NATO STANDARD

AIntP-21

NATO IMAGERY INTELLIGENCE (IMINT) TACTICS, TECHNIQUES AND PROCEDURES

Edition A, Version 1

MAY 2023

NORTH ATLANTIC TREATY ORGANIZATION

ALLIED INTELLIGENCE PUBLICATION

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NATO LETTER OF PROMULGATION

5 May 2023

1. The enclosed Allied Intelligence Publication AIntP-21, Edition A, Version 1, NATO IMAGERY INTELLIGENCE (IMINT) TACTICS, TECHNIQUES AND PROCEDURES, which has been approved by the nations in the Military Committee Joint Standardization Board , is promulgated herewith. The agreement of nations to use this publication is recorded in STANAG 6533.

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Lieutenant General, GRC (A)
Director, NATO Standardization Office

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RECORD OF RESERVATIONS

CHAPTER	RECORD OF RESERVATION BY NATIONS
Note: The reservations listed on this page include only those that were recorded at time of promulgation and may not be complete. Refer to the NATO Standardization Document Database for the complete list of existing reservations.	

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RECORD OF SPECIFIC RESERVATIONS

[nation]	[detail of reservation]
DEU	Page 3-2, Para 3.4 Purpose Codes, Type Critical In the Purpose Code the "Items Reported" and the examples have been completely removed. There is no rule anymore, whether items must be reported in accordance to the tasked purpose code, may be reported or if the reporter chooses which items have to be reported. This has to be made clear with only one option. Additionally, it's possible to task "Damage Assessment" using Purpose Code D without reporting item 6 "Damage Assessment", or to report item 6 "Damage Assessment" with purpose code A "New Target". Both examples do not make any sense. Therefore the purpose code is merely a decorative addition to the tasking without any deeper meaning. Additionally, using this definition of the purpose code, the IMINT TTPs are not consistent to the RECCEXREP IER. Page 3-3, Para 3.6, Remarks to reporting, Type Critical Delete/ignore: "Certain target categories are generally avulsed from belonging to an organization and so the item Type can be considered as not applicable for them (i.e. Route reconnaissance, Terrain reconnaissance, Coastal reconnaissance, Bridges and Tunnels, Water Control Installations, Power Installations, Urban Areas)" Remarks for Reporting: Item 1b) TYPE is regarded not applicable in certain categories and should be omitted. This statement (to delete) is in conflict with the current definition, it is not consistent with the RECCEXREP IER, there is no rationale as to why the type is dependent on organizational affiliation, and Annex A also provides examples for item 1b) TYPE in the mentioned categories (Annex B, however, does not). Proposal: -Reintroduction of the examples for item 1b) TYPE in the indicated categories.
GBR	AIntP-21 will be adhered to, other than when national precedence dictates.
HRV	Considering complexity and demand of STANAG 6533 (Edition 1) Croatian Armed Forces (CAF) in accordance to its organizational and operational capabilities will implement and use tactics, techniques and procedures on tactical level battle group of battalion and brigade regarding request of NATO capability L 7201 – Intelligence, Surveillance, Target Acquisition & Reconnaissance – ISTAR with basic type of sensor. Croatian Armed Forces (CAF) instead of terminology (Excellent, Good, Fair, Poor) in paragraph E 24 – tactics, techniques and

	procedures in STANAG 6533 (Edition 1) for assessment of interpretability will use numerical value according to STANAG 7194 (Edition 2) – NATO Imagery Interpretability Rating Scale (NIIRS) - AIntP-7 Edition A.
NLD	The Kingdom of the Netherlands will not adhere to Chapter 1 Paragraph 1.2 for the training of its IMINT specialists and analysts. For the description of imagery characteristics it will use the division into categories used in the AJP-2.6 instead.
Note: The reservations listed on this page include only those that were recorded at time of promulgation and may not be complete. Refer to the NATO Standardization Document Database for the complete list of existing reservations.	

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REFERENCES

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B. STANAG 2191 - AJP-2.1 ALLIED JOINT DOCTRINE FOR INTELLIGENCE PROCEDURES
C. STANAG 6507 - AJP-2.6 ALLIED JOINT DOCTRINE FOR IMAGERY INTELLIGENCE (IMINT)
D. STANAG 7107 - AJP-2.7 ALLIED JOINT DOCTRINE FOR JOINT INTELLIGENCE, SURVEILLANCE AND RECONNAISSANCE (JISR)
E. STANAG 2490 - AJP-3 CONDUCT OF OPERATIONS
F. STANAG 2524 - AJP-3.9 ALLIED JOINT DOCTRINE FOR JOINT TARGETING
G. STANAG 2599 - AJP-3.17 ALLIED JOINT DOCTRINE FOR GEOSPATIAL SUPPORT
H. STANAG 2433 - AINTP-03 NATO MILITARY INTELLIGENCE DATA EXCHANGE STANDARD
I. STANAG 7194 - AINTP-07 NATO IMAGERY INTERPRETABILITY RATING SCALE (NIIRS)
J. STANAG 6510 - AINTP-14 JOINT INTELLIGENCE, SURVEILLANCE AND RECONNAISSANCE (JISR) PROCEDURES IN SUPPORT OF NATO OPERATIONS
K. STANAG 6524 - AINTP-16 INTELLIGENCE REQUIREMENT MANAGEMENT AND COLLECTION MANAGEMENT
L. STANAG 6527 - AINTP-17 JOINT INTELLIGENCE PREPARATION OF THE OPERATING ENVIRONMENT
M. AINTP-20 IMAGERY INTELLIGENCE REPORTING NOMENCLATURE
N. STANAG 6542 - AINTP-24 INTELLIGENCE SUPPORT TO TARGETING
O. STANAG 3884 - ATP-100 AIR IMAGERY INTERPRETATION, ANNOTATION AND TITLING
P. STANAG 7149 - APP-11 NATO MESSAGE CATALOGUE
Q. STANAG 1166 - APP-20 STANDARD SHIP DESIGNATOR SYSTEM
R. STANAG 4545 – AEDP-04 NATO SECONDARY IMAGERY FORMAT (NSIF)
S. STANAG 4607 – AEDP-07 NATO GROUND MOVING TARGET INDICATION (GMTI) FORMAT
T. STANAG 4609 – MISP-2019.1 NATO DIGITAL MOTION IMAGERY STANDARD
U. STANAG 7023 – AEDP-7023 AIR RECONNAISSANCE PRIMARY IMAGERY DATA STANDARD
V. STANAG 4777 - AEDP-02 NATO INTELLIGENCE, SURVEILLANCE, AND RECONNAISSANCE INTEROPERABILITY ARCHITECTURE (NIIA) – ARCHITECTURE DESCRIPTION, Volumes 1-4
W. STANAG 4559 NATO STANDARD ISR LIBRARY INTERFACES AND SERVICES
X. AEDP-17 NATO STANDARD ISR LIBRARY INTERFACE
Y. AEDP-18 NATO STANDARD ISR STREAMING SERVICES

Z. AEDP-19 NATO STANDARD ISR WORKFLOW ARCHITECTURE
AA. AAP-06 NATO GLOSSARY OF TERMS AND DEFINITIONS

PREFACE

Context

Lessons learned from recent NATO operations have demonstrated the vital importance of imagery and imagery-based JISR results in the joint intelligence preparation of the operating environment (JIPOE) and to support planning and the conduct of operations.

This AIntP considers imagery intelligence (IMINT) in the context of the digitized era where modern air, land, maritime, and space platforms may all be employed as imagery collection systems. Technological advancements (e.g. from wet film to digital sensors) have enhanced the capabilities of imagery systems, for both collection and exploitation, and changed the way that imagery can be used operationally. In the digital era, with increased communication means, still imagery, imaging radar scans, and motion imagery can now all be sources of near real-time information.

Standardized IMINT tactics, techniques, and procedures (TTPs) can contribute to support NATO objectives and missions with relevant, accurate, and timely JISR results.

Scope

AIntP-21 describes how IMINT activities are conducted by IMINT specialists, i.e. IMINT skilled personnel employed in staff positions and intelligence requirements management and collection management (IRM&CM) functions, and IMINT analysts, during the tasking, collection, processing, exploitation, and dissemination (TCPED) process in all levels of NATO operations – from strategic to tactical – and will contribute to set up standardized procedures for NATO operations, thus enhancing training.

Purpose

This publication is primarily intended for NATO forces, headquarters and organizations providing a common baseline for IMINT activities within the NATO intelligence cycle and NATO JISR process.

Application

AIntP-21 is focused at the military operational and tactical level. The provisions of this document could be applied at all levels of command and by other NATO organizations supporting the achievement of their objectives and missions.

Structure

AIntP-21 is divided into four chapters, with three annexes that provide formats and lexicon.

- Chapter 1 – IMINT OVERVIEW
- Chapter 2 – IMINT CORE ACTIVITIES
- Chapter 3 – IMINT REQUESTING AND REPORTING
- Chapter 4 – IMINT REPORT FORMS

Linkages

AIntP-21 is intended to be read in the context of the keystone intelligence document AJP-2. Other documents that are related to AIntP-21 are listed hereafter.

– IMINT context
  (1) AJP-2.6 – Allied Joint Doctrine for Imagery Intelligence. AJP-2.6 is the main reference for AIntP-21. It provides the overview for IMINT in NATO and should be considered for all topics that are not specifically developed within AIntP-21.
  (2) AIntP-07 – NATO Imagery Interpretability Rating Scale. As collateral third level of doctrine publication in the IMINT context, AIntP-07 provides deepening about imagery characteristics and nature within the electromagnetic spectrum, as well as tables for interpretability level evaluation of imagery.
  (3) AIntP-20 – Imagery Intelligence Reporting Nomenclature. As collateral third level of doctrine publication in the IMINT context, AIntP-20 (under development) provides reporting nomenclature in relation to the IMINT Reporting Items.

– Intelligence context
  (1) AJP-2.1. – Allied Joint Doctrine For Intelligence Procedures. IMINT expresses its own assessments referring to the confidence levels as used in the intelligence community.
  (2) AIntP-03 – NATO Military Intelligence Data Exchange Standard. The IMINT Reporting Items described in AIntP-21 represent categories of intelligence data in relation to the Pentagram schema.
  (3) AIntP-16 – Intelligence Requirement Management and Collection Management. IMINT is to be directed using proper requests in consideration of a typical imbalance between intelligence requirements and analytical resources.
  (4) AIntP-17 – Joint Intelligence Preparation of the Operating Environment. As one of the intelligence disciplines, IMINT concurs to support JIPOE development.
  (5) AIntP-24 – Intelligence Support to Targeting. IMINT is one of the main contributors to the Joint Targeting Process, deeply involved in target analysis, positive identification, pattern of life, collateral damage assessment and battle damage assessment, as well as prosecution on mobile targets.

– JISR context
  (1) AJP-2.7 – Allied Joint Doctrine for Joint Intelligence, Surveillance, and Reconnaissance. IMINT is a subset intelligence collection discipline of JISR. As such, it abide by JISR process. AIntP-21 decline all TTPs dedicated to IMINT.

(2) AIntP-14 – Allied JISR Procedures in support of NATO operations. As part of JISR, IMINT abide by responsibilities, tasking and reporting process described in AIntP-14.

– Operation context
  (1) AJP 3.9 – Allied Joint Doctrine for Joint Targeting. As contributor, IMINT is synchronized with the Joint Targeting Process.
  (2) AJP-3.17 – Allied Joint Doctrine For Geospatial Support. IMINT and GEOINT are strictly involved in several activities for operations support.
– Other NATO doctrine context
  (1) ATP-100 – Air Imagery Interpretation, Annotation and Titling. The document provides specific indication regarding the formats of annotated image products.
  (2) APP-11 – NATO Message Catalogue. The document provides specific indication regarding the formats of textual reports derived from imagery.
  (3) APP-20 – Standard Ship Designator System. The document provides a taxonomy about ship classification.

Furthermore, in NATO Standardization Document Database (NSDD), there are several Technical References that concern of Imagery and give details for a better interoperability among different Imagery systems. The main Technical References are:

- STANAG 4545 / AEDP-04 NATO Secondary Imagery Format (NSIF)
- STANAG 4607 / AEDP-07 NATO Ground Moving Target Indication (GMTI) Format
- STANAG 4609 / MISP-2019.1 NATO Digital Motion Imagery Standard
- STANAG 7023 / AEDP-7023 Air Reconnaissance Primary Imagery Data Standard
- STANAG 4777 / AEDP-02 NATO Intelligence, Surveillance, and Reconnaissance Interoperability Architecture (NIIA) – Architecture Description, Volumes 1-4
- STANAG 4559 NATO Standard ISR Library Interfaces and Services
- AEDP-17 NATO Standard ISR Library Interface
- AEDP-18 NATO Standard ISR Streaming Services
- AEDP-19 NATO Standard ISR Workflow Architecture

