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DIAM 57-5

DEFENSE INTELLIGENCE AGENCY



DOD EXPLOITATION
OF MULTI-SENSOR IMAGERY (U)

RETAIN OR DESTROY



GROUP-1
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DOD EXPLOITATION OF MULTI-SENSOR IMAGERY (U)

11 March 1968

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Defense Intelligence Agency Manual
No. 57-5

Headquarters
Defense Intelligence Agency
Washington, D. C. 20301
11 March 1968

FOREWORD

1. (U) Purpose

This manual provides guidance with respect to the exploitation of multi-sensor imagery, and is designed to achieve effectiveness and economy from the collective imagery interpretation resources of the Department of Defense.

2. (U) References

- a. DoD Directive 5105.21, "Defense Intelligence Agency," 1 August 1961, as amended.
- b. DoD Directive 5105.28, "Defense Intelligence Agency (Technical Intelligence)," 27 April 1964.
- c. JCS 2031/464-3, "DoD Plan for the Exploitation of Multi-Sensor Imagery," 30 June 1967.
- d. JCS Pub 1, "Dictionary of United States Military Terms for Joint Usage," 1 January 1966.
- e. JCS Pub 2, "Unified Action Armed Forces," 23 November 1959, as amended.
- f. Defense Intelligence Plan, C-2160/PL-1, 20 February 1967.
- g. DIA Manual 58-2, Part Six, Volume II, "Defense Intelligence Collection Requirements Manual, Intelligence Reconnaissance, Imagery Intelligence Objectives/Requirements," SECRET/NF, 1 December 1967.
- h. DIA Manual 57-4 "Coordination, Production, and Maintenance of Imagery Interpretation Keys," (U) CONFIDENTIAL, 19 January 1968, as amended.
- i. DIA Manual 57-5-1, "DoD Exploitation of Multi-Sensor Imagery, Specific Responsibilities (First and Second Phase Reporting)," (U) TOP SECRET, 11 March 1968.
- j. DIA Manual 55-5, "Aerial Photography and Airborne Electronic Sensor Imagery (Forwarding, Titling, and Plotting)," 26 June 1967.
- k. DIA Manual 75-1, "Scientific and Technical Intelligence Production," (U) CONFIDENTIAL, 1 April 1967, as amended.

3. (U) Authority

This publication contains intelligence guidance to all DoD components and is issued under the authority delegated in the Defense Intelligence Plan by the Secretary of Defense and the Joint Chiefs of Staff to the Director, Defense Intelligence Agency.

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4. (U) Definitions

See appendix A.

5. (S) Scope

a. This manual applies to the interpretation of all reconnaissance imagery of foreign areas accomplished under the direction of the Joint Chiefs of Staff (Joint Reconnaissance Center), the Committee on Imagery Requirements and Exploitation (COMIREX), and U.S. and Allied air tactical units. Additionally, the manual applies to overhead photography accomplished by U.S. Defense Attaches. It incorporates the major provisions of "The National Tasking Plan for the Exploitation of Multi-Sensor Imagery" (NTP) and, as appropriate, selectively relates specific provisions of the NTP to equivalent activities of the DoD. To insure clarity, this manual further specifies the related exploitation responsibilities of the Central Intelligence Agency (CIA) and the (C) National Photographic Interpretation Center (NPIC) which are also tasked under the NTP.

b. Certain usages of imagery are excluded from the scope of this manual. These are:

(1) Work performed directly by or in support of activities which are identified with a cartographic or hydrographic program, such as the preparation of photo mosaics, photo analysis for mapping and charting, production of air target materials, and the preparation of map or chart overlays, etc., except for the production of indices of mapping, charting, and reconnaissance imagery.

(2) Work performed in support of the construction of operational terrain models, preparation of factored transparencies for use in weapons system trainers, and the use of photography in training publications.

6. (U) Supersession

This manual supersedes the DoD Plan for the Exploitation of Multi-Sensor Imagery, 1 November 1965, promulgated as JCSM 244-65 and DIA Instruction 57-13, November 1965.

