ARMY, MARINE CORPS, NAVY, COMBAT AIR FORCES

RECCE-J

MULTISERVICE PROCEDURES FOR REQUESTING RECONNAISSANCE INFORMATION IN A JOINT ENVIRONMENT

FM 34-43
MCRP 2-2.1
NDC TACMEMO 3-55.2
ACCPAM 10-756
PACAFPAM 10-756
USAFEPAM 10-756

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MULTISERVICE TACTICS, TECHNIQUES, AND PROCEDURES

Marine Corps: PCN 14400000600

FOREWORD

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MEMORIAL

This pamphlet is dedicated to the memory of Lieutenant Commander Fred D. Dillingham, United States Navy. LCDR Dillingham was a member of the joint working group formed by ALSA to develop and draft this pamphlet, and played a key role in defining and coauthoring it. Assigned to Fighter Wing One, NAS Oceana, Virginia, he was killed in the service of his country on 15 March 1993 when the F-14B *Tomcat* he was flying crashed in the Atlantic Ocean off the coast of North Carolina.

FM 34-43/MCRP 2-2.1/NDC TACMEMO 3-55.2
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PREFACE

1. Scope

This publication explains reconnaissance and the intelligence cycle; describes reconnaissance products; and, most importantly, demonstrates how to use and prepare formats for reconnaissance requests. It also explains the reconnaissance request flow and includes appendices which explain in detail reconnaissance types, capabilities, and limitations; intelligence support to joint operations; and detailed instructions for two additional key reconnaissance request formats. To facilitate field use, full page-sized request format blanks are included (users can laminate or reproduce these formats, and their accompanying instructions, for use in mission planning guides, personal checklists, etc.).

2. Purpose

The purpose of this publication is threefold. It is designed to help users (1) employ established joint procedures, (2) better articulate reconnaissance and intelligence requirements, and (3) derive full utility from the products they receive.

3. Application

This pamphlet applies to all command levels of the Army, Marine Corps, Navy, and Air Force which are involved with requesting and receiving reconnaissance products. Although generic in nature, this publication has worldwide applicability for training, contingency, and conflict operations. It also applies to US forces participating in combined operations.

4. Implementation Plan

Participating service command offices of primary responsibility (OPRs) will review this publication, validate the information, and reference and incorporate it in service manuals, regulations, and curricula as follows:

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b. We encourage recommended changes for improving this publication. Key your comments to the specific page and paragraph and provide a rationale for each recommendation. Send comments and recommendation directly to—

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c. This publication reflects current joint and service doctrine, command and control organizations, facilities, personnel, responsibilities, and procedures. Changes in service protocol, appropriately reflected in joint and service publications, will likewise be incorporated in revisions to this document.

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7 June 1996

RECCE-J

Multiservice Procedures for Requesting Reconnaissance Information in a Joint Environment

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EXECUTIVE SUMMARY

RECCE-J
Multiservice Procedures for Requesting Reconnaissance Information in a Joint Environment

To conduct joint military operations, commanders at all levels, from each of the services, need information and reconnaissance support to fulfill intelligence requirements. Well-articulated requirements ensure the intelligence and reconnaissance products satisfy needs and preclude the necessity for requesting additional information to meet unfulfilled requirements. The rapid tempo of combat operations demands products and information be disseminated in sufficient time to be useful to the commander.

This publication educates the user on "*what*" and "*how*" to ask for reconnaissance support, and familiarizes the user with reconnaissance products to ensure the product received fulfills user intelligence requirements. It reviews reconnaissance disciplines and limitations and acts as a step-by-step guide for requesting reconnaissance information. Discussions of platform, system, or sensor-specific capabilities are classified and outside the scope of this publication. A number of publications provide more specific information on reconnaissance systems, sensors, or platforms. Unit intelligence or collection management staffs can provide further information on these publications.

The publication is organized using a building-block approach. The first chapter gives an orientation and explains general concepts. The succeeding chapters describe reconnaissance products, request procedures, and the request flow process. The appendices offer a more in-depth discussion of reconnaissance products and command architecture, including detailed instructions and procedures for preparing mission-specific request formats.

Reconnaissance Overview

Chapter I describes reconnaissance, intelligence, and combat information. It defines collection disciplines, explains the intelligence cycle, and introduces the four categories of reconnaissance (visual, imagery, electronic, and weather).

Reconnaissance Products

Chapter II explains the relationship between reconnaissance categories and the kinds of products generated by reconnaissance. It illustrates and explains common reconnaissance-related reports.

Reconnaissance Request Formats

Chapter III explains the user's role and responsibilities in the reconnaissance request process. It establishes the US Message Text Format (USMTF) Request for Information (RI) as the default request format and reviews key reconnaissance terms, outlines fundamental reconnaissance concepts, and provides step-by-step instructions for completing the RI.

Reconnaissance Request Flow

Chapter IV describes the responsibilities of the major players in the reconnaissance process. It graphically and textually illustrates the request flow process and the various service command structures that handle and act on requests.

Reconnaissance: Categories, Capabilities, and Limitations

Appendix A provides an expanded discussion of reconnaissance categories. It explains the capabilities and limitations of reconnaissance products with text and graphics. A *"sensor/ intelligence matrix"* which offers an organized, easy-to-read ready reference to reconnaissance products (including generic advantages, disadvantages, and timeliness of each sensor-product pair) is also included.

Joint Intelligence Support

Appendix B provides an in-depth description of joint force intelligence architecture and the responsibilities of the major players in the process.

Additional Reconnaissance Request Formats

Appendix C provides detailed, step-by-step instructions for preparing the USMTF air support request (AIRSUPREQ) record-copy message and air request reconnaissance (AIRREQRECON) voice message for reconnaissance requests.

US Coast Guard Reconnaissance Resources

Appendix D provides commanders, planners, and users of reconnaissance in joint operations with a general overview of US Coast Guard (USCG) aviation assets that may have potential for reconnaissance collection applications.

Chapter I

RECONNAISSANCE OVERVIEW

1. Background

Reconnaissance supports the gathering of intelligence and, ultimately, provides the user with the "*answers*" needed to conduct operations. When accessing the intelligence community's ability to fulfill requirements, understanding the differences between reconnaissance, intelligence, and combat information is critical. This chapter will explain how reconnaissance fits into the overall intelligence process. After defining the basic terms, the chapter examines the intelligence collection process, its collection disciplines, the intelligence cycle, and the categories of reconnaissance.

Definitions in this chapter are extracted from *Joint Publication 1-02, Department of Defense Dictionary of Military and Associated Terms.*

2. 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 concerning the meteorological, hydrographic, or geographic characteristics of a particular area.

3. Intelligence

Intelligence is the product resulting from the collection, processing, integration, analysis, evaluation, and interpretation of available information concerning foreign countries or areas.

Intelligence is categorized as being either strategic, operational, or tactical. The focus and definition of each is tailored to the echelon and type of decisionmaker being supported.

a. Strategic intelligence is that required by national and allied decisionmakers for the formulation of national and foreign defense policy.

b. Operational intelligence is that required by corps through theater level commanders in planning and conducting campaigns.

c. Tactical intelligence is that required by commanders for fighting battles.

4. Combat Information

Unevaluated data, gathered by or provided directly to the tactical commander which, due to its highly perishable nature or the criticality of the situation, cannot be processed into tactical intelligence in time to satisfy the user's tactical intelligence requirements.

The distinction between intelligence and combat information is the urgency, reliability, and completeness of the final product. For finished intelligence, the emphasis is on reliability. For combat information completeness is sacrificed due to the urgency of the need. If data must be processed and analyzed before it becomes useful (especially, if integration with other data is required) then the product is intelligence and not combat information.

5. Imagery Intelligence (IMINT)

Intelligence information derived from the exploitation of collection by visual photography, infrared sensors, lasers, electrooptics, and radar sensors

such as synthetic aperture radar wherein images of objects are reproduced optically or electronically on film, electronic display devices, or other media.

Imagery is analyzed to locate and identify enemy activity, installations, and equipment. Imagery can also provide the commander environmental information impacting operations (such as traffic-ability and hydrography). There are four types of imagery: radar, photo imagery, infrared, and electrooptical.

a. Radar is capable of detecting both fixed and moving targets with near-optical capability and can datalink with surface terminals for analysis. Radar is equally capable during day or night and is practically independent of weather condition. However, the unique capabilities of radar depend on the equipment suite being used.

b. Photo imagery can be accurate but is susceptible to weather and sophisticated camouflage, concealment, and deception (CCD) techniques. However, in many cases, photo imagery can identify and confirm equipment, and some photo-imaging systems offer standoff capability through the use of oblique-look angles and long focal-length lenses.

c. Infrared (IR) imagery depends on heat, rather than light, and best results are usually obtained at night. IR imaging systems have the capability to detect individual thermal images of personnel and equipment.

d. Electrooptic (EO) imaging systems are similar to photo imagery systems. However, EO systems produce a digital/analog image that can be manipulated to obtain optimum results.

6. Signals Intelligence (SIGINT)

A category of intelligence information comprising either individually or in combination all communications intelligence, electronics intelligence, and foreign instrumentation signals intelligence, however transmitted.

SIGINT is the product resulting from the collection, evaluation, analysis, integration, and interpretation of information derived from intercepted electromagnetic emissions. It is subdivided into communications intelligence (COMINT), electronic intelligence (ELINT), and foreign instrumentation signals intelligence (FISINT).

a. COMINT consists of information derived from intercepting, monitoring, and locating the enemy's communications systems: COMINT comes from exploiting enemy radio transmissions.

b. ELINT consists of information derived from intercepting, monitoring, and locating the enemy's noncommunications emitters. While COMINT focuses on the enemy's radio equipment, ELINT exploits the enemy's radars, beacons, and other noncommunications emitters.

c. FISINT consists of technical information derived from the intercept of electromagnetic emissions, such as telemetry, associated with the testing and operational deployment of foreign aerospace surface and subsurface systems.

7. Human Intelligence (HUMINT)

The intelligence information derived from the intelligence collection discipline that uses human beings as both sources and collectors, and where the human being is the primary collection instrument.

HUMINT consists of all information derived through human sources. The ideal HUMINT sources are privy to decisions and intentions before they are widely communicated or acted upon. HUMINT includes, among other things, information derived from the interrogation of enemy

prisoners of war and civilian detainees; translation of enemy documents; long-range surveillance operations, patrols and observation posts; liaison with allied forces and the local populace; and, most importantly, reports from friendly troops. Examples of HUMINT reports include an aircrew's in-flight report, a long-range reconnaissance patrol's spot report, or an agent's intelligence report.

8. Measurement and Signature Intelligence (MASINT)

Scientific and technical intelligence information obtained by quantitative and qualitative analysis of data (metric, angle, spatial, wavelength, time dependence, modulation, plasma, and hydromagnetic) derived from specific technical sensors for the purpose of identifying any distinctive features associated with the source, emitter, or sender and to facilitate subsequent identification and measurement of the same.

MASINT systems provide much of the data used in creating the programs for electronic countermeasures systems. MASINT would provide information for reprogramming an electronic countermeasures/electronic attack (ECM/EA) pod carried by aircraft to counter a newly discovered threat. MASINT may provide information of critical strategic and tactical importance through systems such as non-imaging radars and nonimaging infrared sensors.

9. Intelligence Cycle

a. Intelligence resources, like virtually every other military resource, are not infinite. As a result, users compete for these limited resources. However, some resources can fill the needs of many users simultaneously.

b. The 5-step intelligence cycle (Figure I-1) is the process by which intelligence is obtained, produced, and made available to users. It prioritizes planning and direction, management, processing, production and dissemination, and maximizes the use of limited resources against all intelligence requirements. This 5-step cycle converts raw information into intelligence and makes it available to users.

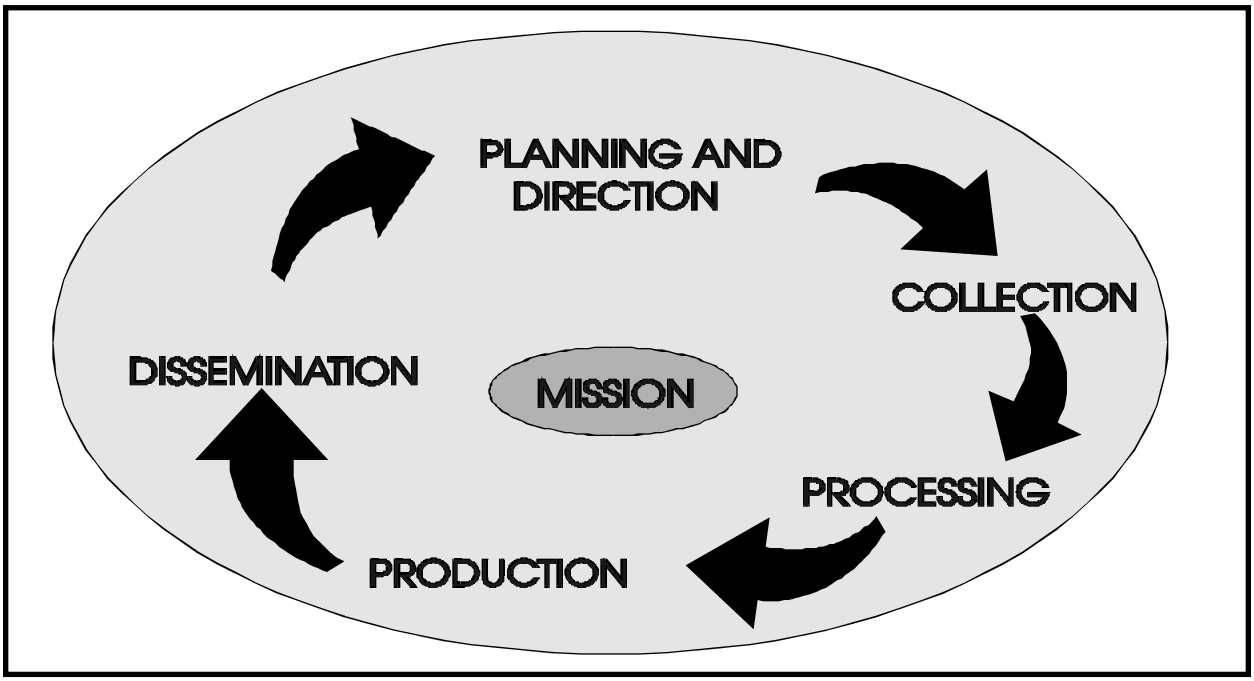

Figure I-1. 5-Step Intelligence Cycle

(1) Planning and Direction. Planning and direction is the first step in the process. It concerns identifying, prioritizing, and validating intelligence requirements; synchronizing intelligence operations with the supported commander's intent and operational requirements; preparing a collection plan; issuing orders and requests to information collection agencies; and continuously checking on the productivity of collection agencies.

(2) Collection. Collection involves the acquisition of information from ground, air, sea, or space-based systems and providing the information to elements that process it and produce intelligence products.

(3) Processing. Processing is the conversion of collected information and data into a form suitable to producing finished intelligence. It involves converting information into formats that are readily usable by intelligence specialists in analyzing and producing intelligence. Processing includes graphics, art work, photo processing, video production, printing, and so forth.

(4) Production. Production is the process of analyzing, evaluating, and integrating raw data and information into finished intelligence products for known or anticipated uses. Products may be developed from single sources of information or all-source collections and databases.

(5) Dissemination. Dissemination involves the distribution of combat information and intelligence to commanders and users. Producers disseminate intelligence in many forms, using either secure or nonsecure means, dedicated or common-user communications circuits, and can include dissemination of raw data or finished intelligence. Intelligence organizations will normally send the products or information to requesters and users by the fastest, most reliable means possible. They will send it in a form that is usable by any component of a joint force and at classification levels permitting access and prompt application by the user.

10. Reconnaissance Categories

There are four general categories of reconnaissance: visual, imagery, electronic, and weather. Imagery reconnaissance is further subdivided into optical and non-optical imagery.

a. Visual. Visual reconnaissance is the most basic of the four reconnaissance categories. Visual reconnaissance can come from a wide range of sources and simply entails an observer reporting on what is seen. Surface-based sources could include individual personnel, reconnaissance units, special operations forces (SOF) teams, or naval vessels. Aerial sources are as varied as there are types and missions. A passing strike aircraft, airborne forward air controller, or escort fighter could provide visual reconnaissance information as could a dedicated reconnaissance aircraft.

b. Imagery. Imagery reconnaissance involves collection of images or *pictures* recorded electronically (on film, digitally, on tape, etc.). The principal image types are optical and nonoptical.

(1) Optical Imagery. Optical imagery is essentially traditional visual photos (recorded on film, tape, or electronically) using visible light to illuminate the objects being photographed.

(2) Nonoptical Imagery. Nonoptical imagery includes infrared and radar.

Both optical and nonoptical images may be formed, recorded, transmitted, and processed in a variety of ways, and both have distinct capabilities and limitations that users should know and understand. Appendix A provides a detailed discussion of the fundamental capabilities and limitations of different kinds of imagery. While some imagery systems like the unmanned aerial vehicle (UAV) can provide near-real-time products, imaging which comes from the majority of sensors must first be developed by a processing station, interpreted by

trained analysts, and then disseminated as finished intelligence. Under the best conditions, this process can take as little as 30 minutes; however, it may take hours or even days to get products in the hands of users, depending on location and the availability of processing equipment, communications facilities, and information receive terminals.

c. Electronic. Electronic reconnaissance supports both SIGINT and electronic warfare (EW) missions. Electronic reconnaissance involves intercepting, identifying, and locating enemy communications and radar emissions. Ground, air, sea, or space-based systems can conduct electronic reconnaissance from either a friendly or hostile environment and under all weather conditions during day or night.

d. Weather. Weather reconnaissance obtains weather data over areas where more conventional weather observations are not available. Methods for obtaining weather reconnaissance include visual observation and reporting by aircrews, specialized reconnaissance/scout teams, or data recording and reporting from atmospheric sensor equipment capable of obtaining meteorological data at selected altitudes.

If you are considering a request for weather reconnaissance, exhaust all other means for obtaining the weather data prior to making such a request. Weather reconnaissance is usually collected only during the course of normal operations, and data is obtained through such routine methods as aircrew debriefings.

Chapter II

RECONNAISSANCE PRODUCTS

1. Background

The four categories of reconnaissance—visual, imagery, electronic, and weather—generate a range of products. The intelligence cycle described in Chapter I provides these products to the requester to help satisfy intelligence requirements and ultimately accomplish the mission.

2. Reconnaissance Products

There are four basic types of reconnaissance products: *verbal, textual, visual,* and *on-line*. Although the number of categories matches the number of products, one category does not always produce one or the same product. Instead, two or more kinds of products can be derived from missions in each of the reconnaissance categories. Table II-1 depicts, in general terms, the relationship between processes and products.