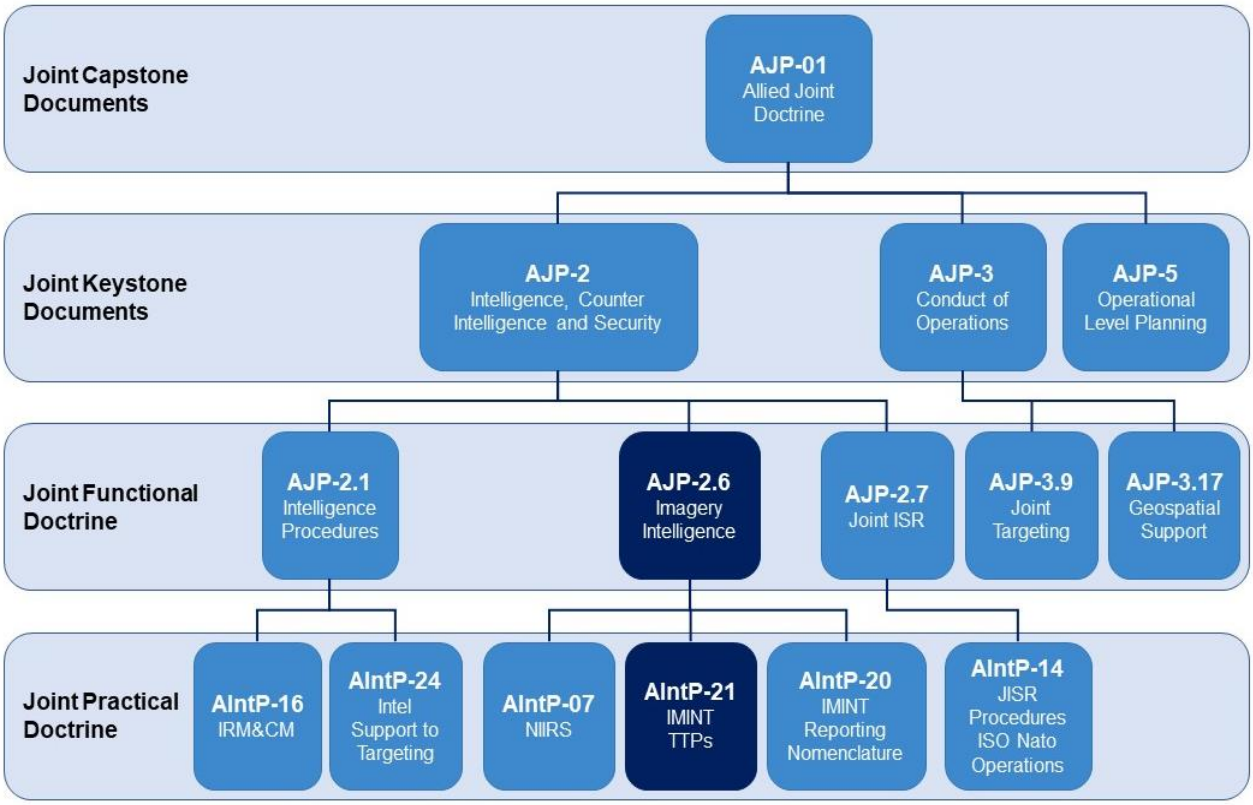

Figure 1.2. AIntP-21 within the NATO Allied Joint Doctrine Architecture

CHAPTER 1 IMINT OVERVIEW

1.1. Introduction

Imagery is produced by capturing energy from the electromagnetic spectrum. With the rise of computing power in the late twentieth century, digital sensors were developed that could directly collect electromagnetic energy and produce images. As digital sensors continued to improve, “wet film”, as the chemical process has become known, slowly declined until its use, especially for military purposes, became less prominent. For this reason, this AIntP considers digital motion imagery and still imagery[1].

1.2. Imagery characteristics

1.2.1. Electro Optical (EO) imagery

Features:

In accordance with AIntP-07, imagery consists of energy that is reflected (EO reflective) by an object or energy that is absorbed and emitted by an object (EO emissive).

- Within the electromagnetic spectrum, EO reflective imagery includes: panchromatic imagery[2]; multispectral imagery[3]; hyperspectral imagery[4]; day-time near-wavelength infrared (NIR) imagery; day-time short-wavelength infrared (SWIR) imagery, and day-time mid-wavelength infrared (MWIR) imagery.
- EO emissive imagery refers to the self-emitted illumination (spatial and thermal signature) of an object and includes nighttime MWIR imagery and nighttime long-wavelength infrared (LWIR)[5] imagery.

[1] Throughout the remainder of this publication digital imagery will always be referred to as imagery (motion, still, etc.) either digital imagery (motion, still, etc.).

[2] Panchromatic imagery is black and white, displayed as a grey scale image, and generally has a higher resolution than infrared. It is acquired with a sensor that is sensitive to all or most of the visible spectrum. Panchromatic imagery is collected by sampling a broad range of the visible and near infrared EO spectrum in a single band.

[3] Multi/Hyper Spectral imagery is collected by sensors sensitive to a series of specific wavelengths, usually grouped in bands. By collecting multiple bands, processing software can build composite images highlighting desired spectral signatures. Multispectral imagery has a set of two to tens bands, and hyper spectral imagery has a set of hundreds of bands.

[4] For each pixel in an image, a hyperspectral camera acquires the light intensity (radiance) for a large number (typically a few tens to several hundred) of contiguous spectral bands. Every pixel in the image thus contains a continuous spectrum (in radiance or reflectance) and can be used to characterize the objects in the scene with great precision and detail.

[5] LWIR refers to the thermal imaging region in which sensors can obtain a completely passive image based on thermal emissions only, requiring no external light or thermal source, such as the Sun, Moon, or infrared illuminator.

– The following diagram illustrates the two primary imaging sensor types (EO reflective and EO emissive), the various spectral operating modalities[6], and radar imagery bands.

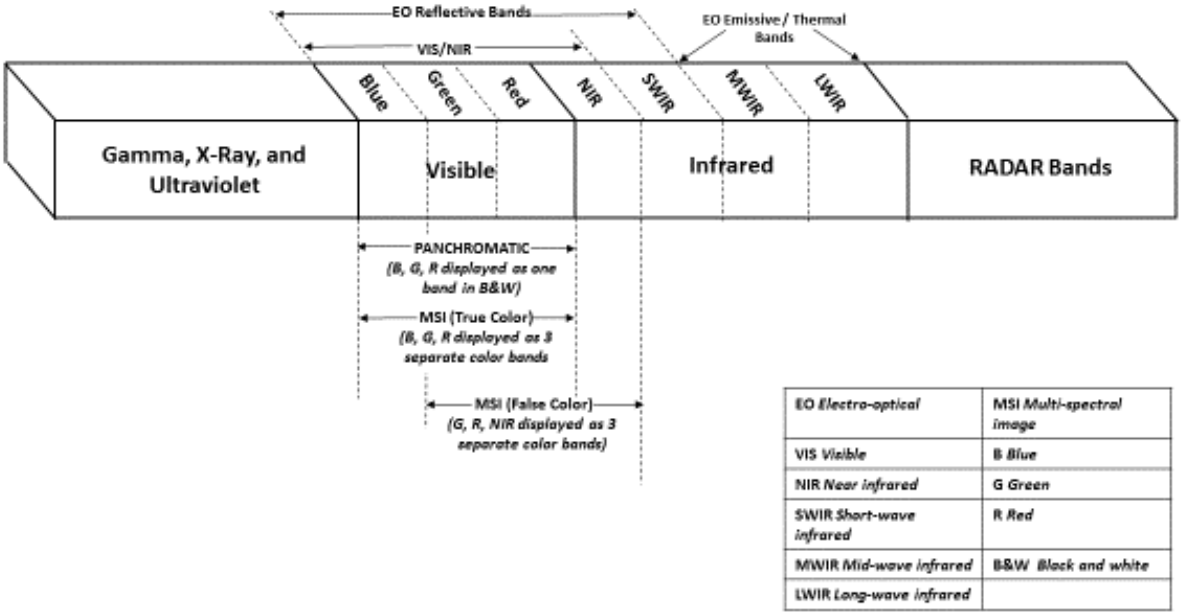

Figure 1.1. Relevant electromagnetic spectrum.

Collection considerations:

– EO sensors are passive, only collecting electromagnetic energy emitted by or reflected off the target itself, and so could be jammed by laser. However, adversary actions, such as camouflage, cover, laser blinding, and concealment and other deception activities could hamper the imagery collection.
– EO imagery can be degraded or obscured by dust, smoke, haze, cloud, rain, fog, sun-reflection, light level, and angle of illumination.

1.2.2 Radar data

Features:

Radar operates on the principle that all materials reflect a portion of the electromagnetic radiation directed at them and that the distance from the antenna to the target can be measured based on the time it takes for the signal to travel to the target and back. There are two types of radar data, synthetic aperture radar imagery and moving target indicator data.

– Synthetic aperture radar (SAR) imagery is derived by a form of radar characterized by the use of relative motion between the transmitting antenna and the receiving antenna. When it is compared with previously acquired synthetic aperture radar coverage, using techniques such as interferometry (e.g. coherent change

[6] There is an overlap between the end of the NIR and the beginning of the SWIR boundaries.

detection), radar stereoscopy (radargrammetrics), or polarimetry, more intelligence concerning target status and activity can be obtained.
- Ground Moving Target Indicator (GMTI) data is derived from a radar technology that employs the principle of Doppler shift to filter out stationary objects. A map is produced by plotting a series of radar sweeps, thus showing the path of movements and allowing for the calculation of speed.

Collection considerations:
- Radar is an active collection system that may be vulnerable to enemy detection.
- Depending on the power and frequency of the transmitter radar can penetrate virtually all atmospheric conditions.
- Operating obliquely at high altitude, synthetic aperture radar can provide extensive area coverage and excellent stand-off ranges, permitting the platform to operate over friendly areas while imaging hostile territory.
- Moving target indicator is the best radar imagery for detecting on-going movement.

1.2.3 Light detection and ranging

Features:
Light detection and ranging (LIDAR) sensors are similar to radar, but transmit laser pulses instead of radio waves, and can be integrated into airborne platforms. LIDAR supports large-scale production of high-resolution digital elevation products displaying accurate, highly detailed, 3-D models of structures and terrain.

Collection considerations:
- LIDAR operates vertically to the targeted area.
- LIDAR can be used both for intelligence and geographical applications[7], including 3D modeling, line of sight calculation and location of landing zone.
- LIDAR has similar advantages and disadvantages as radar, except it is more susceptible to weather conditions

[7] Shorelines and beach volume changes, shallow water depths (0-50 meters), flood risk analysis, water flow issues, and transportation mapping applications.

1.3 Geographical considerations regarding IMINT TTPs

All along the IMINT processing, interactions with geospatial data is critical. IMINT staff have to be aware of this underlying aspect of imagery considering that, most of time, collection, analysis and exploitation systems rely on geospatial data. The calculation of this data can vary between systems, between sensors, and due to other errors. When available it is of utmost importance for NATO entities to use Designated Geospatial Information for planning, exercises and deployments in coordination with SHAPE J2 GEO in order to ensure interoperability and safety.
Furthermore, geolocation information from IMINT should generally be considered uncertain and derived coordinates should only be used for situational awareness[8].

1.4 Terminology

This document uses terms consistently throughout the document and aligns itself with terminology from AAP-06 whenever possible. To ensure consistency in describing IMINT TTPs uses the terms and definitions listed in ANNEX F.

[8] In reference to AEDP-02, geolocation information can be necessary in order to measure its uncertainty or to provide a more accurate data for specific contexts as follows:

- orthorectifying raw imagery for accurate planar mensurations;
- confirming and refining of intercepted signals ellipse location;
- precise point mensuration for delivering high-accuracy ordinance.

CHAPTER 2 IMINT CORE ACTIVITIES

2.1. Introduction

The intelligence cycle is the sequence of activities whereby information is obtained, assembled, and converted into intelligence and then made available for users. While the intelligence cycle outwardly appears a simple process, in reality its activities are complex and it comprises many simultaneous activities at different levels and speeds. Some activities can overlap while others may coincide so that they are conducted concurrently, rather than sequentially.
JISR supports the intelligence cycle and during the collection phase it contributes to fulfilling the collection requirements of commanders and their staff necessary to plan, execute and assess operations.
JISR process is also referred to as TCPED process (task, collect, process, exploit, disseminate). During the first phase, assets are tasked (T) and missions are planned. Collection is executed by sensor platforms (C) and information is processed/exploited at/near real time (P/E), and then disseminated to customer (D) for further analysis. The collected information is then available for processing into fused intelligence products with other types of JISR results and intelligence and dissemination to the intelligence community at large.

The IMINT TTPs are focused on the Joint operational and tactical level and should be adapted to the specific collection and processing/exploitation capability, as necessary.
This AIntP, subordinated to AJP-2.6, describes the mentioned IMINT TTPs following the steps of the TCPED process. In this context, the IMINT specialists and the imagery analysts will use the appropriate TTP in accordance with operational requirements (e.g.: related to platform, sensor) and in response to validated intelligence requirements (Priority Intelligence Requirements (PIR), Specific Intelligence Requirements (SIR), Essential Elements of Information (EEI)).
The dynamic nature of the intelligence cycle and the related TCPED process means that IMINT TTPs may actually be used during several activities.
The TTPs developed in this document will be grouped per the below schematic:

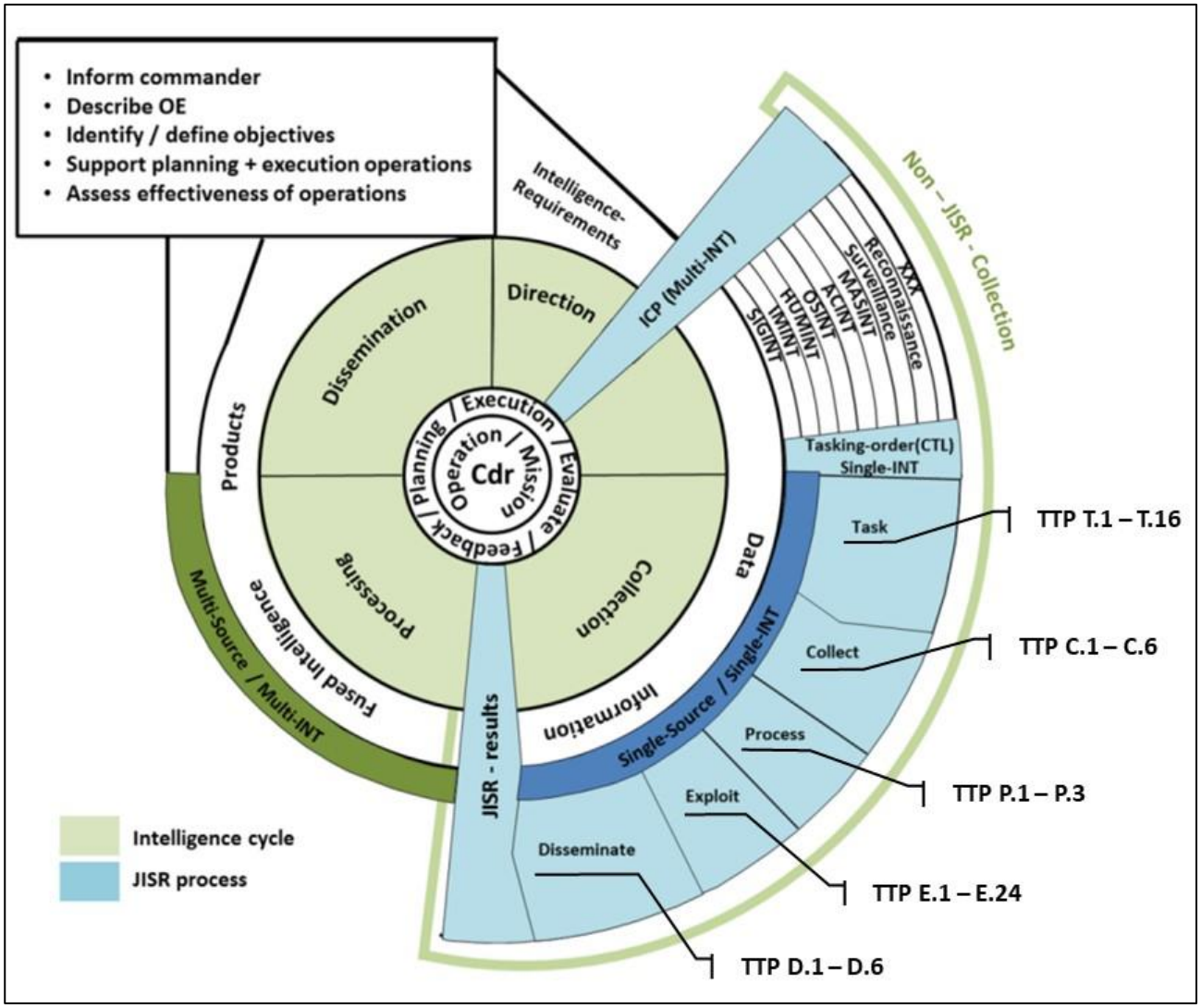

Figure 2.1. IMINT TTPs within TCPED Process and in relation to Intelligence cycle.

