse strings at the beginning and was able to call the shots during the initial organization period.

In early December 1954, a Project Headquarters was set up as an adjunct to Mr. Bissell's office in his capacity as Special Assistant to the Director (first in the old Administration Building at 2430 E Street, Northwest, and shortly thereafter in larger quarters on the second floor of old South Building). The cryptonym AQUATONE was procured for the project and daily staff meetings were instituted with an ever-widening membership in attendance as the tempo of activities began to build up. From the beginning these meetings were attended by Colonel Osmond J. Ritland of General Putt's office and he played a very valuable role in the early stages as the Air Force representative. (He was slated to become the first Deputy Project Director, but before his appointment to that position was made official, a written agreement with the Air Force on areas of responsibility within the project had to be negotiated—which took the better part of six months.)

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Project Outline

The internal Agency charter for Project AQUATONE went through approximately twelve drafts during the first month of planning before it was presented to the Director and approved by him on 10 January 1955. The refining process carried out by Mr. Bissell was well worth the effort since the comprehensive six-page document, which had been expected to remain valid for about three months, was in fact never altered for the seven years of its duration. The text of the Project Outline is at Annex 10.

The approval of the President had been based on an authorization to the Director of Central Intelligence to obligate in Fiscal Year 1955 an amount not to exceed \$35 million from the Reserve for aircraft procurement. The Project Outline estimated the cost of the airframes, photographic and electronic equipment and some field maintenance equipment at \$31.5 million with a margin of error of \$2 million, safely within the \$35 million limit. These estimates assumed that the Air Force would furnish technical assistance and supervision, all government furnished equipment (GFE), including especially forty jet engines, and transportation of materiel and personnel to the test site. Pilot recruitment and training costs were estimated

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at \$600,000. If the Air Force would underwrite the flight training, this charge to the Agency would be reduced to \$100,000 for the initial period.

The estimates in the Project Outline contained no allowance for the testing program since it was expected to fall entirely within Fiscal Year 1956, nor any allowances for acquisition or preparation of bases, operational costs, or costs for processing the photographic and electronic products to be obtained from overflights.

The Project Outline designated Mr. Bissell as the officer in charge of the project and as Approving Officer, subject to the guidance of the Director and Deputy Director. He was authorized to obligate funds in amounts up to \$100,000; any items in excess of that amount would be approved by the Director. The Comptroller was authorized to expend funds in the manner and to the extent approved by the Approving Officer within the limitations as to quantity and procedures set forth in the Project Outline. All contractual documents were to have the approval of the General Counsel.

Mr. Bissell, as Approving Officer, was authorized to arrange for the collection of intelligence requirements and for mission planning in cooperation with the Air Force as appropriate. (In later days, the simple system envisaged by Mr. Bissell for establishment

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of requirement priorities grew into a bureaucratic committee with representation from every intelligence agency of the government.)

The last responsibility placed upon Mr. Bissell by the initial charter was that of maintaining the closest possible security control over all phases of AQUATONE—one of the most difficult tasks, and yet almost unbelievably successful for quite a number of years.

Project Staff and Headquarters

The project's operating organization evolved slowly from January to April 1955, with the majority of the individuals working on AQUATONE remaining on the rolls of their own Agency components. On 2 March 1955 Mr. Bissell discussed with the Deputy Director for Support, Colonel Lawrence K. White, his plans for the project's organizational structure, funding and staffing, and they agreed that personnel and operating costs should be charged to separate accounts and that both should be segregated from those of other regular components (the "special project" concept). Col. White promised to name an administrative officer for the project who would initially help part time on current administrative matters and the development of an organizational plan, and later be assigned full time to the project. Such an officer was sorely needed since most of the problems being faced were either wholly or partly administrative ones.

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During the last week of April 1955, Colonel Robert B. J. Hopkins was named by the DD/S as Administrative Officer. Col. Hopkins had just returned to duty from a recuperative leave following an illness, and he stayed with the project only long enough to find that it was a "pressure" job and after approximately two weeks he asked to be relieved. The DD/S then nominated Mr. James A. Cunningham, Jr., who proved a hardier candidate and, in fact, held up under pressure for more than ten years.

Space was badly needed and about the first of May 1955 the project staff moved to separate quarters on the top floor of 2210 E Street, Northwest (where Mr. Arthur C. Lundahl had already set up a nucleus of a photo interpretation staff). Through the summer of 1955 additional staff entered on duty and by October more space was needed. At that time the headquarters office was composed of Administration, Personnel, Finance, Logistics, Contracts, and Operations (including Intelligence, Weather and Photo-Interpretation). Security and Communications staff assigned to work on the project were still working out of their own offices. On 3 October 1955 the headquarters was moved to Quarters Eye, Wings A and C, on Ohio Drive, and Colonel Ritland joined the staff and began to take a more active part as Deputy Project Director.

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In December 1955, with a view to providing the kind of quarters which would be required for the operational phase (i. e., an entirely restricted area in a fire-resistant building with adequate facilities for an operations center and a communications center, and with a minimum of 9600 square feet), it was arranged to lease the fifth floor of the Matomic Building at 1717 H Street Northwest. On 25 February 1956 the project staff moved into these offices which remained "Project Headquarters" through all the operations and organizational changes until the eventual move to the Headquarters Building at Langley in the spring of 1962.

Air Force/CIA Agreement

Concurrent with the effort at Project Headquarters which was going forward from the beginning of 1955 toward procuring the aircraft and equipment, recruiting personnel and planning for the testing and operational phases, Mr. Bissell also began what he later described as "a rather remarkably civilized and amiable battle"\* with the Air Force to hammer out a charter for the joint USAF/CIA project participation.

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\* From the notes on Mr. Bissell's "Dining In" speech of 12 Oct 1965.

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The first major encounter was with General Twining on 7 March 1955. In preparation for this meeting Mr. Bissell had on 25 February prepared a briefing paper summarizing project developments to date and recommending that attention be given to the requirements for Air Force support in the operational phase for which advance preparations should be undertaken with some urgency. Research and planning must be completed in the fields of aeromedicine, intelligence requirements and mission planning, meteorology and logistics. Pilots must be recruited, trained and tested, and Air Force personnel who were to hold important positions during the operational phase must be selected and an organizational structure completed.

The briefing paper, which was passed to General Twining in advance of the meeting, finished by recommending that

"...a single officer be designated who will have responsibility for all of the activities of the Air Force in support of and as a participant in the project. Clothed with this authority and responsibility, the officer would be better placed to arrange in the most secure manner possible for access to the varied resources of the Air Force upon which it is hoped to draw. He should be authorized to join with the CIA Project Officer in developing organizational plans for approval by appropriate authorities in the CIA and the Air Force and he should be in a position to secure the assignment to the project at an early date of other Air Force personnel as required." 1/

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1/ TS-103263, 25 February 1955. Briefing Paper by R. M. Bissell, Jr.

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In further preparation for the meeting, Mr. Bissell prepared a background paper for the Director and General Cabell. He first warned them that General Twining would probably indicate his feeling that the responsibility for Air Force support of AQUATONE should be turned over to one of the operational commands, specifically to the Strategic Air Command (SAC). Mr. Bissell then recommended that the Director take the following general line with the Chiefs of Staff:

"a. It is, of course, none of CIA's business how the Air Force organizes its activities but the character of the project imposes certain requirements which have a bearing on organization.

"b. This project has been conceived as a clandestine, intelligence-gathering operation in which missions will be flown only by non-military, and if possible non-American, pilots, and the initial policy decision to proceed was made on this basis. In order to conform to this concept it would seem desirable to avoid arrangements of such a character that the project could be described as a military operation conducted by the offensive air arm of the regular military establishment.

"c. There is a vital necessity for security. This requirement would seem to have two implications for organization. First, knowledge of the project must be limited to the narrowest possible circle of those who need to know, a category which should include only those individuals who are actually working on some aspect of it and a very few top policymakers... Second, it is desirable for the project to be so organized that it is given the best possible cover...

"d. Not only should the project have as little military aura as possible and be rigorously secure, it must also be subject to close and continuous policy control by the senior

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policymakers of this Government.. Such control is going to be very much easier to maintain if the project headquarters is in Washington.

"e. Primarily to maintain security but also to ensure close control, it is probably not going to be possible to use established command channels in either the CIA or the Air Force.. Accordingly, whatever focus of responsibility within the Air Force, it will probably continue to be necessary to use special channels.."

"f. To summarize: The character of the project would seem to require that the officer immediately in charge of Air Force participation be stationed in Washington, that he have authority to deal directly with the CIA and with other components of the Air Force on project business, that if he is in an operational command his connection with it be played down so as to avoid identification of the project with it, and that there be a direct channel from the Washington project headquarters to overseas units.."

"It is most important to emphasize that the cooperation we have been and are receiving from the Air Force simply could not have been more complete or more effective.. In making this point, I suggest that you mention Colonel Rittland by name. If you feel it is appropriate, you might contrive to suggest that he would be in our eyes an admirable project officer." 1/

No substantial agreement came out of the first meeting with

General Twining and one month later Mr. Bissell fired his second shot, a memorandum addressed to the Deputy Chief of Staff for Operations, which was handed informally to Generals Everest and Putt for discussion purposes. Its opening paragraph began:

1/ TS-103274, 3 March 1955. Memo for DCI from R.M. Bissell, Jr.

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"It is understood to be the view of the Air Staff that Air Force support for Project AQUATONE in its operational phase should be the responsibility of the Strategic Air Command. Assistance and support in research, development and procurement will, however, continue to be the responsibility of the Deputy Chief of Staff, Development." 1/

Accepting this premise, Mr. Bissell went on to explain that, based on the original concept of the project-- that it would be a clandestine intelligence-gathering operation to be conducted in such a way as to minimize the risk of detection and of plausible attribution to the U.S. Government-- the CIA had made certain assumptions with regard to the character of project operations. These included numbers of aircraft, equipment and operating bases, and specific functions to be performed by the Agency, such as the recruiting and administration of civilian pilots, furnishing maintenance personnel for primary mission aircraft and equipment, project security control, project communications and the collection and coordination of requirements and intelligence. Certain suggestions and recommendations were made as to the most effective and most secure manner (from the Agency viewpoint) for channeling Air Force support.

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1/ TS-103292/A, 25 March 1955. Memo for DCS/Operations, USAF, from R. M. Bissell, Jr. (Annex 11).

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Differences of opinion among the Air Force generals were such that they would neither accept the Agency's proposals as presented nor put forward an agreed counterproposal of their own. At a meeting of the project staff on 8 June 1955, Colonel George McCafferty reported to Mr. Bissell that Generals Twining, White and Everest were engaged in a controversy over what role the Air Force should play in the project and that the office of the Deputy Chief of Staff, Personnel, had been instructed to take no further action on the project's personnel requirements pending a settlement of the issue.

Mr. Bissell then sought the assistance of Mr. Trevor Gardner in trying to reach an agreement. A letter signed by the Secretary of the Air Force on 27 June 1955 addressed to General Twining urged that the Chief of Staff and his Deputies reach an agreement with the CIA as quickly as possible. The formula laid down by the Secretary contemplated that the operational phase of Project OILSTONE (the Air Force cryptonym for AQUATONE) would be carried out by a joint task force of the CIA and the Air Force, that Colonel Ritland be assigned to head the Air Force portion of the task force and that he serve also as deputy to the senior project officer designated by the DCI for all operational activities.