3. Reports: Uses, Advantages, and Limitations

Reports are verbal or written explanations of reconnaissance information. They are generally prepared by reconnaissance aircrews or by photo interpreters who glean information from reconnaissance imagery. Each of the various reconnaissance reports possesses unique characteristics of timeliness and precision. The reconnaissance requester must be familiar with these characteristics to tailor requests to actual information needs. *Joint Pub 6-04, USMTF Program*, prescribes these report formats. See Joint Pub 6-04 for a full description of each one.

a. In-flight Report (INFLTREP). Aircrews and UAV operators use the INFLTREP (Figure II-1) to report mission results or any other tactical information sighted of such importance and urgency that the delay (if reported by normal debriefing) would negate the usefulness of the information. The INFLTREP is a voice-only message.

b. Reconnaissance Exploitation Report (RECCEXREP). The RECCEXREP (Figure II-2) provides an abbreviated imagery interpretation report for tactical reporting. The

Table II-1. Reconnaissance Products and Reports (Samples)

RECONNAISSANCE *CATEGORY*	RECONNAISSANCE *PRODUCT*		
VISUAL	TEXTUAL - a written report	VERBAL - an in-flight report over the radio	
IMAGERY	VISUAL - photographic prints - video - digital imagery	VERBAL/TEXTUAL - accompanying reports	
ELECTRONIC	ON-LINE - TIBS display - SIS/VPN	TEXTUAL - ELINT reports - TACREPS	VERBAL - TACREPS
WEATHER	VISUAL - charts - photos	VERBAL - in-flight reports - weather briefings	

```
"HURRICANE, THIS IS MOZAM 41, INFLIGHTREP."
"THIS IS MOZAM 41, IMMEDIATE, UNCLASSIFIED,
INFLIGHTREP;
CALL SIGN, MOZAM FOUR ONE;
MISSION NUMBER, ONE SIX FOUR ONE DELTA;
LOCATION, REMAGEN BRIDGE;
TIME, ONE TWO ZERO FIVE ZULU;
RESULTS, TWO DIRECT HITS, CENTER SPAN
DROPPED IN RIVER."
```

Figure II-1. INFLTREP Voice Text Example

RECCEXREP is normally transmitted within 45 minutes of recovery of the reconnaissance platform but may take several hours depending on the sensor, film type, processing, and quality of image sensor reading.

c. Mission Report (MISREP). The MISREP (Figure II-3) reports mission results and items of intelligence interest in all tactical roles.

d. Imagery Interpretation Report (IIR). The IIR (Figure II-4) is a single message format for sending either the Initial Phase Interpretation Report (IPIR) or the Supplemental Photographic Interpretation Report (SUPIR). The *IPIR* provides the results of first-phase exploitation of imagery. This report is normally transmitted within 24 hours of recovery of the reconnaissance platform. The *SUPIR* provides results of second-phase exploitation of imagery. The SUPIR may take hours or days to complete based on the detail of the requested information.

```
UNCLAS
EXER/BLACK HOG//
MSGID/RECCEXREP/192RS/1123002/NOV//
MISSNID/02/XVIIICORPS/123/RD/Z198A//
ITEM/001/TANK DIVISION DEPLOYED/-/-/-/-//
LOC/-/UTM:16TSU21347089//
TOT/07030Z//
NARR/DIV COMBAT READY, APPROXIMATELY 200 T-80 TANKS AND 100 ARMORED
PERSONNEL CARRIERS AND TANK SUPPORT VEHICLES DEPLOYED, IIR FOLLOWS//
TARWI/0/0/8/1/H//
IMDAT/OP/PAN/500, 490-510/05/L/95/CL//
ITEM/002/SA-6 SITE/BEN:0213-01235/-/-/-//
LOC/-/UTM:16TSU210709//
TOT/07055Z//
NARR/TARGET EXPANDING AIR DEF AND SAM CAPABILITIES, NEW RADAR AND MISSILE
REVETMENTS BEING INSTALLED, MISSILE LAUNCHERS PARKED SW END OF RUNWAY.
CONSTRUCTION OF WHAT APPEARS TO BE A NEW COMMAND CENTER PARTIALLY COM-
PLETED VIC NW COMMS AREA//
TARWI/0/0/8/1/X//
IMDATOP/PAN/610-614/05/L/90/CL//
```

Figure II-2. RECCEXREP Record Message Example

```
UNCLAS
OPER/SLAMMER 9401/USACOM2313/EAGLE SLAM//
MSGID/MISREP/27FS DOW/4001/DEC//
REF/A/ORDER/9AF/232300ZDEC93/9005/NOTAL//
REF/B/INTSUM/ACIN/231100ZDEC93//
MSNID/DCA/9 TACC/1/BB5656//
UNID/27 FS//
ROUTE/242355Z/3436N07825W/250015Z/RPNAME:CAP DELTA/250020Z/RPNAME:CAP
ECHO//
FLTDTAIL/DINGLE91/KLFI/27/FLGC/242350Z/250001Z/WASH//
TIMESPEC/TFRM:AIRALERT/250005Z/250100Z//
TGTPOS/06/UNKNOWN AIRCRAFT/UR/POSNID/GULF OF MEXICO/OVER WATER/
2335N07925W/000T/630KTS/AGL:50//
RESULT/TGTEL:6 FLOGGER LIKE AIRCRAFT/QTY:4/DESTR/YES/
ATTACK/17QNL12341234//
TARWI/4/8/6/1/D//
JAM/RADAR:2N//
ENINCEPT/2335N07925W/250055Z/AGL:50/NONATO:FLOGGER/UR/6/6/5/4/AA3//
ACLOSS/DINGLE94/F15C/2334N07859W/250050Z/CHUT/MSLS-RKT-AA//
```

Figure II-3. MISREP Record Message Example

e. Response to Request for Information (RRI). The RRI (Figure II-5) is the message format used to reply to requests for information. It is also used to advise requesters that a previously transmitted message contains the information they seek. In such cases, the RRI should reference that message.

f. Tactical Reports. Tactical reports are those of immediate interest to commanders and operators of tactical units at all levels. The intent of tactical reports is to get perishable information to units in time for it to be acted upon. The reports should be very concise. Tactical reports include the Tactical Report (TACREP), the Tactical ELINT Report (TACELINT), and the Operations Report (OPREP-3).

(1) Tactical Report (TACREP). The TACREP (Figure II-6) provides the most urgent, perishable information of tactical significance to commanders of tactical units. It alerts them to immediate threats to their forces and provides enhanced situational awareness. Though the report can be either a free-flow voice report or a hard copy computer-formatted message, it should be sent via message precedence commensurate with its content. Examples of the voice format and the hard copy report are in *Joint Pub 6-04*.

(2) Tactical ELINT (TACELINT) Report. The TACELINT (Figure II-7) reports time-critical operational ELINT and parametric information and may be used for indications and warning, database maintenance, orders of battle, and strike planning.

(3) Operations Report (OPREP). The OPREP-3 is used by any unit to provide the joint force commander (JFC) and other appropriate commanders with immediate notification of an incident or event where national interest is not indicated or has not been determined.

```
UNCLAS
MSGID/IIR/497RTG//
RPTID/IPIR/497RTG/SER:RB0022/PRJ:US/MSN:C031/840602//
HILITES/THE ARMORED DIVISION LOCATED AT WESTERN ARMY BARRACKS/(BE0235-
00236) IS IN CONVOY FORMATION PREPARING TO DEPART THE INSTALLATION//
ITEMTYP/AD HOC OR PERISHABLE ITEMS//
ITEM/001/WESTERN ARMY BARRACKS/BEN:0235-00235/CAT:90000/CTY:US/N//
LOC/GEO:221600N1053012E//
OTID/LTH:5000M/WTH:500M/AZM:179/ELE:03580M//
STATACT/OPR/CCD/SGN:SIG/PRG:US/MSN:B1236/DTE:840502/NRG:NIDA04-0014-5//
RMK/PREVIOUSLY REPORTED UI ARMORED VEHICLES HAVE BEEN IDENTIFIED AS
SWG-99 TANKS//
OBID/GFW/840602/TOT:1207Z/AREA A/SGN:MIN//
OBEQ/0103/CONF/SWG-99/-/IN CONVOY FORMATION//
OBEQ/0010/CONF/ARMORED VEHICLES/-/NEAR VEHICLE SHEDS//
OBID/GFW/840602/TOT:1207Z/AREA B/SGN:MIN//
OBEQ/0012/CONF/ARTILLERY PIECES//
OBID/GFW/840602/TOT:1207Z/AREAS C THROUGH N/SGN:NAC/PRJ:US/MSN:B1236/
DTE:840602//
UNITIT/3RD ARMORED DIVISION//
UNITID/1ST INFANTRY DIVISION//
IMR/DTE:840602/PRJ:US/MSN:C031/FR/PAN/500/-/-/URG:123123/TOT:1207Z//
IMDATA/D/05/CL/-/O/90/E/499-501//
HEADING/COLLECTION OBJECTIVES SATISFIED//
AMPN/THE FOLLOWING TARGETS WERE COLLECTED ON CLEAR, GOOD QUALITY IMAG-
ERY//
ITEM/002/EASTERN ARMY BARRACKS/BEN:0235-00236/CAT:90000/CTY:US/N//
LOC/GEO:221600N1053042E//
IMR/DTE:840601/-/MSN:C030/-/-/-/-/-/-/TOT:1450Z//
IMDATA/C/-/CL//
ITEM/003.SOUTHERN ARMY BARRACKS/BEN:0235-00237/CAT:90000/CTY:US/N//
LOC/-/UTM:17TSU24357090//
IMR/DTE:840601/-/MSN:C029/-/-/-/-/-/-/TOT:1100Z//
IMDATA/C/-/SC//
HEADING/COLLECTION OBJECTIVES NOT SATISFIED//
AMPN/CAMERA MALFUNCTIONED//
ITEM/004/NORTHERN ARMY BARRACKS/BEN:0235-00238/CAT:90000/CTY:US/N//
LOC/GEO:221800Z1043042E//
RMKS/INTERFERENCE TO COLLECTION EFFORTS NEGLIGIBLE//
```

Figure II-4. IIR Record Message Example

```
UNCLAS
EXER/WILEY COYOTE 94-01//
MSGID/RRI/III MAG/0622027//
REF/A/RI/4477TES/062232Z//
RMKS/WE SHOW THAT SEVEN SAM SITES ARE ACTIVE IN REQUESTED AREA AT:
     LOCATION    TYP   SAM   NOTE
1    453721N1573420E   SA    8     LAST KNOWN LOC
2    453905N1574010E   SA    2     4 LAUNCHERS UP
3    453901N1575010E   SA    2     6 CONFIGURED
4    454010N1565310E   SA    8
5    454015N1571020E   SA    2     HGT FINDER DMGD
6    455120N1565959E   SA    2
7    454131N1570110E   SA    6     LAST LOC//
```

Figure II-5. RRI Record Message Example

EXAMPLE #1

```
UNCLAS
MSGID/TACREP/CTF134//
MAROP/011600Z/1/US/SUB/CL:LOS ANGELES/
NEWPORT NEWS/LM:3030N06025W//
AMPN/ENGAGING IN ASW EXERCISE//
```

EXAMPLE #2

```
UNCLAS
MSGID/TACREP/56 FA BDE//
GNDOP/121130Z/1/US/SSM/EQN:LANCE/SCC:SPEAR-13/UK:12KBC2345//
OPSUB/LNCHTIM:121140Z//
AMPN/LAUNCH TIME PLUS OR MINUS 3 MINUTES//
```

EXAMPLE #3

```
UNCLAS
MSGID/TACREP/CTF124//
AIROP/311500Z/5/US/FTR/F16C/TN:225/LM:3015N08000W/
CRS:200/SPD:650KPH/ALT:2500M//
AMPN/RULDOG01/PRACTICING AIR COMBAT MANEUVERS//
```

Figure II-6. TACREP Record Message Example

```
                              EXAMPLE #1

C O N F I D E N T I A L *
EXER/WILEY COYOTE 94-01//
MSGID/TACELINT/VMAQ1/0506001//
COLLINFO/HB/-/DF266//
SOI/-/060812Z/060821Z/XXXXX/HIGHBLOW/GD/E00418001//**
EMLOC/-/F/LS:512242N0115030E/-/027.5T/02.4NM/01.8NM//
SOI/2004/060942Z/060955Z/XXXXX/ROUNDFACE/GC/E00418002//
PRM/-/827MHZ/D/PRI:002015.3/D/PD:3.200/CIRC/
4.2SPC/VERT//
AMPN/SCAN TIME OUT OF NORMAL PARAMETRIC LIMITS//
DECL/31DEC85//

                              EXAMPLE #2

C O N F I D E N T I A L *
OPER/MINI MUFFIN//
MSGID/TACELINT/AZ/0731023/JUL//
COLLINFO/BH//
SOI/21345/310955Z/310955Z/XXXXX/LOUDMOUTH/DQ//**
EMLOC/-/F/LC:435240.5N0751826.4W/-/127.0T/005.2NM/
002.4NM//
PRM/-/00985.5MHZ/D/PRI:001085.897/S/PD:0.450/STDY/-//
PRM/-/-/-/PRI:000521.162/-/-/UNK/-//
PRM/-/-/-/PRI:000564.735/-/-/UNK/-//
PLATID/12345/SHIP/DD/SPRUANCE/DAVID R RAY/971/US//
PLATID/34578/SHIP/BB/IOWA/IOWA/61/US/TW0009//
NARR/02 STAGGER LEGS.AVGPRF:920.89PPS//
DECL/31DEC85//

*   Information in this figure is UNCLASSIFIED. Classification is
     shown for example purposes only.
```

Figure II-7. TACELINT Record Message Example

4. On-line Products

a. Tactical Information Broadcast Service (TIBS). TIBS is a satellite broadcast of intelligence and combat information. It is used during contingency and exercise operations and to provides near-real-time data on hostile force disposition, threat array, and friendly elements. This transportable system can be placed with battle managers or other command and control (C2) nodes. TIBS links intelligence producers with consumers and allows selected users to query collectors for data during operations. Data is filtered by software and displayed either graphically or as text.

b. Special Information System/Voice Product Net (SIS/VPN). SIS/VPN is a secure ultra high frequency (UHF) KY-58 voice link between intelligence producer and consumers. It is used to pass TACREPs and situational awareness information based on pre-mission tasking or on-scene dynamic tasking. Figure II-8 illustrates a notional system including on-line systems and products.

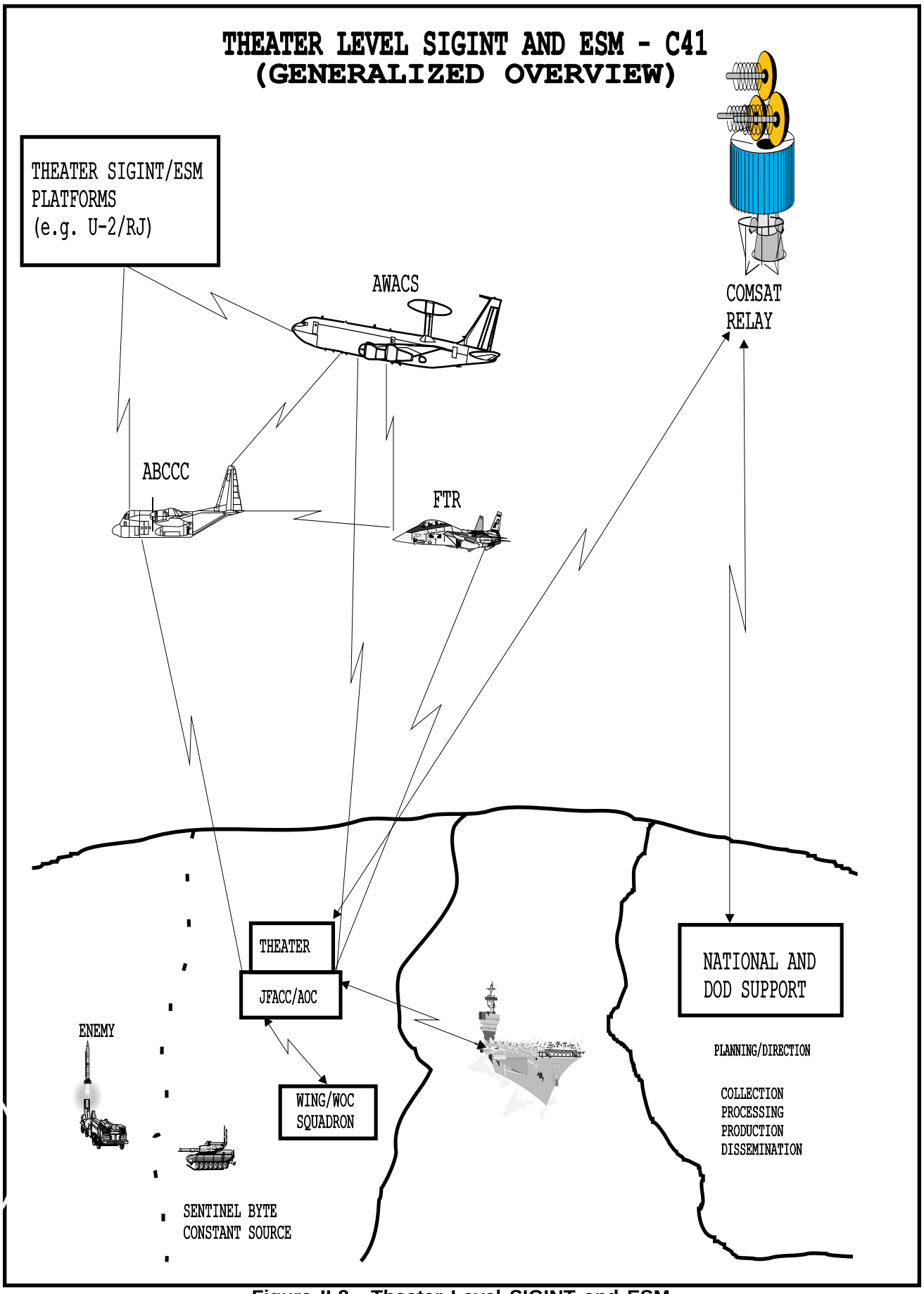

Figure II-8. Theater Level SIGINT and ESM

Chapter III

RECONNAISSANCE REQUEST FORMATS

1. Background

The first two chapters of this publication explained reconnaissance and intelligence and described the products generated by the intelligence and reconnaissance systems. This chapter establishes the responsibilities of the reconnaissance *customers* and explains how to use request formats to *tap into* the intelligence and reconnaissance systems.

2. The User's Responsibility

Your most important duty as the user of reconnaissance products is to clearly articulate your intelligence requirements. You must tell the collection managers: (1) what your mission is, and (2) how the product you seek will help you get the job done. The best way to do this is by expressing your requirements through the request message *most appropriate* to your situation. Generally, you should start with the RI as a default message text format.

a. *Do not* try to task a specific collection system or sensor. In joint operations, the Intelligence Directorate of a joint staff (J-2) establishes collection requirements to meet operational objectives, while the Operations Directorate of a joint staff (J-3) selects, assigns, and employs collection assets to fulfill the requirement. They make the big decisions; all you must do is clearly express what you need.

b. Based on the nature of your unit's mission, you should make an assessment of the kinds of products you expect to use in wartime. Knowing your product requirements ahead of time enables you to identify the command, control, communications, computers, and intelligence (C4I) facilities and equipment you must have in order to obtain these products.

c. Below the joint task force (JTF) level, each service component has individual means for requesting intelligence within the component. However, when you are requesting intelligence from a joint command, the standard *default* format to use is the United States Message Text Format (USMTF) RI. Other formats may be used for amplification or if your information need is so specific that they would be appropriate (examples of these are provided in Appendix C).

3. General - A Situation Requiring Reconnaissance

Make the determination. After you determine that a battlefield situation or mission calls for reconnaissance, you must turn your requirement into the form of a written or voice reconnaissance request. Request formats let you, as the user/requester, *open the door to* the appropriate service or joint C4I systems.

a. Format the Request. Although each service component level has individual procedures for requesting intelligence internally (within the component), the standard procedure (directed by *Joint Pub 6-04*) for transmitting requests to the JTF level is to use the USMTF system. The standard message for transmitting a request for intelligence information is the USMTF RI message (the procedure for preparing an RI message is found later in this chapter).

b. You may use other USMTF formats to forward requests to the JTF level when operational circumstances warrant a more specific requirement or amplification of the request (Appendix C contains some additional USMTF formats which may be useful for making specific reconnaissance information requests).

USMTF is the ONLY SYSTEM YOU WILL USE to format requests and messages when operating in a joint environment.

4. Concepts and Terms

In order to effectively articulate your requests, it is vital to be able to *speak recce*. The following paragraphs contain definitions of reconnaissance-specific concepts and terms.

a. Reconnaissance Category. This simply refers to the four major types of reconnaissance categories (previously described in Chapter II): visual, imagery, electronic, or weather.

b. Latest Time Information is of Value (LTIOV). LTIOV is the *customer's deadline*. It is the time after which the reconnaissance product is no longer useful to the customer.

c. Reconnaissance Target Codes (RTCs)/ Essential Elements of Information (EEIs). RTCs and EEIs are standard systems to categorize critical information requirements and potential targets for intelligence gathering or attack.

(1) In accordance with Joint Pub 3-55, JFCs identify and designate their most critical requirements as EEI. Although the responsibility to designate EEIs is delegated to individual JFCs, EEIs by target category are fairly constant and should include a target description and amplifying information on what the information or imagery will be used for. Figure III-1 is a list of category codes used by National Military Joint Intelligence Center (NATO) and it is illustrative of category code listings found in most joint commands.

(2) When making reconnaissance requests, in addition to including category codes where appropriate, include specific requirements in narrative comments (i.e., specific imagery resolution, spot size, scale, national imagery interpretation rating system (NIIRS) rating, or obliquity requirement). State in clear, plain English exactly what you need. If you are interested in obtaining information about a bridge for targeting purposes, you would request *Category 12*. If your interest is more specific, such as the number and type of spans of the bridge, request *Category 12-5F*.