2.2 Task

The Task phase of the TCPED process is the assignment of reconnaissance and surveillance assets to satisfy the given intelligence requirements once those requirements have been established. This stage of the TCPED process is a continuous, iterative, and dynamic set of activities supported by IRM&CM. IMINT is an important contribution to the multi-source intelligence that commanders require for their decision-making process.
IMINT Task TTPs consists of the following activities:

- **IMINT TTPs Task:** All types of imagery - Support to Task phase and IRM&CM function;
- **IMINT TTPs Task:** GMTI (Near Real Time - NRT/Forensic) - Support to Task phase and IRM&CM function.

Objectives	Activities	Who
Task All types of imagery **Support to Task phase and IRM&CM function**	• **TTP T.1** Verify if the intelligence gap can be already fulfilled by existing imagery. • **TTP T.2** Contribute to ensure that the identified information/collection requirement in the CTL[9] is suited to get the desired effect (e.g. type of collection, asset) and provide continuous feedback to the directing agency about capabilities of assets, platforms, sensors and PED Cells in use. • **TTP T.3** Contribute to ensure that the information requirements are sufficiently detailed, even in terms of NIIRS[10], in order to clearly identify the gap (EEIs are generally used), to allow imagery analysts to answer the requirement and to provide the correct quality display. • **TTP T.4** Consider the employment of reach-back or federated PED capabilities to help with exploitation. In this case, verify the availability of interoperable tools, network, data, terminology and IMINT template. Ensure that the PED cell in charge is aware of operation instructions and documentation. • **TTP T.5** Consider the coordination with other disciplines in a manner that allows for mutual and de-conflicted support, and the cross-cueing at both the sensor and capability levels. • **TTP T.6** Verify that the reporting requirements are clearly and appropriately laid out in terms of Reference Point (R.P.), timeliness, format, classification and dissemination.	IMINT specialist / Imagery analyst

[9] Collection Task List
[10] NATO Image Interpretability Rating Scale (NIIRS) (STANAG 7194 / AIntP-07)

	• **TTP T.7** Ensure that category, purpose codes, and target designation are properly considered[11]. • **TTP T.8** Verify the target coordinates accuracy according to the requested datum. • **TTP T.9** Ensure that the identified R.P. is related to the actual target category[12]**.**	
Task GMTI (NRT/Forensic) **Support to Task phase and IRM&CM function**	• **TTP T.10** Determine if the customer's requested GMTI product requires new collection or can be satisfied by using archived data for forensic analysis.	GMTI Sensor operator / Imagery analyst
Task GMTI (NRT), Digital Motion Imagery **Support to Task phase and IRM&CM function**	• **TTP T.11** Based on the customer's requested EEI's, contribute to ensure that the platform/sensor will be available and collecting during the requested coverage window.	GMTI Sensor operator / Imagery analyst
Task GMTI (Forensic) **Mission analysis**	• **TTP T.12** Based on the customer's requested EEI's, ensure that archived GMTI data is available for the target area and requested coverage window (e.g. "Heat Map"[13], route analysis).	GMTI Sensor operator / Imagery analyst
Task All types of imagery **Mission analysis**	• **TTP T.13** Use a Geospatial Information System (or, where not available, an appropriate alternative) in order to plan IMINT activities related to the requested target, taking into account related background intelligence and information. • **TTP T.14** Consider suitability, as well as survivability and timeliness, including use of reachback, while contributing to mission planning[14].	IMINT specialist

[11] Reference to Chapter 3

[12] Reference to Chapter 3

[13] A heat map is a representation of forensic GMTI collection in the form of a map or diagram in which areas of higher return activity is represented by a colour scale.

[14] Suitability: targets may be defended; therefore, considerations about the most appropriate asset should be made in relation to that risk (i.e. choosing an unmanned over a manned asset, where available).
Survivability: the risk of attrition is considerably increased if a number of defended targets are tasked in one sortie. Consideration should be given to limiting the number of high priority tasks to be grouped on a sortie/mission in a high threat area.

	• **TTP T.15** Contribute to the optimisation of target collection and prosecution order that compounds demander's requests/priorities and platform operators' needs.	
Task GMTI **Mission analysis**	• **TTP T.16** Determine if the intelligence requirement can be satisfied by employing only the GMTI collection to detect movers. Define conditions that would require a cross-cue to identify targets, distinguish between multiple movers, or determine the nature of the observed activity.	GMTI Sensor operator / Imagery analyst

2.3 Collection

Collection involves the execution of the assigned mission by reconnaissance and surveillance assets and delivery of imagery data obtained to the appropriate processing unit for use in the production of intelligence, and is the second phase of the TCPED process. Depending on sensor availability, type of collection and requested information requirements, the following TTPs can be used during collection.
IMINT Collection TTPs consists of the following activities:

- **IMINT TTPs Collection:** All types of imagery - Mission planning
- **IMINT TTPs Collection:** All types of imagery - Data collection
- **IMINT TTPs Collection:** Digital motion imagery/(G)MTI - Data collection

Objectives	Activities	Who
Collection All types of imagery **Mission planning**	• **TTP C.1** Contribute to mission planning in order to answer the requested EEIs, by achieving the best possible/required NIIRS. • **TTP C.2** Contribute to ensure that the sensor parameters (e.g. field of view, angle, resolution, polarization, etc.) best fits the requested information requirement, the target features (e.g. type, orientation) and weather/light conditions. •	IMINT specialist / Imagery analyst / Sensor and platform operators
Collection All types of imagery **Data collection**	• **TTP C.3** Contribute to the dynamic retasking of an asset when required by prioritisation, and where conditions apply (e.g. datalink retasking for airborne pods; radio retasking for ground recce troops)	IMINT specialist / Imagery analyst / Platform and sensor operator
Collection	• **TTP C. 4** (In case of near real-time access to	Imagery analyst

Timeliness: the timeliness of the task must be considered when grouping tasks. A particularly urgent request may not be answered in time if an asset's return to base is delayed by the tasking of additional targets. Similarly, exploitation and subsequent reporting of urgent tasks may be delayed if the imagery interpreter has a large number of targets to assess.

Digital motion imagery, GMTI **Data collection**	collected imagery) Maintain continuous observation with the imagery. • **TTP C. 5** (In case of near real-time access to collected imagery) Contribute to the management/coordination and the employment of the imagery sensor, and require actions in order to answer the information requirements EEIs (e.g. zooming, sensors fusion/switching). • **TTP C. 6** (In case of near real-time access to collected imagery) According to the mission results, contribute to optimize the dynamic prioritisation of the target collection prosecution order (e.g.: recommend the increase/decrease of Time On Target).	

2.4 Processing

Processing is the conversion of collected imagery into appropriate readable or useable formats that enable further exploitation, storage or dissemination, and is the third step in the TCPED process. For a better understanding of this phase, it can be also referred to as Imagery Processing.
IMINT Processing TTPs consists of the following activity:

- **IMINT TTPs Processing:** All types of imagery - Imagery processing

Objectives	Activities	Who
Processing All types of imagery **Imagery processing**	• **TTP P.1** Ensure that the collected imagery is available in appropriate readable or useable formats that enable exploitation and dissemination, through geometrical corrections and radiometrical calibrations on raw data. • **TTP P.2** Improve visualization of pre-processed imagery through the proper techniques (image enhancement, stereoscopical vision, false color composition, etc.) in order to facilitate the extraction of information, even in cases of multiple imagery or multiple band analysis. • **TTP P.3** Perform transfer operation of imagery in reachback and federated mode in order to deliver imagery packs that have to be analyzed.	IMINT specialist / Imagery analyst

2.5 Exploitation

The exploitation phase involves conducting analytical activities in order to extract intelligence information and to provide context and significance to imagery. This entails a structured series of activities which, although set out sequentially, may also occur concurrently. The following TTPs are meant to be used in the production of annotated imagery products, but can also be used for IMINT reporting: verbal, written (e.g. NRT chat reporting, operational messages), multimedia, data, or web based imagery processing. IMINT based multi-source intelligence production is driven by details of tasking generated in the direction phase of the intelligence cycle, such as, that specified priority intelligence requirements and the supporting essential elements of information, and by the time by which the multi-source intelligence product is required.
For these reasons, depending on the level of required analysis (in terms of processing and exploitation, from initial exploitation to more detailed analysis), available imagery and information, operational requirements, and intelligence requirements, the following TTPs can be used. The Imagery analyst will use the proper TTP to answer the given intelligence requirement. The levels of exploitation are applied in accordance with AJP-2.6 and depicted as per the schematic in the table below (Table 1.1).

These TTPs will not cover software or algorithmic tools required to process GMTI, SAR, LIDAR and spectral imagery. In this context, the TTPs are intended to provide the analyst with a tool to determine if the available/collected imagery can be used to answer the information requirement. However, spectral imagery requires significant spectral signature libraries and algorithms to utilize the sensor to its full potential.

LEVEL		MODALITY	PURPOSE	REQUIRED TIME	SOURCE	ACCESS MOMENT
1st	The rapid and preliminary assessment of the collected imagery and the immediate forwarding of the results to the commander and/or requester, in as short a time frame as exploitation permits in support of current operations. The exploitation consists of results in single-source intelligence.	Sensor Operator; Imagery Analyst associated with the imagery system; Imagery Analysts having near real-time access to collected imagery.	The exploitation is primarily conducted for the tactical user, but also the exploited data and information are transmitted for further exploitation within the JISR process and the intelligence cycle.	2 hours	IMINT single source	Near Real Time
2nd	A more detailed evaluation of the collected imagery than the 1st level. It may involve the use of multiple sources of imagery.	Imagery Analysts associated with the imagery collection capability; Imagery Analysts located at dedicated IMINT facilities, either deployed or via reach-back.	The exploitation response is in a tactical sense (same day), but allows for fuller exploitation, and a more detailed response, so it may be forwarded to another imagery exploitation agency for more in-depth exploitation, or to multi-source intelligence agencies for use in the production of multi-source intelligence.	A matter of hours or a day	IMINT single source	Post Collection
					IMINT multi sources	Post Collection, Post Dissemination of previous level
3rd	The exploitation involves using imagery from multiple imagery collection capabilities, and imagery collected over an extended period of time, and may include archived multi-source intelligence.	Imagery Analyst and/or additional specific expertise within the joint operations area or via reach-back capabilities.	Provision of a long or strategic view of a particular target, facility, area, or a detailed exploitation of a huge task (i.e. router recce). It may be a long term and in depth understanding of the target informed by long periods of observation and analysis.	Time response not clearly defined but time consuming and long term in nature.	IMINT multi sources	Post Dissemination of previous levels
			Support to create long-term detailed intelligence, such as trend analysis.		IMINT multi sources and Archived Intelligence	

Table 1.1, Levels of Imagery Exploitation

IMINT Exploitation TTPs consists of the following activities:

- **IMINT TTPs Exploitation:** All types of imagery - Collation
- **IMINT TTPs Exploitation:** Multi-Spectral imagery/Hyper-Spectral imagery - Collation
- **IMINT TTPs Exploitation:** All types of imagery - Evaluation
- **IMINT TTPs Exploitation:** All types of imagery - Analysis and Integration
- **IMINT TTPs Exploitation:** GMTI - Analysis and Integration
- **IMINT TTPs Exploitation:** All types of imagery - Imagery Interpretation
- **IMINT TTPs Exploitation:** All types of imagery – Writing and Annotations
- **IMINT TTPs Exploitation:** All types of imagery – Mission Results