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In an effort to hasten an Air Force decision, Mr. Bissell drafted a memorandum outlining specific organizational arrangements based on the Secretary's formula, and sent copies to Mr. Gardner and Generals Everest and Putt as preparation for another meeting the first week of July (text of this paper at Annex 12). There was still no agreement and at the same time the attitude of General Curtis LeMay, Commander of SAC, was causing some concern since he had made it clear at a meeting with Mr. Bissell that as soon as CIA had paid for the U-2\* he planned to take it over, and he didn't expect that date to be too far in the future.

On 9 July 1955, the Director of Central Intelligence attended a conference at Air Defense Command Headquarters in Colorado where the U-2 project was the number one agenda item. In order to prepare the Director for the task of getting from the Air Force the decisions so urgently needed to move the project forward, Mr. Bissell wrote still another briefing paper for the Director (see Annex 13) outlining the proposals advanced to date and strongly recommending that the task force responsible for the project have a clear responsibility for both operational planning and actual conduct of operations and have a

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\* The Air Force designation for the Lockheed CL-282.

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clear and direct line of command from headquarters to the field detachments. Within that premise, he saw three feasible alternatives: a CIA-controlled task force drawing upon Air Force personnel and support; an Air-Force-controlled task force drawing upon CIA for support; or a jointly-controlled and jointly-staffed task force drawing on both agencies for support.

The face-to-face meeting of Mr. Dulles and the top Air Force officials concerned brought results finally, and a joint agreement entitled "Organization and Delineation of Responsibilities - Project OILSTONE" was approved and signed by General Twining for the Air Force on 3 August 1955 and by Mr. Dulles for the CIA on 4 August 1955 (Annex 14). The agreement gave the responsibility for general direction and control of the project to the DCI, and the Chief of Staff, USAF, to be exercised jointly. The Agency-appointed Project Director and the Air-Force -appointed Deputy Project Director would be responsible for conduct of the project through all of its phases, subject to guidance from higher authority. The Air Force Project Group (headed by Colonel Russell A. Berg) was to act in the name of the Chief of Staff of the Air Force, and SAC was to perform a supporting (not a controlling) role in the training and operational phases.

15

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Commenting on how this agreement worked in practice,

Mr. Bissell some years later said:

"In the negotiations with the Air Force... a concept emerged which really worked well for five years. The U-2 project was quite explicitly set up as a joint Air Force/CIA project... Throughout the U-2 phase the Air Force wasn't just in on this as a supporting element... but held, if you want to be precise, 49% of the common stock. Quite aside from interdepartmental clearance obligations of the normal sort, I had to clear every major policy decision with two bosses. It was done, and it did work, and it worked extremely smoothly and well. Whether it ever could again is something I won't comment on because I don't know." 1/

#### Personnel

The first Table of Organization for Project AQUATONE, approved by the Deputy Director, Support, at the end of April 1955, provided staff for a Headquarters office, a U.S. field test site, and three foreign field bases (92 Agency staff, 109 Air Force officers and enlisted men, and 156 contract, including techreps, guards and primary aircraft pilots, totalling 357. (See Annex 15).

Within a month the T/O was revised in light of changed requirements: (a) Support aircraft crews deleted (to be furnished as an Air Force contribution); (b) small increase in the administrative support

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1/ From the notes on Mr. Bissell's "Dining In" speech of 12 October 1965.

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area (particularly clerical); (c) addition of a Communications Reserve Cadre to permit retention of personnel while training on project equipment prior to their assignment to the field; (d) substitution of staff security investigators in place of contract civilian guards for the four bases; and (e) addition of a supply depot.

A sterile version of the T/O was given to the Director of Personnel so that he might produce Agency candidates to fill the vacancies and provide support in keeping personnel records. The highest priority was assigned to the project's requirements and every effort was made to staff it with the best candidates; however, for the first year it was easier to get approval for additions to the T/O than to get the actual bodies on board.

Because of the large numbers of communications engineers and technicians and security investigators which the T/O called for, the Offices of Communications and Security set up their own recruiting and training programs in order to meet the requirements for personnel without depleting their own staffs. An early decision was reached that dependents would not be allowed at either the ZI or foreign bases and therefore single men were chosen wherever possible and good usage was made of Air Force enlisted men in clerical

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slots. The "no dependents" rule continued in effect until the end of 1957.

Military Personnel

In February 1955 Colonel Ritland urged the opening of a direct line to the Air Force Deputy Chief of Staff, Personnel (DCS/P) in order to get the best candidates available and to expedite the paper work required to transfer them to the project. The CIA Military Personnel Division (headed by Colonel Jack Dahl) set up procedures for handling the nominees separately from regular military assignees to other duty in the Agency. Requirements were placed with the DCS/P liaison officer in the Pentagon who furnished candidate files to Colonel Dahl for review by project senior officers. In June 1955 word was passed to the Project Director that the DCS/P (Gen. John S. Mills) was concerned over the size and phasing of project military personnel requirements. The Air Force reluctance to release so many good men from critical categories was largely overcome with the signing of the joint agreement in August 1955, but the early delays had effects which were felt sharply at the time the first two detachments were being trained, equipped, and deployed.

Air Force personnel assigned to the project were attached initially to the 1007th Air Intelligence Service Group, Headquarters

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Command, and their records were handled by a special unit of MPD. The selectees were approached through a form letter indicating their proposed assignment to the Agency, serving overseas (without dependents) in a sensitive activity. Personal History Statements were requested, on receipt of which a Security Office investigation was made and preliminary approval for administrative processing given. The candidate was then ordered to Washington and completed the entry-on-duty processing, including physical and psychological examination, security briefing and voluntary participation in a polygraphic interview. (Refusal to be polygraphed did not automatically exclude an individual from the project.) After final security clearance the individual entered on duty and was briefed on his assignment.

In the first few months of this procedure, there was a moderately high rate of wash-outs of military personnel for various reasons when subjected to Agency tests. Very little could be done to make this type of examination more palatable to senior Air Force officers although efforts were made to explain the necessity for it and to minimize the reaction to it. It was patently difficult for career Air Force officers to accustom themselves to civilian command with

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stringent security control over all their activities and movements, and it was fortunate that only a moderate number of problem cases came through the screening to give trouble later.

A shortage of supply personnel was a recurring problem, beginning with the setting up of the depot 50X1, E.O.13526 and the assembling of supplies for Detachment A early in 1956, continuing through the training and deployment of Detachment B. In the face of this shortage, the SAC support group, headed by Col. Herbert Shingler, carried the burden of getting Detachment A logistically ready to deploy. There were also shortages in the aeromedical staff and personnel from the test site had to be borrowed to staff Detachment A at the time of deployment.

In Col. Ritland's report to the Project Director on 30 March 1956, he said:

"Because of the over-all expansion and the lack of sufficient personnel, we have drawn on our Air Force commands to assume definite project responsibilities. It is apparent that although work is proceeding rapidly, much of the build-up is being accomplished with personnel outside of the project and not directly under the control of the Project Director. This is not an entirely satisfactory situation and should be closely watched as the scope of the project expands." 1/

1/ TS-143306, 30 March 1956. Comments by Col. Ritland at the time of his departure from the project.

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Contract Personnel (Techreps)

The furnishing of contract techreps to maintain and service project equipment at the test site and overseas bases was handled through the medium of separate service contracts with each of the suppliers. It was impressed upon the companies that the personnel for overseas should be drawn from the ranks of their current employees, rather than from new recruits, in order to expedite security clearance and training.

Each company had its own policy regarding pay scales and other employee benefits. Lockheed developed a plan whereby a certain part of the overseas pay was held back and upon completion of an 18-month contract the withheld portion plus a bonus would amount to \$5,000, an incentive to finish the contract. If the employee elected not to finish his term or was fired for cause, his transportation home would be taken out of the amount withheld and no bonus would be paid.

Besides Lockheed, which furnished a five-man crew for each U-2, service contracts or other arrangements were made with Perkin-Elmer and Hycon for photo equipment, Ramo-Wooldridge for electronics, Firewel for pilot equipment, Baird Atomics for

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the sextant, Westinghouse for side-looking radar, and Pratt & Whitney for engines. Other service contracts were signed later for subsequently developed equipment.

The techreps assigned to overseas duty were documented as Department of the Air Force Civilians, accredited to the Air Weather Service. While assigned with the detachments overseas, they enjoyed whatever benefits, privileges and other entitlements were available to other detachment personnel. The ZI test site and each foreign field base presented different situations with regard to billeting, messing, per diem, working conditions, recreation, etc., and a constant effort had to be made by administrative and personnel officers to equalize the treatment of all personnel, and take care of major complaints.

The Project Director described the cohesion achieved within these mixed task forces as follows:

"We had to put into the field detachments which were roughly one-third CIA civilian personnel, one-third Air Force uniformed personnel, one-third contractor personnel. These people had to preserve the tightest kind of security; they were expected to achieve a standard of maintenance that three successive SAC colonels fresh to the project admitted were above any they had seen achieved in a 100% military operation. To do these things, they had to be a disciplined and hard-working organization. We had to cope with the fact that all three pay systems were different, all sorts of standard arrangements for fringe benefits (including most

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notably R&R leave) were totally different. We averaged the regulations up until each of the three components was getting all the privileges it was used to under its union contract, plus all the privileges that both of the other union contracts afforded. This was, needless to say, an expensive operation for the U.S. Government, but I'm here to say it really did work. I think it worked as measured by maintenance standards achieved and maintained, and obviously, I think, by accomplishment. But I think it worked in terms of human relationships and morale." 1/

#### Full Complement Achieved

The project Table of Organization gradually increased in all categories to a total of 444 at the end of 1955. With the staffing of Detachment A through the winter and spring of 1956 and the selection of cadres for two more detachments, the end of March 1956 found the T/O at 546. By October 1956, with both Detachments A and B in the field and Detachment C awaiting deployment, a high water mark of approximately 600 personnel was set for the U-2 program. By that time, however, the operational pace had slowed down due to the political stand-down of overflights of the Soviet Union, and consideration had to be given to a reduction in force.

On 5 October 1956, Colonel Jack A. Gibbs (then Deputy Project Director), advised Mr. Bissell as follows:

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1/ From notes of Mr. Bissell's "Dining In" Speech of 12 October 1965.