(FROM NATO STANDING AGREEMENTS [STANAGS])

CATEGORY #1 - AIRFIELDS

1. TYPE
   MILITARY/CIVILIAN/JOINT

2. STATUS
   A. SERVICEABLE/UNSERVICEABLE
   B. OPERATIONAL
   C. STATUS OF CONSTRUCTION/BEING MODIFIED/TYPE OF MODIFICATION
   D. HARDENED

3. ACTIVITY
   A. AIRCRAFT—NUMBER, TYPE, LOCATION
   B. OTHER ACTIVITY, IF SIGNIFICANT INCLUDE—
      - troop concentration
      - supply stocks

4. DEFENSES
   A. ANTIAIRCRAFT (NUMBER, TYPE, LOCATION)
   B. GROUND

5. COMBAT OPERATION FACILITIES
   A. OPERATION CENTER/BUNKER
   B. ATC - FACILITIES NUMBER
   C. AUXILIARY POWER SUPPLY - TYPE
   D. COMMUNICATIONS/ELECTRONICS - MATERIAL

6. INFRASTRUCTURE
   A. RUNWAYS/TAXIWAYS
      - ORIENTATION, DIMENSIONS, MATERIAL
   B. DISPERSALS/SHELTERS
   C. OTHER MAIN BUILDINGS INCLUDING—
      - hangars
      - purpose, location

7. SUPPORT FACILITIES
   A. WEAPONS STORAGE
   B. POL
   C. POWER FACILITIES—PERMANENT/TEMPORARY
   D. SUPPLY
   E. OTHER

CATEGORY #2 - MISSILE SYSTEMS

1. TYPE
   A. NAME/DESIGNATION
   B. SAM/SSM/FIRE GUIDANCE
   C. SUPPORT FACILITY
   D. MOBILE/PERMANENT

2. STATUS
   A. SERVICEABLE/UNSERVICEABLE/UNDER CONSTRUCTION, ETC.
   B. OCCUPIED/UNOCCUPIED
   C. OPERATIONAL/NOT OPERATIONAL
   D. CAMOUFLAGE

3. ACTIVITY
   A. NUMBER OF LAUNCHERS
   B. NUMBER OF MISSILES ON EACH LAUNCHER
   C. TOTAL NUMBER OF MISSILES
   D. SUPPORT EQUIPMENT
   E. OTHER

4. DEFENSES
   A. ANTIAIRCRAFT
   B. GROUND - NUMBER, TYPE, LOCATION

5. ELECTRONICS
   A. ON-SITE/OFF-SITE LOCATION
   B. NUMBER, TYPE, LOCATION

6. SITE
   A. NUMBER OF LAUNCH AREAS, LAYOUT, DIMENSION
   B. PROTECTION
   C. STORAGE FACILITIES/POWER SUPPLY (TYPE, LOCATION)
   D. MAJOR BUILDINGS

CATEGORY #3 - ELECTRONIC INSTALLATION

1. TYPE
   A. CIVIL/MILITARY/JOINT
   B. MOBILE, SEMIMOBILE, PERMANENT
   C. GENERAL ROLE (E.G., COMMUNICATIONS, NAVIGATION, RADAR, OR SCIENTIFIC)
   D. SPECIFIC ROLE (E.G., DATA LINK, NAVAID, FIRE GUIDANCE, ACQUISITION)

2. STATUS
   A. SERVICEABLE/UNSERVICEABLE
   B. OPERATIONAL/NOT OPERATIONAL
   C. UNDER CONSTRUCTION/BEING MODIFIED

3. ACTIVITY
   VEHICLES, PERSONNEL, EQUIPMENT

Figure III-1. Reconnaissance Target Categories/Essential Element of Information

4. DEFENSES
   A. ANTIAIRCRAFT (NUMBER, TYPE, LOCATION)
   B. GROUND

5. ANTENNA
   A. NUMBER AND TYPE
   B. ANTENNA-SUPPORT STRUCTURE
   C. ORIENTATION

6. PRIMARY BUILDINGS
   FUNCTION, LOCATION

7. POWER FACILITIES
   TYPE, LOCATION

CATEGORY #4 - BARRACKS/CAMPS/ HEADQUARTERS

1. TYPE
   A. HEADQUARTERS
   B. BARRACKS/ACCOMMODATION
   C. GOVERNMENT CONTROL CENTERS
   D. OTHER (E.G., HOSPITAL, POW CAMP)

2. STATUS
   A. PERMANENT/TEMPORARY
   B. OCCUPIED/UNOCCUPIED
   C. SERVICEABLE/UNSERVICEABLE
   D. UNDER CONSTRUCTION/BEING MODIFIED

3. ACTIVITY
   A. NUMBER, TYPE OF VEHICLES/ WEAPONS/EQUIPMENT
   B. CONSTRUCTION/REPAIR OF EQUIPMENT

4. DEFENSES
   A. ANTIAIRCRAFT
   B. GROUND (NUMBER, TYPE, LOCATION)

5. FACILITIES
   A. BUILDINGS/SHOPS/ COMMUNICATIONS CENTER
   B. MOTOR TRANSPORT (MT) SECTION
   C. REPAIR/SERVICE FACILITY
   D. REFUELING INSTALLATIONS
   E. ELECTRONICS
   F. STORAGE/POL FACILITIES
   G. TENTS/TEMPORARY STRUCTURES
   H. ACCESS

CATEGORY #5 - STORAGE AND REPAIR FACILITIES

1. TYPE
   A. MILITARY/CIVILIAN
   B. POL
   C. AMMUNITION - CONVENTIONAL/ NUCLEAR
   D. DEPOT
   E. MAINTENANCE

2. STATUS
   A. PERMANENT/TEMPORARY
   B. OCCUPIED/UNOCCUPIED
   C. SERVICEABLE/UNSERVICEABLE
   D. UNDER CONSTRUCTION/BEING MODIFIED

3. ACTIVITY
   A. LOADING/UNLOADING, MOVEMENT OF STORES
   B. REPAIR ACTIVITIES

4. DEFENSES
   A. ANTIAIRCRAFT NUMBER, TYPE, LOCATION
   B. GROUND

5. MAIN FACILITIES
   A. STORAGE - NUMBER, TYPE, CONTENTS, CAPACITY
   B. REPAIR - NUMBER, TYPE, DESCRIPTION
   C. OTHER FACILITIES
   D. PROTECTION

6. ACCESS
   A. ROAD, RAIL, PIPELINE, WATER
   B. LOADING FACILITIES

CATEGORY #6 - MILITARY ACTIVITY

1. TYPE
   A. MECHANIZED/MOTORIZED INFANTRY
   B. ARMOR
   C. ARTILLERY - SP/FIELD/ROCKET/AA
   D. ENGINEER
   E. HELICOPTER/LIGHT AIRCRAFT
   F. TRANSPORT/SUPPORT/SUPPLY
   G. COMMAND POST/FIELD HEADQUARTERS
   H. OTHER

2. STATUS
   A. STATE OF READINESS/TACTICAL FORMATION
   B. MOVEMENT - DIRECTION OF MOVEMENT
   C. STATIC - DUG IN, CAMOUFLAGED, CONCEALED, IN FIRING POSITION
   D. ORIENTATION OF WEAPONS

Figure III-1 (continued). Reconnaissance Target Categories/Essential Element of Information

3. ACTIVITY
   A. NUMBER AND TYPE
      - Weapons/weapons systems
      -Helicopters/light aircraft
      - Vehicles
      - Equipment
      - Personnel (if significant)
      - Other military items
   B. ESTIMATED NUMBER AND TYPE OF TACTICAL UNITS (IF POSSIBLE)

4. DEFENSES
   A. ANTIAIRCRAFT
   B. GROUND (NUMBER, TYPE, LOCATION)

5. TERRAIN
   SIGNIFICANT FEATURES/OBSTACLES POSSIBLY AFFECTING AIR/GROUND ATTACK (E.G., MINEFIELDS, HILLS, VEGETATION ONLY REPORTED IF SPECIFICALLY REQUESTED)

CATEGORY #7 - RIVER CROSSINGS/FERRIES

1. TYPE
   A. FERRIES
      - Amphibious vehicles/self-propelled
      - Pontoon ferry
      - Cable ferry
      - Rafts
      - Barges
      - Other
   B. TEMPORARY ENGINEER BRIDGES
      - Self-propelled (AVLB)
      - Assault bridges
      - Pontoon bridges
      - Nonfloating bridges
      - Other
   C. FORDS

2. STATUS

3. ACTIVITY
   A. NUMBER & TYPE OF BRIDGING EQUIPMENT
   B. OTHER MILITARY ACTIVITY

4. DEFENSES
   A. ANTIAIRCRAFT (NUMBER, TYPE, LOCATION)
   B. GROUND

5. DIMENSIONS
   A. FERRIES
      - Carrying platform
      - Capacity/Military Load Class (MLC) (if possible)
   B. BRIDGES
      - Overall length and width
      - Number of lanes/tracks
      - Capacity/MLC (if possible)
   C. FORDS—LENGTH AND WIDTH (IF POSSIBLE)

6. A. DESCRIPTION, INCLUDING RIVER BANK
   B. LOADING/LANDING FACILITIES

7. ALTERNATE/BYPASS CROSSINGS
   MENTION REGARDLESS OF FUNCTION

CATEGORY #8 - SHIPPING

1. TYPE
   A. NAVAL/COMMERCIAL
   B. TYPE - DESTROYER/FRIGATE/MINESWEEPER/FREIGHTER/ETC.

2. STATUS
   A. STATIC/MOVING
   B. HEADING AND ESTIMATED SPEED (IF POSSIBLE)
   C. TACTICAL FORMATION (E.G., MINELAYING, SWEEPING, LANDING OPERATIONS, ESCORT, REFUELING, ETC.)

3. ACTIVITY
   A. NUMBER OF SHIPS/CRAFT BY CLASS/TYPE (NATO CODE INCLUDING PERMANENT NUMBER AND NAME WHERE POSSIBLE)
   B. NATIONALITY

4. DEFENSES AND AIRCRAFT
   A. VISIBLE AIRCRAFT/HELICOPTERS
   B. WEAPONS - NUMBER, TYPE, LOCATION (IF NOT STANDARD FOR TYPE)

5. ELECTRONICS
   NUMBER, FUNCTION, TYPE OF ANTENNA AND LOCATION (IF NOT STANDARD FOR TYPE)

6. ADDITIONAL INFORMATION
   DETAILED DESCRIPTION OF MODIFICATION, UNUSUAL FEATURES, ETC.

CATEGORY #9 - ROUTE RECONNAISSANCE

1. TYPE
   ROAD/RAIL/WATERWAY

2. STATUS
   A. SERVICEABLE/UNSERVICEABLE/LIMITATION/CAPACITY

Figure III-1 (continued). Reconnaissance Target Categories/Essential Element of Information

B. MAJOR KEY POINTS
- Junctions
- Tunnels
- Bridges
- Choke points
- Locks, dams

3. ACTIVITY
NUMBER, TYPE, DIRECTION OF MOVEMENT (LOCATION IF NECESSARY)

4. DEFENSES
A. ANTIAIRCRAFT
B. GROUND (NUMBER, TYPE, LOCATION)

5. AREAS
SUITABLE FOR RAMPS AND TRUCK PARKS, SIDINGS

CATEGORY #10 - TERRAIN RECONNAISSANCE

1. TYPE
A. NATURE OF TERRAIN
B. SURFACE CONDITIONS
C. LINES OF COMMUNICATIONS

2. STATUS
A. SUITABILITY FOR MOVEMENT/ DEPLOYMENT/RIVER CROSSINGS/ PARATROOPS/HELICOPTERS/ETC.
B. OBSTACLES, OBSTRUCTIONS
C. POTENTIAL DEFENSE POSITIONS/ AMBUSH SITES

3. ACTIVITY

4. DEFENSES
A. ANTIAIRCRAFT
B. GROUND (NUMBER, TYPE, LOCATION)

CATEGORY #11 - COASTAL STRIP

1. TYPE OF BEACH AREA
A. TERRAIN
B. SURFACE MATERIAL
C. GRADIENTS
D. VEGETATION

2. STATUS
OBSTACLES/OBSTRUCTIONS
A. ONSHORE
B. OFFSHORE
- Shoals, rocks, cliffs
- Minefields
- Wreckage
- Other
- Dimensions and location (if possible)

3. ACTIVITY
A. ONSHORE
- Vehicles/landing craft
- Weapons
- Equipment
- Helicopters
B. OFFSHORE
- Ships
- Landing Craft
C. NUMBER AND TYPE OF TACTICAL UNITS ASHORE

4. DEFENSES
A. ANTIAIRCRAFT
B. GROUND/SURFACE NUMBER, TYPE, LOCATION

5. ACCESS
SHORE TO INLAND

CATEGORY #12 - BRIDGES

1. TYPE
E.G., ROAD-OVER-RAIL/RAIL-OVER-RIVER

2. STATUS
SERVICEABLE/UNSERVICEABLE

3. ACTIVITY
VISIBLE MILITARY OR SIGNIFICANT ACTIVITY

4. DEFENSES
A. ANTIAIRCRAFT
B. GROUND NUMBER, TYPE, LOCATION

5. CONSTRUCTION
A. NUMBER OF LANES/TRACKS
B. RELATION OF ROADWAY - DECK/ THROUGH/HALF-THROUGH
C. MATERIAL - STEEL/WOOD/CONCRETE
D. LONGITUDINAL SUPPORT - BEAM AND DECK/ARCH/SUSPENSION
E. PIERS AND ABUTMENTS - MASONRY PIERS/STEEL BENTS/CONCRETE/EARTH
F. NUMBER AND TYPE OF SPANS - STATE CONSTRUCTION IF MULTISPAN OR VARYING CONSTRUCTION

6. DIMENSIONS
A. OVERALL LENGTH AND WIDTH
B. WIDTH OF OBSTACLE GAP
C. INDIVIDUAL SPANS (IF NECESSARY)
D. PIERS AND ABUTMENTS (IF REQUESTED)

7. APPROACHES
DESCRIPTION UP TO 200 METERS

Figure III-1 (continued). Reconnaissance Target Categories/Essential Element of Information

8. ALTERNATE CROSSINGS
DESCRIPTION OF ALTERNATIVE GAP CROSSING FACILITIES

CATEGORY #13 - WATER CONTROL FACILITIES

1. TYPE
LOCK/DAM, SLUICE/WEIR/FLOOD CONTROL

2. STATUS
SERVICEABLE/UNSERVICEABLE

3. ACTIVITY

4. DEFENSES
A. ANTIAIRCRAFT
B. GROUND NUMBER, TYPE, LOCATION

5. LOCKS
A. E.G., TWIN/STAIRCASE/SHIPLIFT/TIDAL
B. TYPE OF GATES—GATE/DROP/LITTLE/SLIDING/CAISSON

6. DAMS
A. HIGH - STRAIGHT/CURVED/REINFORCED/CONST MATERIAL
B. LOW - SPILLWAYS/SLUICES
C. FUNCTION - WATER STORAGE/FLOOD CONTROL/ETC.

7. SLUICE/WEIR/FLOOD CONTROL SYSTEMS
FUNCTION AND STRUCTURE

8. DIMENSIONS (AS REQUESTED)

9. ASSOCIATED FEATURES

CATEGORY #14 - PORTS/HARBORS

1. TYPE
A. MARITIME/INLAND WATERWAY
B. TIDAL/NONTIDAL
C. NAVAL
D. SHIPBUILDING
E. COMMERCIAL

2. STATUS
A. SERVICEABLE/UNSERVICEABLE
B. EXTENT OF OVERALL FACILITIES (IF TASKED)
C. CONSTRUCTION/REPAIR WORK (LOCATION)

3. ACTIVITY
A. NUMBER, TYPE/CLASS, LOCATION OF VESSELS, NAVAL/COMMERCIAL
B. DESCRIPTION OF SIGNIFICANT MOVEMENTS

4. DEFENSES
A. WEAPONS - NUMBER/TYPE/LOCATION
B. OTHER - E.G., BOOMS/NETS/BALLOONS/ETC.

CATEGORY #15 - RAIL FACILITIES

1. TYPE
PASSENGER/FREIGHT/MARSHALLING YARD/REPAIR/ETC.

2. STATUS
SERVICEABLE/UNSERVICEABLE

3. ACTIVITY
- Number, type of rolling stock
- Significant Freight
- Military activity

4. DEFENSES
A. ANTIAIRCRAFT
B GROUND NUMBER, TYPE, LOCATION

5. FACILITIES
A. NUMBER OF TRACKS, SIDINGS
B. ELECTRIFIED, NOT ELECTRIFIED
C. DIMENSION BETWEEN CHOKE POINTS
D. LOADING FACILITIES
E. CONTROL STATIONS
F. REPAIR FACILITIES
G. MAJOR BUILDINGS, STORAGE
H. ACCESS

CATEGORY #16 - INDUSTRIAL INSTALLATIONS

1. TYPE
A. EXTRACTION
- Solids
- Drilling (liquids and gases)
- Pumping
- Storage
- Distribution
B. PROCESSING
- Refining
- Reduction
- Finishing
C. FABRICATION
- Heavy/light (depends on material)

Figure III-1 (continued). Reconnaissance Target Categories/Essential Element of Information

2. STATUS
SERVICEABLE/UNSERVICEABLE

3. ACTIVITY
A. TRANSPORTATION (INSTALLATION AND MOVEMENT)
B. SPECIAL PURPOSE EQUIPMENT
C. CHIMNEY STACK, COOLING TOWERS, EFFLUENT
D. CONSTRUCTION AND REPAIR WORK

4. DEFENSES
A. ANTIAIRCRAFT
B. GROUND NUMBER, TYPE, LOCATION

5. PRIMARY UNITS
FUNCTION (IF POSSIBLE), CONSTRUCTION OF PRIME UNITS, SIZE, NUMBER, RELATIVE LOCATION.

6. STORAGE/DISTRIBUTION (INTERNAL)

7. POWER FACILITIES
INTERNAL/EXTERNAL, RELATIVE LOCATION

8. ACCESS

CATEGORY #17 - ELECTRIC POWER INSTALLATIONS

1. TYPE
A. THERMAL
B. NUCLEAR
C. HYDRO
D. SUBSTATION
E. OTHER

2. STATUS
A. SERVICEABILITY
B. CONSTRUCTION WORK

3. ACTIVITY
E.G., SMOKE, TURBINE OUTLET, VAPOR, ETC.

4. DEFENSES
A. ANTIAIRCRAFT
B. GROUND NUMBER, TYPE, LOCATION

5. PRIMARY FACILITIES
A. BOILER HOUSE
B. REACTOR BUILDING
C. GENERATOR HALL
D. TRANSFORMER YARD
E. COOLING FACILITIES
F. STORAGE AND LOAD FACILITIES
G. ACCESS
H. DAM
I. PENSTOCKS
J. FUEL STORAGE

6. DIMENSIONS
TO BE GIVEN ON SPECIFIC FACILITIES ONLY WHEN TASKED

7. ASSOCIATED FACILITIES

Figure III-1 (continued). Reconnaissance Target Categories/Essential Element of Information

5. RI Voice Template

The following paragraphs contain line-by-line instructions for filling out the RI Voice Template. Figures III-2 and III-3 illustrate the RI Voice Message.

a. Heading

(1) Addressee and Originator: Use call signs IAW theater mission planning documents, AFKAI, or other published call sign guidance.

(2) Message Precedence/Security Classification: Use applicable theater guidance regarding precedence and message classification.

b. **Line 1 - REQUEST**

Use coded request number IAW your theater's numbering system (check operation orders, tactical air control party (TACP) Mission Planning Guides, theater planning documents, etc.).

c. **Line 2 - PRIORITY**

Use the code for the priority you give the mission.

PRIORITY	CODE
Emergency	1
Urgent	2
Ordinary	3
Routine	4

d. **Line 3 - BY**

Enter the date or date-time-group for when you wish to receive the requested information.

e. **Line 4 - CUTOFF**

LTIOV is the *customer's deadline.* It is the time after which the reconnaissance product is no longer useful to the customer.

f. **Line 5 - NARRATIVE**

Use this line to state what you are requesting.

BE SPECIFIC! *This is the place to emphasize and/or justify your requirements, such as why your "short-fuse" LTIOV is so important to your commander's mission objectives. Use the narrative section to make it clear to your higher headquarters and to collection managers exactly what you want and why you want it!*

g. **Line 6 - TIME**

Enter a Date-Time-Group in ZULU when required to identify the message time of origin.

h. **Line 7 - AUTHENTICATION**

Enter the proper authentication IAW your theater's communications security COMSEC requirements.

RI VOICE TEMPLATE

_____THIS IS_____INFO REQUEST, OVER
Addressee *Originator*

Addressee answers, then originator responds THIS IS_____
Originator

FLASH **IMMEDIATE** **PRIORITY** **ROUTINE** (Underline and transmit the precedence of this message)

TOP SECRET **SECRET** **CONFIDENTIAL** (Underline and transmit the security classification of message)

UNCLASSIFIED

INFO REQUEST

LINE 1 (OR) REQUEST_____ (Originator's request number)

LINE 2 (OR) PRIORITY_____ (Requesters priority: ONE, TWO THREE, or FOUR)

LINE 3 (OR) BY_____ (Year-month-day-time-zone the information is required)

LINE 4 (OR) CUTOFF_____ (Year-month-day-time-zone information cut-off required)

LINE 5 (OR) NARRATIVE_____
_____
_____
_____
_____

LINE 6 (OR) TIME_____ (Day-hour-minute-zone-month-year, when required to identify the message time of origin.)

LINE 7 (OR) AUTHENTICATION IS_____ (Message authentication in accordance with established procedures.)

OVER.

Figure III-2. RI Voice Template

RI VOICE TEMPLATE

MUFFIN THIS IS ZIPPO INFO REQUEST, OVER
Addressee *Originator*

Addressee answers, then originator responds THIS IS ZIPPO
Originator

FLASH **IMMEDIATE** **PRIORITY** **ROUTINE** (Underline and transmit the precedence of this message)

TOP SECRET **SECRET** **CONFIDENTIAL** (Underline and transmit the security classification of message)

UNCLASSIFIED

INFO REQUEST

LINE 1 (OR) REQUEST AD 123 (Originator's request number)

LINE 2 (OR) PRIORITY ONE (Requesters priority: ONE, TWO THREE, or FOUR)

LINE 3 (OR) BY 9606230900Z (Year-month-day-time-zone the information is required)

LINE 4 (OR) CUTOFF 9606232100Z (Year-month-day-time-zone information cut-off required)

LINE 5 (OR) NARRATIVE REQUEST NARRATIVE INFO, RADAR AND INFRARED IMAGERY OF ALL HUSKER RIVER BRIDGES WITHIN 25 NM OF NEBRASKI CITY, FOR PGM ATTACKS BY RICRAFT

LINE 6 (OR) TIME 22 1845-06-96 (Day-hour-minute-zone-month-year, when required to identify the message time of origin.)

LINE 7 (OR) AUTHENTICATION IS BR (Message authentication in accordance with established procedures.)

OVER.

Figure III-3. RI Voice Template (Filled In Example)

6. RI Message

The following paragraphs contain line-by-line instructions for filling out the RI Message. Figure III-4 is an example of a message using these instructions.

a. **Line 1 - EXER**

Enter the exercise name and any additional exercise identifier.

b. **Line 2 - OPER**

Enter the operation name. The headquarters originating the plan, the plan number, and option(s) within the operations plan can also be entered. *NOTE: EXER and OPER can not be used in the same message.*

c. **Line 3 - MSGID**

Enter **RI** and the unit name of the message originator. Other information can be included such as: a message serial number, the first three letters of the month, a qualifier code and a qualifier serial number.

d. **Line 4 - REF**

Enter a reference (ref) to other messages or documents. You may list as many references as needed. Each reference must have:

(1) A serial number (A for the first reference, B for the second, etc.).

(2) A message title or reference type (enter the USMTF message short title *or* one of the following codes for other types of references: CON (conference/meeting), DOC (document), LTR (letter), TEL (telephone), or MSG (formatted or nonformatted message). *NOTE: A free-text amplification (AMPN) or narrative (NARR) set must be used to explain the message if it is not a USMTF message).*

(3) The name of the unit that originated the reference.