Objectives	Activities	Who
Exploitation All types of imagery **Collation**	• **TTP E.1** Research, receive and group together related items of current/previous imagery, previous IMINT reports, geo-spatial information).	Imagery analyst
Exploitation Multi-Spectral imagery/ Hyper-Spectral imagery **Collation**	• **TTP E.2** Load appropriate spectral library into exploitation suite for comparison of known spectral signatures to collected imagery.	Imagery analyst
Exploitation All types of imagery **Evaluation**	• **TTP E.3** Evaluate of reliability of imagery source and credibility of collected data and information (e.g. quality of collected imagery, open source, commercial etc.) • **TTP E.4** Based on available/collected imagery, verify that the imagery covers the requested coordinates and in an appropriate look angle. • **TTP E.5** Ensure that the identified Reference Point (R.P.) is related to the actual target category.	Imagery analyst
Exploitation All types of imagery **Analysis and Integration**	• **TTP E.6** Identify significant facts or events related to available/collected imagery. • **TTP E.7** Select and combine analysed information and/or intelligence for further interpretation.	Imagery analyst
Exploitation All types of imagery **Imagery Interpretation**	• **TTP E.8** According to the category and the requested EEIs, detect the area of interest or facility and identify/confirm the type, location, and status of equipment and activity at the facility, referring to the detailed instructions included in Chapter 3 – Section II. • **TTP E.9** Compare the significance of the activity with information about previous activity, in order to detect any change.	Imagery analyst

	• **TTP E.10** If requested and in accordance with the purpose code, report damage assessment according to Chapter 3 – Section III. • **TTP E.11** Ensure that all available imagery has been fully exploited as requested.	
Exploitation All types of imagery **Writing and Annotations**	• **TTP E.12** In accordance with the tasking, available Imagery and Chapter 3 – Section V, mark of the geographical Position at an imagery should be done by label with R.P., refer to R.P. or coordinates when R.P. is not visible. These additional coordinates can be shown by using a proper mark nevertheless the R.P. doesn't change. Use the following indications for reference points: – the use of an additional location is possible when R.P. is not visible; – in case of line-searches, segments of roads or stretches of rivers and so on, the use of Starting Point (S.P.) – also called Line Start (L.S.) point – and Ending Point (E.P.) – or Line End (L.E.) point – is required; – in case of a target area identified by a box, Upper Left (U.L.) and Lower Right (L.R.) vertexes should be indicated. • **TTP E.13** Report Imagery Analyst (IA) observations in past tense, within the proper reporting Items[15] and using the following terms: Confirmed (CONF)/ Probable (PROB)/ Possible (POSS)[16] • **TTP E.14** Include an analytical assessment (in past tense) on function, status, and potential significance of provided observations within the proper Reporting Items [17] and using the following confidence levels: High, Moderate, Low.[18] • **TTP E.15** (In case of digital motion imagery)	Imagery analyst

[15] Chapter 3

[16] - Confirmed: more than 99% of certainty beyond any reasonable doubt.
- Probable: 60%-99% accuracy of observation.
- Possible: from 10% to 60% accuracy of observation.
Less than 10% accuracy of observation, IA can refer to a general description of the item (e.g. 03X UNKNOWN VEHICLE).

[17] Chapter 3

[18] In accordance with AJP-2.1:
- High: Good quality of information, possible to make a clear judgement.
- Moderate: Information is open to a number of interpretations, or is credible and plausible but lacks correlation or evidence.
- Low: Fragmentary information, or poor quality collection capabilities.

	Provide a final summary of the main events occurred during time on target, also known as “roll up”. Check and verify and, if necessary, modify released call outs and roll ups. • **TTP E.16** If required, produce the IMINT product, according to ATP-100 suggested formats. Ensure that at least the following elements are present: – classification, releasability and declassification data in accordance with request/tasking generated; – geographical coordinates; – orientation aid (compass rose or arrowhead); – DTG of the imagery acquisition; – DTG of product creation; – asset, sensor and mission information. • **TTP E.17** In accordance with tasking or other operational document, report the target physical description. If available, background information may be referenced. A Physical Description will be accomplished when: an installation is covered by imagery for first time, when a basic description of the installation has not been previously written, or when the installation reflects a significant physical change (e.g. construction has been completed; first reporting an installation as abandoned or destroyed). • **TTP E.18** In case of change detection, indicate the assessed significance of the degree of change in the installation status, capability or function of the area or activity since previous mission coverage (the referenced mission number and date should be given). Use the following references: – NEW: Newly detected activity. – SIG: Significant change has occurred. – NSC: no significant change. – UNK: Significance of change is not known or change, if any, cannot be determined. – NAC: No apparent change; pertains to the last known pertinent remark or description available to the interpreter. A NAC will not be used to reference a previous NAC report. – BAS: Baseline report is performed to report initial coverage of the target, at a minimum of every six months, or to correct inconsistencies	

	in previous reports • **TTP E.19** If requested, produce the IMINT product according to ATP-100 suggested formats. In order to better show target location and features, imagery can be presented in the following order (if available): – graphic indication and label of Country / Province; – a combination of appropriate maps, possibly with scale- bar (e.g. 1:500.000, 1:250.000); – vertical and/or Oblique Overview, mid-view and/or close up; – target boundary/ facility outline (preferred on near vertical imagery); – if necessary annotated image can be preceded by the same blank image; – measures and heights; • the nearest collateral concerns or LOAC sensitive facilities (e.g. religious buildings) with related coordinates or distance from R.P. (e.g. 150 m North R.P.). • **TTP E.20** Perform a quality check on the produced IMINT reports.	
Exploitation All types of imagery **Mission Results**	• **TTP E.21** Provide feedback in order to suggest replanning/tasking the coverage of the same target with the same/different multiple platforms and sensors. • **TTP E.22** If needed, report the percentage of target covered by imagery. • **TTP E.23** Report if the effect of limiting factors on which collection requirements have been satisfied or not, indicating the reasons for non-satisfaction of the requirements (e.g. report if major weather conditions or other conditions affect the analysis such as clouds, haze, snow, shadow, degrading obliquity, semidarkness, blurred image, terrain masking, heavy smoke/dust). • **TTP E.24** If needed, report the appropriate interpretability[19] value according to the information requirement and using one of the following terms: – Excellent: Imagery is suitable for interpretation to answer requirements on a given type of	Imagery analyst

[19] In accordance with AAP-06.

	target in complete detail – Good: Imagery is suitable for interpretation to answer requirements on a given type of target in considerable detail – Fair: Imagery is suitable for interpretation to answer requirements on a given type of target but with only average detail – Poor: Imagery is unsuitable for interpretation to answer adequately requirements on a given type of target.	

2.6 Dissemination

Dissemination is the fifth, and last, phase of the TCPED process. This step involves the transmission of the collected processed and exploited information to the requester. It may take on various forms: real time or NRT data links directly from collection platform to requesters, broadcast transmissions from collection platform to multiple agencies, or standard reporting procedures.
IMINT Dissemination TTPs consists of the following activities:

- **IMINT TTP Dissemination**: All types of imagery - product dissemination

Objectives	Activities	Who
Dissemination All types of imagery **Product dissemination**	• **TTP D.1** Ensure products follow the principles of clarity, relevance and brevity. • **TTP D.2** Disseminate products in accordance with tasking or validated operational needs (e.g. in case of direct support to a customer/JTAC). • **TTP D.3** Ensure that products abide by classification/releasability rules and are disseminated through the proper channels in order to reach the intended customer. • **TTP D.4** Ensure that all products are stored or archived in order to be easily retrievable. For this purpose, assign information requirement references, metadata and tags to the products. • **TTP D.5** Keep records of dissemination including date/time, recipients, network, classification and subject. • **TTP D.6** Receive and record feedback, according to the implemented mechanism for feedback.	IMINT specialist / Imagery analyst

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CHAPTER 3 IMINT REQUESTING AND REPORTING

3.1. Introduction

This chapter will serve as a reference for requesting and reporting IMINT. Customers/tasking Agencies, etc. may request a target broken out by Target Category, Purpose codes and Main Reporting Items. In relation to AIntP-03, Target Categories refer to Place, Equipment or Event. Those categories that refer to a Place, can be represented by an Installation with a single Facility, an Installation with multiple Facilities (or Target Complex), a Natural Area or a Manmade Area,. Reporting items are not prescriptive and may be used as applicable for requesting organization and products needed. See the below tables and examples:

3.2 Target Category List

CATEGORY 01: AIRFIELDS
CATEGORY 02: ANTI-AIRCRAFT ARTILLERY and MISSILE SYSTEMS
CATEGORY 03: ELECTRONIC INSTALLATIONS
CATEGORY 04: HEADQUARTERS and BARRACKS
CATEGORY 05: STORAGE and REPAIR INSTALLATIONS
CATEGORY 06: GROUND ACTIVITY
CATEGORY 07: OBSTACLE CROSSING
CATEGORY 08: SHIPPING
CATEGORY 09: ROUTE RECONNAISSANCE
CATEGORY 10: TERRAIN RECONNAISSANCE
CATEGORY 11: COASTAL RECONNAISSANCE
CATEGORY 12: BRIDGES and TUNNELS
CATEGORY 13: WATER CONTROL INSTALLATIONS
CATEGORY 14: PORT INSTALLATIONS
CATEGORY 15: RAIL INSTALLATIONS
CATEGORY 16: INDUSTRIAL INSTALLATIONS
CATEGORY 17: POWER INSTALLATIONS
CATEGORY 18: URBAN AREAS
CATEGORY 19: SPECIFIC STRUCTURES

3.3 Remarks for Requesting

In case of Category 13 and if the EEIs relate to power production, Tasking Agency should be tasked as Category 17.
Categories 18 and 19 will give the Tasking Agency a means to task and report areas and facilities not covered by Categories 1 to 17, whereby Category 18 is a means to give a general description of inhabited areas, and Category 19 is a means to define specific structures within those areas and description of buildings and compounds (i.e. openings, walls, entrances, etc.).

3.4 Purpose Code

Code	Purpose
A	First Analysis on New Target
B	Change Detection / Surveillance[20]
C	Planning and Operational Support[21]
D	Damage Assessment

3.5 Target Category Details

Main reporting items are further subdivided into subordinate reporting items as follows:

1. Location and Type
    a. Confirmed Location
    b. Type
    c. Function, Nature & Subordination
2. Status
    a. Deployment
    b. Serviceability
    c. Occupation
    d. Capability
    e. Hardening
    f. Construction
    g. Camouflage
3. Equipment and Activity
4. Defence
    a. Local Air Defence
    b. Surface Defence
    c. Passive Defence
5. Facilities / Description
    a. Primary Facilities
    b. Support Facilities
6. Damage assessment
    a. Physical Damage
    b. Functional Damage
    c. Unplanned Damage
7. Analyst Comment

[20] Reporting baseline must be specified and be available to the reporting unit.
[21] Examples include Target Detection, POL Development, Support to Dynamic Targeting and TST, Vehicle Follow, Support to JIPOE, Real Time Overwatch.

3.6 Remarks for Reporting

1. Reporting Item 1

   a. Reporting Item 1a. For Confirmed Location is recommended the format Military Grid Reference System (MGRS) and the datum WGS 84. If this location is not given using either of these references, the analyst must mention it following the location in this shape: location (format / datum). This rule must be also applied for the locations indicated in the other reporting items (e.g. Equipment and Activity, Defence, Facilities). Alternatively or additionally, depending on customer's need, location can be reported as range and bearing, expressing a distance and a direction (i.e. cardinal point, degree) from a named location or a reference point. Range and bearing technique is not more useful due to the large availability of geospatial information systems that ensure an easy mean for a customer to visualize a MGRS location on a map. Lastly, location can be reported adopting with the supported unit a common Gridded Reference Graphic (GRG) that is a grid overlay, or labelled buildings on imagery/map, in order to facilitate ease of communication.

   b. Reporting Item 1b. For those target categories that are represented by an installation or an activity, the item Type describes the related reference organization (e.g. Military, Civil, Governmental, etc.). Certain target categories are generally avulsed from belonging to an organization and so the item Type can be considered as not applicable for them (i.e. Route reconnaissance, Terrain reconnaissance, Coastal reconnaissance, Bridges and Tunnels, Water Control Installations, Power Installations, Urban Areas).

   c. Reporting Item 1c.

      (1) With the item Function, IA gives indications about the current purpose of use of a target represented by an installation, a facility or a structure. For those targets represented typically by an area analysis (e.g. Terrain reconnaissance, Urban areas), the item Function is related to the single sub areas, therefore a target can have more than one value for this subject item.

      (2) With the item Nature, IA gives indications about the original configuration that is assumed as stable over time, unless a change effects on it.

      (3) Values of Function-Nature listed in Annex B are organized for certain target categories in two levels of taxonomy in crescent order of description. IA can refer to the deepest value whenever possible. Other target categories instead present values of Function-Nature in relation to each other and are to be intended for a related use whenever possible.

(4) Subordination is to be intended for Military, Paramilitary and Non-Governmental Type of target, so is not applicable for those targets of different Type.

2. Reporting Item 2. Based on the reported observations, determine or evaluate the status condition of the referred target using the defined set of elements and values as listed in Annex A.

3. Reporting Item 3. Detailed information/estimation can be described as follow:

   a. Personnel: number of individuals, gender and age range (i.e. adult male, adult female, child), physical description, clothing and particular features, first and last position observed and activity.

   b. Vehicles/Equipment: first and last observed position, number of items, type (e.g. tank, truck, aircraft), function, model, physical description (size, colour and particular features), orientation, state of readiness, and activity (e.g. outloading).

   c. Ships: first and last observed position, number of items, function, ships class/name/pennant number, heading, estimated velocity, formation and state of readiness.

   d. Vehicle/Personnel follow: every stop location and activity.

4. Reporting Item 4. Report location, number, function, type for each item. For Shipping, report weapons, number, type and position along the deck.

5. Reporting Item 5. Report location, number, function, type for each item. Include also additional information for:

   a. Buildings: measurements (in the sequential order: length, width, height), material, and number of floors.

   b. Ground Activity: deployment status.

   c. Shipping: modifications compared to the known standard characteristics of the referred Class.

   d. Route: serviceability for key points.

   e. Terrain and Coastal: serviceability and suitability for operation.

   f. Bridges: follow the reporting flow included in Annex B and integrate with overall length and width, width of obstacle gap, length of individual spans.

6. Reporting Item 6. Follow Annex C that provides descriptive terms for the level of damage identified and guidance on making the functional damage assessment.

Analysts may use the terms Confirmed, Probable and Possible within all items of the BDA report.

7. Reporting Item 7. Analyst comment is used at the analyst's own initiative. For example: in Category 6, it allows him to report that the tasked coordinates are not in the correct geographic datum. Any important information that does not fit into another reporting item can be added to the report with the use of item 7.