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"If operations do not increase and involve deep penetrations of the USSR next spring, I believe we should review our Headquarters personnel roster with a view to initiating a reduction in force. I believe the front office in Project Headquarters has sufficient manning for the present work load. Delineation of responsibilities generally is good throughout the staff. Occasionally we find Administration usurping some of Operations' prerogatives, and at times the front office has issued similar action instructions to several different individuals, but these are isolated cases and happen in any organization that is busy and moving fast." 1/

PCS and TDY Basis for Field Assignment

Beginning in 1955, the permanent cadre of the test site, located in a remote part of the Atomic Proving Ground in Nevada, were assigned on permanent change of station orders (PCS) to Los Angeles, where their families were settled, and on temporary duty orders (TDY) to the test site. Other personnel assigned to the test site for training before going overseas were PCS Washington and TDY at the test site. In an effort to equalize per diem rates among all categories of personnel, in January 1956 the following policy was affirmed: Any employee, civilian or military, reporting to the test site on or after 1 January 1956 would receive per diem at the rate of \$12 a day for the first 30 days and \$10 a day thereafter. (The same per diem was approved for

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1/ TS-143451/1, 5 October 1956. Review of Ritland Report by Col. Jack A. Gibbs.

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Edwards Air Force Base when the test site was reestablished there in July 1957). This policy was questioned by Mr. Robert Macy of the Bureau of the Budget during a visit to Watertown in February 1956, since individuals were only paying \$4.25 room and board at the base; after an explanation of the philosophy behind the policy, Mr. Macy said he would not bring the matter up in his report.

When Detachment A deployed to England, it was on a PCS basis (without dependents or household effects) and it was anticipated that a full tour in England would ensue. A hurried move to Germany was necessitated by unforeseen events and a later move to another German base took place, all within a year; the unit returned to the ZI after 18 months overseas. This experience led to the decision that detachments should be deployed TDY rather than PCS in view of inability to predict length of stay at a given base. General Cabell approved this change of policy in August 1956 when Detachment B deployed TDY to Adana, Turkey, without dependents or household effects. In March 1957, Detachment C deployed to Japan on the same basis.

On 24 September 1957, the Project Director wrote to the Deputy Director, Support, to advise him of a desired change in policy:

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"With the prospect of continuing Project AQUATONE operations overseas at least through calendar year 1958, plans have been made to have the dependents of project personnel join them at overseas locations. As you know, our concept to date has been centered about the maintenance of a high degree of mobility for personnel and equipment. Events of the past eighteen months have shown that the political impact of having an AQUATONE unit within the borders of a friendly country is less than we had anticipated, and consequently, we are shifting to a concept of a fixed base with a forward staging capability. In a fixed base operation, we are being consistent with cover to include dependents for unit personnel. Among those affected by this change will be the contract pilots, many of whom are married and whose dependents will join them overseas." 1/

With the approval of the DD/S, this policy was established and a crash program was instituted to prepare dependent housing. This was accomplished at Adana by rental and renovation of local economy houses and by use of trailers shipped from the U.S.; at Atsugi by remodeling of existing Agency billets and construction of more units through a local builder. This program cost several hundred thousand dollars in each case, which could not be recouped by the Agency when the two detachments were returned to the ZI.

When Detachment H was set up in Taiwan for joint operations with the Chinese Nationalists at the end of 1960, personnel were deployed on a TDY basis without dependents or household effects.

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1/ SAPC-19339, 24 September 1957. Memo to DD/S from Project Director.

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Cutbacks and Later Increases

At the time of the amalgamation of Agency air operations under one division (Development Projects Division, DDP), one of the purposes was a saving of personnel. From the high mark of 600 at the end of 1956, the T/O fell to 412 at the beginning of 1958, and to 371 in March 1959 when the amalgamation went into effect. Further reductions were made through 1959 and the T/O stood at 362 at the end of that year. Four months later the May Day incident caused a cessation of overflight operations, the reduction of Detachment B, and the return to the ZI and reduction of Detachment C; however, other air activities were building up, including the U-2 successor program, the satellite activity, clandestine air operations in various areas of the world (notably the Far East), and the staffing of cadres for the detachments at Eglin and Kadena, and the new detachment on Taiwan. Annex 16 shows the T/O strength by activity as of October 1960.

In November 1960 the Deputy Director for Plans (Mr. Bissell) notified the Chief, Development Project Division (Col. William Burke), that he intended to take advantage of the reduction of Detachment B to achieve a reduction in the authorized strength of the division, thus reflecting the gradual shift of resources away from the U-2 into new

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programs, as evidenced by the sizeable build-up at Watertown (renamed "Area 51") for the OXCART program. At that time the T/O had increased to 656, but a cut of 60 slots was made at the end of 1960 as a result of a continuing over-all personnel review within the DD/P complex.

The staff remained fairly static until February 1962 when Mr. Bissell left the Agency and a six-month period of reorganization ensued. The end result was the transfer of DPD's special projects staff to the newly formed Deputy Director for Research, while the air support functions remained within the DD/P. The allocation of the DPD authorized strength at the time of the turnover was:

	Air Support (now SOD)	DPD (now OSA)
Headquarters	46	130
U. S. Field	99	184
Foreign Field	117	34
	<u>262</u>	<u>348</u>

Annex 17 contains the announcement of the establishment of the Office of the Deputy Director for Research on 16 February 1962 (HN 1-9), the terms of reference of that office and the establishment under it of the Office of Special Activities (OSA), (HN 1-23 dated 30 July 1962), and the change of name of the Directorate from Research to Science and Technology (HN 1-36, dated 5 August 1963).

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The position of Acting Director, OSA, remained vacant for several months and was finally filled as one of the recommendations of the Inspector General's survey of the spring of 1962. The first incumbent was Colonel (later Brigadier General) Jack C. Ledford, who served from September 1962 to August 1966. (By DD/S&T General Order No. 37 dated 27 July 1965, the title of the Acting Director for Special Activities was changed to the Director of Special Activities.)

Two increments of personnel were approved for OSA during the latter part of 1962, almost entirely for the OXCART program, bringing the T/O back up over 500. In 1963 an additional 217 slots were requested, 121 of which were approved, making the total strength 629 instead of the 725 considered absolutely essential by June 1964. Only 22 of these additional positions were exclusively for U-2 activities, which were then completely overshadowed by the successor program in terms of budget and personnel. Further increases in preparation for the deployment of the OXCART aircraft were made in 1964 and 1965.

In May 1965, satellite operations were separated from the other activities within OSA under the Special Projects Staff (SPS) and

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effective 15 September 1965 the Office of Special Projects was established within the DD/S&T to carry on these operations. A total of twelve positions was transferred from the OSA Table of Organization to help staff this new office.

In July 1966, a reorganization plan for OSA within the T/O ceiling of 761 was proposed by Gen. Ledford (see Annex 18 for the basic concept and organizational chart of this reorganization). Certain upgradings of slots (including the three top military designees in OSA) were not approved by the Director of Personnel as requested in that reorganizational proposal. At the end of 1966, only about 130 of the total 761 personnel authorized to OSA were exclusively engaged in U-2 activities, including Headquarters and the Edwards and Taiwan detachments.

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ANNEX 9



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RICHARD MERVIN BISSELL, JR.

DOB: 18 September 1909 POB: Hartford, Conn.

Married: Ann Cornelia Bushnell Children: Richard Mervin  
 6 July 1940 Ann Harriet  
 Winthrop Bushnell  
 William George  
 Thomas Eric

Education: Yale University, B.A. Economics, 1932  
 London School of Economics  
 Yale University, Ph.D., 1939

CIA Experience: Served as an intermittent Consultant to the Office of National Estimates, 1952-54; Special Assistant in the Office of the Director of Central Intelligence, 1954-59; Deputy Director (Plans), 1959-61.

Non-Agency Experience: Instructor and Assistant Professor, Yale University, 1934-42; served as Chief Economic Analyst, Bureau of Foreign & Domestic Commerce, Dept. of Commerce, 1941-42; Assoc. Professor and Professor of Economics, Massachusetts Institute of Technology, 1942-48; Assistant to the Deputy Director, other executive positions, War Shipping Administration, 1942-45; Economic Adviser, Deputy Director Office of War Mobilization and Reconversion, 1945-46; President's Committee on Foreign Aid, Executive Secretary, 1947-48; Deputy Administrator, Acting Director, Economic Cooperation Administration and Mutual Security Agency, 1948-52; Consultant concurrently with Ford Foundation, Mutual Security Agency and ONE/CIA, 1952-54. Also Consultant to Fortune Magazine, 1937-39, 1943-46; Economic Adviser to the Connecticut Public Utilities Commission, 1936-41; Staff Member of Committee on Employment, Social Science Research Council, 1939-41; Consultant to Cosmopolitan Shipping Co., 1946; U.S. Steel Corp. of Delaware, 1948; Scudder, Stevens & Clark, 1947-48; Coordinator of Exports, 1947; Brightwater Paper Co., 1947-48; Asiatic Petroleum Co., 1948; Gray and Rogers, 1948; President, Institute for Defense Analyses, 1961-64; Director of Marketing and Economics, United Aircraft Corporation, 1964 to present.

Author of: "The Rate of Interest," "The Theory of Capital Under Static and Dynamic Conditions," "Price and Wage Policies" and the "Theory of Employment," "Price, Costs and Investment," "The Anatomy of Public Spending," "The Impact of Rearmament on the Free World Economy," "European Recovery and the Problems Ahead," "Foreign Aid: What Sort? How Much? How Long?"; Contributor and Editor of "Report of President's Committee on Foreign Aid."

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ANNEX 10



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7 January 1955

PROJECT OUTLINE

PROPOSAL

In collaboration with the Air Force, to undertake the procurement of (a) 20 high altitude aircraft, (b) photo-reconnaissance equipment, and (c) electronic-reconnaissance equipment, and to prepare for and conduct extensive overflights of the Soviet Bloc in order to provide photographic and, secondarily, electronic intelligence. (Project AQUATONE)

SITUATION

The Lockheed Aircraft Corporation has proposed a very-high-altitude, jet-powered aircraft (designated CL-282). The Corporation is willing to take full responsibility for the design, mock-up, building, secret testing, and field maintenance of this unorthodox vehicle. It therefore appears entirely feasible for a CIA task force to undertake a covert overflight program based upon the CL-282, which will fly at 70,000 feet, well out of reach of present Russian interception and high enough to have a good chance of avoiding detection.

Photographic equipment can be developed which will enable extraordinary intelligence content to be obtained with pictures taken from great altitudes. A single mission in clear weather can photograph a strip of Russia 200 miles wide and 2200 miles long. A spotting camera will take pictures in which the individuals in a city street can be counted from 70,000 feet. Cloud cover will reduce completeness but is not a serious obstacle because missions can be scheduled for good weather and alternate routes for clear weather can be selected in flight.

Analogously, it is believed that automatic electronic intercept equipment (ELINT gear) can be developed which will provide from each overflight essential intelligence data as to locations, characteristics, capabilities, ranges and purposes of Soviet radar, homing identification and missile guidance systems. The possibility that otherwise inaccessible internal U.S.S.R. ultra-high-frequency links might be intercepted and recorded for communications intelligence analysis will also be explored.

The opportunity for safe overflight with the best equipment that can be built at this time will last only a year or

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so because the Soviets will develop radar and interceptors or guided missiles effective for the 70,000-foot region. The CL-282 can be developed and produced extraordinarily rapidly because it is based on a fighter aircraft already in production and uses an engine already tested. Moreover, experience with this aircraft will contribute significantly to the ability of the United States to maintain a lead in the development of still higher altitude aircraft and thus to maintain a safe overflight capability. Therefore, time is of the essence if the existing opportunity is to be exploited and to be extended by continuing development.