(4) The date-time group of the reference.

You may include other information pertaining to the reference such as the serial number of the referenced message, special notation (NOTAL), or a filing number of the referenced document.

e. **Line 5 - REQDAT**

Specify the time frame in which you need to receive the requested information.

(1) **DATDES** - Enter the field descriptor *DATDES*: first, followed by one of the following three ways to express time when you wish to receive the requested information:

(a) A numeric date-time—two digits each for year, month, day, hour, minute, and one letter for time zone.

(b) A date-time group—two digits each for the day, hour, and minute, one letter for the time zone, three letters for the month, and two digits for the year.

(c) Date—two digits for day, three letters for month, and one letter for time zone.

(2) **LTIOV** - If operationally required, use this field to express the latest time that the information requested will be of value to you. Enter the field descriptor *LTIOV*: first, followed by two digits each for year, month, day, hour, and minute, and one letter for the time zone.

(3) **PRY** - Use this field, if operationally required, to express the priority you give to the mission. Use one of the following codes:

PRIORITY	CODE
Emergency	1
Urgent	2
Ordinary	3
Routine	4

f. **Line 6 - TRCPLOT -** This field may be used, if operationally required, to identify a location. You can describe either a pinpoint location, a circular or elliptical area, a corridor, or any other area.

(1) **INITIAL POINT** - Enter the map coordinates of one of the following using UTM (10m or 100m) or lat/long (min or sec):

(a) A pinpoint location.

(b) The center of a circle or ellipse.

(c) One end of the center line of a corridor.

(d) Start point of the outline of any other area.

(2) **AREA** - If operationally required, use this field to define circular or elliptical area furtheror to give the width of a corridor. For other types of areas, enter a no data sign (-).

(a) For a **circular area**, enter the field descriptor RAD: followed by the radius (0-9999 or 1-999 plus K for thousands or M for millions), followed by one of the following units of measurement: IN (inches), FT (feet), HF (hundreds of feet), MM (millimeter), CM (centimeter), KF (kilofeet), HM (hectometers), NM (nautical miles), SM (statute miles), YD (yards), KM (kilometers), or M (meters).

(b) For an **elliptical area**, enter the field descriptor ELP: followed by the length of the semimajor axis (0-99999, 0-1 decimal places permitted), followed by one of the following units of measurement: FT (feet), HF (hundreds of feet), KF (kilofeet), HM (hectometers), NM (nautical miles), SM (statute miles), YD (yards), KM (kilometers), or M (meters). Then, enter a hyphen (-). Then, enter the length of the semiminor axis (0-99999, 0-1 decimal places permitted), followed by one of the following units of measurement: FT (feet), HF (hundreds of feet), KF (kilofeet), HM (hectometers), NM (nautical miles), SM (statute miles), YD (yards), KM (kilometers), or M (meters). Then, enter a hyphen (-). Finally, enter the direction that the major axis points, in tenths of degrees relative to true north (000.0 - 999.9)

(c) For a **corridor**, enter the field descriptor WIDTH: followed by the width of the corridor (0-99999.0, 0-4 decimal places permitted), followed by one of the following units of measurement: IN (inches), FT (feet), HF (hundreds of feet), MM (millimeter), CM (centimeter), KF (kilofeet), HM (hectometers), NM (nautical miles), SM (statue miles), YD (yards), KM (kilometers), or M (meters).

(3) **TRACE POINT** - Use this field to identify the other point(s) that define the corridor or to outline other areas. (No entry is required for circles, ellipses, or point locations). Use the same type of coordinates that you used in INITIAL POINT.

(a) For a **corridor**, enter coordinates of the succeeding points needed to describe the corridor.

(b) For other **areas**, enter the coordinates of the other points needed to outline the area. The last point you list must be the same one that you entered in "INITIAL POINT."

g. **Line 7 - NARR**

This free-text set is used to specify the information you require.

h. **Line 8 - GENTEXT**

Use this set if you want to identify a desired method of response. Indicate if the total answer is required or if incremented answers (as the information becomes available) are acceptable. Enter "METHOD OF RESPONSE" followed by a free-text explanation of how you want the response.

i. **Line 9 - DECL**

If the message is classified, use this set to enter declassification or downgrading instructions. Enter the instructions using one of the following methods:

INSTRUCTIONS	ENTER
Declassify	Date or event
Downgrade to CONFIDENTIAL	DG(C) date or event
Downgrade to SECRET	DG(S) date or event
Originating agency's OADR determination required	

```
(1)  EXER/MINI MUFFIN 93-1/
(2)  OPER/DEVILS TOWER/XVIIICORPS276/MEDICINE BOW/LARAMIE
(3)  MSGID/RI/I CORPS G2/2609024/SEP/2//
(4)  REF/A/RI/24TH MAR DIV/2315000JUL93/2481323/NOTAL/ABC//
(5)  REQDAT/DATDES:9307251800Z/LTIOV:9307260200Z/PRY:2//
(6)  TRCPLOT/32UNV123123/WDTH:500YD/32UNW121486/32UNW873342/
32UNV123123//
(7)  NARR/REQUEST LOCATION AND STATUS CONFIRMED/SUSPECT SSM
LAUNCH SITES IN ABOVE AREA//
(8)  GENTEXT METHOD OF RESPONSE/REQUEST INTERIM REPORTS AS
INFORMATION BECOMES AVAILABLE//
(9)  DECL/OADR//
```

Figure III-4. RI Message (Sample)

Chapter IV

RECONNAISSANCE REQUEST FLOW

1. Background

Previous chapters have discussed the reconnaissance products available and the request procedures you must use in order to get those products. This chapter explains how your request is processed by the organizations in the chain of command and how the product you requested is generated and distributed.

2. Planning

Based on the unit's mission, the staff intelligence officer makes an assessment of the kinds of products needed in wartime. Advance knowledge of product requirements helps identify the C4I facilities, timeliness, and equipment necessary to obtain those products. Key operations personnel should work closely with intelligence to determine requirements.

3. Requesting

When a unit lacks the requisite information to satisfy an intelligence requirement, the unit submits an RI to the next higher headquarters. It is critical that the unit commander clearly articulates exactly what he needs to the intelligence staff officer, who in turn must clearly express the intelligence requirement in the text of the request message. You must tell the collection managers your exact needs and how the product will help accomplish the mission. However, do not attempt to task a specific collection system or sensor! This is the responsibility of the collection managers and intelligence planners. The reconnaissance request is reviewed and either filled or forwarded until the information is made available or obtained.

4. Unit Intelligence Staff

The intelligence staff has a number of methods to satisfy combat information or intelligence requirements. They follow basic principles in a series of sequential actions to answer information needs. Figure IV-1 illustrates this process.

a. Database Check. The intelligence staff will check its intelligence database to determine whether the needed information is already available. Urgent requests or physical structures of command posts may not allow for rapid intelligence transfer. The urgency of the request must not cause the intelligence staff to bypass its database in the interest of saving time in processing the request.

b. Request Data from Higher Echelon. The needed information may be available at a higher echelon and can be obtained by submitting an RI. Often, the intelligence staff at another echelon will have the needed information derived from either the intelligence preparation of the battlefield (IPB) or the equivalent service process which identifies indicators and reviews data necessary for the operation. If the information is not available, the intelligence staff will check collection taskings to ensure the needed information is not already being gathered by organic assets.

c. Information Unavailable at Higher Echelon. If the information is unavailable, the intelligence staff will validate the request and assign a priority to your intelligence requirement for collection purposes. Prioritization ensures analysts get the most important data first.

d. Tasking of Organic Collection Assets. The intelligence staff then assigns the intelligence requirement to organic collection assets. This ensures a timely response to the request, allows for issuance of clear tasking instructions, and lightens the burden on higher echelon assets.

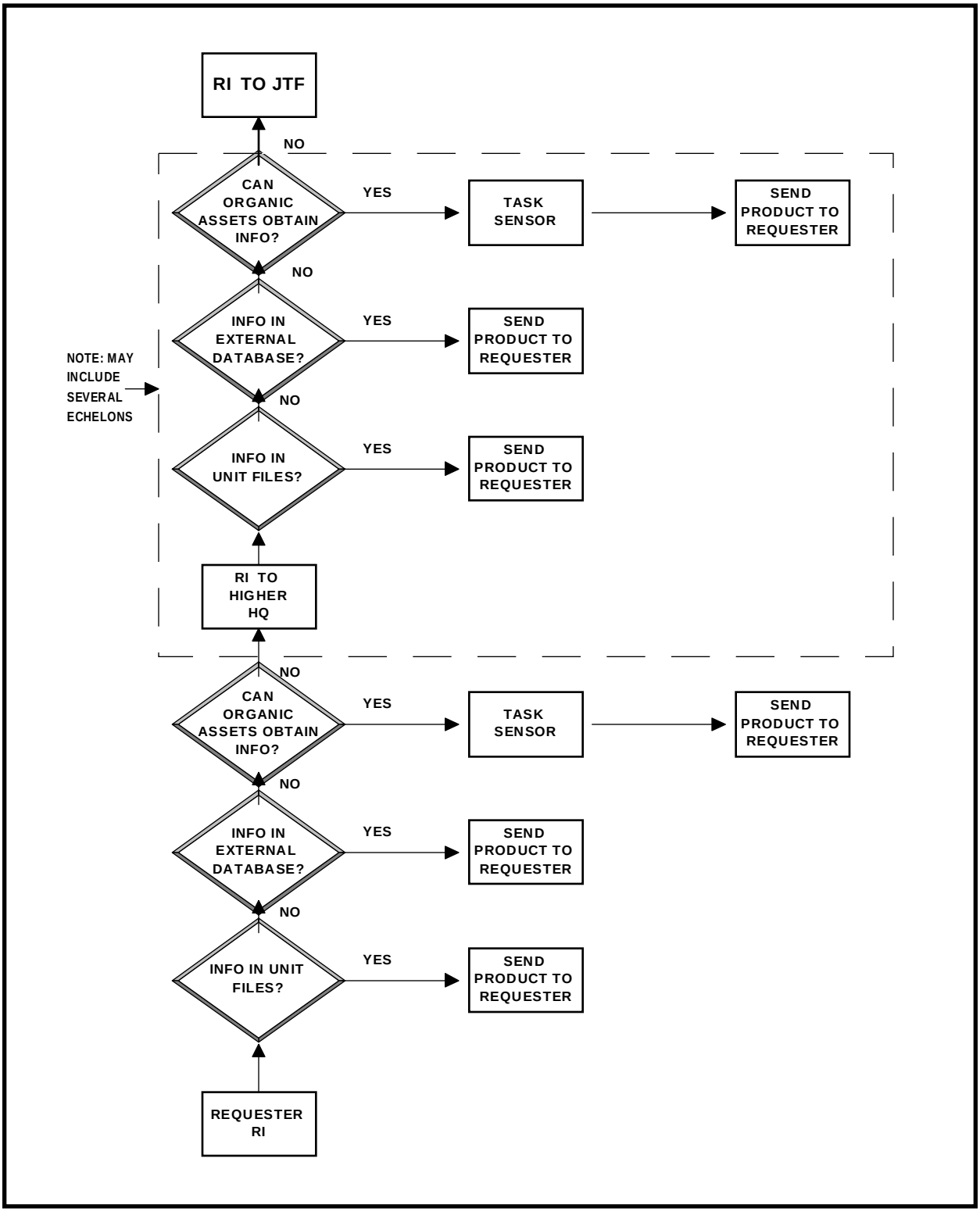

Figure IV-1. Request Flow Process

e. Data or Collection Assets Unavailable or Unsuitable. If existing data or organic assets cannot satisfy a valid intelligence requirement, the intelligence staff generates a request for collection or data support. This can take advantage of the increased capabilities at higher echelons. It is important to note that the intelligence staff will do this *without* specifying the platform or sensor that will be used to obtain the information. Requests are made in general terms to allow time and flexibility of the higher echelon to task suitable resources against the requirement. Although unique situations and requirements may necessitate the use of specific assets or platforms because the product or information requirement only defines the need, particular platforms or sensors are *NOT* specified by the requester.

5. Collection Management (CM)

CM ensures the effective and efficient employment of collection, processing, exploitation, and reporting resources to meet the commander's need for intelligence. It is the entire process beginning with the *"translation"* of the intelligence requirements into data collection, processing, exploitation, and reporting activities. To meet the collection requirement, the CM either directs the tasking of organic assets or generates tasking requests to organizations at a higher, lower, or lateral echelon. There are established organizational structures within each of the services that facilitate the use of the CM process. These structures permit the flow of information between the echelons and provide a means to validate intelligence requirements.

a. Air Force/Army Theater Air Control System/Army Air Ground System (TACS/AAGS). The TACS/AAGS is the means for requesting reconnaissance within the Air Force and Army. Requests for reconnaissance are categorized as either preplanned or immediate, depending on the amount of time required to conduct the reconnaissance mission. Typically, 36 hours is the minimum planning time for a request to be considered preplanned. Figure IV-2 illustrates the Army/Air Force request process.

(1) Preplanned Requests - Army Units. Preplanned reconnaissance requests

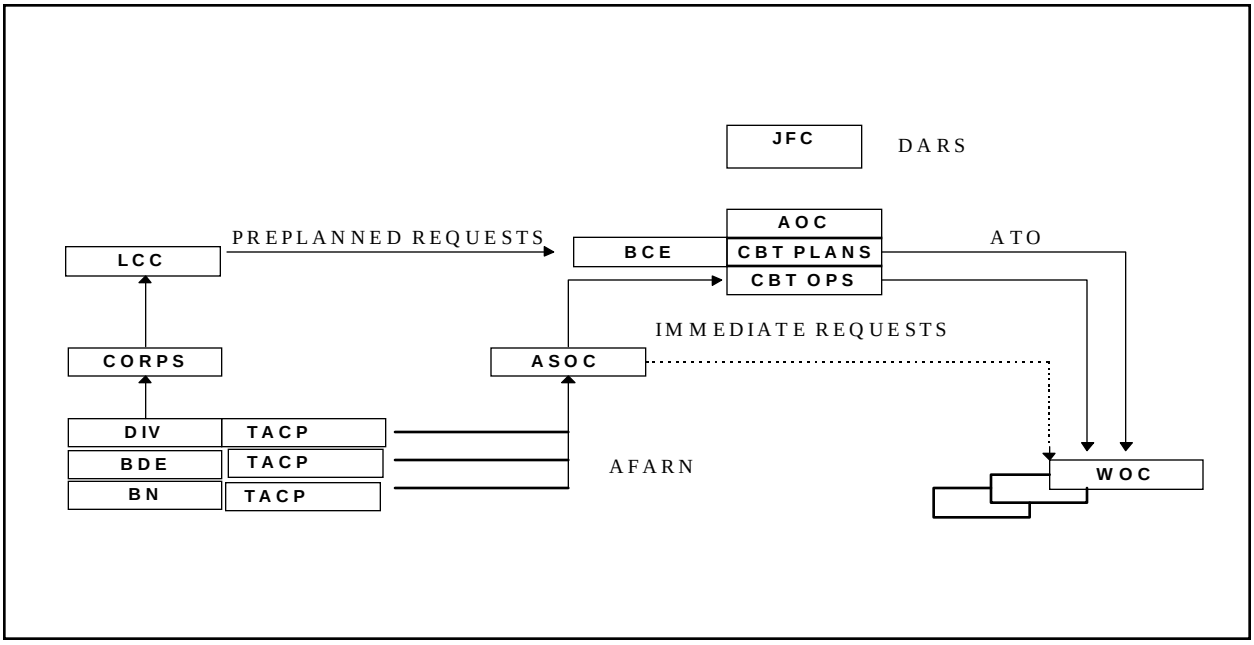

Figure IV-2. Air Force/Army Request Process

are submitted via Army channels through higher echelons. At each echelon, the intelligence staff (S2/G-2) validates the need for the reconnaissance, searches databases to determine whether the information already exists, and checks the possibility of applying organic assets to the request.

(a) If the S2/G-2 cannot satisfy reconnaissance requests with organic assets, the request will be forwarded to the next higher echelon. The process is repeated at each level until the information is located, a collection platform tasked, or the request denied for some other reason. If Army echelons cannot satisfy the request, the highest Army echelon forwards the request to the land component commander (LCC).

(b) If the LCC is unable to satisfy the request, he forwards it through the battlefield coordination element (BCE) to the Joint Intelligence Center (JIC). The JIC will take in all valid preplanned requests that were previously not met and prepares a basic plan for the utilization of aircraft and other collection platforms to fulfill these requests. This basic plan, along with those of the other components, will then be reviewed at the joint force level by the J-2 during the Daily Aerial Reconnaissance and Surveillance (DARS) Conference. At the DARS Conference, the J-2's staff will eliminate duplication among the requests of the component services and will apply assets which are under the J-2's operational control.

(c) Following the DARS Conference, the Air Operations Center Combat Plans section uses the revised plan to construct the air tasking order (ATO). The ATO is the single-source document tasking missions within a theater. It contains information concerning target coordinates, mission number, number of aircraft required, and other associated information for each mission.

(2) Preplanned Requests - Air Force Units. The request process for Air Force flying units follows a parallel procedure working up the chain of command, but Air Force wings use separate communication links to up-channel requests, as opposed to the high frequency (HF) air request net. The Air Force component intelligence IN) staff performs the same steps as the Army S2/G-2. Since the next higher echelon above the wing is normally the air component, the IN forwards the request to the AOC intelligence function. The air component intelligence staff repeats the process to see if the information is available at their level. If not, the request joins the flow with the Army requests and makes its way to the joint DARS Conference for resolution.

(3) Immediate Requests. When commanders require a more rapid response to changing battlefield conditions that make preplanned requests unsuitable, they may submit an immediate reconnaissance request. The unit's TACP submits immediate reconnaissance requests via Air Force channels (normally, the Air Force Air Request Net [AFARN]) to the air support operations center [ASOC]). The immediate request process works as follows:

(a) Immediate requests for reconnaissance from the Army begin the same way as preplanned requests. The process begins when the S2/G-2 receives a request for information from a subordinate unit. The staff checks the databases to see if the requested information is available. If located, they determine whether it is current enough to meet the requester's need. If the information is not available, the S2/G-2 staff attempts to obtain the information with organic assets.

(b) If the unit cannot obtain the desired information at their level with organic assets, the S2/G-2 has the TACP enter the AFARN to the ASOC with the immediate request. At every echelon between the requester and the ASOC, the ASOCs and TACPs copy the request. The TACPs at each echelon check with the S2/G-2 for the information. When the request reaches a unit that is capable of providing the

information, the TACP for that organization enters the AFARN and advises the requesting TACP the request will be satisfied by that echelon. The TACP will then pass back the details of how the reconnaissance information will be forwarded to the requester.

(c) A lack of response to the request during the predesignated time translates into approval *"silence is consent."* Once the allotted time expires with no disapprovals, the mission is valid and the ASOC initiates the action necessary to satisfy the request. The ASOC attempts to satisfy the request with reconnaissance vehicles over which they have operational control (OPCON) by the ATO. If the ASOC has exhausted its resources, it contacts the AOC for tasking an alert aircraft or adding a target to an existing mission. The AOC may, in rare cases, divert existing missions.

b. Marines

Marine Corps Task Organization. Marine air ground task forces (MAGTFs) are composed of a ground combat element (GCE), air combat element (ACE), combat service support element (CSSE), and a command element (CE). An example of a MAGTF is a Marine expeditionary force (MEF) that consists of at least one Marine division, GCE, a Marine air wing, ACE, and a force services support element (CSSE). Each element has some reconnaissance and surveillance capabilities inherent to its organization. When reconnaissance requirements cannot be met within the subordinate element, the request for reconnaissance is forwarded to the CE.

(1) MAGTF Surveillance and Reconnaissance Coordination (SARC). The SARC is located within the MAGTF CE and is managed by the MAGTF collections manager. The mission of the SARC is to plan and implement the execution of the MAGTF collection plan. It coordinates collection to ensure that the MAGTF commander's intelligence information requirements are met. The SARC control element formulated a detailed collection plan based on the commander's intelligence requirements and available assets to satisfy those requirements. Coordination for tasking of MAGTF reconnaissance and surveillance assets are coordinated with the MAGTF operations officer. Requirements flow from subordinate elements to the SARC. If requests cannot be met by available intelligence or reconnaissance and surveillance assets within the MAGTF (including tasking of reconnaissance assets within each MAGTF element), they are forwarded to the next higher echelon.

MAGTF reconnaissance and surveillance assets are represented within the SARC collection unit. These are—

(a) Force reconnaissance.

(b) UAV.

(c) Sensor control and management platoon (SCAMP).

(d) Radio battalion (SIGINT).

(e) HUMINT section.

(f) Force imagery interpretation unit (FIIU).

(g) Topographic (TOPO) platoon.

(h) Representatives of attached reconnaissance elements not normally part of the MAGTF.

(2) Aerial Reconnaissance. Aerial Reconnaissance assets located within the ACE support the entire MAGTF. Requests for aerial reconnaissance within the MAGTF depend upon the urgency of the request. Preplanned requests for aerial reconnaissance are submitted through the SARC for prioritization, coordination, and tasking. The MAGTF collections officer ensures that coordination is accomplished with the G-3 air officer for air support requirements.

Immediate requests can be sent directly to the ACE without going through the MAGTF CE. A direct air support center (DASC) is collocated with the senior level fire support coordination center (FSCC). The role of the DASC is to oversee the execution of air support for the MAGTF GCE and CSSE. Immediate requests are passed to the DASC from TACPs collocated with GCE operations sections for processing and dissemination to the ACE for support.

c. Navy

Organic reconnaissance assets of naval battle groups, carrier air wings, and air squadrons normally fulfill unit requests and taskings. When fleet assets are insufficient or unable to carry out the mission, fleet or battle group commanders forward the request to the joint force J-2 and AOC, through the naval component commander's staff.