3.7 Reading Guide for the Annexes

Annex A provides examples of reportings for each Target Category.
Annex B provides examples of values for reporting items 1b, 1c, 5a and 5b

3.8 Battle Damage Assessment

1. General. Battle Damage Assessment plays an essential part in the Commander's decision making process. The intelligence which flows from BDA forms the basis on which the decision to re-attack a target or not, is based. The purpose of these notes is to give guidance on the terminology and techniques involved in damage assessment and reporting.

2. Physical Damage Assessment. The physical damage assessment is an estimate of the extent of damage caused to a planned target by the application of military force. The assessment is based on the observed or interpreted damage to the aim point.

3. Functional Damage Assessment. The functional damage assessment is an estimate of the reduction to the operational capability of a planned target by the application of military force. An estimation of the time required for recuperation or replacement of the target function should be included.

4. Unplanned Damage. There are three types of unplanned damage, the definitions of which depend on the relative military acceptability, as follows:

    a. Collateral Damage. A form of collateral effect that causes unintentional or incidental injury or damage to persons or objects that would not be lawful military targets in the circumstances ruling at the time.

    b. Additional Damage. Unintentional or incidental injury or damage to persons or objects that would be lawful military targets in the circumstances ruling at the time.

    c. Environmental Damage. All strikes where the resulting damage, or the munitions expended during the attack, have caused, or may cause, an environmental hazard must have this fact highlighted in the damage

assessment report. This information should also be included in the functional assessment. Joint operations have the potential to adversely affect natural and cultural resources. Consistent with operational requirements, action should be taken to identify these resources and develop plans to prevent or mitigate adverse effects.

5. Target Element List. The following list represents the common target elements referred to the primary target category but even applicable to more than ones. The related description of physical and functional damage considerations and detailing standard reporting terminology are included in Annex C.

Runways and Taxiways	Cat 01
Steel Towers	Cat 03
Satellite Dishes	Cat 03
Hardened Facilities	Cat 04
POL Storage Tanks	Cat 05
Military Equipment	Cat 06
Ground Force Personnel	Cat 06
Ships	Cat 08
Roads	Cat 09
Tunnel Entrances	Cat 12
Bridges	Cat 12
Dams and Locks	Cat 13
Rail Lines and Railyards	Cat 15
Distillation Towers	Cat 16
Transformers	Cat 17
Powerplant Turbines and Generators	Cat 17
Buildings	Cat 19

3.9 Target geometry designation procedure

The following considerations should be taken into account by tasking agencies when requesting imagery collection of a target. Develop tasking for minimum coverage in order to achieve objective. As an example, a line search should not be requested when two pinpoints will fulfil tasking. All points should be expressed as geo-coordinates in either degrees minutes seconds or similar, or a ten-figure Universal Transverse Mercator (UTM)\MGRS. All points are named as “tasked coordinates”. In the direction phase of the intelligence cycle, the requester can create EEIs that will take precedence over activity reporting limited within the target geometry. Tasking agencies should take into consideration the following designations:

a. Pinpoint. A Pinpoint target is a precisely defined point location and typically an Installation, a Building or a Structure. Planned sensor coverage should be not less than 100m radius around the defined location and, in case of a widely extended Installation (e.g. Airport, Military complex, etc), should ensure an entire coverage.

b. Line Search. A Line Search is a section of a Line of Communication (LOC) identified by precisely defined point locations for the start and end points, waypoints, width and description of the LOC. Detailed requirements should be provided for reason of Line Search (e.g. search for disturbed ground, troop concentrations within 100-500m of LOC, checkpoints on LOC).

c. Strip Search. A Strip Search is defined by a straight line between two point locations and a width to be covered. It represents a kind of area search. An example request would be a coastal strip to support amphibious assault, searching for defence features, beach exits, etc[22]..

d. Area Search. An Area Search is defined by more than two points that are called vertices. An example request could be a search within a large Signals Intelligence (SIGINT) ellipse with a centre point but with insufficient accuracy for target location. It can also be used when multiple targets are grouped together within a larger area.

e. Pinpoint + Radius. A Pinpoint with Radius is defined whenever a precise location related to a place of interest is not known (generic knowledge of a certain place) or in case an already known deployed/temporary site is placed in an area larger than 100m of radius.

In reference with TTP T.7 (Chapter 2, Section II), an Imagery Specialist should consider the relation between Target geometry and Target Category, following the next example table:

[22] In case of coastal strip, Tasking Agency should consider the time of low water.

TARGET CATEGORY		TARGET GEOMETRY
1	AIRFIELDS	PINPOINT + RADIUS
2	ANTI AIRCRAFT ARTILLERY AND MISSILE SYSTEMS	PINPOINT
3	ELECTRONIC INSTALLATIONS	PINPOINT
4	HEADQUARTERS and BARRACKS	PINPOINT
5	STORAGE and REPAIR INSTALLATIONS	PINPOINT
6	GROUND ACTIVITY	STRIP SEARCH / AREA SEARCH
7	OBSTACLE CROSSING	PINPOINT
8	SHIPPING	STRIP SEARCH / AREA SEARCH
9	ROUTE RECONNAISSANCE	LINE SEARCH
10	TERRAIN RECONNAISSANCE	STRIP SEARCH / AREA SEARCH
11	COASTAL RECONNAISSANCE	STRIP SEARCH / AREA SEARCH
12	BRIDGES and TUNNELS	PINPOINT
13	WATER CONTROL INSTALLATIONS	PINPOINT
14	PORT INSTALLATIONS	PINPOINT + RADIUS
15	RAIL INSTALLATIONS	PINPOINT
16	INDUSTRIAL INSTALLATIONS	PINPOINT + RADIUS
17	POWER INSTALLATIONS	PINPOINT + RADIUS
18	URBAN AREAS	STRIP SEARCH / AREA SEARCH
19	SPECIFIC STRUCTURE	PINPOINT

Moreover, an Imagery Specialist should consider separately articulating Installations that are located within the same perimeter and are related to different Target Category. An Area Search or Strip Search is not applicable for requesting Category 06 within an installation classifiable with a specific category. In this case, the tasker will order for the proper category with a purpose code that includes reporting item 3 (equipment and activity).

When a Full Motion Video (FMV) asset is tasked at a pinpoint for an installation of considerable size (e.g. airfield, port installation, etc.), the tasking agency could also request focused collection of specific locations within the installation in order to optimize collection.

Finally, in order to maintain clarity between requester and tasked entities (both flying unit and imagery units), it is helpful to include a snapshot or visual representation of R.P. or tasked area (most specifically with Target Category 19, for a building within a crowded residential area) to unequivocally identify a specific target building. If available, a 10-figure coordinate is needed.

3.10 Reference Point designation procedure

1. General rule

   a. This section will specify and formalize the procedure for graphic representation of Reference Points (R.P.) in a report produced by an IA. When Target Identification Numbers are available, the associated coordinates will be used as the R.P. for the target; when not available, use the principles set out in Annex D for choosing R.P. based on Target Categories.

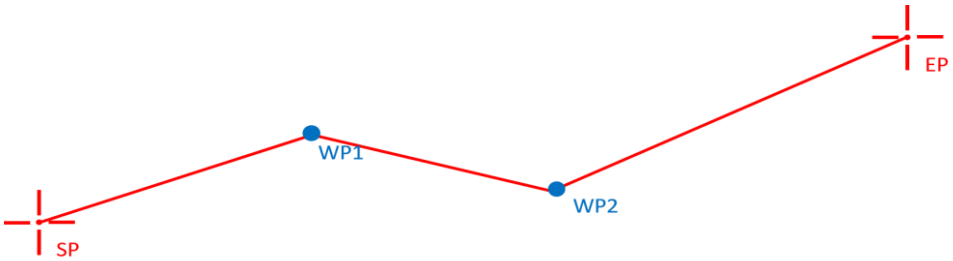
   b. The R.P. of a site must be defined as one specific, fixed, and durable terrain-based point, within the site. Military and civilian facilities that coexist at the same location must give priority to the military facilities. In order to avoid confusion, the chosen R.P. may be described in Analyst Comment (Item 7).

2. Graphic representation of the R.P.

   a. For pinpoint targets, the R.P. will be represented by a red interpunct cross and the letters R.P. in the lower right quadrant, as follows (annotation can be placed elsewhere IAW given imagery):

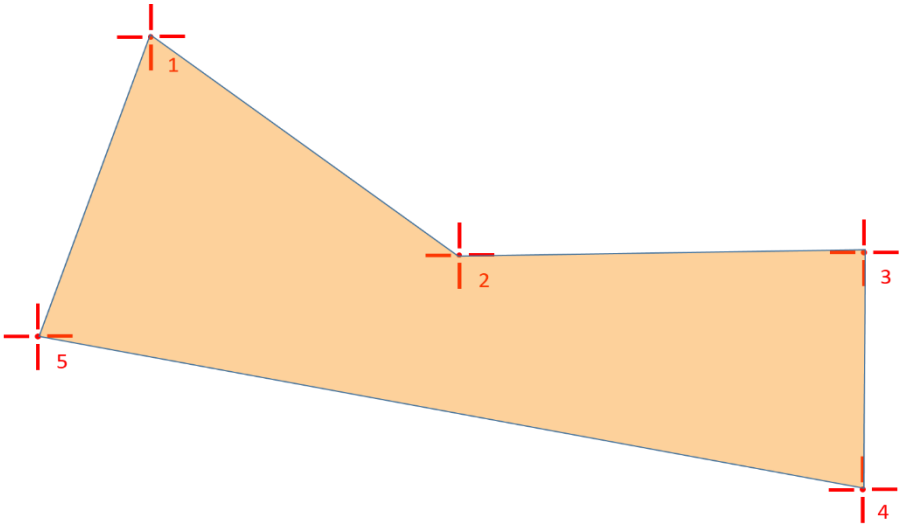
3. Graphic representation of Tasked Coordinates

   a. For line search targets, there will be a start point (SP) and an end point (EP), represented by a red interpunct cross. The waypoints should be labelled. The letters SP or EP in the lower right quadrant will be represented as follows:



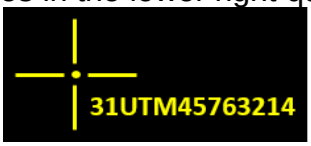
   b. For strip search targets, there will be a start point (SP) and an end point (EP), represented by a red interpunct cross.

c. For area searches, there will be a red interpunct cross representing all the corners of the included area, numbered in order in a clockwise manner.



4. Graphic representation of additional location

a. When an R.P. is not visible in the field of view, IAs will establish local points when the location or coordinates of an item of interest are identified. The provided location will be represented by a yellow interpunct cross and the related MGRS coordinates in the lower right quadrant, as follows:



CHAPTER 4 IMINT REPORT FORMS

4.1. Introduction

The following IMINT reports are the standard textual form of message used by the reporting unit to inform the tasking and requesting agencies of the results of IMINT missions/activities. These messages may be required by the tasking agency based on specific circumstances (e.g. technical limitations, lack of adequate bandwidth for multimedia IMINT report dissemination).
The descriptions below refer to the APP-11 publication that provides the NATO Message Catalogue for the exchange of information within and between NATO Forces. Within this catalogue, the Message Text Format (MTF)[23] used for IMINT purposes are RECCEXREP, RECCESPOTREP, IPIR, SUPIR and INFLIGHTREP.

4.2. Types of report

1. Reconnaissance Exploitation Report (RECCEXREP). This standard form of message involves the rapid and preliminary assessment of the collected imagery, including SAR imagery, and the immediate forwarding of the results to the commander and/or requester, in as short a time frame as exploitation permits in support of current operations. The following conditions apply:

   a. Procedure. The RECCEXREP is usually conducted by an imagery analyst associated with the imagery system, but can also be undertaken by other imagery analysts having near real-time access to collected imagery. The RECCEXREP can also be used to report visual sightings by the crew/operator which in some cases may not be confirmed on imagery.

   b. Method of transmission. By the fastest means available, usually electronic.

   c. Identification. The originator's Request Serial Number is to be used when reporting on targets tasked.

   d. Precedence. Depending on the tactical urgency of the report in relation to other message traffic.

   e. Frequency. The RECCEXREP is to be compiled as soon as possible to meet the commander and/or requester requirement, which is to be stated in the form of a Release By Time or as a time period from sensor download (physical or data-link), for the presentation of the RECCEXREP to the reporting agency's external transmission point. Targets within the mission are to be prioritized by

[23] MTF can be character-oriented messages or voice templates.

the tasking agency and may be assigned individual Release By Times. If further analysis of the sensor imagery reveals significant changes to the information already reported, a supplemental RECCEXREP, correcting or amplifying the original RECCEXREP, is to be sent as soon as possible.

f. Security. The RECCEXREP is to carry the lowest acceptable classification consistent with content.

g. Content. The content of the RECCEXREP is to be in accordance with APP-11 that provides the detailed description of all fields and the list of all data items. The fields are organized per segments and related to a mission and to the collected targets. Fields and segments can be multiply repeated unlimited times as needed. Most of the fields of segments ITEM INFORMATION, DEFENCE INFORMATION, PRIMARY FACILITY, SUPPORT FACILITY, DAMAGE INFORMATION and ANALYST COMMENT are related to AIntP-21 Chapter 3 target categories that are to be used as general guidance and in complement with the data items listed in APP-11. The fields will be filled in considering the report time, with specific items as mandatory. Overview of a RECCEXREP message text format is included in Annex E.

2. Reconnaissance Exploitation Spot Report (RECCESPOTREP). RECCESPOTREP has the same structure but with very few mandatory fields, intended for fast reporting during digital motion imagery missions.