#### OBJECTIVES

Although undertaken primarily to collect photographic and electronic intelligence, this operation will serve a variety of purposes of interest to various parts of the United States Government. The CL-282 will have major utility as a high altitude test platform. The research to be undertaken will include the testing of engine performance, pressurization, and the functioning of auxiliary equipment of all kinds as well as of electronic and photographic equipment at high altitudes. It will also include a study of the capabilities of personnel to perform missions requiring sustained flight at high altitudes and of the utility of equipment furnished to permit personnel to function more effectively. The aircraft will probably be useful also for high altitude air sampling. In the field of intelligence, the operation should contribute significantly to the attainment of the following objectives:

- a. Improve estimates of Soviet ability to deliver nuclear weapons and their capacity to produce them.
- b. Appraise Soviet guided missile development through photographs of testing ranges, etc.
- c. Assess the Soviet order of battle as an early warning indicator.
- d. Provide adequate locations and analyses of Russian targets.
- e. Disclose new developments which might otherwise lead to technological surprise.

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f. Appraise Soviet industrial and economic progress.

COST

The cost of procurement of materiel by this Agency under the program here proposed is expected to total approximately \$31,500,000, virtually all of which will have to be obligated in FY 1955. It can be broken down as follows:

20 Airframes, together with maintenance and testing equipment for the testing of the first one to be delivered	\$22,500,000
6 complete sets of photographic equipment, each set consisting of 3 configurations	5,500,000
12 sets of electronic search equipment to be used on photographic missions, together with 3 sets of automatic FERRET equipment	3,000,000
Additional field maintenance equipment	500,000
TOTAL	<u>\$31,500,000</u>

The margin of error in these figures probably does not exceed \$2,000,000 and it is believed highly unlikely that the total materiel costs could amount to more than \$35,000,000. The estimates assume that the Air Force will furnish as a contribution to the project and without cost to the Agency (a) technical assistance and supervision, (b) all equipment regularly furnished as government furnished equipment, including especially 40 engines, and (c) transportation of materiel and personnel to test sites.

In addition to the above, certain non-materiel costs will be incurred in the course of preparation for the mounting of the operation. These will be primarily (a) administrative costs, including especially the cost of developing photo-intelligence and electronic-intelligence requirements, and of mission planning, (b) the cost of pilot recruitment and training, and (c) some part or all of the cost of testing initial items of equipment in the United States. It is expected that

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administrative costs can be largely absorbed in existing budgets. Pilot recruitment and training costs might reach a total of \$600,000, of which the major part would represent the cost of flight training which is provided by the Air Force and for which the Air Force is normally reimbursed. If the Air Force is prepared to absorb this item, the cost to the Agency of recruitment and training should not exceed \$100,000, of which the major part will fall in FY 1955. The cost of the testing program has not yet been estimated. It will fall entirely in FY 1956.

The above figures contain no allowance for (a) any major costs that may be incurred in the acquisition or preparation of operational bases, (b) the cost of actually mounting the operation, including pay and subsistence of personnel, transportation of personnel and materiel to and between operational bases, and field maintenance, and (c) the cost of processing photographic film and electronic tape.

#### ORGANIZATION

In view of the clandestine character of the proposed operation, its nature, and the varied results expected to flow from it, it is proposed that this undertaking be organized as (a joint CIA/Air Force project in which the CIA will undertake procurement as indicated above, with the assistance of the Air Force in all phases, and will conduct overflights as a clandestine operation.) Within the CIA, the Special Assistant to the Director for Planning and Coordination, (SA/PC/DCI) will be in charge of the project, with Mr. Herbert Miller as Executive Officer. He will be supported by other officers temporarily assigned on a part-time or full-time basis as appropriate. Sub-projects will be organized forthwith as components of AQUATONE covering the performance of all the following functions:

1. Airframe procurement (Project OARFISH)
2. Procurement of photo-reconnaissance equipment (Project OCTROI)
3. Development and procurement of electronic equipment (Project AZAROLE)
4. Assembly and formulation of photo-intelligence requirements (Project EQUINE)
5. Assembly and formulation of electronic-intelligence requirements (Project LYRISN)
6. Pilot recruitment and training (Project ZESTFUL)

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At a later stage, other component projects will be organized as required.

RECOMMENDATION

It is recommended

- a. That the project be approved as outlined above.
- b. That the Special Assistant to the Director for Planning and Coordination be designated as the official in charge of the project and as Approving Officer, subject to the guidance of the Deputy Director of Central Intelligence and the Director of Central Intelligence.
- c. That the procurement of the airframes, photo-reconnaissance equipment and electronic equipment up to the amounts indicated above be authorized, subject to the following provisions:
  - (1) Procurement and contractual arrangements will be those normally employed by the Agency, with such exemptions and restrictions designed to achieve maximum security as may be approved by the Approving Officer.
  - (2) All contractual and procurement documents, arrangements and commitments will be specifically approved in advance by the General Counsel.
  - (3) All commitments and documents which obligate funds in excess of \$100,000 will be approved by the Director of Central Intelligence.
  - (4) Appropriate documentation will be obtained from the Air Force and from competent technical advisers in support of procurement contracts and the specifications and descriptions of materiel to which they refer.
- d. That the recruitment and training of pilots and any other action necessary in preparation for the mounting of overflights be authorized, together with expenses incidental thereto initially up to the amount of \$100,000.
- e. That the Comptroller be authorized to expend funds in the manner and to the extent approved by the Approving Officer within the limitations as to quantity and procedure set forth above.

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f. That the Approving Officer be authorized to arrange for the necessary gathering and formulation of intelligence requirements and mission planning, in cooperation with the Air Force as appropriate.

g. That the Approving Officer be directed to maintain the closest possible security over all phases of AQUATONE.

(Signed)

R. M. BISSELL, JR.  
Special Assistant to the Director  
for Planning and Coordination

CONCUR:

/s/ C. P. CABELL  
Deputy Director of Central  
Intelligence

/s/ ROBERT AMORY  
Deputy Director (Intelligence)

/s/ RICHARD HELMS for  
Deputy Director (Plans)

/s/ LAWRENCE K. WHITE  
Deputy Director (Administration)

/s/ LAWRENCE R. HOUSTON  
General Counsel

APPROVED: 10 Jan 1955

/s/ A. W. DULLES  
Director of Central Intelligence

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ANNEX 11



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25 March 1955

MEMORANDUM FOR: Deputy Chief of Staff/Operations  
Hqs, U. S. Air Force

SUBJECT: Air Force Support of Project AQUATONE

1. Purpose of this memorandum: It is understood to be the view of the Air Staff that Air Force support for Project AQUATONE in its operational phase should be the responsibility of the Strategic Air Command. Assistance and support in research, development, and procurement will, however, continue to be the responsibility of the Deputy Chief of Staff/Development. The purpose of this memorandum is to set forth various kinds of support that will be required, to outline the organization which is proposed to handle the project within the CIA, and to indicate proposed relationships between the CIA and the Air Force.

2. Basic Concept of the Project: In all of its phases, including development, procurement and testing of material, training of personnel and actual conduct of overflight missions, AQUATONE has been conceived of as a clandestine intelligence-gathering operation to be conducted in such a way as to minimize the risk of detection and of plausible attribution to the U.S. Government. The initial policy decision to proceed with the project was made on this basis. In order to conform to this concept, missions will be flown only by civilian and if possible non-U.S. pilots. If U.S. pilots are used who have previously served with the armed forces, their separation from the armed forces must be fully documented in advance. Knowledge of the project will be limited to the narrowest possible circle of those who need to know. The circle would be widened dangerously if staff elements at several levels in a long chain of command had to be included. Largely for this reason, the project has been organized outside of established command channels in both the CIA and the Air Force. Activities which appear unusual and which it therefore becomes necessary to explain either to unwitting individuals within the Government or to others, will be associated with high altitude air sampling and the development of a high altitude test bed. In accordance with this basic concept, it will be important to

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minimize the appearance of military activity especially in the actual conduct of operations overseas.

3. Assumptions as to the Character of the Operations:

a. Operations will be conducted from two to four rear bases, at each of which there will have to be provision for: the maintenance of aircraft and of photographic and electronic equipment, the storage and handling of specialized supplies, the housing of personnel, and possibly other functions. Such bases may be needed in northern Europe, the eastern Mediterranean, Japan or Okinawa, the Philippine Islands, Alaska and Thule, although it is highly doubtful whether operations will ever be conducted out of more than three, or at the most four, bases simultaneously.

b. As a rule, actual missions will be flown from forward staging bases, or else reconnaissance aircraft will be towed by other aircraft and released close to the enemy's border. Provision will have to be made, therefore, for the operational use of suitable large transport aircraft and of other aircraft capable of towing the reconnaissance vehicle.

c. The rear bases will in all cases be USAF installations where it is to be hoped that the facilities and personnel required for this operation can be installed and maintained under Air Force cover without the necessity of special additional arrangements with the local governments.

d. It will be necessary to make secure approaches  to the governments of countries in which access will be required to staging bases or other non-USAF installations. In the case of each such country, a suitable cover story will have to be developed for use with partially witting officials and another for public use. Appropriate activities may have to be undertaken to lend substance to these cover stories.

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4. Assumptions as to Procurement:

a. The CIA is procuring airframes, photographic reconnaissance equipment, electronic search gear, specialized communications equipment, spares for the above, specialized field maintenance equipment, specialized ground handling equipment, and specialized supplies such as photographic film and electronic tape.

b. The USAF will procure GFE including especially engines, spare parts therefor and certain standard photographic reconnaissance equipment (to be modified for use in this project).

c. Responsibility for the procurement of non-specialized supplies, including fuel, standard ground handling equipment, and maintenance materiel will be divided between the Air Force and the CIA on the basis of convenience and security.

5. CIA Organization and Functions: Within the CIA a Project Organization has been established which will consist eventually of a Project Headquarters in Washington and three Special Detachments in the field, each located at a particular rear base. The Project Headquarters will exercise control over operations through a line of command that will run directly to the field detachments. The Headquarters will be responsible specifically for operational planning (with the assistance of the Air Force), for the clearance of policies and of operational plans with other departments and with higher authority to ensure conformity to national policy, and for the coordination of operations and the allocation and movement of personnel and materiel among the field detachments. The Project Headquarters will also be responsible, with the assistance of the Air Force, for continuing development, procurement and recruitment activities in connection with this Project. The Field Detachments will be responsible for the final determination of specific flight plans within the limits of a general plan of operations and subject to specific Headquarters instructions, for the actual conduct of missions, and for the maintenance of primary mission aircraft. Through this Project Organization the CIA will perform the following specific functions:

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a. Recruit and administer civilian pilots (both U.S. and foreign) for primary mission aircraft. Recruitment is already in process and arrangements have been made for the screening and testing of foreign recruits and for their basic training by the Air Training Command.

b. Secure and administer maintenance personnel for primary mission aircraft (including engines) and for photographic reconnaissance and electronic search equipment. These will be suppliers' employees furnished by them under contract. The CIA will also procure from suppliers specialized maintenance and ground handling equipment.

c. Maintain communications through CIA channels between the Headquarters and field detachments; develop and operate secure ground-to-air and limited air-to-ground operational communications (other than UHF/VHF facilities for use in the immediate neighborhood of bases); develop and operate a system employing the RANOL technique for tracking primary mission aircraft throughout their missions from a master station outside enemy territory.

d. Maintain security control over all aspects of the project including the investigation of all knowledgeable individuals, arranging for or monitoring security arrangements at suppliers' plants, at a test base to be established, and at overseas bases.

e. In conjunction with the Director of Intelligence, USAF, A-2, SAC, and other intelligence components as appropriate, assemble reconnaissance objectives, determine priorities between objectives, and assemble intelligence on enemy detection facilities and air defense order of battle. This task is already well advanced.