7. (U) Administration

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All others: Defense Intelligence Agency
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CHAPTER 1

INTRODUCTION

1. (S) General

a. Analysis of information derived from overhead photography during the last decade has been a major factor in determining military capabilities and has served as a basis for formulating U.S. national policy. More recently, with the advent of higher resolution photography and more advanced sensor systems, photo-derived information has become a factor of increasing influence in shaping political and military decisions during crisis situations. The day-to-day formulation of U.S. policy in the Cuban crisis clearly demonstrated the growing dependence of national authorities on timely all-source intelligence, based in large measure on the continuing flow of reconnaissance-driven information. The current Vietnam crisis has reaffirmed the increasing dependence of national authorities on surveillance, strike, and poststrike reconnaissance photography as an essential input to crisis management, national decision, and military action.

b. Paralleling the increased importance and utility of imagery information has been the significantly increased cost associated with its collection, and the rising cost associated with its exploitation. In the fall of 1965 the Director of the Bureau of the Budget realized that the magnitude and quality of reconnaissance was expected to increase significantly during the next four years, and he was concerned about the possible impact these increases might have on present and future imagery interpretation resource levels. In view of his concern, he proposed that the Secretary of Defense and the Director of Central Intelligence (DCI) review their respective imagery interpretation resources and ensure that these resources are employed with maximum efficiency. The Secretary and DCI agreed with the Budget Bureau's proposal and, shortly thereafter, two separate groups were established to address the requirement. One group, referred to as the Joint Imagery Interpretation Review Group (JIIRG) addressed itself primarily to organizations serving national needs, such as the Defense Intelligence Agency, the Central Intelligence Agency, and the National Photographic Interpretation Center (NPIC). A separate DoD panel, referred to as the Defense Group, and comprised of representatives of DIA and the Military Departments, examined the total resources of the Department of Defense.

c. As a result of the review accomplished by the JIIRG, "The National Tasking Plan for the Exploitation of Multi-Sensor Imagery," was approved by the Secretary of Defense and the Director of Central Intelligence on 12 January 1967. The NTP is designed to achieve a higher order of efficiency among imagery exploitation elements serving national needs. It specifically tasks the DIA, the Military Departments, the CIA, and the NPIC to accomplish first, second, and third phase imagery exploitation on a nonduplicative basis. It also provides for selective first phase exploitation of reconnaissance imagery by Unified and Specified Commands in accordance with approved procedures for Overseas Processing and Interpretation Centers (OPIC's). The NTP is available separately through SAO channels.

d. Later, on 28 June 1967, the Deputy Secretary of Defense approved the report and recommendations of the Defense Group and indicated that revision of the DoD Plan for the Exploitation of Multi-Sensor Imagery would improve the effectiveness of our resources in satisfying U.S. intelligence needs. The Deputy Secretary of Defense instructed that

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responsibility for the coordinated tasking of DoD organizations will continue to be vested in the Director, DIA and that all organizations will direct their efforts toward insuring its successful execution.

2. (S) Principles and Doctrine

a. Each commander assigned responsibility for a functional area of intelligence production has an interest in the image-derived information which supports that production.

b. The purpose of imagery interpretation is to derive information which supports the development and production of intelligence. This production must be responsive to those organizations which have been assigned intelligence responsibilities by National Security Council Intelligence Directives, Director of Central Intelligence Directives, and Department of Defense Directives.

c. An interdependence exists among intelligence organizations for image-derived information, both vertically and laterally throughout the intelligence structure, from the national level downward through the departmental and command structure. This interdependence can be satisfied best by a planned approach to the exploitation of reconnaissance imagery. This approach must capitalize on the imagery interpretation efforts that support assigned missions at each level of the decision-making pyramid.

d. The planned approach to the derivation of information from reconnaissance imagery, as set forth in this manual, involves tasking. Tasking under this manual involves guidance and response within the normal command channels of the agencies, departments, and commands concerned. It does not involve direction or operational control over the imagery interpretation resources which are tasked under this manual.

e. DIA, the Military Departments, and the U&S Commands will continue to be individually responsible for the integration and synthesis of image-derived information in the production of all-source intelligence in support of their assigned missions.

f. DIA, the Military Departments, and the U&S Commands, will maintain adequate imagery interpretation resources to accomplish their assigned missions, and provide such additional interpretation support within their fields of primary responsibilities as may be necessary to satisfy other requirements relating to national security.

3. (C) Management

The phases of management of imagery interpretation activities are the same as those for the command functions which intelligence supports; they comprise a continuous cycle of long-range planning, mid-range (resources) planning, programming, budgeting, short range (operations) planning, management of operations, and followup evaluation. As a governing principle, the degree of detail of management control and of the information required for management decisions should be no greater than that absolutely necessary to insure effectiveness, efficiency, and economy of operations.

a. Planning for the performance of imagery interpretation activities is a responsibility of each component and echelon of the DoD and should be done as an integral part of planning. In the intelligence planning process, objectives are defined in terms of the support which imagery interpretation activities must furnish to command during a given time frame; these objectives are broken down into tasks which are then assigned for accomplishment.