(1) Fleet Commanders. Fleet commanders can draw on a wide variety of shore and ship based reconnaissance-capable platforms deployed with the battle force. These capabilities include imagery, electronic, acoustic, and visual reconnaissance. In addition, battle force/group commanders and staffs can establish near-term and long-range intelligence objectives, determine priorities and assign specific tasking to battle group units.

(2) Chains of Command. Figure IV-3 illustrates the chains of command for requesting reconnaissance and electronic warfare support (ES) missions. The command levels where requesters can "enter the *system*" to request missions are called "*entry levels*" and are indicated in Figure IV-3 by the arrows.

(3) Requests Exceeding Organic Naval Capabilities. Intelligence staffs that cannot fulfill intelligence and reconnaissance requests with organic naval assets forward them to the next higher headquarters. The intelligence collection manager resides with the joint force air component commander (JFACC) where tactical reconnaissance requests are sent. The intelligence collection manager decides which asset, such as a P-3C, Tactical Airborne Reconnaissance Pod System (TARPS)-equipped F-14, submarine, or surface ship, can best support the request. The JFACC will then coordinate the tasking for the RI via the ATO to ensure timely and accurate reconnaissance. The ATO instructs specific units at the "*entry levels*" to collect reconnaissance.

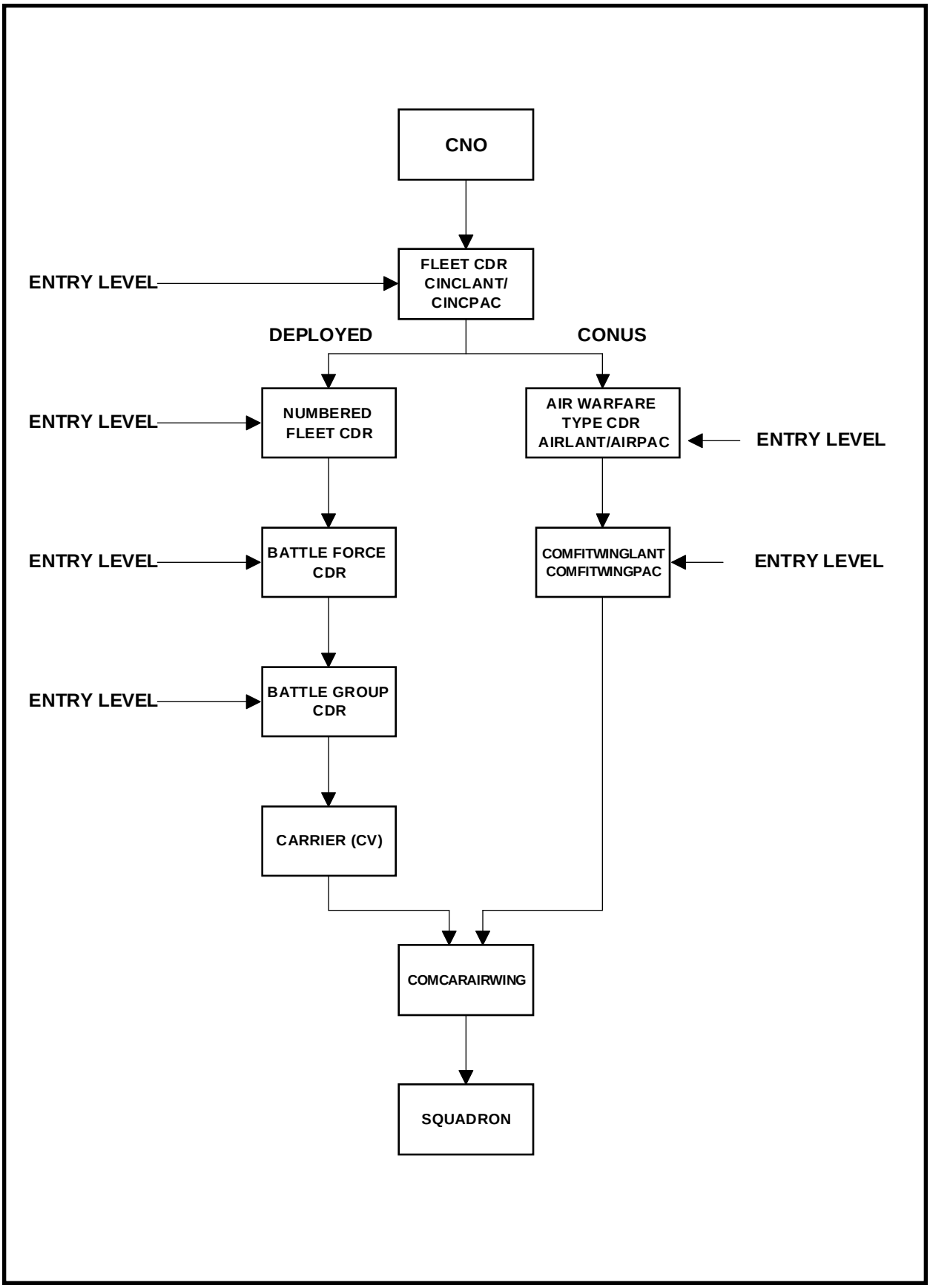

Figure IV-3. Naval Recce Chain of Command

Appendix A

RECONNAISSANCE: CATEGORIES, CAPABILITIES, AND LIMITATIONS

1. Background

a. This appendix provides an expanded discussion of the categories of reconnaissance, with specific emphasis on the capabilities and limitations of each category. Also included are samples of selected imagery reconnaissance products (photo and infrared) which are intended to familiarize the reader with the basic characteristics of the images.

b. Readers should note that the capabilities and limitations of the categories of reconnaissance described in this appendix are *generic* and are not associated with specific reconnaissance systems, vehicles, or sensors.

c. There are four general categories of reconnaissance: visual, imagery, electronic, and weather. Imagery reconnaissance is further subdivided into optical and non-optical imagery.

2. Visual Reconnaissance

a. Sources. Visual reconnaissance can come from a wide range of sources and simply entails an observer reporting on what is seen. At surface level, the source could be an individual, a reconnaissance unit, SOF team, naval surface or subsurface vessel. Aerial sources may be a variety of aircraft types and missions. A passing strike aircraft, airborne FAC, escort aircraft, or dedicated reconnaissance aircraft could provide visual recce information.

b. SOF

(1) SOF forces are a valuable reconnaissance asset. A special reconnaissance (SR) mission can benefit a wide range of users. SOF conduct SR missions when there is a need to obtain or verify information about enemy capabilities, intentions, and activities or to gather data about meteorological, hydrographic, or geographic characteristics of an area. SR missions complement national and theater assets through border reconnaissance and deep penetration missions to obtain specific, time-sensitive information of strategic and tactical significance. SR may complement other collection methods where there are constraints of weather, terrain-masking, hostile countermeasures, and/or other systems availability.

(2) SR is a HUMINT function that places US or US-controlled "eyes on target" in hostile, denied, or politically sensitive territory when authorized. SOF may conduct these missions unilaterally or in support of conventional non-SOF operations. SOF may use advanced reconnaissance and surveillance techniques and equipment. Sophisticated clandestine collection methods and indigenous assets may also be employed.

c. Advantages

(1) In addition to providing information about the enemy, visual reconnaissance can be useful for obtaining timely information on the terrain and weather. For example, an aircrew coming off target could pass timely tips on target area weather to an inbound flight, giving them time to adjust their tactics.

(2) Visual reconnaissance is well suited to answering *"yes or no"* or *"true/false"* questions about the general condition or presence of a force or structure. Reconnaissance teams can provide data on enemy activity in named areas of interest (NAI). Examples follow: *"Are enemy armored forces moving in the vicinity of NAI 4?"* or *"Is the bridge at Remagen still standing?"* Simple visual reports such as *"the bridge span is in the river,"* or *"there are many tanks in the*

downtown area moving south" are examples where visual reconnaissance can be quite effective in observing and reporting basic facts about easily-observed activity.

(3) Direct observation and reporting are very reliable and fast, especially when done by trained aircrews or reconnaissance teams. Air and reconnaissance teams can identify many types of military equipment. They are equipped with a variety of communications systems enabling them to report enemy activity quickly, and in some cases, directly to the requester.

d. Disadvantages

(1) Aircrews can provide very timely battle information, because they can transmit a report while literally still over the target. However, this advantage is significantly effected by the limitations of human vision. Because the aircrew must fly the aircraft and avoid lethal threats in a high threat environment, they can only concentrate on the reconnaissance "target" or objective for a short time. In addition, weather conditions (low clouds, rain, and fog) and terrain features (hills and trees) can obstruct the aircrew's view of the target. Finally, an enemy can use camouflage, concealment, and deception (CCD) techniques to avoid visual detection.

(2) Because of these limitations, visual reconnaissance by aircrews is not well suited to situations in which precise counts and/or precise details are required. Visual reconnaissance may not be able to provide users with precise counts of vehicles and/or soldiers on a battlefield and it is not the best way to make precise assessments such as the dimensions or construction of a structure. Ground-based visual reconnaissance by reconnaissance teams, on the other hand, may be able to provide accurate counts of troops or equipment. When considering a request for visual reconnaissance, its capabilities and limitations must be weighed against the value of the facts or data needed.

3. Imagery Reconnaissance

***Note*:** Photos A-1, A-2, A-3, and A-4 are of the same bridge along a low level training route in the Appalachian Mountains. They were provided courtesy of Fighter Squadron 101, Naval Air Station Oceana, Virginia.

a. Optical

(1) In essence, optical sensors are similar to the commercial still or video cameras used to take personal pictures. In order to produce a photographic image, optical sensors require their targets to be illuminated to some extent by visible light. Further, optical sensors require a clear, unobstructed "look" at their target without interference from clouds or physical obstructions.

(2) Perhaps the most striking similarity between a commercial 35mm framing camera and an optical sensor is that both trade*resolution* (i.e., the ability to record fine detail) for lateral coverage, and vice versa. A telephoto lens on our personal cameras (or on an optical sensor) we can record more detail about an object by "zooming in" on it but does so at the expense of lateral coverage. By the same token, the same camera or optical sensor can widen its area of coverage by moving farther away from the target but loses detail (i.e., resolution) in the process.

(3) There are various optical imagery sensors available for military reconnaissance purposes. Each has its own distinct capabilities and each provides a different type of information to the reconnaissance interpreter and user.

(a) Vertical Imagery.

- *Vertical Imagery* provides a two-dimensional overhead view of the target (Figure A-1). This type of imagery allows the interpreter to see a map-like picture in which all objects are of the same scale. It

allows the user to determine precise horizontal relationships (i.e., bunker "X" is exactly 100 meters from road intersection "Y" on a bearing of 127 degrees) and provides a view of objects on the ground unobstructed by vertical development (such as terrain, buildings, etc.). Vertical imagery is ideally suited to determining precise locations of objects on the surface and to counting and identifying these objects.

• Photo A-1 is an overhead image of a bridge. This is also an extreme example of "pinpoint" imagery. It "zooms in" on the detail of the bridge and very little of the surrounding area is visible in the image. In this view, two of the piers are visible, but it is unclear whether they are concrete, wood, or steel. The vertical perspective offers a good sense of scale. The shadow cast on the water gives an indication of the height of the bridge, and if the time the picture was taken is known an accurate estimate of the height can be made.

(b) Oblique Imagery.

• *Oblique Imagery* employs sensors which provide an angled, three-dimensional view of the reconnaissance target (Figure A-2). This perspective gives the interpreter/user a view of the sides of the objects "on film," permitting the interpreter/user to determine approximate heights of these objects and to make judgments concerning their identity and the materials used in their construction.

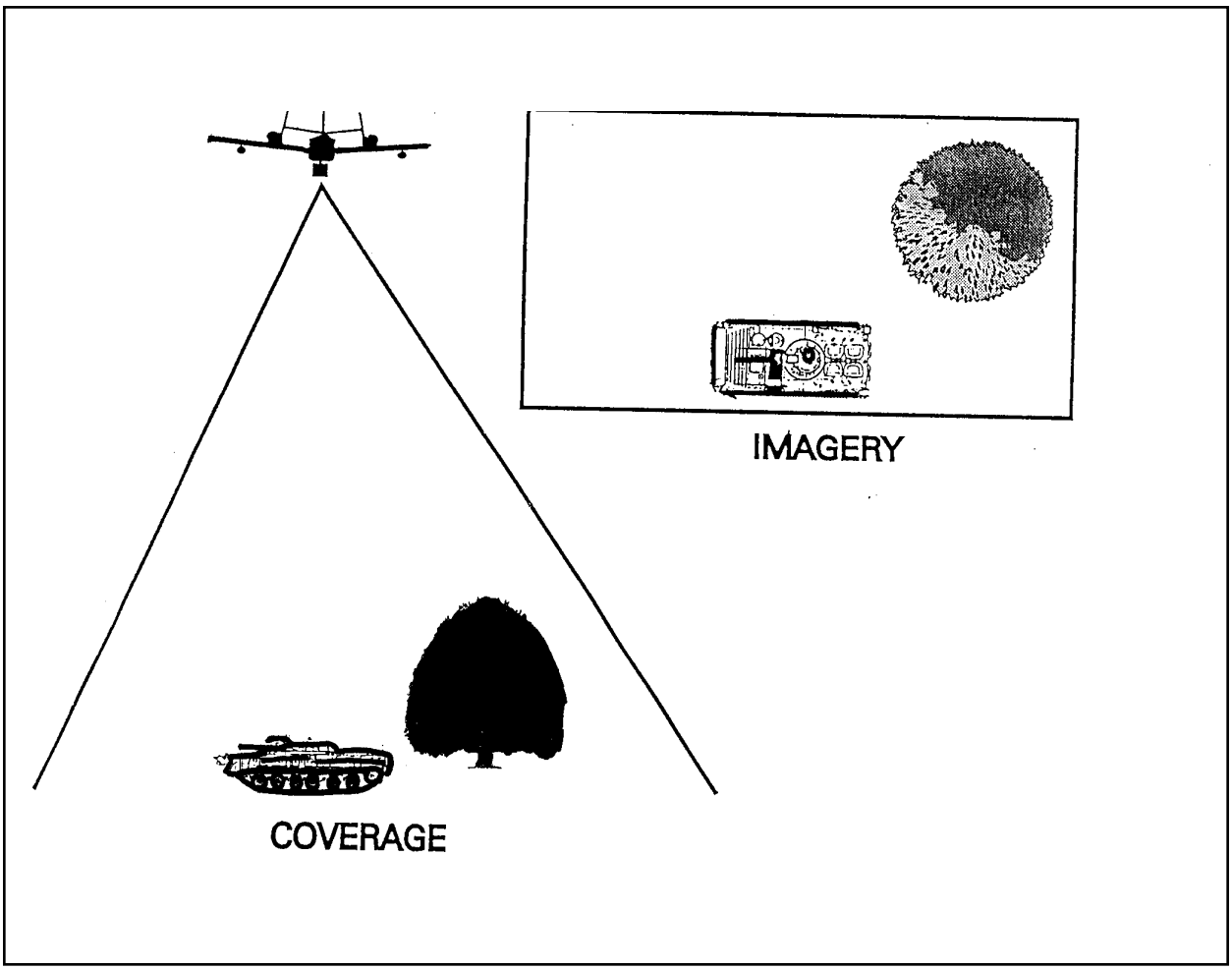

Figure A-1. Vertical Imagery

Photo A-1. Vertical Image of Bridge

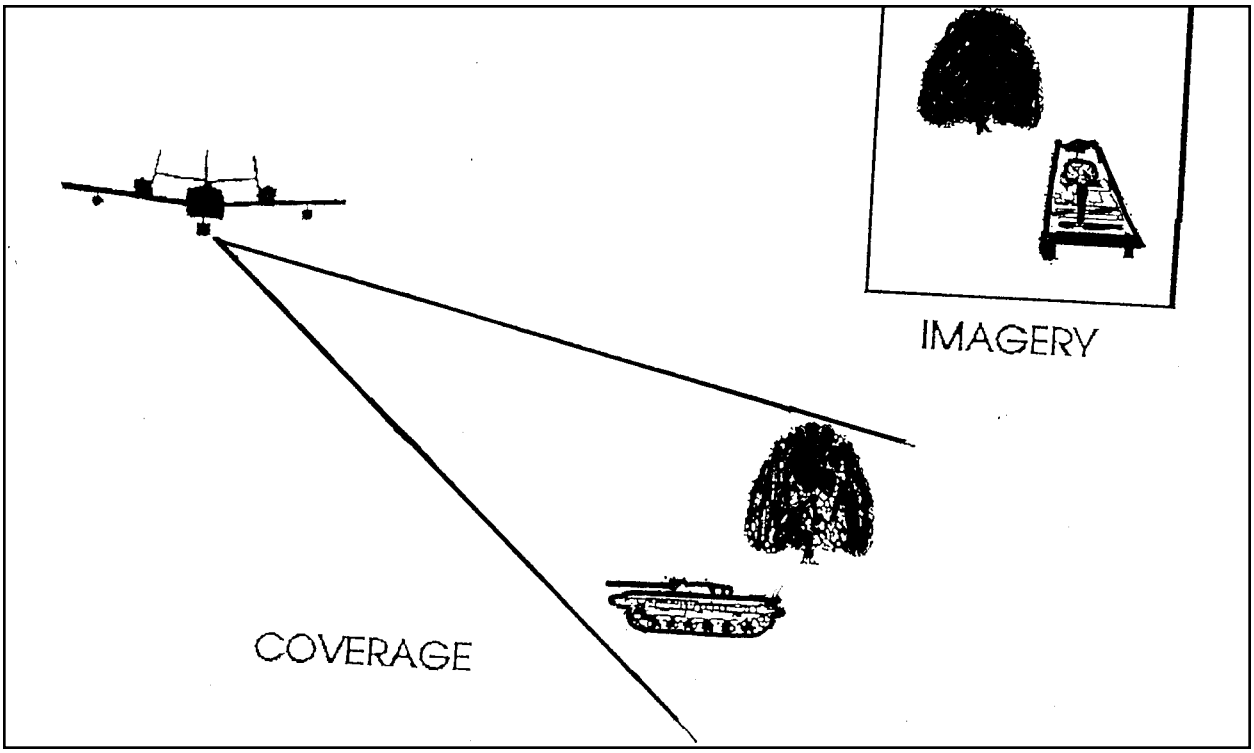

Figure A-2. Oblique Imagery

• Oblique imagery is ideally suited to the task of providing information about vertical structures for targeting and battle damage assessment purposes. An oblique image of a bridge, for example, will show the interpreter what support structures exist under the bridge, how many spans make up the bridge, and (perhaps) the kinds of materials used in the bridge's construction. Using this kind of information, the most appropriate weapon and delivery means to attack and destroy the bridge can be selected. An oblique image can also aid strike aircrews during mission planning, by showing what the bridge will look like during their attack run-in (see Photo A-2).

• Oblique imagery often eliminates the necessity for reconnaissance vehicles to fly directly over the target - the platform can instead stand off at a distance from the target. This offers the significant advantage of recording the desired images while keeping the reconnaissance vehicle outside sensitive borders/boundaries or out of range of hostile threats. The oblique perspective on the bridge offers a better look at the piers allowing determination that they are of concrete construction. Photo A-2 also reveals one pier is at the edge of the river, and the other is on a ridge of rocks.

• Photo A-3 depicts the same bridge as in photo A-1 but is taken from a different angle and at a greater standoff range. While, this image shows much more of the surrounding scene, the lower angle gives an idea of the height and thickness of the bridge piers.

(c) Panoramic Imagery. *Panoramic imagery* combines features of both vertical and oblique imagery. Panoramic sensors "scan" from side to side (often from horizon to horizon) providing a vertical pinpoint perspective of objects directly below the reconnaissance air vehicle along with an oblique perspective of objects to the sides of the vehicle (Figure A-3). As in the case of oblique imagery, objects on panoramic imagery will not be to scale—objects farther away will be smaller and distorted on the image, and closer objects will appear larger.