6. Required Air Force Support: The CIA will require extensive Air Force support to enable the project to be carried out in a professional manner and to ensure against any attempted duplication of skills and facilities presently available in the Air Force. The principal forms in which the support will be required will be the following:

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- a. Continued administrative and technical assistance in development and procurement, together with substantial Air Force procured materiel (as listed in para 4b above). This support includes the benefit of the judgment of experienced Air Force specialists in R&D, materiel, and aeromedical sections.
- b. The services of fifteen to twenty Air Force Officers who can be assigned to the Project Organization and help in the actual conduct of operations. This number should probably include five or six men who can serve as operational planners at headquarters and as operations officers overseas, three or four intelligence officers, three aeromedical officers, and four or five meteorologists.
- c. Assistance of the Operational Planning Group, SAC, in developing operational plans. It is anticipated that much of the material required for reconnaissance target folders will be readily available at SAC Headquarters and that with the assistance of this material and of the SAC planners, only a small operational planning group will be required at CIA Project Headquarters.
- d. Operational support aircraft, together with their air crews and provision for their maintenance. There will probably be a requirement for: two to three aircraft equipped to two primary mission aircraft and six to ten transport aircraft (C-124's and C-54's) to permit the rapid movement of personnel and materiel into and out of staging bases. The precise numbers will depend upon the operational concept finally developed. These aircraft should not have military insignia and their crews will be fully witting of the character of the missions being flown by primary mission aircraft. Accordingly, aircraft and crews should be assigned to field detachments on a continuing basis with a minimum of rotation to other assignments.
- e. The use of facilities and Air Force bases abroad and cover at those bases.
- f. A variety of supporting services during the operational phase, including transportation of

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personnel and materiel to and between bases, current intelligence, weather information, and probably some housekeeping.

7. Channels for Air Force Support: It is assumed (as stated in para 1, above) that these various kinds of support will be provided in the main through two channels, which will however be supplemented by several established contacts.

a. The CIA Project Organization will continue to look to the Office of the Deputy Chief of Staff/Development for support listed in para 6a, above; that is assistance in development and procurement, including Air Force procurement of engines, other GFE, personnel equipment, and other items as may be agreed. It is understood that this office will continue to coordinate supporting activities of the materiel and supply sections of the Air Staff and of the Surgeon General's office.

b. The Project Organization will look to a unit to be established or designated in the Strategic Air Command for support listed under paragraphs 6c, d, and e, above; that is, for operational support aircraft, facilities at USAF bases, and supporting services including current intelligence and weather. It is presumed that where such support should be provided by other commands, SAC will arrange for it as necessary, notably for transportation by MATS.

c. The CIA will look to SAC for the majority of the officers required as indicated under para 6b, above, but may as agreed secure certain specialists from other components, such as aeromedical officers from the Surgeon General. A number of officers have already been assigned to the project and will continue with it.

d. Existing channels between the CIA and AFOIN and to other intelligence components will continue to be used in the assembly of intelligence on enemy means of detection and defenses, and on reconnaissance objectives.

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e. Arrangements for the basic training of civilian pilots recruited by the CIA for this project will be made directly by the Air Maritime Division of CIA with the Air Training Command, USAF, in accordance with established procedure.

8. Physical and Administrative Arrangements for Liaison: To enable business to be transacted efficiently through these channels, the following arrangements are suggested:

a. It is assumed that the present Project Officer will continue to be the point of contact with the Office of the DCS/Development.

b. Presumably the Commanding General, SAC will form a unit in SAC Headquarters or designate an existing unit in SAC to be the point of contact with the CIA Project Organization and to arrange for support by SAC. Considerations of security will require that other than the members of this unit (which should itself be of minimum size) only an absolute minimum number of officers in SAC be knowledgeable of AQUATONE.

c. Since the Project Headquarters will be in Washington, it will be necessary for the supporting unit in SAC to maintain a liaison office in Washington. The Officer in Charge should have the largest feasible delegation of authority to enable him to deal with CIA and to make or obtain decisions with the least possible delay.

d. It would be highly desirable to have the Project Officer under the DCS/Development and the SAC liaison office physically housed together and it may turn out to be desirable to have them located at the Project Headquarters.

(Signed)

RICHARD M. BISSELL  
Officer-in-Charge  
Project AQUATONE

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ANNEX 12



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29 June 1955

MEMORANDUM FOR: Assistant Secretary of the Air Force  
for Research and Development  
Deputy Chief of Staff, Operations, USAF  
Deputy Chief of Staff, Development, USAF

1. Attached herewith is a memorandum on Project OILSTONE which outlines proposed organizational arrangements in accordance with the memorandum on this same subject directed to the Chief of Staff from the Secretary of the Air Force, dated 27 June 1955. The attached memorandum was prepared as a basis for discussion at the meeting shortly to be held with Mr. Gardner, who suggested that it might be useful if those who were to be present at the meeting had a chance to read this proposal in advance.

2. It is requested that this be handled on an "EYES ONLY" basis.

(Signed)

R. M. Bissell, Jr.

Att:  
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29 June 1955

SUBJECT: Project OILSTONE

Reference: Memorandum for the Chief of Staff, from the Secretary of the Air Force, dated 27 June 1955

1. The referenced document contemplates that the operational phase of Project OILSTONE be carried out by a joint Task Force of the Central Intelligence Agency and the U.S. Air Force (hereinafter referred to as the Project Organization), that Colonel Ritland be assigned to head the Air Force portion of the Task Force, and that he serve also as Deputy to the Senior Project Officer (designated by the Director of Central Intelligence) for all operational activities. The purpose of this memorandum is to outline specific organizational arrangements in accordance with this concept.

2. The Project Organization will include CIA civilian employees and civilian contractors' employees as well as Air Force personnel. (It is now estimated that there will be, at peak strength, approximately 135 CIA employees, 115 contractors' employees, and perhaps 50 Air Force personnel.) Operational effectiveness requires that these several categories of employees be integrated into a single organization. On the other hand, in order to minimize both the dislocation of existing organizational structures and the size of the Project Organization, it should undertake to perform for itself no functions that can be efficiently performed by existing Air Force and CIA components. Present plans reflect this principle. Accordingly, the Project Organization will require considerable support from other components of CIA and the Air Force and channels for the provision of the required support are proposed in this outline.

3. In order to achieve the desired integration of Air Force personnel into the Project Organization with maximum security, they will be assigned for administrative and cover purposes to the 1007th Air Intelligence Service Group, Headquarters Command. Within this organization, however, they will constitute a special unit of which Colonel Ritland will be the commander. Overseas,

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their orders will show only that they are a part of the Headquarters Command, USAF, on assignment to the designated overseas base to conduct operations under a named project. Under this procedure Air Force personnel will be charged against the Central Intelligence Agency's already established and fully adequate military personnel ceiling rather than against the T/O or personnel ceiling of any Air Force Command. Moreover, salaries will be paid (or more precisely reimbursed) by the CIA as provided for in the Agency's operational budget.

4. As presently planned, the Project Organization will consist of a Headquarters in Washington, a test and training base in Nevada and three Detachments in the field presumably located at USAF bases. The organization will include: on the operations side, operational planners, one or two air weather officers in each Detachment, aeromedical personnel, pilots (all civilian), and communications and electronics technicians; on the support side, a supply officer and a few supply records specialists in each Detachment, photographic technicians, field maintenance crews and security personnel. This summary is indicative of the functions to be performed by the Project Organization itself. Colonel Ritland will be the Deputy Project Officer stationed at Headquarters. Each Field Detachment will have as its commander a Colonel (also assigned to the 1007th Air Intelligence Service Group).

5. The joint Project Organization will require support from the Air Force principally in three forms. First, it will require the use of a number of cargo aircraft to perform a multi-purpose air support task. No provision has been made in the T/O of the Project Organization either for crews or for the maintenance of these aircraft. It is estimated that at full strength, three KC-97-G's, two C-97's, three C-54's and two C-124's will be required continuously. Additional lift by C-124's and possibly C-97's and C-54's will be required in connection with initial deployment overseas. These aircraft will be required both for operational staging from regular overseas bases to advanced, temporary, staging bases and for the transportation of specialized equipment and personnel between the ZI and the several overseas Detachments. Since the crews will almost certainly become fully witting of the nature of the operation they are supporting, they should be assigned to the project on a continuing basis

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with an absolute minimum of rotation. Second, the Project Organization will obviously require the use of base facilities abroad and of housing for personnel and no provision has been made in the T/O for the performance of housekeeping functions or such logistical functions as the handling of non-specialized supplies, the storage of spares in depots overseas, etc. Third, the Air Force will probably continue to provide support to the project in the form of Government-furnished-equipment (including both aircraft components and ground handling and maintenance equipment) and, perhaps, Air Force procured fuel and non-specialized supplies, as may be subsequently agreed. In the case of certain of these items, the Air Force will presumably make the necessary logistical arrangements to deliver them to overseas bases.

6. Although it has been assumed (in accordance with the principle stated in paragraph 2 above) that these functions would not be performed by the Project Organization itself, this preliminary decision could be reversed. The organization could be made more nearly self-sufficient by enlarging its T/O to include air crews for support aircraft and housekeeping personnel. If the decision stands, however, planning for the provision of these three types of support by appropriate components of the Air Force should begin at once. Presumably these tasks could be assigned to an operational command or to theater commanders overseas or handled in other ways. Whatever the assignment of responsibilities, consideration should be given to the assignment by the supporting organization of a liaison officer to the Project Headquarters in Washington to participate in operational planning and to serve as the channel for transmitting support requirements and working out detailed arrangements for the furnishing of support.

7. By all means the most important contribution of the Air Force to this project will be the participation of its personnel. It is recognized that the requirement for some 30 officers of proven ability, many of them with special skills, is a burdensome one for the Air Force to meet. Up to the present time, requirements for personnel, which have been transmitted to the Deputy Chief of Staff, Personnel, have been based upon a provisional T/O for the Project Organization. Upon Colonel Ritland's assignment, manning levels will be reviewed with him so as to develop a jointly agreed basis for staffing. The present procedure for reviewing requirements for Air Force personnel

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could remain in effect or, if desired, primary responsibility for meeting requirements could be assigned to an operational command with the understanding that requirements which could more appropriately be filled from other components will be levied on the Office of the Deputy Chief of Staff, Personnel. A decision on the procedure to be employed in this manner is urgently required so that staffing of the joint Project Organization can go forward with minimum inconvenience to the personnel involved.