b. Programming for imagery interpretation and related support resources is primarily based on mid-range planning and is accomplished under the Five-Year Defense Program. Generally, those intelligence resources which are not organic, assigned, or attached to combatant forces (numbered armies, fleets, and air forces, and below) and which contribute significantly to the satisfaction of overall Defense intelligence requirements, are

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programmed and reviewed under the Consolidated Intelligence Program (CIP) as a functional area of the Five-Year Defense Program. The CIP is prepared by the DIA based on program submissions from the Military Departments and its own program, and assisted, as appropriate, by recommendations from the U&S Commands. It is reviewed by the Joint Chiefs of Staff and approved by the Secretary of Defense. As a general rule, those imagery interpretation activities which are integral to combatant command structure are reviewed under standards of management which give major weight to the requirements of the command mission rather than to the contribution which these resources make to the overall military intelligence effort. For this reason, imagery interpretation activities in this latter category are not normally included in the CIP, but are programmed elsewhere in the Five-Year Defense Program together with the elements which they support. However, the contribution of resources not included in the CIP to the overall military intelligence effort is taken into full consideration in the development of the CIP. Requirements for imagery interpretation and related support resources, including personnel, equipment, and facilities, are now predicated by various organizations on diverse degrees of knowledge regarding the projected U.S. reconnaissance efforts. To forecast the need for resources realistically, it is necessary that planners have authoritative knowledge of oncoming reconnaissance programs, sufficiently in advance of their implementation, in order to gauge the possible impact of these programs on their respective missions. See DIAM 57-5-2, TOP SECRET (to be published later).

c. For the development of the general intelligence portion of the defense budget, the Military Departments and DIA annually submit their general intelligence resource requirements for the upcoming fiscal year to the Assistant Secretary of Defense (Comptroller) under categorizations compatible with those in the CIP. These submissions are reviewed jointly by the Office of the Secretary of Defense, the Bureau of the Budget, and the DIA. Issues arising from this review are presented as program/budget decisions (PBD's) to the Secretary of Defense for decision.

d. Management of Defense imagery interpretation activities is a function of command and is exercised through the command structure. As a general rule, imagery interpretation activities undertaken by operational commands in satisfaction of their own requirements are coordinated by higher authority only to the extent necessary to enhance mutual support, avoid mutual interference and undue risk, and prevent unnecessary and wasteful duplication. Imagery interpretation activities by any command which are undertaken in satisfaction of the requirements of higher authority are, as a general rule, subject to coordination in greater depth and detail to insure satisfactory responsiveness and overall economy, efficiency, and effectiveness in the employment of imagery interpretation resources.

e. Evaluation of the effectiveness of imagery interpretation activities is a process which must be carried on continuously by command in order to determine what adjustments in planning, resource allocation, and management direction are needed to attain maximum efficiency and economy of effort. This process is accomplished by review of reports, inspections, evaluation of products and of specific source performance, to measure progress and performance.

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CHAPTER 2

RESPONSIBILITIES

1. (C) Introduction

A fundamental principle underlying military intelligence activities at all levels from the National Command Authorities throughout the operational command and departmental structure is that intelligence is an integral responsibility of command. Each commander is responsible for the formulation and timely enunciation of his requirements for imagery interpretation support for the command mission, for direction and control of imagery interpretation operations within his command, and for informing higher headquarters of those requirements which he cannot satisfy with his own resources. Imagery interpretation activities are performed in support of the command mission at each echelon, as required, with resources assigned for the purpose or otherwise provided by their echelons in the chain of command, by adjacent commands, or by other intelligence activities external to the local command structure. Commanders are responsible for exploiting all available resources, as necessary, to acquire the intelligence needed in support of the command mission at all levels. Since the total resources assigned to field commands represent a significant part of the overall DoD imagery interpretation capability, commanders must be responsive to imagery interpretation requirements of higher and adjacent echelons. At the same time, intelligence agencies and staffs at higher echelons must be responsive to the needs of lower echelons in both the departmental and operational chains of command.

2. (S) General Responsibilities**a. The Defense Intelligence Agency will:**

(1) Provide continuing and effective interface between the provisions of "The National Tasking Plan for the Exploitation of Multi-Sensor Imagery" and the provisions of this manual.

(2) Guide and coordinate the DoD effort engaged in the exploitation of multi-sensor imagery.

(3) Produce imagery interpretation reports and keys.

(4) Perform imagery interpretation tasks required to support its mission or in response to DoD or JCS directives.

(5) Provide imagery interpretation support services to U&S Commands or secure such support from other resources, when such requirements exceed command capabilities.

(6) Establish standard procedures and formats for imagery interpretation reporting and indexing.