3. Initial Programmed Interpretation Report (IPIR). A standardized imagery interpretation report providing information on programmed mission objective or other vital intelligence information which can be readily identified near these objectives, and which has not been reported elsewhere. An IPIR can be called for by the tasking agency where it requires detailed or extensive data from a systematic review of sensor imagery and where the rapid response required by the RECCEXREP would be impeded by the format size or quantity of imagery involved. The following conditions apply:

   a. Procedure. The IPIR is to be compiled by the imagery analyst and reported as a General Version (format at Annex E).

   b. Method of Transmission. Complete or fragmented as dictated by the length and timeliness of the report.

   c. Identification. The originator’s Request Serial Number is to be used when reporting on targets tasked.

   d. Content. The content of the IPIR is to be in accordance with APP-11.

   e. Precedence. Depending on the tactical urgency of the report in relation to other message traffic.

f. Frequency. The IPIR is to be compiled as soon as possible to meet the tasking agency requirement, which is to be stated in the form of a Release By Time or as a time period from sensor download (physical or data-link), for the presentation of the IPIR to the reporting agency's external transmission point. Targets within the mission are to be prioritized by the tasking agency and may be assigned individual Release By Times. If further analysis of the sensor imagery reveals significant changes to the information already reported, a supplemental IPIR, correcting or amplifying the original IPIR is to be sent as soon as possible.

g. Security. The IPIR is to carry the lowest acceptable classification consistent with content.

4. Supplemental Programmed Interpretation Report (SUPIR). A standardized imagery interpretation report providing information, which has not previously been included in other reports, on significant targets covered by the mission; or when supplemental information is required. The identical conditions apply for a SUPIR as stated for an IPIR except that there is no time limit.

5. Inflight Report (INFLIGHTREP). While not a classical IMINT report, an INFLIGHTREP may be used to initiate a RECCEXREP, and to provide a record of a voice in-flight report. Specifically, it is used to give a mission assessment and to specify pilot/aircrew sightings or other vital information that may be of tactical or intelligence value. This means that information is of such importance and urgency that the delay, if reported by normal debriefing, would negate its usefulness. The following conditions apply:

   a. Procedure. The INFLIGHTREP is to be submitted by all units/wings tasked and/or by the reporting post to which the report was made.

   b. Method of Transmission. Voice broadcast to the appropriate reporting post, or as briefed.

   c. Identification. The originator's Request Serial Number is to be used when reporting on targets tasked.

   d. Content. The content of the INFLIGHTREP is to be in accordance with Message Reference Number F095 – Version Number 5.2 of APP-11(D)(1) and AIntP-21 Chapter 3 as much as possible. Overview of a INFLIGHTREP message text format is included in Annex E.

   e. Precedence. As required.

   f. Frequency. As determined by the requesting authority and/or at the discretion of the aircrew.

   g. Security. Code words established by local Standing Operating Proedures (SOP) may be used if necessary.

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ANNEX A TARGET CATEGORY EXAMPLES

NOTE: All values in Annex A are considered examples; other values not listed may also be used.

CATEGORY 01: AIRFIELDS

1. Location and Type:

   a. CONFIRMED LOCATION: (Example: 31UTM4576032140)

   b. TYPE: Military / Civilian / Mixed / Unknown

   c. FUNCTION, NATURE, AND SUBORDINATION: (Example: Airbase, Bomber, Naval)

2. Status:

   a. DEPLOYMENT: Permanent / Temporary / Unknown

   b. SERVICEABILITY: Serviceable / Partly Serviceable / Unserviceable / Unknown

   c. OCCUPATION: Occupied / Partly Occupied / Unoccupied / Unknown

   d. CAPABILITY: Operational / Partly Operational / Non operational / Decoy / Unknown

   e. HARDENING: Hardened / Partly hardened / Not hardened / Unknown

   f. CONSTRUCTION: Under Construction / Modified / Not Observed

   g. CAMOUFLAGE: Camouflaged / Partly camouflaged / Not Observed

3. Equipment and Activity:
   (Example: Main Hardstand, 02, Bomber, TU-22M2 Backfire B, engines running)

4. Defence:

   a. Local Air Defence: (Example: 31UTM45763214, 06, AAA, S-60)

   b. Surface Defence: (Example: 100m N of R.P., Defensive Positions)

   c. Passive Defence: (Example: 31UTM12345678 around SW side of installation boundary, Dispersal, Single Fenced In)

5. Facilities / Description:

   a. Primary Facilities: (Example: Single runway 09/27, 2000m by 35m, concrete, with parallel taxiway, 1500m by 25m, concrete)

   b. Support Facilities: (example: 300m SW of R.P., 01)

6. Damage assessment:

   a. Physical Damage: (Example: Destroyed, confirmed single weapon impact point 15m from DMPI 101. Smoke visible from impact point and air vents)

   b. Functional Damage: (Example: Building probably functionally destroyed. 4 fire trucks and 5 ambulances at North end of building)

   c. Unplanned Damage: (Example: Probable weapon impact point in road 200m E of bunker. Road traffic able to bypass the crater)

7. Analyst comment:

CATEGORY 02: AIR DEFENSE AND MISSILE SYSTEM INSTALLATIONS

1. Location and Type:

   a. CONFIRMED LOCATION:

   b. TYPE: Military / Civilian / Mixed / Unknown

   c. FUNCTION, NATURE, AND SUBORDINATION: (Example: Missiles, SAM site, Air Force)

2. Status:

   a. DEPLOYMENT: Permanent / Temporary / Unknown

   b. SERVICEABILITY: Serviceable / Partly Serviceable / Unserviceable / Unknown

   c. OCCUPATION: Occupied / Partly Occupied / Unoccupied / Unknown

   d. CAPABILITY: Operational / Partly Operational / Non operational / Decoy / Unknown

   e. HARDENING: Hardened / Partly hardened / Not hardened / Unknown

   f. CONSTRUCTION: Under Construction / Modified / Not Observed

   g. CAMOUFLAGE: Camouflaged / Partly camouflaged / Not Observed

3. Equipment and Activity:
   (Example: 34MGR56783426, 01, SAM-2 site with 4 missiles on ramp)

4. Defence:

   a. Local Air Defence: (Example: 34MGR56603432, 02, AAA, CN 20)

   b. Surface Defence: (Example: 030 100m R.P., Defensive Positions)

   c. Passive Defence: (Example: 01 Manned Checkpoint at Main Gate)

5. Facilities / Description:

   a. Primary Facilities: (Example: Not Observed)

   b. Support Facilities: (Example: 34MGR57603132, 01, Ammo Logistics Area)

6. Damage assessment:

   a. Physical Damage: (Example: Probably destroyed, confirmed single weapon impact point 15m from DMPI 101.)

   b. Functional Damage: (Example: 02 missiles probably destroyed.)

   c. Unplanned Damage: (Example: Probable weapon impact point in road 200m East of R.P.. Road traffic able to by pass the crater)

7. Analyst comment:

CATEGORY 03: ELECTRONIC INSTALLATIONS

1. Location and Type:

   a. CONFIRMED LOCATION:

   b. TYPE: Military / Civilian / Mixed / Unknown

   c. FUNCTION, NATURE, AND SUBORDINATION: (Example: Communication, Troposcatter, Army)

2. Status:

   a. DEPLOYMENT: Permanent / Temporary / Unknown

   b. SERVICEABILITY: Serviceable / Partly Serviceable / Unserviceable / Unknown

   c. OCCUPATION: Occupied / Partly Occupied / Unoccupied / Unknown

   d. CAPABILITY: Operational / Partly Operational / Non operational / Decoy / Unknown

   e. HARDENING: Hardened / Partly hardened / Not hardened / Unknown

   f. CONSTRUCTION: Under Construction / Modified / Not Observed

   g. CAMOUFLAGE: Camouflaged / Partly camouflaged / Not Observed

3. Equipment and Activity:
   (Example: 31UTM45743211, 04, Tropo, Twin Plate, LOS, NE and SW, deployed)

4. Defence:

   a. Local Air Defence: (Example: 31UTM45763214, 06, AAA, S60)

   b. Surface Defence: (Example: 030 100m R.P., Defensive Positions)

   c. Passive Defence: (Example: Barbed Wire protected)

5. Facilities / Description:

   a. Primary Facilities: (Example: At R.P., 01, Rectangular Single Storey Control Building)

   b. Support Facilities: (Example: Not Observed)

6. Damage assessment:

   a. Physical Damage: (Example: One satellite dish struck).

   b. Functional Damage: (Example: Probable limited communication)

   c. Unplanned Damage: (Example: CONF weapon impact point 200m E of R.P.)

7. Analyst comment:

CATEGORY 04: HEADQUARTERS and BARRACKS

1. Location and Type:

   a. CONFIRMED LOCATION:

   b. TYPE: Air Force / Army / Civilian / Joint / Marines / Navy / Not identified Military / Paramilitary / Terrorist / Mixed / Unknown

   c. FUNCTION, NATURE, AND SUBORDINATION: (Example: Aviation, HQ, Air Division)

2. Status:

   a. DEPLOYMENT: Permanent / Temporary / Unknown

   b. SERVICEABILITY: Serviceable / Partly Serviceable / Unserviceable / Unknown

   c. OCCUPATION: Occupied / Partly Occupied / Unoccupied / Unknown

   d. CAPABILITY: Operational / Partly Operational / Non operational / Decoy / Unknown

   e. HARDENING: Hardened / Partly hardened / Not hardened / Unknown

   f. CONSTRUCTION: Under Construction / Modified / Not Observed

   g. CAMOUFLAGE: Camouflaged / Partly camouflaged / Not Observed

3. Equipment and Activity:
   (Example: 34MGR56783426,06, Box body trucks, parked in the open)

4. Defence:

   a. Local Air Defence: (Example: 34MGR56763446, 01, SAM, Probable Stinger Post on barn roof)

   b. Surface Defence: (Example: Defensive Positions surrounding site)

   c. Passive Defence: (Example: Double fence protected)

5. Facilities / Description:

   a. Primary Facilities: (Example: 34MGR56803430, earth covered headquarter bunker, 04 entrances)

   b. Support Facilities: (Example: 34MGR56703410, 06, Administration Buildings)

6. Damage assessment:

   a. Physical Damage: (Example: Probable damage, cluster bomb scarring throughout target area)

   b. Functional Damage: (Example: Administration building severe functional damage)

   c. Unplanned Damage: (Example: 500m. North of R.P. Farm buildings moderate damage. No damage to mosque)

7. Analyst comment:

CATEGORY 05: STORAGE AND REPAIR INSTALLATIONS

1. Location and Type:

   a. CONFIRMED LOCATION:

   b. TYPE: Military / Civilian / Mixed / Unknown

   c. FUNCTION, NATURE, AND SUBORDINATION: (Example: Storage Area, POL, Army)

2. Status:

   a. DEPLOYMENT: Permanent / Temporary / Unknown

   b. SERVICEABILITY: Serviceable / Partly Serviceable / Unserviceable / Unknown

   c. OCCUPATION: Occupied / Partly Occupied / Unoccupied / Unknown

   d. CAPABILITY: Operational / Partly Operational / Non operational / Decoy / Unknown

   e. HARDENING: Hardened / Partly hardened / Not hardened / Unknown

   f. CONSTRUCTION: Under Construction / Modified / Not Observed

   g. CAMOUFLAGE: Camouflaged / Partly camouflaged / Not Observed

3. Equipment and Activity:
   (Example: 34MGR56783426, 02, Bulldozer, preparing ground and building revetment)

4. Defence:

   a. Local Air Defence: (Example: 34MGR56033439, 06, AAA, S60)

   b. Surface Defence: (Example: 030 100m R.P., Defensive Positions)

   c. Passive Defence: (Example: Barbed Wire protected)

5. Facilities / Description:

   a. Primary Facilities: (Example: In West Storage Area, 06, 30m diameter, Semi Buried POL Tanks)

   b. Support Facilities: (Example: 150m North of R.P., 01, Rail Transhipment Point with 04 loading racks)

6. Damage assessment:

   a. Physical Damage: (Example: Probable destroyed, target smoked obscured.)

   b. Functional Damage: (Example: Probably functionally destroyed. Smoke prevent further analysis.)

   c. Unplanned Damage: (Example: Probable direct hit to dining facility 200m N of R.P.)

7. Analyst comment:

CATEGORY 06: GROUND ACTIVITY

1. Location and Type:

   a. CONFIRMED LOCATION:

   b. TYPE: Artillery / Aviation / Cavalry / Infantry / Not identified Military / Engineer / Logistic / Reconnaissance / Paramilitary / Terrorist / Civilian / Mixed / Unknown

   c. FUNCTION, NATURE, AND SUBORDINATION: (Example: Motorised Section, Army)

2. Status:

   a. DEPLOYMENT: Permanent / Temporary / Unknown

   b. SERVICEABILITY: Serviceable / Partly Serviceable / Unserviceable / Unknown

   c. OCCUPATION: Occupied / Partly Occupied / Unoccupied / Unknown

   d. CAPABILITY: Operational / Partly Operational / Non operational / Decoy / Unknown

   e. HARDENING: Hardened / Partly hardened / Not hardened / Unknown

   f. CONSTRUCTION: Under Construction / Modified / Not Observed

   g. CAMOUFLAGE: Camouflaged / Partly camouflaged / Not Observed

3. Equipment and Activity:
   (Example: 34MGR56783426,30, MBT, T 72, heading NNW, in 3 columns)

4. Defence:

   a. Local Air Defence: (Example: 34MGR56783426, 04, SPAD, 2S6, all around defence)

   b. Surface Defence: (Example: Not Observed)

   c. Passive Defence: (Example: Not Observed)

5. Facilities / Description:

   a. Primary Facilities: (Example: Mobile in the open)

   b. Support Facilities: (Example: Not tasked)

6. Damage assessment:

   a. Physical Damage: (Example: Confirmed Single MBT destroyed, observed 20m below the road on its side.)

   b. Functional Damage: (Example: 01 MBT functionally destroyed, 01 ARV BREM 1 conducting recovery operation.)

   c. Unplanned Damage: (Example: Not Observed.)