8. The Project Organization will continue to employ certain already established channels with certain Air Force components to secure types of support not covered by paragraph 5, above, as follows:

a. The Organization will maintain direct contact with the Office of the Deputy Chief of Staff, Materiel, and this will be the channel through which requirements for major and specialized materiel will be submitted. It will probably be desirable at a later date to establish procedures whereby Field Detachments can requisition non-specialized and locally available supplies through the overseas bases where they are stationed.

b. The Organization will use existing channels with the Office of the D/I, USAF, and with other intelligence components, for the assembly of intelligence on enemy means of detection and enemy defense and on reconnaissance objectives.

c. The Organization will look to General Flickinger, ARDC, for assistance on aeromedical matters and will work out with him appropriate arrangements for the procurement of personal equipment for primary mission air crews.

d. Arrangements for basic training of civilian pilots recruited by the CIA for this project will be made directly by the Air Maritime Division of CIA with the Air Training Command, USAF, in accordance with established procedures.

(Signed)

Richard M. Bissell, Jr.  
Special Assistant to Director

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ANNEX 13



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7 July 1955

MEMORANDUM FOR: Director of Central Intelligence

SUBJECT: Organizational Concept for Project  
AQUATONE

1. The Secretary of the Air Force in a memorandum to the Chief of Staff, dated 27 June 1955, stated he had reached the conclusion, on the basis of conversations with you, "that the operational phase of this project should be carried on as a joint task force operating between the Air Force and CIA". As yet, however, there is not a complete meeting of minds on what would be the most appropriate organizational concept within the Secretary's formula. This subject will presumably be the main topic at the meeting to be held in Colorado Springs on 9 July. Clear-cut decisions are now urgently required, and it is to be hoped that they can be arrived at on that occasion.

2. Partially or wholly inconsistent proposals have been advanced and positions taken as follows:

a. The Deputy Chief of Staff, Operations, (in consultation, I believe, with the Deputy Chief of Staff, Development) has proposed that the general direction of the project be exercised by a jointly staffed headquarters which would, however, be under the control of the DCI, but that full operational responsibility be assigned to the Commander, Strategic Air Command. This plan would provide for three elements:

(1) A Project Headquarters under the full control of the DCI but jointly staffed and with an Air Force Officer as Deputy Project Officer;

(2) A small task force in the Air Force reporting to the Chief of Staff to maintain liaison with the Project Headquarters and to arrange for the provision of those types of support which could best be handled through Air Force Headquarters;

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(3) A special operating organization designated the XXXth Air Division which would be established by and be under the operational control of the Commander, SAC.

The XXXth Air Division would have its own headquarters (at a location to be recommended by the Commander, SAC) which would exercise direct command over the Field Detachments and the Test Base. It would be responsible for the execution of all operations subject to the general direction and control of the Project Headquarters.

b. Prior to the submission of this proposal, the CIA submitted on 29 June an outline of suggested organizational arrangements intended to be in accordance with the memorandum from the Secretary of the Air Force referred to above. The CIA outline provided for a single joint task force to plan and conduct operations. The task force would consist of a Project Headquarters in Washington exercising direct command over the Test Base and the three overseas Field Detachments. It would be a fully integrated organization jointly staffed by CIA and the Air Force and include contractor personnel. The Senior Project Officer would be designated by the Air Force and would be the military commander of all Air Force personnel assigned to the task force. This organization would draw upon appropriate elements of both CIA and the Air Force for support. Within the Air Force the major support responsibility could be assigned to SAC or any other operational command, although the task force would look to certain elements of the Air Staff for specialized types of support more appropriately furnished by them.

c. In the course of discussion of these and other proposals the Assistant Secretary of the Air Force for Research and Development has expressed the view that the Air Staff should retain primary responsibility for Air Force support of, and participation in, this project. Although he did not formulate a detailed proposal, he suggested (as envisaged in the CIA outline summarized in subparagraph b, above) that the project be carried out by a joint task force in which the Senior Project Officer would be an Air Force Officer who would also serve as military commander of the Air

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Force personnel assigned to the task force. This Air Force Officer would look to the Chief of Staff (or a designated Deputy Chief of Staff) for Air Force guidance in the conduct of the project. Support for the task force by various elements of the Air Force would be arranged through the appropriate Staff Offices and Directorates.

3. The proposal of the Deputy Chief of Staff, Operations, outlined in paragraph 2, a, above, raises sharply the question of what is meant by a "joint task force" and what the internal organization and lines of command within such a task force should be. Under the terms of that proposal, the Air Force and CIA would jointly staff the field detachments and a headquarters staff in Washington but there would be interposed between these elements another operational headquarters which would in fact exercise command authority over all personnel in the field and over all actual operations. In effect, therefore, there would not be one joint task force but two: a jointly staffed planning group in Washington under full control of the DCI and a jointly staffed operating organization (the XXXth Air Division) under full control of the Commander, SAC, the former giving general direction to the latter. The XXXth Air Division would be under the command of one headquarters at Omaha yet subject to the control in a degree most difficult to define of another headquarters in Washington. Such an arrangement would, I believe, involve duplication between the two headquarters, confusion as to their functions, a diffusion of responsibility, and friction between them. I strongly recommend that wherever it be located and however it be controlled and supported, the task force responsible for this Project have a clear responsibility for both operational planning and the actual conduct of operations, and that it be coherently organized with a clear and direct line of command running from its headquarters to its field detachments.

4. Within this basic principle, the following would appear to be the three feasible alternatives:

a. The task force could be wholly controlled by the CIA but draw upon the Air Force for personnel and support.

b. It could be a joint task force, jointly staffed and jointly controlled drawing upon elements of both CIA and the Air Force for support.

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c. It could be an Air Force task force drawing upon the CIA for support, especially for help in all those aspects of the Project which partake of the character of clandestine operations.

If alternative (c) is adopted, the task force could well be organized as an Air Division under the operational control of the Commander, SAC. The CIA could then assign personnel to this organization to perform such duties as the planning of suitable cover, the conduct of negotiations with the security services of other governments looking toward the acquisition of access to bases, and the monitoring of operations for conformity with clandestine practice. To insure effective support by CIA to such an Air Force unit and to enable the DCI to give it such policy guidance as might be appropriate, a very small staff unit would probably be necessary in the CIA. Likewise if alternative (a) were adopted a small special staff would be required in the Air Force to insure support to the CIA Project Organization and to monitor its activities as appropriate on behalf of the Air Staff.

5. If the decision is in favor of a joint task force, alternative (b), certain other decisions must be made as to (a) the manner in which the organization will be jointly controlled by the CIA and the Air Force and (b) the arrangement for its support, especially by the Air Force. With respect to the first of these problems it is generally agreed that one of the two senior officers of the task force should be designated by the DCI and the other by the Chief of Staff, or the Commander, SAC, or other appropriate authority in the Air Force. Although for internal operational matters one of these individuals must be the Senior Project Officer and the other must be his Deputy, the concept of joint control clearly requires that the Deputy have the right and the duty of keeping his principals informed of the progress of the Project, calling to their attention actual and prospective issues requiring policy determination, and seeking policy guidance from them. Thus, the individual would be for internal purposes the Deputy Director of the Project but would also represent the policy views of his Service. As to arrangements for support, it is clear that no joint task force can be given a blank check in the form of unlimited authority to call for personnel, services, and materiel from either CIA or the Air Force. What can be done is to arrive at agreed staffing levels and estimates of requirements for supporting services and material and

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then to place responsibility for providing support in accordance with these requirements either at one central point in each parent Service or at several points as may be appropriate. Within the Air Force a possible arrangement would be to place the major responsibility for support upon an operational command (presumably SAC) and to establish under the Chief of Staff a small unit to arrange for specialized support that could not appropriately be provided by the designated operational command. Such an arrangement will not, of course, solve in advance the problem of dealing with urgent, unforeseen requirements. But there is, I submit, no form of organization that will solve such problems in advance. When critical unforeseen needs arise, the task force (wherever it is constituted) will initially seek to have the need met through established support channels. If the need turns out to compete with other top-priority requirements, the conflict can only be resolved at a very high level. These facts of life are not much affected by the location of the task force or even by the assignment of support responsibility.

6. Recommendations: It is recommended that, as a matter of urgency, decisions be made as follows:

- a. That the Project will be entrusted to an integrated task force with clear and direct internal lines of command (consistent with the requirement that all military personnel be under the military command of the senior Air Force Officer assigned to the task force).
- b. That the task force be either controlled by the CIA, or jointly controlled by the CIA and the Air Force, or formed as an element of the Air Force.
- c. That if it is not to be an element of the Air Force, Air Force support will be provided to the task force through designated channels.
- d. That if it is to be a jointly controlled task force, the mechanism of control shall be that outlined in paragraph 5, above, or some other as may be agreed.

(Signed)

RICHARD M. BISSELL, JR.

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ANNEX 14



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2 August 1955

ORGANIZATION AND DELINEATION OF RESPONSIBILITIES

PROJECT OILSTONE

1. General direction and control of the Project shall be exercised jointly by the Director of Central Intelligence and the Chief of Staff, USAF, subject to guidance from higher authority and coordination with other departments of the Government as appropriate. They shall furnish policy guidance to lower echelons, ensure the conformity of operations under this project with national policy, and make recommendations to higher authority on matters transcending their own authority. Further, it shall be their joint responsibility to resolve differences that may arise at lower staff and operating levels.

2. The following are the organizational elements which shall be responsible for the conduct of the project:

a. There is in existence a Project Headquarters, headed by a CIA Project Director to which an Air Force Officer will be assigned to serve as Deputy Project Director. The Project Headquarters will establish operational units, stationed at bases overseas after the completion of training in the ZI. These operational units will be manned by USAF and CIA personnel in numbers, proportions and skills as agreed between the Project Director and the Air Force Project Officer.

b. All military personnel assigned for full-time duty to the project for duty under CIA direction on permanent status shall be carried on the rolls of a newly activated support squadron in accordance with current procedures. The Air Force Deputy to the CIA Project Director will command this administrative squadron.

c. There will be established an Air Force Project Staff headed by a Project Officer who will act in the name of the Chief of Staff, USAF. The Project Staff will include selected officers designated by certain of the Deputy Chiefs of Staff to act as points of contact within their several offices.

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(DX-TSC-3014)

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d. The Commander, SAC, will form a new subordinate headquarters to be manned by him from resources available to him through which he will participate in the project. He will also establish a support unit for each operational unit established by the Project Headquarters. Support units will be controlled by him through the commander of his subordinate headquarters and will perform support functions as required by the Project Headquarters and agreed by Commander, SAC, or the Chief of Staff, USAF.