(7) Index or cause to be indexed on a current basis all reconnaissance, mapping, and charting imagery obtained by or available to the DoD, and furnish information from these indices.

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(8) Maintain the National Area Coverage Data File and provide information as required.

(9) Apprise appropriate key DoD personnel actually engaged in the programming of imagery interpretation and related support resources of the nature and characteristics of oncoming reconnaissance systems.

(10) Evaluate intelligence programs of intelligence production organizations and make recommendations to the Secretary of Defense as to the level of resources required to carry out these programs.

b. The Military Departments will:

(1) Produce imagery intelligence reports and studies as required by Department Chiefs.

(2) Exploit imagery in support of their scientific and technical intelligence production responsibilities.

(3) Produce imagery interpretation reports and keys.

(4) Coordinate departmentally controlled imagery interpretation resources.

(5) Upon DIA direction, produce indices of mapping, charting, and reconnaissance imagery obtained by or available to the DoD.

c. The Unified and Specified Commands will:

(1) Perform imagery interpretation tasks required by their respective command missions or in response to DoD or JCS directives.

(2) Index imagery in conformance with DIA standards.

(3) Insure the prompt submission to DIA, and dissemination to other departments and commands, of reports on militarily important objectives. In accomplishing this responsibility, the commands are assigned primary responsibilities for reporting on photography covering the geographic areas listed below:

<u>Geographic Area</u>	<u>Producer</u>
Warsaw Pact and Asian Communist (Strategic retaliatory forces and air and missile defense forces) ^{1/}	Strategic Air Command

^{1/} This responsibility requires the reporting from sensor imagery of the deployment and capabilities of strategic attack forces, as well as the reporting of associated command and support facilities. Strategic attack forces include medium and long range nuclear delivery systems, including ground-launched missiles with ranges of 600 NM or more, missile launching submarines, heavy and medium bombers, air-to-surface missiles, and advanced delivery and supporting systems. It also requires the reporting of the deployment and capabilities of air and missile defense forces which are directly concerned with providing defense against strategic air and ballistic missile attacks.

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<u>Geographic Area</u>	<u>Producer</u>
Western Europe, including the United Kingdom; the Mediterranean Sea and the islands therein; North Africa west of Egypt; Algeria, Morocco, Libya, and Tunisia; Turkey; and the USSR west of 100 East Longitude (USSR and East European Communist countries: General purpose forces). ^{2/}	European Command
Pacific Ocean, including the islands therein (less Aleutians); the Bering Sea; the eastern Indian Ocean area; Japan; the Republic of Korea; the countries of SE Asia; and the USSR east of 100 East Longitude (Eurasian communist countries: General purpose forces). ^{2/}	Pacific Command
All of Africa, except Algeria, Morocco, Libya, and Tunisia, but including the island of Madagascar. The Middle East except Turkey, but including the islands of the Aden Protectorate and the Red Sea. South Asia up to and including East Pakistan and the island of Ceylon.	STRIKE/MEAFSA Command
The Atlantic Ocean and Caribbean Sea (less Cuba), the western Indian Ocean, the Arabian Sea and western Bay of Bengal, including the islands therein (less Greenland, Madagascar, Ceylon, and the islands of the Aden Protectorate). ^{3/}	Atlantic Command
Central and South Americas	To be designated when appropriate

3. (S) Specific Responsibilities

a. First and Second Phase Interpretation and Reporting

(1) Designated U&S Commands will conduct first and second phase interpretation and reporting of JCS-directed peripheral and combat reconnaissance missions, certain JCS-directed penetration missions, and imagery acquired by foreign nations. First phase

^{2/} This responsibility requires the reporting from sensor imagery of the deployment and capabilities of tactical forces, air defense forces associated with general purpose forces in the forward areas, and the reporting of associated command support facilities. General purpose forces also include ground combat forces with related rocket, missile, and tactical air units. Further, it includes military air transport and airlift elements. Lastly, general purpose forces include the naval surface fleets, attack submarines and naval air forces.

^{3/} This assignment of responsibility will not apply to Cuba for such period of time as initial photo interpretation is undertaken by NPIC.

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interpretation and reporting on imagery acquired from foreign nations will be accomplished by the agency, department, or command acquiring the photography. See DIAM 57-5-1 (TOP SECRET) for a delineation of specific responsibilities for first and second phase reporting of active reconnaissance projects.

(2) The Strategic Air Command will conduct second phase interpretation on designated USIB-tasks penetration missions to provide timely support to the Joint Strategic Target Planning Staff.