Photo A-2. High Oblique of a Bridge

Photo A-3. Low Oblique of a Bridge

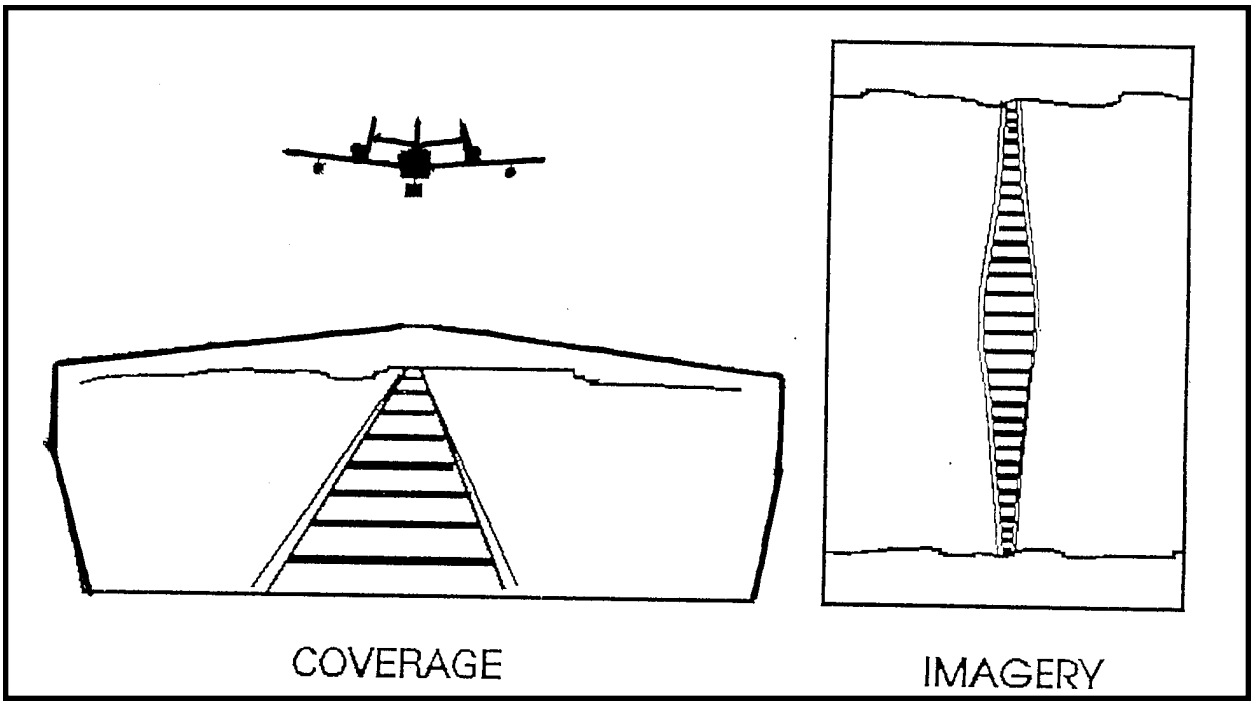

Figure A-3. Panoramic Imagery

b. Non-Optical. The two basic, and widely-employed, types of non-optical imagery are infrared and radar. Unlike the optical sensors discussed previously, these non-optical sensors function regardless of the presence or absence of visible light and can be used at night as well as during the day. Imagery reconnaissance (other than visible spectrum) is summarized in a sensor/ intelligence matrix included as table A-1.

(1) Infrared. Infrared (IR) sensors detect infrared (thermal or heat) radiation. This radiation is adjacent to visible light in the electromagnetic spectrum and has similar characteristics. IR sensors produce their images by detecting very small differences in the heat energy being radiated by various objects, parts of objects, and materials. IR sensor systems have become quite sophisticated and are now capable of producing imagery resolution virtually on a par with that of optical imagery. Like optics, IR shows objects in detail, but the energy is attenuated by atmospheric particles and moisture (clouds).

(a) In addition to their night reconnaissance capabilities, IR sensors (whether employed in daylight or darkness) can provide types of information which would be unavailable with optical sensors. Because they detect heat emissions, IR sensors can detect the difference between operating and nonoperating vehicles; between fueled and unfueled aircraft; between heated and unheated facilities; and often, between real and decoy objects.

(b) Photo A-4 is an oblique view of the same bridge as in photo A-2 and Photo A-3. It was taken from about the same angle as Photo A-2. On the IR print, the warmer the object, the darker it appears; the cooler the object, the lighter. The ice-covered river appears white because it is cold, while the sun-warmed bridge appears dark. This is the opposite of what appears on the original film negative, where white equates to hot and black equates to cold. IR video is normally the same as film negatives; however, some IR video can be electronically manipulated to appear like the print. “Gray scale” on most IR images (whether on video or film) are normally relative to the spectrum of temperatures in the scene being observed.

Photo A-4. Infrared Image of a Bridge

(2) Radar. Radar, the second type of non-optical imagery, uses recorded radar returns to produce images. Radar is independent of light conditions and is practically independent of weather conditions, making it a true all-weather sensor. Although *some* modern radar sensors are capable of producing imagery in which a trained interpreter can distinguish between wheeled and tracked vehicles, the significant advantage of radar imagery is that it is the only near all-weather sensor. However, even the most advanced radar imagery is incapable of producing the resolution quality associated with optical and IR imagery. Long-range sensing capability is available from a number of other sensors, but they all have limits imposed by weather which radar does not. Because radar is line-of-sight, placement of the antenna, such as on a high-flying aircraft or on a mountain top, radar can produce imagery of targets at great distances from the sensor, and it can image vast stretches of territory from a single site or during a single mission.

4. Electronic Reconnaissance

a. *Electronic reconnaissance* supports both SIGINT and electronic warfare (EW) missions. Electronic reconnaissance involves intercepting, identifying, and locating enemy communications and radar emissions such as communication nets (both voice and data communications in encrypted and clear-text modes). Non-communication emitters are also targeted, including early warning, ground control intercept, target acquisition/ target tracking, air traffic control, meteorological radars (associated with weapons systems), and digital data command and control radars.

b. By analyzing the enemy's communications and radar emissions, analysts identify an enemy's order of battle and critical nodes to include enemy command posts, high-threat weapon systems, force concentrations, and logistic bases. Commanders can subsequently target enemy critical nodes for destruction, neutralization, or exploitation by multiple lethal and nonlethal systems.

c. Electronic reconnaissance can be conducted by ground, air, sea, and space-based systems, from a friendly or a hostile environment, under all weather conditions, and during the day or at night. However, it is important to note that in order for electronic reconnaissance to successfully detect a target, the target must be *emitting* electromagnetic energy. If a communications or noncommunications emitter is inactive, the electronic reconnaissance system will be unable to locate, identify, or exploit the emitter. Additionally, an enemy can use electronic deception techniques not only to avoid detection but also to deceive friendly reconnaissance systems.

5. Weather Reconnaissance

a. Weather reconnaissance obtains weather data over areas where more conventional weather observations are not available. Methods for obtaining weather reconnaissance include visual observation and reporting by aircrews, specialized reconnaissance/scout teams, or data recording and reporting from atmospheric sensor equipment capable of obtaining meteorological data at selected altitudes.

b. If you are considering a request for weather reconnaissance, exhaust all other means for obtaining the weather data prior to making such a request. Weather reconnaissance is usually collected only during the course of normal operations, and data is obtained through such routine methods as aircrew debriefings.

Table A-1. Sensor/Intelligence Matrix

IMAGERY RECONNAISSANCE
Other Than Visible Spectrum

SENSOR	ADVANTAGES	DISADVANTAGES	PRODUCT	TIMELINESS
FLIR (Forward-Looking Infrared)	• Both day and night	• Stand off range • Weather obscuration • Field of view • Resolution • Dusk/dawn crossover • Rain washout	• Video report • In-flight report	• >1 hour • NRT
IR Linescanner	• Both day and night • High resolution	• Stand off range • Weather obscuration • View time • Field of view • Dusk/dawn crossover • Rain washout	• Hard copy • Video report • In-flight report	• >4 hours • >4 hours • NRT
UV (Ultraviolet) Linescanner	• High resolution • May "see thru" camouflage	• Day only • Weather obscuration • View time • Field of view	• Hard copy • Video report • In-flight report	• >4 hours • >4 hours • NRT
Multi-spectral Fusion Sensors	• Both day and night • Medium resolution	• Weather obscuration • Field of view	• Video report • In-flight report	• >4 hours • NRT

IMAGERY RECONNAISSANCE
Visible Spectrum

SENSOR	ADVANTAGES	DISADVANTAGES	PRODUCT	TIMELINESS
Image-Intensified Video	• Night • Medium resolution	• No day capability • Standoff	• Video report • In-flight report	• >4 hours • NRT
Framing Camera - Wet Film	• Resolution • Stand off range	• Timeliness • View time • Weather obscuration • Info dissemination • Day only	• Textual report • Photos •• Oblique •• Vertical •• Panoramic	• 1-2 hours • 12-24 hours
Framing Camera - Digital	• Standoff • Timeliness	• Resolution • View time • Weather obscuration	• Textual report • Photos •• Oblique •• Vertical •• Panoramic	• >1 hour • >1 hour
Framing Camera - **EO** (Electrooptical)	• Standoff • Timeliness • Resolution	• View time • Weather obscuration	• Textual report • Photos •• Oblique •• Vertical	• >1 hour • >1 hour
Video	• Timeliness	• Resolution • Weather obscuration • Day only • Info dissemination	• Videotape • Textual report • In-flight report	• >1 hour • >1 hour • NRT

Table A-1. Sensor/Intelligence Matrix (continued)

IMAGERY RECONNAISSANCE RADAR				
SENSOR	**ADVANTAGES**	**DISADVANTAGES**	**PRODUCT**	**TIMELINESS**
SLAR (side-looking airborne radar)	• Area coverage • All-weather • Day and night	• Requires interpretation	• Video • Textual report • Dry film • In-flight report	• <1 hour • <1 hour • <1 hour • NRT
ISAR (inverse synthetic aperture radar)	• High resolution • Range independent • Stand off range • Best for maritime targets	• Requires interpretation	• Video • Textual report • In-flight report	• <1 hour • <1 hour • NRT
SAR (synthetic aperture radar)	• Moving target indicator (**MTI**) • Best for land targets • Range independent • Stand off range	• Requires interpretation	• Video • Textual report • Dry film • In-flight report	• <1 hour • <1 hour • <1 hour • NRT
FLAR (forward-looking airborne radar)	• Stand off range • Small target detection	• Resolution • Target classification	• Video • Textual report • In-flight report	• <1 hour • <1 hour • NRT
GSR (ground/surface surveillance radar)	• Timeliness • Resolution	• Range	• Report	• NRT

VISUAL RECONNAISSANCE				
SENSOR	**ADVANTAGES**	**DISADVANTAGES**	**PRODUCT**	**TIMELINESS**
Surface-aggressive (cavalry)	• Direct observation	• Possible loss of recon asset • Limited range • Field of view	• Report	• NRT
Surface-stealth (cavalry/recon-naissance)	• Direct observation	• Limited range • Field of view	• Report	• NRT
Special operations forces	• Direct observation	• Need for clandestine insertion/extraction • Limited range • Field of view	• Report	• Ranges from NRT to considerable delays
Aircrew	• Direct observation	• Limited view • Time • Standoff • Reference for information	• Report	• NRT

Table A-1. Sensor/Intelligence Matrix (continued)

ELECTRONIC RECONNAISSANCE				
SENSOR	**ADVANTAGES**	**DISADVANTAGES**	**PRODUCT**	**TIMELINESS**
ELINT (Electronic Intelligence)	• Passive detection of non-communications radiation	• Target must emit in order to collect intelligence.	• Report	• NRT
COMINT (Communications Intelligence)	• Passive detection of communications	• Target must emit in order to collect intelligence	• Report	• NRT
MASINT (Measurement & Signature Intelligence)	• Passive detection • Measures specific emitter data	• Requires interpretation	• Report	• <1 hour
FISINT (Foreign Instrumentation Signals Intelligence	• Passive detection of telemetry and other data	• Target must emit in order to collect intelligence • Requires interpretation • May require decryption	• Report	• <1 hour

ACOUSTIC				
SENSOR	**ADVANTAGES**	**DISADVANTAGES**	**PRODUCT**	**TIMELINES**
Active acoustic	• Timeliness • Able to work subsurface	• Thermal layer blockage • Possible loss of sensor platform • Standoff	• Report	• NRT
Passive acoustic	• Timeliness	• Thermal layer blockage • Range	• Report	• NRT

Appendix B

JOINT INTELLIGENCE SUPPORT

1. JOINT INTELLIGENCE ARCHITECTURE

a. Overview.

(1) The joint intelligence architecture interconnects collectors, producers, and customers in an information network. It is a dynamic, flexible structure providing global access to information from all intelligence sources at all echelons. All intelligence made available to the network from any source is stored and communicated as data (whether it is a text file, graphics, imagery, or formatted information). The data is stored on a standards-compliant file server. The file server is the interface with the communications network.

(2) The joint intelligence architecture facilitates the support of the JFC and subordinate joint force components by the Defense Intelligence Community and integrates any required support from non-defense agencies and nongovernmental organizations. The joint intelligence architecture is configured to provide the baseline data needed by the JFCs to support joint operations. It establishes a common means to provide theater and tactical commanders with the full range of intelligence required for operations.

b. Organization.

Although the joint architecture provides infrastructure for intelligence support it is not solely hierarchical. Figure B-1 shows the formal command and control relationships that exist to facilitate RI management and optimize complementary intelligence functions. These are configured by echelon, but do not obstruct the timely flow of critical intelligence up, down, or laterally. The national agencies maintain systems and organizations which respond directly and provide intelligence to any echelon for time-sensitive reporting (such as the TRAP broadcast). The formal flow for intelligence up and down echelons is through the National Military Joint Intelligence Center (NMJIC).

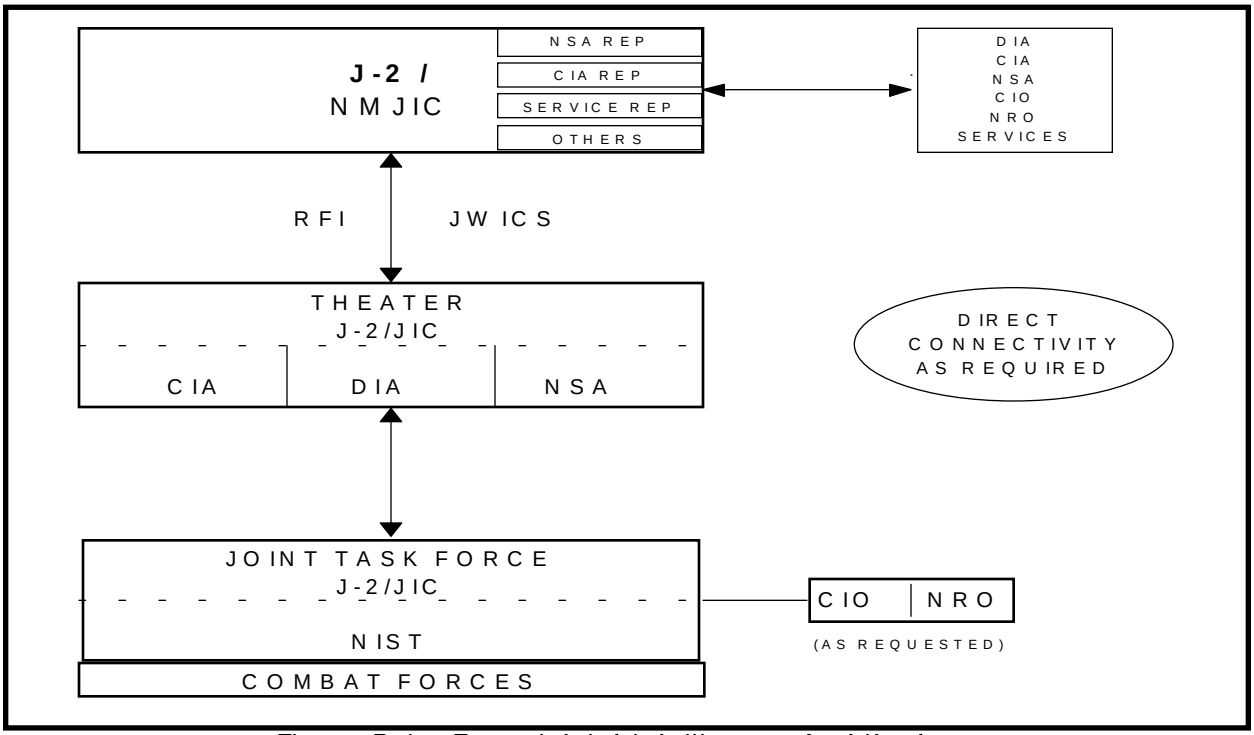

Figure B-1. Formal Joint Intelligence Architecture

2. DUTIES AND RESPONSIBILITIES

All Intelligence Organizations. Within the context of the J-2's concept of operations, all intelligence organizations involved in support of operations have certain common responsibilities. These include—

a. Providing intelligence to the J-2 for identification and nomination of military objectives. The objectives and the combatant commander's strategy to achieve these objectives focus intelligence information requirements and intelligence operations to provide required intelligence products to users.

b. Identifying at each echelon intelligence requirements that cannot be met by their organic capability.

c. Operating on the basis of sharing intelligence resources, expertise, and intelligence products. A command or intelligence organization will rarely be able to depend entirely upon its own capabilities to collect and produce all the necessary intelligence. Thus, the whole community of intelligence organizations share their capabilities and products to mutually support joint operations.

3. JOINT FORCE COMMANDER

a. Duties.

The commander assigning missions and responsibilities, with the J-2, is ultimately responsible for ensuring the necessary intelligence support to forces within the assigned area of responsibility. This command responsibility may include acquiring intelligence for tactical commands and forces that are developing, planning, and conducting operations. Tactical commanders and force elements may not have the lead-time, perspective, or authority to identify and obtain necessary tactical or combat intelligence.

b. Responsibilities.

The JFC, with the J-2 is responsible for—

(1) Identifying essential elements of essential elements of information (EEIs).

(2) Providing the intelligence staff, all-source watch teams, and supporting intelligence organizations with a clear understanding of friendly objectives, intent, plans, and of the unfolding conduct of joint operations.

(3) Prioritizing intelligence and information requirements.

(4) Assigning intelligence resources.

(5) Tasking collection and production.

4. JOINT FORCE J-2

a. Duties.

The J-2 directly supports the commander's responsibilities for determining and directing operations against an enemy and for evaluating the effects of operations. The J-2 should develop intelligence estimates of the enemy and the situation. He should help the commander understand the enemy's intent, concept of the situation, and his decisionmaking process. The J-2 analyzes the situation and provides assessments of friendly opportunities and the enemy threat.

b. Responsibilities.

The J-2 is specifically responsible for—

(1) Overall direction of the command's intelligence staff and the Joint Intelligence Center.

(2) Apprising the commander of intelligence capabilities and limitations and the potential effects on operations.

(3) Helping the JFC develop and refine his estimate of the situation, and, concurrently, developing and refining the intelligence estimate.

(4) Helping the JFC identify relevant and attainable objectives.

(5) Helping the JFC identify deception objectives.

(6) Helping the JFC plan and execute force protection measures.

(7) Identifying enemy essential elements of friendly information (EEFI).

(8) Prescribing security of intelligence information.

(9) Helping the JFC provide the intelligence staff, all-source watch teams, and supporting intelligence organizations with a clear understanding of friendly objectives, intent, plans, and the unfolding conduct of joint operations.

(10) Helping the JFC translate his mission, estimate of the situation, and objectives into intelligence and information requirements.

(11) "*Sanitizing*" intelligence collected from sensitive sources; that is, converting it into a format and classification level that allows widest dissemination of valuable intelligence to operational users.

(12) Validating intelligence information requirements of subordinate and supporting commands, and providing these commands with the intelligence products they need to carry out their missions.

(13) Helping the JFC prioritize intelligence information requirements.

(14) Developing intelligence plans. With respect to the commander's operation and contingency plans, the J-2 should—

(a) Develop and refine the threat assessment.

(b) Lay out a game plan (in the intelligence annex, see Appendix B) detailing how he plans to provide the intelligence support needed to—determine operating objectives; identify deception objectives; conduct operations; and analyze the effects of operations. This intelligence concept should—

- Identify potentially useful intelligence-related systems and personnel, regardless of prior location or subordination. Identify required interoperability.

- Spell out command relationships, tasking authorities, and reporting responsibilities.

- Detail procedures for developing intelligence for subordinate commands and forces; obtaining intelligence from national organizations through DIA (Joint Staff J-2); obtaining maps, charts, and other geodetic and geographic intelligence support; obtaining intelligence-related communications support and developing concept(s) of intelligence operations which provide for continuity of support if communications are severely stressed or temporarily lost.

(15) Devise, for the mix of intelligence personnel, systems, concepts and procedures identified in the intelligence annex of each of the CINC's operations and concept plans, an exercise-gaming, simulation, and modeling plan to evaluate readiness and executability under conditions approximating wartime stress.

(16) Evaluate other parts of the operations and concept plans; that is, assumptions, planned air, ground, naval, and space operations; planned psychological operations; planned special operations; and deception plans. Review everything in light of what we know about the enemy's cognitive

model (e.g., does this make sense when viewed through the enemy's eyes?).

(17) Provide feedback to other joint staff elements.

c. Intelligence Communications Requirements.

The J-2 should ensure the intelligence communications requirements are fully reflected in the command's communications architecture. Coordinate the intelligence communication architecture with the J-6 for an assessment of its capacity and connective supportability.

d. Ensure Interoperability.

The J-2 should use the Theater Intelligence Architecture Program, service planning and programming documents, and requirements statements to identify critical deficiencies in existing intelligence support capabilities. Validate the need for an intelligence capability and the necessity (or lack thereof) for interoperability between the new intelligence-related system(s) and existing systems and between intelligence-related systems and C3 systems.

5. COMPONENT COMMAND INTELLIGENCE ORGANIZATIONS

Responsibilities.

The intelligence responsibilities of the service component commands' intelligence organizations include the following:

a. Aiding commanders in identifying and nominating the service components' objectives.

b. Sharing resources and capabilities with all joint force elements as needed in furtherance of the joint missions. Resources and capabilities include data bases, intelligence collection, and production.

c. Requesting required intelligence from other organizations and agencies through the J-2.

d. Assigning organic intelligence resources to optimally meet the service component's intelligence needs, and at the same time support other components of the joint force to the extent possible.

Appendix C

ADDITIONAL RECONNAISSANCE REQUEST FORMATS

1. COMPLETION INSTRUCTIONS: AIRSUPREQ (AIR SUPPORT REQUEST)

Note: The AIRSUPREQ format is in Chapter 3 of the *Joint User Handbook for Message Text Formats [JUH-MTF].*

The AIRSUPREQ (Figure C-1) is used to request preplanned and immediate reconnaissance missions. The following paragraphs contain line-by-line instructions for filling out the AIRSUPREQ Message. (Refer to Figure C-1 for a visual representation of these instructions.)

a. **Line 1 - EXER**

Enter the exercise name and any additional exercise identifier.

b. **Line 2 - OPER**

Enter the operation name. Other information that can be entered here includes name of the headquarters originating the plan, the plan number, and option(s) within the operations plan.