3. The functions and responsibilities of these elements will be as follows:

a. The CIA Project Director and the Air Force Project Officer shall have primary responsibility for the development and execution of all activities concerning the project within their own organizations; the resolution of differences that may arise at lower echelons; and the reporting of progress and the making of recommendations to their respective chiefs.

b. The Project Headquarters will be responsible for any continued research and development, operational planning, and the direction and control of operations in the final phase of the project when overflights are being launched from bases overseas.

c. The Air Force Project Staff shall be responsible for implementing plans approved by the CIA Project Director and the Air Force Project Officer and arranging for Air Force support of Project activities which can appropriately be furnished through staff channels or by commands other than SAC.

d. Commander, SAC, will be assigned primary responsibility for providing and coordinating Air Force support of the project, including training, through the subordinate headquarters to be formed by him. Requirements for certain types of personnel and equipment not under his control will be stated to Headquarters, USAF (the Air Force Project Officer) and will be met from other resources.

4. Activities under this project fall into three phases. These overlap one another in time but may be distinguished on the basis of the kinds of activities involved in each. The following are the specific authorities and responsibilities of the several organizational elements in the successive phases of the project.

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a. The first phase, now well advanced, is that in which the major activities are research and development, procurement, the construction and activation of a test and training base, the testing of equipment, and operational planning. The Project Director shall have control of these activities including the planning and recruiting of personnel under his control. The Air Force will furnish necessary support which will be a matter for agreement between the Project Director and the Project Officer. Full and complete coordination of all Air Force elements during this phase is essential.

b. The second phase will be devoted to training, the shakedown of equipment, and deployment overseas. These activities will be carried on mainly at the test and training base. Commander, SAC, through his subordinate headquarters, will (1) direct and supervise the training of operational units, (2) provide and coordinate Air Force support of the project, and (3) arrange for the deployment of operational units overseas for the initiation of the final phase. In the light of these responsibilities Commander, SAC, will be kept fully informed of operational plans, through his subordinate headquarters. Phase II terminates with the decision that crews and equipment are operationally ready and in place at overseas bases. During Phase II the line of command on matters concerning the scale and character of training, Air Force support, and the mechanics of deployment shall be from the Chief of Staff, USAF, through the Commander, SAC, and his subordinate headquarters.

c. The third phase will be that of active operations from overseas bases. This phase follows the decision as to operational readiness. In this third phase, the final decision as to execution and timing of actual over-flight missions shall rest with the Project Director, subject to such guidance as he may receive from higher authority. The line of command shall be direct between operational units and the Project Director. Each operational unit will continue to be dependent upon its corresponding SAC support unit.

APPROVED FOR USAF:

N. F. Twining

Aug. 3, 1955

APPROVED FOR CIA:

A. W. Dulles

August 4, 1955

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ANNEX 15



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28 April 1955

MEMORANDUM FOR: Deputy Director (Support)

SUBJECT: Table of Organization - Project AQUATONE

1. The requirements for the Table of Organization for Project AQUATONE are submitted for your approval. The Office of the Special Assistant to the Director for Planning and Coordination is not listed although it is responsible for the project's operation.

2. It is expected that some of the people who will be used in Headquarters will be assigned to authorized slots; however, where short term use of individuals with particular skills may be necessary it is believed desirable to arrange for their services on a detail basis. U.S. Air Force personnel will be assigned to the 1007th Air Intelligence Group, in accordance with established procedures. This Table of Organization does not make provision for the following functions which will be performed by the U.S. Air Force: base housekeeping, aircraft transport, towing, and general maintenance.

3. At a later date it may be necessary to augment the Table of Organization with additional personnel such as communicators or other specialists. Communications station personnel located overseas may also assist in the project but those people directly responsible for the work involved can be used on a reimbursable basis. Additional U.S. Air Force personnel may be required to support the project on a detail basis to receive, identify, store, and issue supplies in a storage warehouse.

4. It may be possible at a later date to reduce the total number of slots requested by absorbing some of the project people located at Headquarters into the overseas organization.

(Signed)

RICHARD M. BISSELL, JR.  
Special Assistant to the Director  
for Planning and Coordination

Attachment:  
T/O

APPROVED:

(Lawrence K. White)  
Deputy Director (Support)

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TABLE OF ORGANIZATION - PROJECT AQUATONE

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SA/PC/DCI

PROJECT AQUATONE HEADQUARTERS  
CIA Employees 18  
USAF Employees 7  
25

US FIELD - TEST BASE CIA Employees 26 <u>26</u>	FOREIGN FIELD-BASE A CIA Employees 16 USAF 34 Contract Empl. 52 <u>102</u>	FOREIGN FIELD-BASE B CIA Employees 16 USAF 34 Contract Empl. 52 <u>102</u>	FOREIGN FIELD-BASE C CIA Employees 16 USAF 34 Contract Empl. 52 <u>102</u>
-------------------------------------------------------	----------------------------------------------------------------------------------------	----------------------------------------------------------------------------------------	----------------------------------------------------------------------------------------

TOTALS: CIA Employees 92  
USAF 109  
Contract 156  
357

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28 April 1955

## TABLE OF ORGANIZATION - PROJECT AQUATONE

HEADQUARTERS

<u>Slot No.</u>	<u>Title</u>	<u>Grade or Rank</u>
-----------------	--------------	----------------------

OPERATIONS DIVISION

1	Operations Officer	Col. USAF
2	Asst. Operations Officer	Col. USAF
3	Asst. Operations Officer	GS-15
4	Weather Officer	Lt. Col. USAF
5	Flight Surgeon	Lt. Col. USAF
6	Intelligence Officer	Lt. Col. USAF
7	Photo-Navigator	Major USAF
8	Intelligence Officer	GS-13
9	Intelligence Officer	GS-12
10	Commo Specialist	GS-14
11	Electronic Engineer (Radio)	GS-13
12	Secretary	GS-7
13	Secretary	GS-7

ADMINISTRATIVE DIVISION

14	Administrative Officer	GS-15
15	Administrative Officer (Materiel)	Lt. Col. USAF
16	Administrative Officer (Materiel)	GS-14
17	Administrative Officer (Finance)	GS-14
18	Security Officer	GS-14
19	Security Officer	GS-13
20	Secretary	GS-7
21	Courier	GS-5

DEVELOPMENT AND PROCUREMENT DIVISION

22	Director of Development and Procurement (also Executive Officer)	GS-17
23	Contracting Officer	GS-13
24	Secretary	GS-7
25	Engineering Officer	GS-14

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US FIELD - TEST BASE

26	Administrative Officer	GS-14
27	Asst. Administrative Officer	GS-13
28	Security Officer	GS-14
29	Asst. Security Officer	GS-13
30	Commo Technician (Radio)	GS-9
31	Commo Technician (Radio)	GS-9
32	Commo Technician (Crypto)	GS-8
33	Commo Technician (Crypto)(L.A.)	GS-8
34	Commo Technician (Crypto)	GS-7
35	Secretary	GS-5 or Sgt.
36	Secretary (Security)	GS-5
37-51	Investigators (15)	GS-7

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~~TOP SECRET~~FOREIGN FIELD - BASE A

52	Commanding Officer	Col. USAF
53	Deputy Commanding Officer	GS-14
54	Secretary	GS-7, or Sgt.

OPERATIONS SECTION

55	Operations Officer	Lt. Col. USAF
56	Photo-Navigator	Major USAF
57	Intelligence Officer	Major USAF
58	Flight Surgeon	Lt. Col. USAF
59	Weather Officer	Lt. Col./Maj. USAF
60	Personal Equipment Specialist	Sgt. USAF
61	Personal Equipment Specialist	Sgt. USAF
62	Clerk - Operations	USAF
63	Clerk - Operations	USAF
64	Clerk - Operations	USAF
65	Clerk - Intelligence	USAF
66-71	Pilots- Recon (6)	Contract Civilian
72	Commo Team Leader	GS-13
73	Commo Technician	GS-13
74-75	Commo Technicians (2)	GS-12
76-80	Commo Technicians (5)	GS-9

MAINTENANCE - SUPPORT SECTION

81	Support Officer	GS-13
82	Administrative Asst.	GS-11
83	Administrative Asst.	GS-9
84	Security Officer	GS-13
85	Asst. Security Officer	GS-11
86	Material Officer	Maj. USAF
87	Supply Technician	Master Sgt. USAF
88	Supply Technician	A/1st USAF
89	Clerk	USAF
90	Clerk	USAF
91	Clerk	USAF
92	Clerk	USAF
93-97	Photo Technicians (5)	Contract Civilian
98-99	Engine Technicians (2)	Contract Civilian
100-123	Aircraft Technicians (24)	Contract Civilian
124-138	Guards (15)	Contract Civilian

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NOTE: There is listed below an additional requirement for 15 USAF aircrewmembers. It is hoped that these people will be supplied by USAF as support and will not be chargeable to the project.

139-141	Pilots (3)	USAF
142-144	Co-pilots (3)	USAF
145	Navigator	USAF
146-148	Flight Engineers (3)	USAF
149-151	Radiomen (3)	Sgt. USAF
152-153	Aircrewmembers (2)	Sgt. USAF

FOREIGN FIELD - BASE B

154-255 Identical to Base A

FOREIGN FIELD - BASE C

256-357 Identical to Base A

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ANNEX 16

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TABLE OF ORGANIZATION  
On Board Versus Authorized Strength  
14 October 1960

<u>Unit</u>	<u>Authorized</u>	<u>On Board</u>	<u>Over</u>	<u>Under</u>
<u>Headquarters</u>	<u>159</u>	<u>153</u>		6
<u>U.S. Field:</u>				
Edwards	38 *	53 <u>1/</u>	15	
Base D (Area)	70	13 <u>2/</u>		57
Supply Depot	41	43	2	
Field Sup Compl	9	8		1
Base E (Eglin)	97	91		6
Subtotal:	<u>255</u>	<u>208</u>		47
<u>Foreign Field:</u>				
Base B	54 **	53 <u>3/</u>		1
Taiwan	21 ***			21
STPOLLY	21	20		1
Kadena	69	52 ****		17
Clark Field	5	4		1
Tokyo	3	3		
[Redacted]	9	7 *****		2
Subtotal:	<u>182</u>	<u>139</u>		43
<u>Totals</u>	<u>596</u>	<u>500</u>		96

50X1, E.O.13526

- 1/ Does not include 5 contract pilots.
- 2/ Does not include 14 contract guards.
- 3/ Does not include 5 contract pilots & 16 contract guards.

\* Additional 7 positions required according to most recent estimate.

\*\* Additional 1 position required according to most recent estimate.

\*\*\* Additional 6 positions required according to most recent estimate.

\*\*\*\* Includes 9 on duty but not fully cleared as yet and consequently carried on the Development Complement.

\*\*\*\*\* This figure not previously included on DPD strength in view of recent transfer of [Redacted]

50X1, E.O.13526

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ANNEX 17

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ORGANIZATION

HN 1-9  
16 February 1962

1. There is established effective 19 February 1962 the Office of Deputy Director for Research. Certain of the activities of the Development Projects Division, DD/P, will also be transferred to DD/R. In the interest of strengthening the Agency's technical and scientific capabilities by centralizing such effort in one division, other activities in Research and Development will be placed under DD/R as appropriate.