(3) The NPIC will accomplish first and second phase interpretation and reporting on all USIB-tasks penetration missions processed in the Continental United States. NPIC will also accomplish second phase interpretation and reporting on all USIB-tasks reconnaissance regardless of processing location.

b. Third Phase Interpretation and Reporting

(1) Third phase interpretation and reporting involve two distinct types of production: Basic reports and direct support. Basic reports provide authoritative imagery interpretation designed to satisfy the information requirements of the intelligence community, which can be used as reference documents by more than one agency, department, or command. Direct support is imagery interpretation provided by an organization to support the assigned mission of its own agency, department, or command.

(2) Each organization will, as a service of common concern, produce and maintain imagery interpretation keys for the same categories for which they are assigned responsibility for the production of basic reports.

(3) The categories for which DoD components have production responsibility for basic reports and related imagery interpretation keys are set forth below:

(a) Defense Intelligence Agency

Deployed AAA/SAM facilities

Air base facilities

Naval base facilities

Ground force facilities

Deployed tactical SSM facilities

General purpose weapons industrial facilities

Military logistics

(b) Military Departments

The Military Departments will produce basic reports on the scientific and technical characteristics, capabilities, and limitations of the weapons and weapon systems listed below. For each weapon system, the related subsystem is included, such as: Propulsion, command and control, guidance and navigation, electronics, and conventional and unconventional munitions and equipment.

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1. Department of the Army

Firepower systems

Short range SSM

Surface-to-air missiles, including AMM

Armored

Antiarmor weapons

Artillery weapons

Infantry weapons

Chemical, biological, and radiological agents

Mobility

Trucks

Amphibious transports

Difficult terrain vehicles

Special-purpose armored vehicles

Artillery prime movers

Combat support

Mine warfare

Bridging and stream crossing equipment

Construction equipment

Camouflage and deception equipment

Barriers and fortifications

Air delivery equipment

POL supply and handling equipment

General supplies and equipment

Cargo and materials handling equipment

Power generating equipment

2. Department of the Navy

Platforms

Surface ships

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Submarines

Naval aircraft

Other, including hydrofoils and other water surface constrained platforms

Weapons

Sublaunched cruise missiles

Sublaunched ballistic missiles

Naval guns

Underwater ordnance

Sensors

Naval communications

Radar

IFF

Naval ECM

Naval ECCM

Acoustic

3. Department of the Air Force

ICBM

IRBM

MRBM

LRA (heavy and medium bombers, ASM, cruise missile)

Interceptor aircraft

VTA

Antisatellite systems

Manned and unmanned components

Armaments

Bombing/navigation systems

Engines

ECM

ECCM

Space systems

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(c) Central Intelligence Agency^{4/}

Nonmilitary logistics (rail, highway, waterway, maritime, and telecommunications)

Industrial facilities

(d) National Photographic Interpretation Center^{4/}

Deployed strategic SSM facilities

Deployed communications/electronics and radar facilities

Strategic weapons industrial facilities

Atomic energy facilities

Missile ranges, strategic SSM and space facilities

Missile ranges, air launch facilities

Missile ranges, naval launch facilities

Missile ranges, tactical SSM facilities

Missile ranges, SAM and AMM facilities

Communications/electronics/radar R&D facilities

Chemical, biological, radiological facilities.

The NPIC will provide graphic, publication, reproduction, and dissemination support for basic report production undertaken in the Washington area by DIA and the Military Departments.

^{4/} The CIA and NPIC are tasked by the NTP. Their responsibilities are included to clarify the relationship between their activities and those of the DoD.

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CHAPTER 3

NATIONAL DATA BASE OF IMAGE-DERIVED INFORMATION

1. (S) Introduction

a. In accordance with the provisions of the NTP, there will be established, developed, and maintained a national data base of image-derived information, automated to the fullest extent practicable, to support the production of intelligence. To the maximum extent practicable, this data base will satisfy the interdependent needs for image-derived information which exist laterally and vertically at all echelons of command from the National Command Authorities to commanders of major command components in the field. Additionally, this data base will support the information needs of those organizations concerned with collection requirements, reconnaissance planning, imagery interpretation, and intelligence production.

b. All or portions of this data base will exist in all major intelligence organizations to support the specific functions of these organizations. The assignment of responsibilities for maintaining the various basic files of the data base will insure the existence of complete files from which consumers can call for support, and receive coordinated changes to the files they have.