7. Analyst comment:

CATEGORY 07: OBSTACLE CROSSING

1. Location and Type:

   a. CONFIRMED LOCATION:

   b. TYPE: Military / Civilian / Mixed / Unknown

   c. FUNCTION, NATURE, AND SUBORDINATION: (Example: Ferry, Amphibious, Divisional)

2. Status:

   a. DEPLOYMENT: Permanent / Temporary / Unknown

   b. SERVICEABILITY: Serviceable / Partly Serviceable / Unserviceable / Unknown

   c. OCCUPATION: Occupied / Partly Occupied / Unoccupied / Unknown

   d. CAPABILITY: Operational / Partly Operational / Non operational / Decoy / Unknown

   e. HARDENING: Hardened / Partly hardened / Not hardened / Unknown

   f. CONSTRUCTION: Under Construction / Modified / Not Observed

   g. CAMOUFLAGE: Camouflaged / Partly camouflaged / Not Observed

3. Equipment and Activity:
   (Example: 34MGR67543890, 02, Amphibious Ferry, PMM 2,conducting ferry operations)

4. Defence:

   a. Local Air Defence: (Example: 34MGR67243870, 06, SPAD, 2S6)

   b. Surface Defence: (Example: S of Crossing Point on W bank, PROB Mine Field)

   c. Passive Defence: (Example: Not Observed)

5. Facilities / Description:

   a. Primary Facilities: (Example: 34MGR67213873, prepared bank with serviceable road access to the East of crossing)

   b. Support Facilities: (Example: 34MGR67213873, refuelling area)

6. Damage assessment:

   a. Physical Damage: (Example: Confirmed destroyed PMP sections 400m down stream on sand bank.)

   b. Functional Damage: (Example: CONF severe functional damage. 02 PMM 2 now conducting crossing operations. T55 T2 attempting recovery of PMP sections)

   c. Unplanned Damage: (Example: Not Observed.)

7. Analyst comment:

CATEGORY 08: SHIPPING

1. Location and Type:

   a. CONFIRMED LOCATION:

   b. TYPE: Military / Paramilitary / Terrorist / Coast Guard / Civilian / Mixed / Unknown

   c. FUNCTION, NATURE, AND SUBORDINATION: (Example: Combatant, Probable Amphibious Assault convoy, TU)

2. Status:

   a. DEPLOYMENT: Not applicable

   b. SERVICEABILITY: Serviceable / Partly Serviceable / Unserviceable / Unknown

   c. OCCUPATION: Occupied / Partly Occupied / Unoccupied / Unknown

   d. CAPABILITY: Operational / Partly Operational / Non operational / Decoy / Unknown

   e. HARDENING: Not applicable

   f. CONSTRUCTION: Under Construction / Modified / Not Observed

   g. CAMOUFLAGE: Camouflaged / Partly camouflaged / Not Observed

3. Equipment and Activity:
   (Example: 502036N0035600W, 01, LPD Ivan Rogov, Not Standard for Class, 030, 10 Kts, centre of convoy)

4. Defence:

   a. Local Air Defence: (Example: LPD Ivan Rogov, 01, SAM, SA 8 TELAR, deployed on the rear heli deck)

   b. Surface Defence: (Example: Not Observed)

   c. Passive Defence: (Example: Not Observed)

5. Facilities / Description:

   a. Primary Facilities: (Example: LPD Ivan Rogov, 01, Air Warning radar TOP PLATE, at mast head)

   b. Support Facilities: Not applicable

6. Damage assessment:

   a. Physical Damage: (Example: LPD Ivan Rogov confirmed severe damage, ship listing 10° port. Smoke from helicopter hangar)

   b. Functional Damage: (Example: LPD Ivan Rogov falling behind the convoy. Fire fighting teams and hoses on forward deck)

   c. Unplanned Damage: (Example: Not Observed)

7. Analyst comment:

CATEGORY 09: ROUTE RECONNAISSANCE

1. Location and Type:

   a. CONFIRMED LOCATION:

   b. TYPE: Railway / Roadway / Waterway

   c. FUNCTION, NATURE, AND SUBORDINATION: (Example: Two lanes, Mountain road)

2. Status:

   a. DEPLOYMENT: Not applicable

   b. SERVICEABILITY: Serviceable / Partly Serviceable / Unserviceable / Unknown

   c. OCCUPATION: Occupied / Partly Occupied / Unoccupied / Unknown

   d. CAPABILITY: Operational / Partly Operational / Non operational / Decoy / Unknown

   e. HARDENING: Not applicable

   f. CONSTRUCTION: Under Construction / Modified / Not Observed

   g. CAMOUFLAGE: Camouflaged /Partly camouflaged / Not Observed

3. Equipment and Activity:
   (Example: Immediately SW Start Point, 53, Trucks, Facing NE, stopped and blocking the road at VCP)

4. Defence:

   a. Local Air Defence: (Example: Along the route on high ground, numerous, AAA positions, unoccupied)

   b. Surface Defence: (Example: Along South side of road, numerous defence positions, unoccupied)

   c. Passive Defence: (Example: On South side of road, 3m concrete barrier topped by barbed wire)

5. Facilities / Description:

   a. Primary Facilities: (Example: 34MGR63203825, 01, choke point 500m long single lane bridge, serviceable)

   b. Support Facilities: (Example: 34MGR63153821, 01, rest area, serviceable)

6. Damage assessment:

   a. Physical Damage: (Example: Confirmed land slide at 34MGR62313678, 75m blocked)

   b. Functional Damage: (Example: Confirmed road closed at 34MGR62313678. Bulldozer in operation at East end of road block.)

   c. Unplanned Damage: (Example: Not Observed.)

7. Analyst comment:

CATEGORY 10: TERRAIN RECONNAISSANCE

1. Location and Type:

   a. CONFIRMED LOCATION:

   b. TYPE: Terrain

   c. FUNCTION, NATURE, AND SUBORDINATION: (Example: Lowland, Marshland and open terrain)

2. Status:

   a. DEPLOYMENT: Not applicable

   b. SERVICEABILITY: Not applicable

   c. OCCUPATION: Occupied / Partly Occupied / Unoccupied / Unknown

   d. CAPABILITY: Not applicable

   e. HARDENING: Not applicable

   f. CONSTRUCTION: Not applicable

   g. CAMOUFLAGE: Not applicable

3. Equipment and Activity:
   (Example: 34MGR63153821, 02, Gunship Helicopter, Hind, refueling)

4. Defence:

   a. Local Air Defence: (Example: 34MGR63153821, 01, SAM, SA 5 Complex serviceable, unoccupied)

   b. Surface Defence: (Example: 34MGR63153821,05, unoccupied tank scrapes)

   c. Passive Defence: (Example: Not Observed)

5. Facilities / Description:

   a. Primary Facilities: (Example: 34MGR63203825, 01, Airfield suitable for light aircraft and airborne operations, unoccupied. RWY 09/27, 1000m, grass)

   b. Support Facilities: Not applicable

6. Damage assessment:

   a. Physical Damage: (Example: Not Observed)

   b. Functional Damage: (Example: Not Observed.)

   c. Unplanned Damage: (Example: Not Observed.)

7. Analyst comment:

CATEGORY 11: COASTAL RECONNAISSANCE

1. Location and Type:

   a. CONFIRMED LOCATION:

   b. TYPE: Onshore / Offshore

   c. FUNCTION, NATURE, AND SUBORDINATION: (Example: Fjord)

2. Status:

   a. DEPLOYMENT: Not applicable

   b. SERVICEABILITY: Not applicable

   c. OCCUPATION: Occupied / Partly Occupied / Unoccupied / Unknown

   d. CAPABILITY: Not applicable

   e. HARDENING: Not applicable

   f. CONSTRUCTION: Not applicable

   g. CAMOUFLAGE: Not applicable

3. Equipment and Activity:
   (Example: 34MGR63153821, 01, Vehicle Ferry, moored at jetty)

4. Defence:

   a. Local Air Defence: (Example: Not Observed)

   b. Surface Defence: (Example: Not Observed)

   c. Passive Defence: (Example: Not Observed)

5. Facilities / Description:

   a. Primary Facilities: (Example: 34MGR63153821, 01, Ferry terminal serviceable with vehicle loading jetty, occupied, suitable for transhipment operation. Access to shore and Ferry terminal by a single lane road heading East along coast line)

   b. Support Facilities: Not applicable

6. Damage assessment:

   a. Physical Damage: (Example: Not Observed)

   b. Functional Damage: (Example: Not Observed.)

   c. Unplanned Damage: (Example: Not Observed.)

7. Analyst comment:

CATEGORY 12: BRIDGES AND TUNNELS

1. Location and Type:

   a. CONFIRMED LOCATION:

   b. TYPE: Bridge / Tunnel / Aqueduct / Viaduct / Culvert / Pipeline

   c. FUNCTION, NATURE, AND SUBORDINATION: (Example: Single bridge, Road over river)

2. Status:

   a. DEPLOYMENT: Permanent / Temporary / Unknown

   b. SERVICEABILITY: Serviceable / Partly Serviceable / Unserviceable / Unknown

   c. OCCUPATION: Occupied / Partly Occupied / Unoccupied / Unknown

   d. CAPABILITY: Operational / Partly Operational / Non operational / Decoy / Unknown

   e. HARDENING: Hardened / Partly hardened / Not hardened / Unknown

   f. CONSTRUCTION: Under Construction / Modified / Not Observed

   g. CAMOUFLAGE: Camouflaged / Partly camouflaged / Not Observed

3. Equipment and Activity:
   (Example: 34MGR56783426, 01, VCP, in operation)

4. Defence:

   a. Local Air Defence: (Example: 34MGR56783426, 02, AAA, ZU23 2)

   b. Surface Defence: (Example: Each side of the bridge access on North bank, probable Mine fields)

   c. Passive Defence: (Example: Not Observed)

5. Facilities / Description:

   a. Primary Facilities: (Example: 02 lanes serviceable, 06 span deck type, concrete beam and deck, road over river skew bridge, orientation North to South with concrete piers and concrete box type abutments.)

   b. Support Facilities: (Example: Southern approach straight, embanked. 500 m. east serviceable rail over river bridge)

6. Damage assessment:

   a. Physical Damage: (Example: Confirmed moderately damaged. Weapon penetration 45m from Northern Abutment.)

   b. Functional Damage: (Example: Moderate functional damage. Southern lane remains in use by heavy traffic.)

   c. Unplanned Damage: (Example: Confirmed apartment building 450m NE of R.P. severe damage and on fire.)

7. Analyst comment:

CATEGORY 13: WATER CONTROL INSTALLATIONS

1. Location and Type:

   a. CONFIRMED LOCATION:

   b. TYPE: Water control / storage / treatment / Unknown

   c. FUNCTION, NATURE, AND SUBORDINATION: (Example: High Dam, Flood control and hydro electric power production)

2. Status:

   a. DEPLOYMENT: Permanent / Temporary / Unknown

   b. SERVICEABILITY: Serviceable / Partly Serviceable / Unserviceable / Unknown

   c. OCCUPATION: Occupied / Partly Occupied / Unoccupied / Unknown

   d. CAPABILITY: Operational / Partly Operational / Non operational / Decoy / Unknown

   e. HARDENING: Hardened / Partly hardened / Not hardened / Unknown

   f. CONSTRUCTION: Under Construction / Modified / Not Observed

   g. CAMOUFLAGE: Camouflaged / Partly camouflaged / Not Observed

3. Equipment and Activity:
   (Example: HEP Plant active, with 03 out of 04 tail races visible)

4. Defence:

   a. Local Air Defence: (Example: 31UTM45763214, 06, AAA, S60)

   b. Surface Defence: (Example: 030° 100m R.P., Defensive Positions)

   c. Passive Defence: (Example: Barbed Wire protected)

5. Facilities / Description:

   a. Primary Facilities: (Example: Dam, Straight gravity: 01 Turbine generator house; 04 Spillways)

   b. Support Facilities: (Example: 150m SW R.P., 24 hours capability of illumination and pedestrian crossing over dam)

6. Damage assessment:

   a. Physical Damage: (Example: no damage.)

   b. Functional Damage: (Example: no damage.)

   c. Unplanned Damage: (Example: no damage.)

7. Analyst comment:

CATEGORY 14: PORT INSTALLATIONS

1. Location and Type:

   a. CONFIRMED LOCATION:

   b. TYPE: Naval / Commercial / Civilian / Mixed / Unknown

   c. FUNCTION, NATURE, AND SUBORDINATION: (Example: Tidal, Harbour)

2. Status:

   a. DEPLOYMENT: Permanent / Temporary / Unknown

   b. SERVICEABILITY: Serviceable / Partly Serviceable / Unserviceable / Unknown

   c. OCCUPATION: Occupied / Partly Occupied / Unoccupied / Unknown

   d. CAPABILITY: Operational / Partly Operational / Non operational / Decoy / Unknown

   e. HARDENING: Hardened / Partly hardened / Not hardened / Unknown

   f. CONSTRUCTION: Under Construction / Modified / Not Observed

   g. CAMOUFLAGE: Camouflaged / Partly camouflaged / Not Observed

3. Equipment and Activity:
   (Example: 34MGR56783426, 02, Bulk Cargo ships, moored at northern quay, unloading)

4. Defence:

   a. Local Air Defence: (Example: Not Observed)

   b. Surface Defence: (Example: Not Observed)

   c. Passive Defence: (Example: Single fence secured)

5. Facilities / Description:

   a. Primary Facilities: (Example: At R.P., 01, Non tidal basin with sliding caisson gates)

   b. Support Facilities: (Example: 34MGR566835, 02, rail served transshipment warehouse)

6. Damage assessment:

   a. Physical Damage: (Example: Transhipment warehouse light damage. Railway north of warehouse cut 50m from warehouse)

   b. Functional Damage: (Example: Confirmed light damage for the port.)

   c. Unplanned Damage: (Example: Not Observed.)