Note: EXER and OPER can not be used in the same message.

c. **Line 3 - MSGID**

Enter AIRSUPREQ and the unit name of the message originator. Other information can be added such as: a message serial number, the first three letters of the month, a qualifier code and a qualifier serial number.

d. **Line 4 - REF**

(1) Enter a reference to other messages or documents. You may list as many references as needed. Each reference must have–

(a) A serial number (A for the first reference, B for the second, etc.).

(b) A message title or reference type (enter the USMTF message short title OR one of the following codes for other types of references: CON (conference/meeting), DOC (document), LTR (letter), TEL (telephone), or MSG (formatted or nonformatted message).

Note: A free-text amplification (AMPN) or narrative (NARR) set must be used to explain the message if it is not a USMTF message).

```
(1)  EXER/MOZAM 93-1/UMPIRES ONLY//
(2)  OPER/MONUMENT VALLEY/JTF21-1602/WINDOW ROCK//
(3)  MSGID/AIRSUPREQ/II CORPS/2509003/SEP/AMP/2//
(4)  REF/A/SENREP/II CORPS/251400ZSEP93/2509001/NOTAL/ABC//
(5)  CANX/AIRSUPREQ/II CORPS/251500ZSEP93/2509045/NOTAL/ABC//
(6)  PERID/251600Z/TO:252300Z/ASOF:251545Z//
(8)  8REQUEST
     /REQNO  /PR  /MSNTYP  /MSTART  /MSTOP  /R  /WPNTY  /SR
      1       10   13       20       28      36  38      45
     /ACTYP  /ALR /CMNT
      49      56   60
```

Figure C-1. AIRSUPREQ Message (Sample)

(c) The name of the unit that originated the reference.

(d) The date-time group of the reference.

(2) Other information pertaining to the reference may also be included such as the serial number of the referenced message, any special notation (NOTAL), or a filing number of the referenced document.

e. **Line 5 - CANX**

Use this set, if operationally required, to cancel previous message(s) and report new information. (If you wish to cancel a previous message and not report new information, use set IDENT in the MSGCHANGEREP message.) This set may be repeated as many times as necessary to indicate all previous messages canceled by this message.

(1) MESSAGE TYPE - Identify the type of message to be canceled using one of the following methods:

(a) USMTF message short title as listed in the Joint User Handbook chapter 3 table of contents.

(b) Enter CON (conference/ meeting), DOC (document), LTR (letter), TEL (telephone conversation), or MSG (nonformatted message) to identify the communication type to be canceled. If you use one of these codes, add a free-text set to describe further the message to be canceled.

(2) ORIGINATOR - Enter the name of the unit or agency that originated the message being canceled.

(3) DATE OF REFERENCE - Enter the date of the message to be canceled, using one of the following methods:

(a) Date-time-group (two digits each for day, hour, minute, one letter for the time zone, three letters for the month, and two digits for the year).

Note: Date-time-group is the preferred method of identifying the date of the message to be canceled.

(b) Date (two digits each for year, month, and day).

(c) Day-time (two digits each for day, hour, minute, and one letter for time zone).

(d) Day-month-year (two digits each for day, month, and year).

(e) Day-alphamonth-year (two digits for the day, three letters for the month, and two digits for the year).

(f) Verified day-time (two digits each for day, hour, minute, one letter for the time zone, and one digit for checksum).

(g) Verified month-date-time (two digits for the day, hour, minute, one letter for time zone, one digit for checksum, and three letters for month).

(h) Verified date-time-group (two digits each for day, hour, minute, one letter for the time zone, one digit for checksum, three letters for the month, and two digits for year.

(i) Day-Time and month of reference (two digits each for day, hour, and minute, one letter for time zone and three letters for the month).

(4) SERIAL NUM - This field may be used (if operationally required) to enter the identifying number of the message(s) being canceled, using one of the following methods:

(a) Enter the message serial number (two digits each for day and month, followed by a three digit message sequence number).

(b) Enter the document serial number.

(5) SPECIAL NOTE - This field may be used, if operationally required, to enter special notations such as:

(a) PASEP (passed separately).

(b) NOTAL (not provided to all concerned).

f. **Line 6 - PERID**

Report the effective time period of the information in the message.

(1) TIME FROM: - Enter two digits each for day, hour, and minute, and one letter for time zone to indicate the time at which the reporting period started.

(2) TO: - Enter the field descriptor (TO:) followed by two digits each for day, hour, and minute, and one letter for time zone to indicate the time at which the reporting period ended.

(3) ASOF: - Enter the field descriptor (ASOF:) followed by two digits each for day, hour, and minute and one letter for time zone to indicate the time the report was made.

g. **Line 7-8 - REQUEST**

This is a columnar set used to request a mission. Enter the set name, then the column headers on the next line. Start the column headers in the spaces shown. See Figure C-2.

(1) REQNO: - Enter the request number. The column is left justified.

(2) PR: - Enter the priority of the mission as 1 (highest), 2, 3, or 4 (lowest). If you are requesting more than one mission with the same priority, enter one letter after the priority to show the precedence, using A (highest) through Z (lowest). Left justify this column.

(3) MSNTYP - Enter a code for the requested mission type using Entry List 107A. Left justify this column.

(4) MSTART - Enter the mission start time, using one of the following:

(a) Relative time. First enter C (C-Hour), H (H-Hour), or L (L-Hour). Next, enter P (plus) or a hyphen (-) for minus. Then, enter two digits each for hour and minute. Right justify the column if this option is used.

(b) Day-time (two digits each for day, hour, minute, and one letter for time zone). Left justify the column if this option is used.

(c) Time qualifier. Enter ASAP (as soon as possible), INDEF (indefinite), CANCEL (cancel), or UNK (unknown). Left justify the column if this option is used.

(5) MSTOP - Do not use this field when requesting a reconnaissance mission. Enter a hyphen (-) in this column. Left justify the hyphen.

(6) R - Do not use this field when requesting a reconnaissance mission. Enter a hyphen (-) in this column. Left justify the hyphen.

(7) WPNTY - Do not use this field when requesting a reconnaissance mission. Enter a hyphen (-) in this column. Left justify the hyphen.

(8) SR - This field is used, if operationally required, to ask for a certain number of sorties. Right justify this column.

(9) ACTYP - Do not request a specific reconnaissance aircraft type under normal circumstances. However, you may use this field only if you are certain that your operational requirements dictate reconnaissance products derived from a specific reconnaissance aircraft type (e.g., U-2R). Explain the rationale for specific requests in Line 8 (AMPN). Use one of the following methods if mission requirements dictate a platform-specific request (left justify this column):

```
FROM/COM 21ST CORPS/DFJBAAA/TAL WARAH KU//G-2/CM-AR//U/O/P/060415D DEC
90//
TO/602 AOC/RUEXADA/RIYADH SA/BCE/CCP
INFO/101ST ABN DIV/BDMHAAA/MINAGISH/KU//G-2/CM-AR//
INFO/82ND ABN DIV/CLTWAAA/ABRAQ KHAYTAN KU//G-2/CM-AR//
INFO/82ND ABN DIV/CLTWAAA/ABRAQ KHAYTAN KU//G-2/CM-AR//
INFO/6A TK HEL REG/DFJBABB/AL WAFRAH//S-2//
EXER/PHANTOM KNIGHT
MSGID//AIRSUPREQ//
AMPN/THIS MESSAGE ADDRESSES AIR RECONNAISSANCE ONLY//
8REQUEST
/REQNO  /PR  /MSNTYP/MSTART  /MSTOP  /R   /WPNTY/SR  /ACTYP  /ALR     /CMNT
6Y301   /1A  /REC  /-       /-      /-   /-    /-   /U      /-       /-
6Y302  /2A  /REC  /-       /-      /-   /-    /-   /U      /-       /-
AMPN/MAP REF FOR RECCE REQUESTS:  1501 AIR, NH 38-12, 3GSGS//
8RECDATA
/REF      /TYPCOV   /IMGTYP /IMQ  /CM /TGTCOD    /CMNT
6Y301     /PINPT    /FR     /B    /-  /12B234    /-
6Y302     /AREACOV  /FR     /B    /-  /1A123567  /-
8REPORT
/REF    /RPTREQ    /QTY   /RECPD  /LTIOV     /SCALE /DP  /CMNT
6Y301   /RECCEREP  /1     /PRINT  /071600Z   /-     /-   /-
6Y302   /IPIR      /1     /PRINT  /071200Z   /-     /-   /ADD: IIR-1 PRINT
AMPN/REQ 6Y302: REQUIRES 2 SORTIES MIN DUE TO HIGH THREAT IN AREA.  LTIOV
LISTED IS FOR URGENCY OF REPORTS.  FOR ALL MSNS USE BEST POSSIBLE SCALE
FOR PRINTS.
8DELADDR
/REF        /21ST CORPS-G-2-CM-AR/-//
/REF        /101ST ABN DIV G-2 CM-AR/-//
/REF        /82ND ABN DIV G-2/-//
/REF        /6ATK HEL REG S-2/-//
DECLAR/OADR//
```

Figure C-2. Completed AIRSUPREQ Message Example

(a) Aircraft/helicopter type/model. Use Entry List 513.

(b) Aircraft category. Use Entry List 662.

(c) Helicopter category. Use Entry List 662.

(10) ALR - This field is used, if operationally required, to indicate aircraft are to be on alert. When requesting a reconnaissance mission you would put a hyphen (-) in the field. This column is left justified.

(11) CMNT - This field is used, if operationally required, to enter additional information about the basic request or to link this line entry with line entries in other sets. This column is left justified. See Figure C-3.

Note: Sets PERID and 8 REQUEST are mandatory in all AIRSUPREQ messages. You may add any of the sets in Figure C-3 to the AIRSUPRERQ message.

h. **Line 8 - AMPN**

You must use this set if additional information relating to the preceding set is required. Include any extraordinary mission or threat information that has been determined so recently that it makes the information of little use if it is disseminated by normal joint/component intelligence distribution systems.

8MSNLOC	8CONTROL	8GNDFRND	8TGTDESC	8GUIDED
8BEACON	8SHIP	9SHIP	8MOVAA	NARR
8FACSCD	8EWDATA	8CHAFF	8RECDATA	8DELADDR
8REPORT	8AIRDROP	8ROUTE	8REFUEL	9REFUEL
8ESCDATA	8RDZDATA	8RZDLOC	8CARGO	8SPECHND
8LOADATA	8CONTACT	8LANDSTS	8PROTFRQ	FYFCE
FYPOS	ISR	IFF	EMCON	CODES
PREF	AKNLDG	DECL		

Figure C-3. Example Sets

2. COMPLETION INSTRUCTIONS: AIRREQRECON (AIR REQUEST RECONNAISSANCE)

Note: The AIRREQRECON format is in Chapter 3 of the Joint User Handbook for Message Text Formats [JUH-MTF]

The AIRREQRECON is a voice-only message used to request preplanned and immediate aerial reconnaissance support missions. The following paragraphs contain line-by-line instructions for filling out the AIRREQRECON. (Refer to Figure C-1 for a visual representation of these instructions). When making specific requests, use line 21 to justify your request.

a. **HEADING**

(1) Addressee and Originator: Use callsigns IAW theater mission planning documents, AFKAI, or other published callsign guidance.

(2) Message Precedence/Security Classification: Use applicable theater guidance regarding precedence and message classification.

b. **Line 1 - REQUEST**

Use coded request number IAW your theater's numbering system. You can find this in operation orders, TACP Mission Planning Guides, theater planning documents, or similar documents.

c. **Line 2 - PRIORITY**

The distinction between PRE-PLANNED and IMMEDIATE depends on the ability of the request to meet the appropriate Air Tasking Order (ATO) cycle. Use PRE-PLANNED for requests that can "wait" for the ATO cycle, and IMMEDIATE for those you must have answered in a more timely manner. Use priority number, or number and letter, based on your commander's guidance regarding priority and precedence of reconnaissance requests. Chapter III provides further discussion on Priority.

d. **Line 3 - TYPE**

Select from Visual, Imagery, Electronic, and Weather.

e. **Line 4 - START**

This line permits you to specify a time over target (TOT). Use hard time, no earlier than (NET) or no later than (NLT) time.

f. **Line 5 - LATEST**

Specify the LTIOV. Chapter III provides further discussion on LTIOV.

g. **Line 6 - DAYS**

Sometimes, the reconnaissance information you want has already been collected

to support someone else's request. This line permits you to indicate that you will accept previously-collected information (if it exists) in lieu of having a mission generated specifically to support you. Determine how dated the information can be and still be useful in accomplishing your mission. Enter the number which expresses that to collection managers. For example, if you can use data that's up to 72 hours old, enter 3.

h. **Line 7 - COVERAGE**

Specify the type of coverage you need. Select from PINPOINT, STRIP/LOC, ROUTE RECCE, AREA SEARCH, and AREA COVER. The term coverage refers to the way in which the sensors should be employed to get the results you are looking for. General types of coverage are—

(1) PINPOINT: A single image, or short series of images, of a specific target or object.

(2) STRIP/LOC: A series of overlapping images taken along a straight line or a line of communications (LOC).

(3) ROUTE RECCE: Images of points of interest along a designated route.

(4) AREA SEARCH: Imagery of points of interest within a designated area.

(5) AREA COVER: A series of images of an area providing uninterrupted imagery of a contiguous area.

i. **Line 8 - SENSOR**

In most cases, let the reconnaissance planners select the most appropriate sensor—enter "BEST" to leave the decision to these experts. However, if you have a valid need for a specific kind of recce (IR, radar, etc.), then enter it on this line (choose from optical, IR, radar, etc.) and use Line 21 to justify specific sensor requests.

j. **Line 9 - OTHER**

This is where you may request the "look" you need (vertical, oblique, etc.) However, entering "BEST" gives the reconnaissance people the latitude to make the best match between your request, available platforms, threats, and conditions.

k. **Line 10 - TARGET**

Specify the target code/EEIs IAW the theater/joint force instructions, or the sample target list in Chapter III.

l. **Line 11 - LOCTYPE**

This line lets you give the recce crews and planners a broad description of the geographical area you want covered. You may choose from PINPOINT, STRIP, or AREA. PINPOINT is used when you want coverage of a single point. STRIP denotes a line between two specified points. Use AREA for box coverage with at least 3 boundaries.

m. **Line 12 - LOCATION**

Specify the coordinates of your target. The two most widely used means of specifying geographical coordinates are Latitude/ Longitude and universal transverse mercator (UTM).

n. **Line 13 - REPORTS**

Choose from one or more of the following: INFLTREP, RECCEEXREP, TACREP, IPIR, SUPIR, or MISREP. Use the chart (Figure C-4) to select the report that best fits your needs:

o. **Line 14 - PRODUCT**

Specify the products you need, and include size and quantity. For example, one set positives indicates you want a set of photographic prints, while one set negatives means you want the original film negatives. For non-imagery products, use Line 21 to describe your requirements.

REPORT	PROMPTNESS	VALUE/USE OF REPORT
INFLTREP	Urgent	Perishable, time-critical information sighted by aircrews. Delay in reporting would negate usefulness
RECCEXREP	45 min after platform lands/recovers	Abbreviated imagery interpretation report.
TACREP	Urgent	Perishable, time-critical information; can be voice or record-copy format
IPIR	<24 hours after platform lands	Results of first-phase imagery exploitation.
SUPIR	Varies (hours to days)	Results of second-phase imagery exploitation. More complete analysis. Response time depends on the detail requested.
TACELINT	Immediate	Reports time-critical operational ELINT and parametric information.
OPREP-3	Immediate	Immediate notification of significant incidents or events.
MISREP	After mission debriefings	Mission results and items of general intelligence interest.

Figure C-4. Available Reports and User Value/Purpose

p. **Line 15 - DELIVERY**

Specify the organization(s), office(s), unit(s), or individual(s) who should receive the reports and/or other products—include telephone (voice/FAX) numbers where applicable.

q. **Line 16 - AIRDROP**

Some reconnaissance systems can airdrop imagery packages directly to you. If you need airdrop, specify the coordinates of your airdrop point on this line. Very few aircraft types can perform airdrop, and those resources for airdrop are very limited, so you must provide justification in Line 21.

r. **Line 17 - CALLSIGN**

If you are requesting an in-flight report (INFLTREP) or an airdrop, you specify the callsign of the organization/office/unit/individual who is to receive it on this line. Use your Signal Operating Instructions (SOIs), AFKAIs, or theater mission planning documents to find the appropriate callsign.

s. **Line 18 - PRIMARY**

Specify primary radio frequency for the INFLTREP or airdrop contact.

t. **Line 19 - SECONDARY**

Specify the secondary or backup radio frequency for the INFLTREP or airdrop contact.

u. **Line 20 - POINT**

If you're requesting an airdrop, specify the location of the airdrop vehicle's report-in point.

v. **Line 21 - NARRATIVE**

(1) Use this line to clarify items you specified on previous lines, or to make informational statements.

(2) This is the place to emphasize or further justify your requirements, such as why your "short-fuze" LTIOV is so important to your commander's mission objectives. If you feel strongly about some part of your request, use the narrative section to make it clear to your higher headquarters and to collection managers exactly what you want and why you want it!

(3) This line may request very specific information regarding a particular feature of the target. Additionally, this line is often used to inform reconnaissance planners/crews of potential threats. Some examples of typical narrative statements include:

(a) "Use south-to-north run-in to the target"

(b) "Confirmed enemy SA-13 activity 2 miles south of target"

(c) "Report on number of lanes being used for vehicular traffic"

w. **Line 22 - TIME**

Enter a date-time-group in ZULU when required to identify the message time of origin.

x. **Line 23 - AUTHENTICATION**

Enter the proper authentication IAW your theater's COMSEC requirements.

AIRREQRECON VOICE TEMPLATE

_____THIS IS_____AIR REQUEST RECON, OVER.
Addressee Originator

Addressee answers, then originator responds: THIS IS_____

FLASH IMMEDIATE PRIORIT ROUTINE (Underline and transmit the precedence of this message)

TOP SECRET SECRET CONFIDENTIAL UNCLASSIFIED (Underline and transmit the security classification of this message)

AIR REQUEST RECON

LINE 1 (OR) REQUEST _____ (Requesting unit identifier and request number)

LINE 2 (OR) PRIORITY _____ (PREPLANNED or IMMEDIATE and priority number or number and letter)

LINE 3 (OR) TYPE _____ (Reconnaissance mission type)

LINE 4 (OR) START _____ (Day-time-zone or relative time mission is desired)

LINE 5 (OR) LATEST _____ (Latest day-time-zone or relative time information will be of value)

Figure C-5. AIRREQRECON Voice Template

LINE 6 (OR) DAYS _____ (Number of days prior information is of value)

LINE 7 (OR) COVERAGE _____ (Type coverage requested)

LINE 8 (OR) SENSOR _____ (Type sensor requested)

LINE 9 (OR) OTHER _____ (Type of photography, film, and/or stereo coverage or BEST)

LINE 10 (OR) TARGET _____ (Reconnaissance target code/EEI)

LINE 11 (OR) LOCTYPE _____ (Mission location type)

LINE 12 (OR) LOCATION _____ (Mission location using bearing and range, GEOREF, lat/long or UTM coordinates)

LINE 13 (OR) REPORT _____ (Type report requested)

LINE 14 (OR) PRODUCT _____ (Number and type imagery products requested)

LINE 15 (OR) DELIVERY _____ (Delivery address for report)

LINE 16 (OR) AIRDROP _____ (Airdrop location using GEOREF, lat/long, or UTM)

LINE 17 (OR) CALL SIGN _____(Call sign of contact)

LINE 18 (OR) PRIMARY _____(Primary frequency or frequency designator of contact)

LINE 19 (OR) SECONDARY _____(Secondary frequency or frequency designator of contact)

LINE 20 (OR) POINT _____ (Report-in point using bearing/range, GEOREF, lat/long, or UTM coordinates)

LINE 21 (OR) NARRATIVE _____

_____

_____

_____

LINE 22 (OR) TIME _____ (Day-hour-minute-zone-month-year, when required to identify the message time of origin)

LINE 23 (OR) AUTHENTICATION IS _____ (Message authentication in accordance with established procedures)

OVER.