2. (S) Basic Files

a. The Installations Data File will contain information derived from reconnaissance imagery as a result of first, second, and third phase interpretation accomplished by DoD elements, CIA, and NPIC, as well as essential elements of information (EEI's) to be satisfied by future collection activities. Included also will be data required by intelligence producers and reconnaissance collection managers pertaining to the specific targets covered and the quality of coverage associated with each target. The NPIC will coordinate and maintain this file.

b. The Object Data File will contain information from reconnaissance imagery on weapons, weapon systems, associated equipment, and objects of intelligence interest to include inputs by DoD elements. The NPIC will coordinate and maintain this file.

c. The Area Coverage Data File will contain indexed information on the geographic areas covered and the quality of the imagery acquired. DIA will coordinate and maintain this file.

d. The Mensuration Parameters File will contain the specific technical information on collection platform performance and sensor design specifications that is required to support online mensuration. The NPIC will coordinate and maintain this file.

e. The Exploitation Products Data File will contain information on publications produced and disseminated as a result of imagery exploitation. The NPIC will coordinate and maintain this file.

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f. The Imagery Interpretation Resources Information File will contain basic information on resources of DIA, the Military Departments, CIA, and NPIC, and certain other DoD resources which partially satisfy national-level requirements. The COMIREX will coordinate and monitor the development and use of this file with ADP support, as required, by DIA and the NPIC.

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CHAPTER 4

IMAGERY INTERPRETATION REPORTS

1. (S) Introduction

a. During the Fourth Worldwide Intelligence Production Management Conference, 17-21 April 1967, representatives of the Defense Intelligence Agency, the Military Departments, and the U&S Commands, established requirements for five types of imagery interpretation reports: The Initial Photo Interpretation Report (IPIR); the Supplemental Photo Interpretation Report (SUPIR); the Uniform Photo Interpretation Report (UPIR); the Photo Interpretation Brief (PIB); and the Detailed Photo Interpretation Report (DPIR). No attempt was made to establish formats for these reports. Alternatively, it was the consensus that a conference be convened at a later date expressly to establish standardized reporting formats.

b. Accordingly, DIA convened a conference with representatives of the Military Departments and the U&S Commands during the period 31 July - 4 August 1967 to establish standardized formats for the IPIR/SUPIR, UPIR, PIB, and DPIR.

c. Exhaustive review of the DoD requirements for image-derived information, from both the consumer and producer points of view, identified a number of principles as a basis for structuring formats for first and second phase reporting. Foremost among these principles are that the same format should be used for both the first and second phase reports; the reports should be human and machine readable, capable of satisfying the information and time requirements at all levels of command, from tactical units in the field to National Command Authorities; and, perhaps most important, they should be as simple as possible to prepare to ease the burden on not only the image interpreter, but on the consumer and communicator as well. In addition to these principles, the formats should allow information to be transmitted as rapidly as possible due to the extreme perishability of combat information, yet information should be reported in sufficient depth to provide historical data for subsequent more detailed interpretation. Lastly the formats should permit image-derived information to be readily and efficiently inputted into widely dispersed automated data bases in a common format.

d. The European and Pacific Commands presented proposals to the conference as to how the foregoing principles could be best applied and put into practice. Each of the presentations had its own particular merits: The proposal of the European Command reflected a highly formatted program, designed to support the production of finished intelligence, which relied in large measure upon sophisticated automated data processing equipment and techniques. The proposal of the Pacific Command for first and second phase reporting, on the other hand, was not as highly formatted, but was machine readable as well as usable in many organizations which do not possess automated data processing equipment.

e. The conferees exchanged their respective views with the objective of incorporating the best features of each proposal into a single standard format to satisfy the wide

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range of Command and National requirements. Further, to insure that a single format is used for all first and second phase reporting, special emphasis was given to meeting the reporting requirements for joint tactical operations. The conferees unanimously agreed upon a single format for first and second phase reporting (IPIR/SUPIR) which satisfied all of the requirements which had been identified, including those for joint tactical operations, and reflected a proper appreciation of the wide range of producer capabilities.

f. Standardized formats were similarly established for third phase reporting (PIB and DPIR).

g. No action was taken to modify the format for the UPIR since it was recently revised.

h. During August 1967, DIA submitted the DoD agreed upon formats for the IPIR/SUPIR, PIB, and DPIR to the COMIREX to insure the fullest coordination and compatibility with similar reporting formats of CIA and NPIC. See appendix B for formats approved by COMIREX.