2. Effective 19 February 1962, Dr. Herbert Scoville, Jr., is appointed Deputy Director (Research).

3. Dr. Scoville will continue to act as Assistant Director for Scientific Intelligence.

(Signed)

JOHN A. McCONE  
Director of Central Intelligence~~SECRET~~Handle via BYEMAN  
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ORGANIZATION

HN 1-23  
30 July 1962

## DEPUTY DIRECTOR (RESEARCH)

1. The mission of the Deputy Director (Research) is to conduct in depth, research and development in the scientific and technical fields to support intelligence collection by advanced technical means, exclusive of those R&D activities to support agent operations. The Deputy Director (Research) will carry out those operations strictly in the scientific and technical fields which do not involve clandestine agent operations, or those functions of the Office of Communications as contained in HR 1-14g except ELINT activities. The Deputy Director (Research) will coordinate such operations carried out overseas with the Deputy Director (Plans) and through the Chief of Station concerned. There is established under the jurisdiction of the Deputy Director (Research) the Office of Research and Development (ORD).

2. The Deputy Director (Research) will have primary responsibility for Agency ELINT activities, including requirements, subject to policy guidance from the Agency SIGINT Officer. Clandestine agent operations and liaison with foreign governments will remain under the direct control of the Deputy Director (Plans). Accordingly, there is established immediately under the jurisdiction of the Deputy Director (Research) the Office of Elint (OEL) to which all such activities will be transferred.

3. The Office of Special Activities (OSA) is hereby established under the Deputy Director (Research). All functions and personnel of the Development Projects Division of the Deputy Director (Plans) are hereby transferred to OSA except those of the Air Support Branch and its supporting staff elements which remain the responsibility of the Deputy Director (Plans).

(Signed)

Marshall S. Carter  
Lieutenant General, USA  
Deputy Director

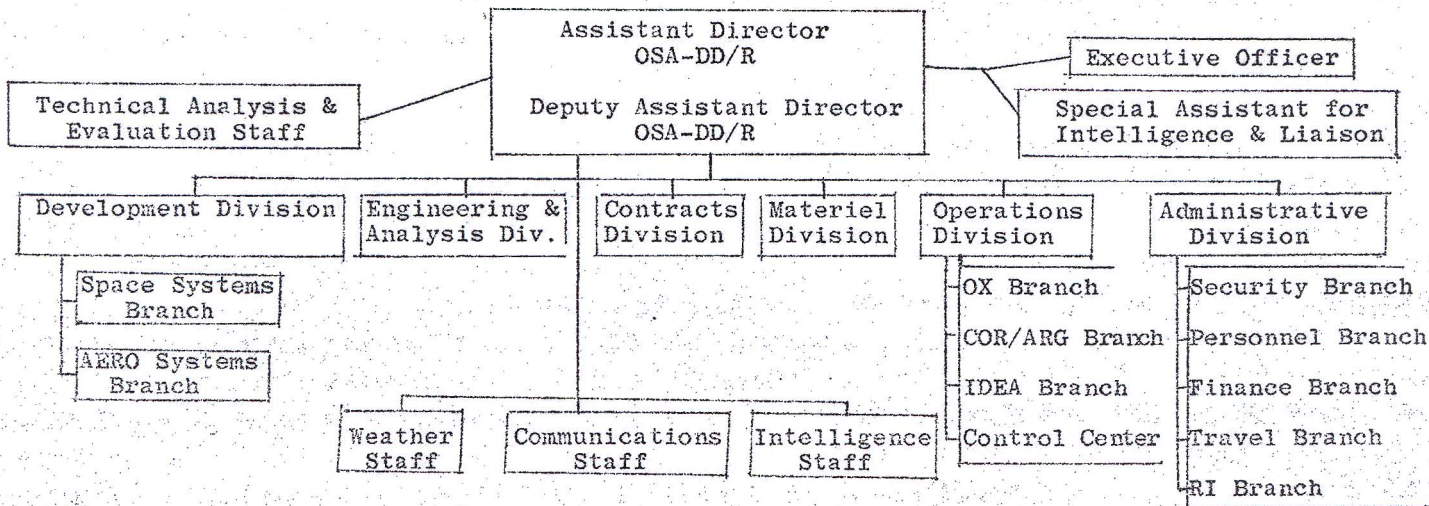
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OFFICE OF SPECIAL ACTIVITIES - DEPUTY DIRECTOR (RESEARCH)



Titles & Symbols

Asst. Director for Spec. Activities	- AD/OSA	Engineering & Analysis Div.	- EAD/OSA
Deputy Assistant Director	DAD/OSA	Contracts Division	CD/OSA
Executive Officer	EXO/OSA	Materiel Division	MD/OSA
Special Requirements Staff	SRS/OSA	Operations Division	OD OSA
Technical Analysis & Eval. Staff	TAES/OSA	Administrative Division	ADMIN/OSA
Special Assistant for Intelligence and Liaison	SAIL/OSA	Communications Staff	COMMO/OSA
Development Division	DD/OSA	Intelligence Staff	INTEL/OSA
		Weather Staff	WEA/OSA

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ANNEX 18



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## ORGANIZATION

HN 1-36  
5 August 1963

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

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

(Signed)

MARSHALL S. CARTER  
Lieutenant General, USA  
Acting Director of Central Intelligence

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BVE 2548/66

13 July 1966

MEMORANDUM FOR: Director of Personnel

THROUGH: Deputy Director for Science and Technology

SUBJECT: Proposed Reorganization of Headquarters  
and Field Detachments of the Office of  
Special Activities

1. Submitted herewith are proposed changes to the OSA Staffing Complement. (Attachment A). The proposed Staffing Complement provides for a personnel ceiling of 761 approved by the DDS&T and a proposed reorganization also approved by the DDS&T.

2. The basic concept of the Headquarters organization remains that of a single manager type which has proven so successful in the past for both the development and operation of weapons systems. Such an organization with the authority and resources required for the type of mission within OSA has resulted in the development of the OXCART vehicle in approximately one-half the time required for the development of the B-58, and is similar to the single manager type organization used so successfully by Admiral Raborn in the development of the Polaris program, General Schriever in the Air Force ICBM program, and General Medaris in the development of the Redstone Missile.

3. The Headquarters' organization is designed around four principal Deputies. The Deputy for Research and Development remains for all practical purposes in its present form. The Comptroller is evolved from the present OSA Program Staff and collects together all business functions within OSA. The Deputy for Materiel has been broken out from the former Deputy for Field Activities because of the increasing importance and emphasis on Aircraft and Systems Maintenance Engineering. The Deputy for Field Activities has been remained as the Deputy for Operations.

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4. The organizations in the field have undergone only minor changes in order to have all detachments organized in the same manner. In each detachment, the Deputy for Support is the senior Agency officer within the detachment and acts as the second in authority to the Commander, excluding actual air operations which always comes under the Deputy for Operations.

5. The requested increase in GS-14's and above can be accommodated within the DDS&T except for three GS-14's. To alleviate this problem the Ops Officer position, Plans Staff, Deputy for Operations; Transportation Officer position, Travel Branch, Comptroller, and Ops Officer position, Budget and Programs Division, Comptroller, can be listed as 13/14 positions. Attachment B is a statistical comparison of current and proposed GS grades. Two GS-15 positions in the Deputy for Research and Development, position No. 0339, IO - Physical Scientist, Aircraft Systems Division and position No. 0344, Sensor Systems Division, have been identified as SPS positions.

6. The Director of the Office is rated as a Major General and the Headquarters Deputies for Operations and Materiel are rated as Brigadier Generals. The Commander of Area 51 is rated as a Brigadier General. Such ratings are consistent with the responsibilities of these positions and more compatible with Agency counterparts within the organization. It is not intended that any of these positions, with the exception of the Director, would ever actually be filled with General Officers. For administrative purposes and prestige, however, it is felt that such ratings are justified.

7. Your approval is respectfully requested.

(signed)  
EDMUND D. DUCKETT  
for  
JACK C. LEDFORD  
Brigadier General, USAF  
Director of Special Activities

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Page 3

## Attachments:

Organization Chart - Headquarters - OSA  
Organization Chart - Field Units  
Attachment A  
Attachment B

## APPROVED:

\*

(Signed) PAUL H. HILDEBRAND  
for Deputy Director for Science and Technology

\* Provided the establishment of Brig. Gen. positions is consistent with military practice and does not result in a charge against DD/S&T supergrade ceiling.

Director of Personnel

NOTE: Approved by D/PPB on 31 August 1966.

## Distribution:

Copy #1 - D/OSA  
#2 - D/PEERS  
#3 - D/PEERS  
#4 - DDS&T Chrono  
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#8 - RB/OSA

DDS&amp;T/D/SA/JCledford:m1 (12 July 1966)

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# HEADQUARTERS Office of Special Activities

APPROVED:

ALBERT D. WHEELON  
Deputy Director  
for  
Science and Technology

DIRECTOR  
\* M/Gen Jack C. Ledford (B/G)  
DEPUTY DIRECTOR  
17 J. A. Cunningham, Jr. (17)  
EXECUTIVE OFFICER  
15 E. D. Duckett, Jr. (15)

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REGISTRY                      SECURITY  
12 R. J. Swain                      15 William R. Kotapish  
(11)                                      (15)

Withheld under statutory authority of the  
Central Intelligence Agency Act of 1949 (50  
U.S.C., section 403g)

DEPUTY for RESEARCH & DEVELOPMENT  
17 J. Parangosky (16)  
Assistant Deputy for R&D  
(16)

ASST. for PROGRAMS  
15 (13)

ASST. for TECHNOLOGY  
16 (15)

ADVANCED PROJECTS DIV  
15 (15)

AIRCRAFT SYSTEMS DIV  
15 (15)

SENSOR SYSTEMS DIV  
15 (15)

PROPULSION SYSTEMS DIV  
15 (15)

COMPTROLLER  
16 (15)  
Assistant Comptroller  
15 (14)

INDUSTRIAL AUDIT DIV.  
15 (15)

CONTRACTS MANAGEMENT DIVISION  
16 (16)

BUDGET & PROGRAMS DIV  
15 (14)

MANAGEMENT ANALYSIS & REPORTS DIV  
15 (14)

FINANCIAL OPNS. DIV  
15 (15)

PERSONNEL DIVISION  
15 (14)

TRAVEL Branch  
14 (13)

DEPUTY for MATERIEL  
\* B/Gen (C/O)  
Assistant Deputy for Materiel  
15 (14)

MAINTENANCE DIVISION  
Col (L/C)

SUPPLY DIVISION  
Col (L/C)

INSTALLATIONS DIVISION  
15 (14)

AVIONICS DIVISION  
15 (14)

DEPUTY for OPERATIONS  
\* B/Gen (Col)  
Assistant Deputy for Operations  
Col (L/C)

CONTROL CENTER  
Maj (Maj)

OPERATIONAL PLANS DIV  
Col (L/C)

OXCART DIVISION  
Col (L/C)

ADP DIVISION  
Col (L/C)

INTELLIGENCE DIVISION  
15 (Lt Cmdr.)

WEATHER DIVISION  
Col (L/C)

COMMUNICATIONS DIV  
15 (15)

IDEALIST DIVISION  
Col (C)

\* Recommendation to upgrade these three slots was not approved.

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Withheld under statutory authority of the  
Central Intelligence Agency Act of 1949 (50  
U.S.C., section 403g)