Figure C-5. AIRREQRECON Voice Template (continued)

AIRREQRECON VOICE TEMPLATE

FIREBEE_____THIS IS__LITCH 62_____AIR REQUEST RECON, OVER.
Addressee Originator

Addressee answers, then originator responds: THIS IS _LITCH 62_____

FLASH IMMEDIATE PRIORITY ROUTINE (Underline and transmit the precedence of this message)

TOP SECRET SECRET CONFIDENTIAL (Underline and transmit the security classification of this message)

UNCLASSIFIED

AIR REQUEST RECON

LINE 1 (OR) REQUEST _6L052_____(Requesting unit identifier and request number)

LINE 2 (OR) PRIORITY _PREPLANNED/2____(PREPLANNED or IMMEDIATE and priority number or number and letter)

LINE 3 (OR) TYPE __IMAGERY_____(Reconnaissance mission type)

LINE 4 (OR) START _____(Day-time-zone or relative time mission is desired)

LINE 5 (OR) LATEST _212100Z_____ (Latest day-time-zone or relative time information will be of value)

LINE 6 (OR) DAYS _6_____ (Number of days prior information is of value)

LINE 7 (OR) COVERAGE _PINPOINT_____(Type coverage requested)

LINE 8 (OR) SENSOR _BEST_____ (Type sensor requested)

LINE 9 (OR) OTHER BEST_____(Type of photography, film, and/or stereo coverage or BEST)

LINE 10 (OR) TARGET _6; ABC_____ (Reconnaissance target code/EEI)

LINE 11 (OR) LOCTYPE _PINPOINT_____(Mission location type)

LINE 12 (OR) LOCATION 454015N1571020E__(Mission location using bearing and range, GEOREF, lat/long or UTM coordinates)

LINE 13 (OR) REPORT _IPIR_____ (Type report requested)

LINE 14 (OR) PRODUCT _1 SET POSITIVES___(Number and type imagery products requested)

LINE 15 (OR) DELIVERY _363RD CP_____ (Delivery address for report)

Figure C-6. AIRREQRECON Voice Template (Filled-in Example)

LINE 16 (OR) AIRDROP _____ (Airdrop location using GEOREF, lat/long, or UTM)

LINE 17 (OR) CALL SIGN _V4Y35_____ (Call sign of contact)

LINE 18 (OR) PRIMARY _351.7_____ (Primary frequency or frequency designator of contact)

LINE 19 (OR) SECONDARY _121.5_____ (Secondary frequency or frequency designator of contact)

LINE 20 (OR) POINT _453721N1573420E_____ (Report-in point using bearing/range, GEOREF, lat/long, or UTM coordinates)

LINE 21 (OR) NARRATIVE _LTIOV CRITICAL TO MAKE CINC DIRECTED TOT_____

_____

_____

LINE 22 (OR) TIME _181230_____ (Day-hour-minute-zone-month-year, when required to identify the message time of origin)

LINE 23 (OR) AUTHENTICATION IS _MD__(Message authentication in accordance with established procedures)

OVER.

Figure C-6. AIRREQRECON Voice Template (Filled-in Example) (continued)

Appendix D

US COAST GUARD RECONNAISSANCE RESOURCES

1. Background

This appendix provides commanders, planners, and users of reconnaissance in joint operations with a general overview of United States Coast Guard (USCG) aviation assets that may have potential for reconnaissance collection applications.

2. The Coast Guard

The USCG is a branch of the US Department of Transportation in peacetime and augments the US Navy during wartime. This unique dual civil-military role means that Coast Guard units often participate in joint or multiservice operations as part of joint task forces. In recent years, USCG participation has ranged from counterdrug operations at home to deploying to the Persian Gulf in support of Operation Desert Storm. As a planner or user, you should be aware of Coast Guard reconnaissance capability which might be available and may have considerable benefit in military applications.

3. Coast Guard Reconnaissance

a. All Coast Guard aviation assets possess some reconnaissance capability. This capability ranges from the most basic, hand-held optical cameras to highly-specialized, sophisticated sensor systems. Although many of the sensor systems used on USCG aircraft are for purposes such as search and rescue, law enforcement and drug interdiction, they are also useful for reconnaissance applications in joint military operations.

b. This appendix orients you to the basic characteristics and capabilities of USCG systems. If USCG forces are part of your joint task force, familiarize yourself with the material in this appendix, and then contact the Coast Guard officers attached to the JTF staff or assigned to the Coast Guard Area Commander's staff. They can advise you in detail on how to task and employ USCG assets.

4. General Capabilities

All US Coast Guard aircraft can provide visual and imagery reconnaissance. Imagery reconnaissance ranges from basic, hand-held 35mm photography to radar, infrared, and multispectral imaging, depending on the aircraft.

5. Visual Reconnaissance

The USCG has aircraft of long, medium, or short range with long, medium, and short endurance time. Coast Guard aircraft are universally employed as search platformsand are all capable of performing visual reconnaissance. Most USCG aircraft are equipped with large visual search windows, and crews are trained and equipped in visual search techniques. One aircraft type, the RG-8A, can perform covert detection and surveillance missions.

6. Imagery Reconnaissance

a. Optical (Photographic) Imagery.

(1) Every USCG aircraft is capable of providing photographic imagery, usually in a 35mm format. However, most units do not have their own photo processing labs, so the product may be undeveloped film that must be processed by someone else. Several air stations, equipped with HC-130H or HU-25 aircraft, can provide hand-held 70mm photographic imagery (either single frame photos or a continuous stream of photos taken in rapid succession). The high-speed black-and-white film used with the 70mm cameras can be processed at selected Coast Guard

stations and selected Naval Air Stations (usually those associated with P-3C patrol aircraft operations).

(2) Coast Guard HU-25B aircraft can provide photo imagery using the aerial reconnaissance KS-87 camera. Although the Coast Guard has its own photo lab capable of processing the KS-87 film magazines, the lab may not be available in a deployed environment. Reconnaissance planners should therefore check on the availability of processing facilities for KS-87 film.

b. Non-optical Imagery.

(1) Radar.

(a) All USCG aircraft, except for the RG-8A motor glider, are equipped with some sort of airborne radar. While the radar used on helicopters is primarily a weather radar, fixed-wing aircraft have excellent surface-search radars as well as side-looking airborne radar (SLAR) capability.

(b) The HC-130H aircraft is equipped with an AN/APS-137 Inverse Synthetic Aperture (ISAR) Radar. This ISAR system can automatically track as many as 32 selected targets and continually updates an array of data on each target and includes a video recorder.

(c) The HU-25A and HU-25B aircraft are equipped with an AN/APS-127 surface search radar; however, there is no way to record the images produced by the radar. Thus, the reconnaissance products available from HU-25A/B aircrews using the APS-127 would be limited to verbal reports and would be limited to the aircrew's ability to interpret and describe the radar images they observe on the radar scope.

(d) Two types of Coast Guard fixed-wing aircraft can provide SLAR imagery: the HU-25B and the HC-130H. The HU-25B is primarily employed to measure and track the movement of oil spills. It was used in the Persian Gulf during Desert Storm to track the movement of the spill, to develop a computer model of the drift of the oil, and to determine where the oil was entering the Gulf. It has also been used in targeted operations to locate and track vessels illegally pumping bilges. Some HC-130H aircraft are also equipped with SLAR and in peacetime, they are primarily employed tracking icebergs in the North Atlantic Ocean.

(e) The SLAR product from either aircraft is a continuous roll of film that produces a black and white negative image of the surveyed area. The SLAR imagery from either aircraft can also be recorded on video tape.

(f) On the HU-25B, there is a portable personal computer (PC) operating a mapping program. The PC allows the sensor operator to read the film, indicate on the computer the location of the oil or other targets, and transmit the data via HF radio to another PC at a ground station. This produces a visual icon on the ground station PC depicting the location of the target within minutes of detection by the aircraft.

(2) Multispectral

(a) The HU-25B is also equipped with an infrared (IR)/ultraviolet (UV) scanner used primarily to measure the thickness of an oil product on the surface of the water. This data is recorded on video tape.

(b) The RG-8A motor glider has a "fusion video" system. It is a combination of forward-looking airborne radar (FLIR) and low light level TV (LLLTV) which produces an enhanced image using the best information from the two sensors working together.

(3) Infrared (FLIR).

Three types of USCG aircraft can record FLIR imagery on video tape: the HU-25C, RG-8 motor glider, and the HH-60J helicopter. All three aircraft have FLIR

sensors with a 360 degree viewing capability, enabling them to view targets in any direction from the aircraft's heading and position. The HU-25C features a belly-mounted FLIR turret that can be slaved to the aircraft's APG-66 air intercept radar. Target data information from the radar is overlaid onto the FLIR display and can also be recorded on the FLIR video tape.

(4) Night Vision Goggle (NVG) Video

Virtually all USCG aircraft types and their aircrews are equipped and trained with night vision goggles. USCG helicopter crews flying the HH-60J and HH-65A have the additional capability of taking NVG video with hand-held NVG video cameras. The cameras produce high quality images in the night environment and have proved effective in recording an illegal dumping incident.

7. Communications

US Coast Guard aircraft are normally equipped with a wide range of communications systems, all of which are interoperable with systems used by the other services. Standard communications radios include clear-channel UHF, VHF and HF radios, and the following secure systems:

a. Secure HF (advanced narrowband digital voice terminal [ANDVT]).

b. Secure UHF (KY-58/VINSON).

c. Secure VHF-FM.

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NAVY

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GLOSSARY

PART I - ABBREVIATIONS AND ACRONYMS

A

AA	antiaircraft
AAA	antiaircraft artillery
AAGS	Army Air-Ground System
ABCCC	airborne battlefield command and control center
ACC	Air Combat Command
ACE	aviation combat element
ACTYP	aircraft type
AFARN	Air Force Air Request Net
AFKAI	Authorized to Specified Allies Crypto Variable Program Keying Specification Operational Recognition and/or Identification System
AIRLANT	Naval Air Forces, Atlantic
AIRPAC	Naval Air Forces, Pacific
AIRREQRECON	air request reconnaissance
AIRSUPREQ	air support request
ALSA	Air Land Sea Application
AMPN	amplification
ANDVT	advanced narrrowband digital voice terminal
AOC	air operations center
ASAP	as soon as possible
ASOC	air support operations center
ATC	air traffic control
ATO	air tasking order
AVLB	armored vehicle-launched bridge
AWACS	Airborne Warning and Control System

B

BCE	battlefield control element
BDE	brigade
BN	battalion

C

C2	command and control
C3	command, control, and communications
C4I	command, control, communications, computers, and intelligence
CANX	cancel
CATF	Commander, Amphibious Task Force
CBT	common battery terminal
CCD	camouflage, concealment, and deception
CDR	commander
CE	command element
CIA	Central Intelligence Agency
CINC	commander in chief

CINCLANT	Commander in Chief, Atlantic Fleet
CIO	Central Imagery Office
CM	collection management; centimeter
COMCARAIRWING	Commander, Carrier Air Wing
COMFITWING	Commander, Fighter Wing
COMFITWINGPAC	Commander, Fighter Wing U.S. Pacific Fleet
COMINT	communications intelligence
COMSAT	communications security
CONUS	Continental United States
CON	conference
CNO	Chief of Naval Operations
CSSE	combat service support element

D

DA	Department of Army
DARS	daily airborne reconnaissance and surveillance
DASC	direct air support center
DECL	declassify
DG	downgrade
DG(C)	downgrade to (Confidential)
DG(S)	downgrade to (Secret)
DIA	Defense Intelligence Agency
div	division
doc	document
DOD	Department of Defense

E

EA	electronic attack
EC	electronic combat
ECCM	electronic counter-countermeasures
ECM	electronic countermeasures
EEI	essential elements of information
e.g.	for example
ELINT	electronic intelligence
ELP	elliptical
EMCON	emissions control
EO	electrooptic
EP	electronic protection
ES	electronic warfare support
ESM	electronic warfare support measures
execr	exercise
EW	electronic warfare

F

FAC	forward air controller
FAX	facsimile
FIIV	force imagery interpretation

fir	fighter
FISINT	foreign instrumentation signals intelligence
FLAR	forward-looking airborne radar
FLIR	forward-looking infrared
FMF	Fleet Marine Force
FSCC	fire support coordination center
ft	feet
ftr	fighter

G

G-2	Army or Marine Corps component intelligence staff officer (Army division or higher staff, Marine Corps brigade or higher staff)
GCE	ground combat element
GENTEX	general text
GSR	ground/surface surveillance radar

H

HUMINT	human intelligence
HF	high frequency; hundreds of feet
HM	hectometers

I

IAW	in accordance with
IDENT	identification
i.e.	that is
IIR	imagery interpretation report
IMINT	imagery intelligence
IN	intelligence staff (Air Force component); inch
INFLTREP	in-flight report
info	information
INTREP	intelligence report
IPB	intelligence preparation of the battlespace
IPIR	initial phase interpretation report
IR	infrared
ISAR	inverse synthetic aperture radar

J

J-2	Intelligence Directorate of a joint staff
J-3	Operations Directorate of a joint staff
J-6	Command, Control, Communications, and Computer Systems Directorate of a joint staff
JFACC	joint force air component commander
JFC	joint force commander
JFLCC	joint force land component commander
JFMCC	joint force maritime component commander
JIC	joint intelligence center
JTF	joint task force

JUH-MTF	Joint User Handbook - Message Text Formats
JWICS	Joint Worldwide Intelligence Communications System

K

k	thousand
KF	kilofeet
km	kilometer

L

LCC	land component commander
LOC	line of communications
LTIOV	last time information is of value
ltr	letter

M

M	million; meter
MAGTF	Marine air ground task force
MASINT	measurement and signature intelligence
MCPDS	Marine Corps Publication Distribution System
MEF	Marine expeditionary force
min	minute
MISREP	mission report
MLC	military load class
mm	millimeter
MSC	major subordinate command
MSG	message
MSGCHANGEREP	message change report
MSGID	message identification
MSNTYP	mission type
MSTART	mission start
MT	motor transport
MTI	moving target indicator

N

NAI	named area of interest
NARR	narrative
NAS	naval air station
NATO	North Atlantic Treaty Organization
NEF	Naval Expeditionary Force
NIIRS	national imagery interpretation rating system
NIST	national intelligence support team
NM	nautical miles
NMJIC	National Military Joint Intelligence Center
NOTAL	not provided to all concerned
NRO	National Reconnaissance Office
NRT	near real time
NSA	National Security Agency

num	number
NVG	night vision goggle
NWJIC	National

O

OADR	originating agency's determination required
OPCON	operational control
OPER	operation
OPR	office of primary responsibility
OPREP	operations report
OPS	operations

P

PACAF	Pacific Air Force
PASEP	passed separately
PC	personal computer
PERID	period
POL	petroleum, oil, and lubricants
Pub	publication
PR	priority
PRY	priority
PSYOP	psychological operations

R

recce	reconnaissance
RECCEXREP	reconnaissance exploitation report
REF	reference
REQNO	request number
REQDAT	request date
RFI	request for information
RI	request for information
RRI	response to request for information
RTC	reconnaissance target code

S

S2	battalion or brigade intelligence staff officer
SAM	surface-to-air missile
SAR	synthetic aperture radar
SARC	surveillance and reconnaissance coordination
SCAMP	senior control management platoon
SIGINT	signals intelligence
SIS/VPN	special information system/voice product net
SLAR	side-looking airborne radar
SM	status miles
SOF	special operations forces
SOI	signal operating instructions
SP	self-propelled

SR	special reconnaissance
SSM	surface-to-surface missile
STANAG	standing agreement
SUPIR	supplemental photographic interpretation report

T

TACC	tactical air command center (USMC)/tactical air control center (USN)
TACELINT	tactical ELINT
TACP	tactical air control party
TACREP	tactical report
TACS	theater air control system
TADC	tactical air direction center
TAOC	tactical air operations center
TARPS	tactical airborne reconnaissance POD system
tel	telephone
TIBS	tactical information broadcast service
TOC	tactical operations center
TOPO	topographic
TRAP	tactical related applications
TTP	tactics, techniques, and procedures

U

UAV	unmanned aerial vehicle
UHF	ultra high frequency
UNCLAS	unclassified
UNK	unknown
US	United States
USAFE	United States Air Forces Europe
USCG	United States Coast Guard
USMTF	United States Message Text Format
UTM	universal transverse mercator
UV	ultraviolet

V

VHF	very high frequency

W

WOC	wing operations center

Y

yd	yard

Z

ZULU	time zone indicator for Universal Time

PART II - TERMS AND DEFINITIONS

beacon. A light or electronic source which emits a distinctive or characteristic signal used for the determination of bearings, courses, or location.

command and control (C2). The exercise of authority and direction by a properly designated commander over assigned forces in the accomplishment of the mission. Command and control functions are performed through an arrangement of personnel, equipment, communications, facilities, and procedures employed by a commander in planning, directing, coordinating, and controlling forces and operations in the accomplishment of the mission.

command and control warfare (C2W). The integrated use of operations security (OPSEC), military deception, psychological operations (PSYOP), electronic warfare (EW), and physical destruction, mutually supported by intelligence, to deny information to, influence, degrade, or destroy adversary command and control capabilities while protecting friendly command and control capabilities against such actions. Also called C2W. C2W applies across the operational continuum and all levels of conflict. C2W is both offensive and defensive:

> **counter-C2. T**o prevent effective C2 of adversary forces by denying information to, influencing, degrading or destroying the adversary C2 system.
>
> **C2-protection.** To maintain effective command and control of own forces by turning to friendly advantage or negating adversary efforts to deny information to, influence, degrade or destroy the friendly C2 system.

compatibility. Capability of two or more items or components of equipment or material to exist or function in the same system or environment without mutual interference.

electronic warfare (EW). Any military action involving the use of electromagnetic and directed energy to control the electromagnetic spectrum or to attack the enemy. The three major subdivisions within electronic warfare:

> **electronic attack (EA).** That division of electronic warfare involving the use of electromagnetic or directed energy to attack personnel, facilities, or equipment with the intent of degrading, neutralizing, or destroying enemy combat capability. EA includes actions taken to prevent or reduce an enemy's effective use of the electromagnetic spectrum, such as jamming and electromagnetic deception and employment of weapons that use either electromagnetic or directed energy as their primary destructive mechanism (lasers, radio frequency weapons, particle beams).
>
> **electronic protection (EP).** That division of electronic warfare involving actions taken to protect personnel, facilities, and equipment from any effects of friendly or enemy employment of electronic warfare that degrade, neutralize, or destroy friendly combat capability.
>
> **electronic warfare support (ES).** That division of electronic warfare involving actions tasked by, or under direct control of, an operational commander to search for, intercept, identify, and locate sources of intentional and unintentional radiated electromagnetic energy for the purpose of immediate threat recognition. Thus, electronic warfare support provides information required for immediate decisions involving electronic

warfare operations and other tactical actions such as threat avoidance, targeting and homing. Electronic warfare support data can be used to produce signals intelligence (SIGINT), both communications intelligence (COMINT) and electronics intelligence (ELINT).

electrooptics (EO). The technology associated with those components, devices and systems which are designed to interact between the electromagnetic (optical) and the electric (electronic) state.

emission control (EMCON). The selective and controlled use of electromagnetic, acoustic, or other emitters to optimize command and control capabilities while minimizing, for operations security, detection by enemy sensors; to minimize mutual interference among friendly systems; and/or to execute a military deception plan.

essential elements of information (EEI). The critical items of information regarding the enemy and the environment needed by the commander by a particular time to relate with other available information and intelligence in order to assist in reaching a logical decision.

imagery. Collectively, the representations of objects reproduced electronically or by optical means on film, electronic display devices, or other media.

immediate mission request. A request for an air strike on a target which, by its nature, could not be identified sufficiently in advance to permit detailed mission coordination and planning.

infrared film. Film carrying an emulsion especially sensitive to "near-infrared." Used to photograph through haze, because of the penetrating power of infrared light; and in camouflage detection to distinguish between living vegetation and dead vegetation or artificial green pigment.

i**nfrared radiation (IR).** Radiation emitted or reflected in the infrared portion of the electromagnetic spectrum.

interoperability. The ability of systems, units or forces to provide services to and accept services from other system, units, or forces and to use the services so exchanged to enable them to operate effectively together.

joint. Connotes activities, operations, organizations, etc., in which elements of more than one service of the same nation participate.

joint force. A general term applied to a force which is composed of significant elements of the Army, the Navy or the Marine Corps and the Air Force, or two or more of these services, operating under a single commander authorized to exercise unified command or operational control over joint forces.

joint force air component commander (JFACC). The joint force air component commander derives his authority from the joint force commander who has the authority to exercise operational control, assign missions, direct coordination among his subordinate commanders, redirect and organize his forces to ensure unity of effort in the accomplishment of his overall mission. The joint force commander will normally designate a joint force air component commander. The joint force air component commander's responsibilities will be assigned by the

joint force commander (normally these would include, but not be limited to, planning, coordination, allocation, and tasking based on the joint force commander's apportionment decision). Using the joint force commander's guidance and authority, and in coordination with other service component commanders and other assigned or supporting commanders, the joint force air component commander will recommend to the joint force commander apportionment of air sorties to various missions or geographic areas.

joint force commander (JFC). A general term applied to a commander authorized to exercise Combatant Command (command authority) or operational control over a joint force.

joint task force (JTF). A force composed of assigned or attached elements of the Army, the Navy, or the Marine Corps, and the Air Force, or two or more of these services, which is constituted and so designated by the Secretary of Defense or by the commander of a unified command, a specified command, or an existing joint task force.

preplanned mission request. A request for an air strike on a target which can be anticipated sufficiently in advance to permit detailed mission coordination and planning.

radar. A radio detection device which provides information on range, azimuth and/or elevation of objects.

service component command. A command consisting of the service component commander and all those individuals, units, detachments, organizations and installations under the command that have been assigned to the unified command.

signals intelligence (SIGINT). A category of intelligence information comprising either individually or in combination of all communications intelligence, electronics intelligence, and foreign instrumentation signals intelligence, however transmitted.

> **communications intelligence (COMINT).** Technical and intelligence information derived from foreign communications by other that the intended recipients.
>
> **electronics intelligence (ELINT).** Technical and intelligence information derived from foreign non-communications electromagnetic radiations emanating from other than nuclear detonations or radioactive sources.
>
> **foreign instrumentation signals intelligence (FISINT).** Technical information and intelligence information derived from the intercept of foreign instrumentation signals by other than the intended recipients.

special operations. Operations conducted by specially trained, equipped, and organized DOD forces against strategic or tactical targets in pursuit of national military, political, economic, or psychological objectives. These operations may be conducted during periods of peace or hostilities. They may support conventional operations, or they may be prosecuted independently when the use of conventional forces is either inappropriate or infeasible.

special operations forces (SOF). Military units of the Army, Navy, and Air Force that are designated for special operations, as that term is defined, and are organized, trained, and equipped specifically to conduct special operations.

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