2. (C) General Description of Reports

a. The Initial Photo Interpretation Report (IPIR) is a first phase report used to report information on approved mission objectives and may be used, also, to report new and perishable information. The IPIR will be prepared within the time frame specified by appropriate authority to meet National or Command requirements. The IPIR will be prepared in human and readable form, suitable for electrical transmission. When mission photography is processed by a foreign government, the DoD organization first provided the film will prepare the IPIR.

b. The Supplemental Photo Interpretation Report (SUPIR) is a second phase comprehensive review of all imagery acquired on a given mission. Within the capability of available resources, priority for review will be given to approved reconnaissance objectives. The SUPIR will be prepared in the same human and machine readable format as the IPIR and will be used to report by electrical transmission additional information to that provided by the IPIR. The SUPIR may be transmitted incrementally.

c. The Uniform Photo Interpretation Report (UPIR) is a third phase, semiformatted report of a particular objective, containing detailed information extracted from photographic sensor imagery.

d. The Photo Interpretation Brief (PIB) is a third phase textual/graphic presentation in hard copy of a particular objective used to communicate photo intelligence information rapidly, particularly in those instances when the use of photographic imagery will aid the consumer's comprehension.

e. The Detailed Photo Interpretation Report (DPIR) is a third phase textual/graphic presentation in hard copy used to communicate comprehensive and detailed photo intelligence information.

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CHAPTER 5

PROGRAMMING OF RESOURCES

A methodology for programming image interpreter manpower resources will be forwarded at a later date, upon approval by COMIREX.

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DEFINITIONS

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*BASIC REPORT PRODUCTION: Basic report production is that imagery interpretation effort which is undertaken to provide a flow of basic image-derived information required by more than one agency, department, or command. It is a step-by-step process of extracting and accumulating information from reconnaissance imagery. Basic report production involves and is limited to the derivation of information on specific installations, objects, activities, or search areas examined. It requires the preparation of an authoritative base report, augmented by information derived from subsequent first and second phase reporting and updated periodically, or as required by appropriate authority. Basic report production, thus, is that imagery exploitation process required to establish and maintain in a current status an authoritative base of image-derived information which contains the information acquired from each successive reconnaissance mission. It is a process in which a discernible pattern of exploitation activity is repeated for reconnaissance collection objectives and those targets designated for exploitation. Inherent in the data base concept is the responsibility for providing periodically, or as required by appropriate authority, collations of image-derived information in forms which meet users needs.

*DIRECT SUPPORT: Direct support is that imagery interpretation effort which is undertaken in direct and timely support of the assigned mission of an agency, department, or command. It is a dynamic "on demand" process in which directly subordinate imagery interpretation resources must be applied to meet the spectrum of intelligence needs of a higher authority and which cannot be satisfied by basic report production. Direct support, thus, is continuously oriented in support of the mission of an organization, rather than toward providing a flow of basic image-derived information from the imagery acquired by each successive reconnaissance mission. It is responsive to the changing needs of the higher authority being supported and can be effectively programmed only by that authority. Direct support utilizes, as an authoritative base, the information derived as a result of basic report production. It responds to the needs of the authority being supported, builds upon this base by undertaking exploitation in depth, and relates and correlates the resulting additional information with all other image-derived information. It refines and supplements this information as a result of in-depth exploitation and correlates and tailors the resulting information for integration and synthesis into finished intelligence which directly supports the assigned mission of the higher authority. On occasion, however, it may necessarily entail a certain amount of basic report production because of the critical or unique timing needs of the authority being supported.

*DUPLICATION OF IMAGERY INTERPRETATION: Imagery interpretation which results in essentially the same products, services, or information. In first and second phase interpretation, the operation must be performed on the same mission film to be considered duplicative.

ESSENTIAL ELEMENTS OF INFORMATION: The critical items of information needed by the commander by a particular time, to relate with other available information and intelligence in order to assist him in reaching a logical decision.

*EXPLOITATION: The act of extracting from imagery the full measure of information that can be derived which is of value to finished intelligence producers and related activities at any given point in time. Also the act of converting, as a result of imagery interpretation, latent images into useful information about the objects, installations, activities, and areas which they represent.

*FIRST PHASE INTERPRETATION: The preliminary, rapid interpretation of newly acquired imagery for the purpose of extracting, organizing, and communicating information to satisfy immediate priority needs. First phase interpretation includes screening or scanning, the preparation of Initial Photographic Interpretation Reports (IPIR's), and the preparation of briefing materials.

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in JCS Pub 1.

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*IMAGERY: The permanent record of the likeness of any natural or manmade objects reproduced on photographic material. This imagery can be acquired through the sensing of the visual or any other segment of the electromagnetic spectrum by sensors, such as panchromatic, infrared, and high-resolution radar. Within the context of this manual, imagery does not include those records of communications or radar signals, and telemetry data which do not reproduce the likeness of objects or photographic material.

INFORMATION (INTELLIGENCE): Unprocessed material of every description including that derived from observations, reports, rumors, photographs, etc., which when analyzed, produces intelligence.

INTELLIGENCE: The product resulting from the collection, evaluation, analysis, integration, and interpretation of all available information which concerns one or more aspects of foreign nations or of areas of operations and which is immediately or potentially significant to military planning and operations.

INTELLIGENCE PROCESS: The steps by which information is assembled and the resulting product made available to users. These steps are generally grouped into three phases:

a. Collection - The procurement and selection of information pertinent to a given intelligence problem.

b. Production - The logical process of judging the credibility of collected information, drawing pertinent inferences from an analysis thereof, and when appropriate, interpreting such inferences in the perspective of planning.

c. Dissemination - The conveyance of intelligence in suitable form (oral, graphic, or written) to agencies needing it.

INTELLIGENCE REQUIREMENTS: Any subject, general or specific, upon which there is a need for the collection of information, or the production of intelligence.

*INTERPRETATION, IMAGERY: The extraction from imagery of information contributing to the synthesized body of knowledge which constitutes intelligence.

MANAGEMENT: A process of establishing and attaining objectives to carry out responsibilities. Management consists of those continuing actions of planning, organizing, directing, coordinating, controlling, and evaluating the use of men, money, materials, and facilities to accomplish missions and tasks. Management is inherent in command, but it does not include as extensive authority and responsibility as command.

NATIONAL INTELLIGENCE: Integrated departmental intelligence that covers the broad aspects of national policy and national security, is of concern to more than one department or agency, and transcends the exclusive competence of a single department or agency.

*(S) PENETRATION RECONNAISSANCE: Reconnaissance accomplished over denied territory, as well as other areas of priority intelligence interest determined by the USIB. It does not include reconnaissance accomplished from within approved air corridors or reconnaissance in direct support of actively combatant U.S. forces.

*PHERIPHERAL RECONNAISSANCE: Peripheral reconnaissance is controlled and tasked by the JCS, and includes reconnaissance of denied areas accomplished from within approved air corridors, or from the periphery of denied areas.

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RECONNAISSANCE: A mission undertaken to obtain by visual observation or other detection methods, information about the activities and resources of an enemy or potential enemy; or to secure data about the meteorological, hydrographic, or geographic characteristics of a particular area.

*SECOND PHASE INTERPRETATION: The systematic review of newly acquired reconnaissance imagery for the purpose of providing a succinct, organized, and comprehensive summary of the information extracted, or available for extraction from the imagery obtained by a mission. Second phase interpretation includes imagery indexing, the preparation of mission review reports, and the review of newly acquired imagery for the purpose of providing additive detailed data required in support of current intelligence and the update of the information and intelligence base. It also includes the preparation of timely summary reports on newly identified targets, and significant changes to existing targets and order of battle information. In addition, it encompasses Supplemental Photographic Interpretation Reports (SUPIR's), as well as the preparation of technical and quality evaluation of the acquired imagery and reconnaissance systems.

SENSOR: A technical means to extend man's natural senses; an equipment which detects and indicates terrain configuration, the presence of military targets, and other natural and manmade objects and activities by means of energy emitted or reflected by such targets or objects. The energy may be nuclear, electromagnetic, including the visible and invisible portions of the spectrum, chemical, biological, thermal, or mechanical, including sound, blast, and earth vibration.

*TACTICAL AIR RECONNAISSANCE: The use of air vehicles to obtain information concerning terrain, weather, and the disposition, composition, movement, installations, lines of communication, electronic and communication emissions of enemy forces. Also included are artillery and naval gunfire adjustment, and systematic and random observations of ground battle areas, targets, and/or sections of airspace.

TECHNICAL INTELLIGENCE: The product resulting from the collection, evaluation, analysis, and interpretation of foreign scientific and technical information which covers:

- a. Foreign developments in basic and applied research, and in applied engineering techniques; and
- b. Scientific and technical characteristics, capabilities, and limitations of all foreign military systems, weapons, weapon systems and materiel, the research and development related thereto; and the production methods employed for their manufacture.

*THIRD PHASE INTERPRETATION: The interpretation in depth of reconnaissance imagery for the purpose of extracting and coherently organizing the accurate, detailed and comprehensive information required in the production of intelligence. Third phase reporting may involve more than one mission, and is oriented toward specific targets and functional categories. In-depth analysis is the primary feature of this phase, with actions having both long- and short-term suspenses.

*Definition is not included in JCS Pub 1.

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APPENDIX B

IMAGERY INTERPRETATION REPORT FORMATS

Imagery interpretation report formats will be forwarded at a later date, upon approval by COMIREX.

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