7. Analyst comment:

CATEGORY 15: RAIL INSTALLATIONS

1. Location and Type:

   a. CONFIRMED LOCATION:

   b. TYPE: Military / Civilian / Mixed / Unknown

   c. FUNCTION, NATURE, AND SUBORDINATION: (Example: Marshalling Yard, Through sidings)

2. Status:

   a. DEPLOYMENT: Permanent / Temporary / Unknown

   b. SERVICEABILITY: Serviceable / Partly Serviceable / Unserviceable / Unknown

   c. OCCUPATION: Occupied / Partly Occupied / Unoccupied / Unknown

   d. CAPABILITY: Operational / Partly Operational / Non operational / Decoy / Unknown

   e. HARDENING: Hardened / Partly hardened / Not hardened / Unknown

   f. CONSTRUCTION: Under Construction / Modified / Not Observed

   g. CAMOUFLAGE: Camouflaged / Partly camouflaged / Not Observed

3. Equipment and Activity:
   (Example: At R.P., 16 Box Cars, 04 Flat Cars, 10 Open Hopper Cars)

4. Defence:

   a. Local Air Defence: (Example: 31UTM45763214, 03, AAA, ZU23 2)

   b. Surface Defence: (Example: Not Observed)

   c. Passive Defence: (Example: Single fence secured)

5. Facilities / Description:

   a. Primary Facilities: (Example: At R.P., 23 non electrified tracks)

   b. Support Facilities: (Example: Immediately south of R.P., 01, hump control building)

6. Damage assessment:

   a. Physical Damage: (Example: Confirmed single weapon impact at northern track. Track damaged)

   b. Functional Damage: (Example: Northern track cut cannot be by pass, 01 crain car conducting repair activities)

   c. Unplanned Damage: (Example: Not Observed)

7. Analyst comment:

CATEGORY 16: INDUSTRIAL INSTALLATIONS

1. Location and Type:

   a. CONFIRMED LOCATION:

   b. TYPE: Military / Civilian / Mixed / Unknown

   c. FUNCTION, NATURE, AND SUBORDINATION: (Example: Processing, Petrochemical, Oil)

2. Status:

   a. DEPLOYMENT: Permanent / Temporary / Unknown

   b. SERVICEABILITY: Serviceable / Partly Serviceable / Unserviceable / Unknown

   c. OCCUPATION: Occupied / Partly Occupied / Unoccupied / Unknown

   d. CAPABILITY: Operational / Partly Operational / Non operational / Decoy / Unknown

   e. HARDENING: Hardened / Partly hardened / Not hardened / Unknown

   f. CONSTRUCTION: Under Construction / Modified / Not Observed

   g. CAMOUFLAGE: Camouflaged / Partly camouflaged / Not Observed

3. Equipment and Activity:
   (Example: 34MGR56783426, IR emissions indicate 02 pipe furnaces are active)

4. Defence:

   a. Local Air Defence: (Example: Not Observed)

   b. Surface Defence: (Example: Not Observed)

   c. Passive Defence: (Example: Single fenced secured, 200m East R.P., 01, Access Control building)

5. Facilities / Description:

   a. Primary Facilities: (Example: At R.P., 02, fractionating towers)

   b. Support Facilities: (Example: 200m SW R.P., 02, floating top POL storage tanks)

6. Damage assessment:

   a. Physical Damage: (Example: CONF severe damaged on water distillation plant, weapon impact in control building. No IR emission from distillation towers.)

   b. Functional Damage: (Example: CONF severe damage POL refining stopped.)

   c. Unplanned Damage: (Example: Not Observed.)

7. Analyst comment:

CATEGORY 17: POWER INSTALLATIONS

1. Location and Type:

   a. CONFIRMED LOCATION:

   b. TYPE: Distribution / Production / Unknown

   c. FUNCTION, NATURE, AND SUBORDINATION: (Example: Hydroelectric, High Dam)

2. Status:

   a. DEPLOYMENT: Permanent / Temporary / Unknown

   b. SERVICEABILITY: Serviceable / Partly Serviceable / Unserviceable / Unknown

   c. OCCUPATION: Occupied / Partly Occupied / Unoccupied / Unknown

   d. CAPABILITY: Operational / Partly Operational / Non operational / Decoy / Unknown

   e. HARDENING: Hardened / Partly hardened / Not hardened / Unknown

   f. CONSTRUCTION: Under Construction / Modified / Not Observed

   g. CAMOUFLAGE: Camouflaged /Partly camouflaged / Not Observed

3. Equipment and Activity:
   (Example: HEP Plant active, with 03 out of 04 tail races visible)

4. Defence:

   a. Local Air Defence: (Example: Not Observed)

   b. Surface Defence: (Example: Not Observed)

   c. Passive Defence: (Example: Single fence secure)

5. Facilities / Description:

   a. Primary Facilities: (Example: At R.P., 01, Generator Hall with 04 Turbines)

   b. Support Facilities: (Example: 50m West of R.P., 01, overhead gantry crane)

6. Damage assessment:

   a. Physical Damage: (Example: Light damage to the generator hall. 03 small craters 100m SW of R.P.)

   b. Functional Damage: (Example: Possibly 25% functional damage.)

   c. Unplanned Damage: (Example: Not Observed.)

7. Analyst comment:

CATEGORY 18: URBAN AREAS

1. Location and Type:

   a. CONFIRMED LOCATION:

   b. TYPE: Civilian / Mixed / Unknown

   c. FUNCTION, NATURE, AND SUBORDINATION: (Example: Camp, Improvised shelter, UNHCR)

2. Status:

   a. DEPLOYMENT: Permanent / Temporary / Unknown

   b. SERVICEABILITY: Serviceable / Partly Serviceable / Unserviceable / Unknown

   c. OCCUPATION: Occupied / Partly Occupied / Unoccupied / Unknown

   d. CAPABILITY: Not applicable

   e. HARDENING: Hardened / Partly hardened / Not hardened / Unknown

   f. CONSTRUCTION: Under Construction / Modified / Not Observed

   g. CAMOUFLAGE: Camouflaged / Partly camouflaged / Not Observed

3. Equipment and Activity:
   (Example: 34UMT64317264, 10 4 Ton CCT, 04 LWB Landrovers. At least 150 personnel in the open)

4. Defence:

   a. Local Air Defence: (Example: Not Observed)

   b. Surface Defence: (Example: Not Observed)

   c. Passive Defence: (Example: Fence secured)

5. Facilities / Description:

   a. Primary Facilities: (Example: 34UMT643726, approximately 300 improvised shelters. 06, Toilet/Shower tents. 50m East R.P., 01, Feeding Area comprising, 04, large frame tents, 06, Field Kitchen trailers, 03, Water Bowser trailers.)

   b. Support Facilities: (Example: Access by dirt road from the South)

6. Damage assessment:

   a. Physical Damage: (Example: Not Observed)

   b. Functional Damage: (Example: Not Observed)

   c. Unplanned Damage: (Example: Not Observed)

7. Analyst comment: (Example: estimated capacity 3000 personnel)

CATEGORY 19: SPECIFIC STRUCTURES

1. Location and Type:

   a. CONFIRMED LOCATION:

   b. TYPE: Military / Civilian / Mixed / Unknown

   c. FUNCTION, NATURE, AND SUBORDINATION: (Example: Commercial, Hotel)

2. Status:

   a. DEPLOYMENT: Permanent / Temporary / Unknown

   b. SERVICEABILITY: Serviceable / Partly Serviceable / Unserviceable / Unknown

   c. OCCUPATION: Occupied / Partly Occupied / Unoccupied / Unknown

   d. CAPABILITY: Operational / Partly Operational / Non operational / Decoy / Unknown

   e. HARDENING: Hardened / Partly hardened / Not hardened / Unknown

   f. CONSTRUCTION: Under Construction / Modified / Not Observed

   g. CAMOUFLAGE: Camouflaged / Partly camouflaged / Not Observed

3. Equipment and Activity:
   (Example: In car park at rear of the hotel, 06, satcom dishes and associated BBV)

4. Defence:

   a. Local Air Defence: (Example: Numerous light AAA on surrounding roof tops)

   b. Surface Defence: (Example: MBT deployed at major intersections throughout local area)

   c. Passive Defence: (Example: Surrounding hotel, 2m wall, control of access.)

5. Facilities / Description:

   a. Primary Facilities: (Example: 14 storey, flat roof, L shaped, concrete frame building.)

   b. Support Facilities: (Example: Swimming pool and extensive leisure facilities within compound.)

6. Damage assessment:

   a. Physical Damage: (Example: Not Observed.)

   b. Functional Damage: (Example: Not Observed.)

   c. Unplanned Damage: (Example: Not Observed.)

7. Analyst comment:

ANNEX B MAIN AND SUBORDINATE REPORTING ITEMS EXAMPLES

Examples for 1c Subordination

Army / Paramilitary	Front Army Corps Division Brigade Regiment Battalion Company Platoon Section	 Group Battery
Navy	Fleet Squadron Flotilla Division Unit	Task Force (TF) Task Group (TG) Task Unit (TU) Task Element (TE)
Air Force	Air Corps Air Division Air Brigade Air Base Wing Squadron Flight Patrol	
Others	UNHCR Red Cross/Crescent etc.	

CATEGORY 01: AIRFIELDS

Examples for 1b and 1c.

TYPE	FUNCTION	NATURE
Military	Military	Airbase
Civil	Airborne Early Warning	Airfield
Governmental	Anti Submarine Warfare	Airport
Mixed	Attack	Decoy Airfield
Other (to be specified)	Bomber	Field Deployed Airport
Unknown	Fighter	Flying boat base
	Fighter Bomber	Glider Airfield
	Jet	Helicopter Airfield
	Liaison	Helicopter Landing Zone
	Maritime Patrol	Heliport
	MRCA (Multi Role Combat Aircraft)	Highway Landing Strip
	Prop	Landing Strip
	Reconnaissance	Space launch
	Research and Development	Other (to be specified)
	Rotary	Unknown
	Search And Rescue	
	Tanker	
	Training	
	Transport	
	UAV	
	Utility	
	Non Military	
	Agricultural	
	Cargo	
	Coast Guard	
	Light Aviation	
	Passenger	
	Police	
	Research and Development	
	Search And Rescue	
	Decoy	
	Mixed (to be specified)	

CATEGORY 01: AIRFIELDS

	Other (to be specified) Unknown	

Examples for 5 (Primary Facilities)

Runway	
Taxiway	Parallel
Highway Strip	Link
Dispersal Area	
Revetment	
Hardstand	Refueling Revetted
Aircraft Storage	
Hardened Aircraft Shelter	
Bunker	Command Storage
Operations Centre	Base Wing
Air Traffic Control	
Electronics	Radar Navaid

Examples for 5 (Support Facilities)

Hangar	
Power Supply	
Maintenance	
Electronics	Communication
Ammunitions Storage	Conventional Special
Building	
POL	
Access and Approach	Rail Road Water Air Pipeline
Terrain (if tasked)	
Decoy	
Unknown	

CATEGORY 02: ANTI-AIRCRAFT ARTILLERY AND MISSILE SYSTEMS

Examples for 1b and 1c.

TYPE	FUNCTION	NATURE
Military	Missile	Missile / Coastal Defence
Civil	SAM	Fixed
Mixed	SSM	Mobile
Other (to be specified)	SRBM	Man Portable
Unknown	MRBM	AAA
	IRBM	Self Propelled
	ICBM	Towed
	SSC	Other (to be specified)
	ABM	Unknown
	AAA	
	Coastal Defence	
	Laser	
	Decoy	
	Mixed (to be specified)	
	Other (to be specified)	
	Unknown	

Examples for 5 (Primary Facilities)

Launch area	Launch position
Electronics area	Electronic position
Control area	Control position

Examples for 5 (Support Facilities)

Power supply	Primary power
	Backup power
Storage area	Building
	Bunker
	Open storage
	POL
Support area	Accommodation
	Administration
	Maintenance
	Training
Access and Approach	Rail
	Road
	Water
	Air
	Pipeline
Terrain (if tasked)	
Decoy	
Unknown	

CATEGORY 03: ELECTRONIC INSTALLATIONS

Examples for 1b and 1c.

TYPE	FUNCTION	NATURE
Military Civil Mixed Other (to be specified) Unknown	Electronic Warfare SIGINT COMINT ELINT Jammer Communication Air Navigation Direction Finder (DF) Doppler Vertical Omnidirectional Radiator (DVOR) Doppler Vertical Omnidirectional Radiator TACAN (DVORTAC) Glide Path Indication Instrument Landing System (ILS) Marker Beacon Microwave Landing System (MLS) Middle Marker Beacon Non Directional Beacon (NDB) Tactical Air Navigation (TACAN) Vertical Omnidirectional Radiator (VOR) Vertical Omnidirectional Radiator TACAN (VORTAC) Maritime Navigation Direction Finder (DF) Light House Light Signal Signal Beacon Air Defence Radar AAA Associated Ballistic Missile Early Warning (BMEW) Early Warning (EW) Fire Guidance Ground Control Intercept (GCI) Long Range Early Warning Over The Horizon Radar SAM Associated Artillery Associated Radar (AAR) Battlefield Surveillance Mortar Locating	Relay Installation Terminal Installation Mixed Other (to be specified) Unknown

CATEGORY 03: ELECTRONIC INSTALLATIONS

	Air Traffic Control Radar (ATC) Area Surveillance Radar (ASR) Ground Controlled Approach Radar (GCA) Precision Approach Radar (PAR) Maritime Traffic Control (MTC) Coastal Defence Coastal Defence Fire Guidance Coastal Surveillance Acquisition Radar Cellular base station Height Finder (HF) Identify Friend or Foe Radar (IFF) Illumination Radar Meteorological Scientific Search Radar Decoy Station Mixed (to be specified) Other (to be specified) Unknown	

Examples for 5 (Primary Facilities)

Antenna	Cut parabolic Dipole Dipole array Dish Emitter Long wire Phased array Receiver Trough Yagi
Supporting structure	Adit Aerostat Building Buried Gallery Integrated control tower Mast Tower

CATEGORY 03: ELECTRONIC INSTALLATIONS

	Tripod
	Vehicle mounted
	Vernier ring
Control	Building
	Bunker
Power supply	Primary power
	Backup power

Examples for 5 (Support Facilities)

Storage area	Building Bunker
	Open storage
	POL
Support area	Accommodation Administration
	Maintenance
	Training
Access and Approach	Rail Road
	Water
	Air
	Pipeline
Terrain (if tasked) Decoy Unknown	

CATEGORY 04: HEADQUARTERS and BARRACKS

Examples for 1b and 1c.

TYPE	FUNCTION	NATURE
Military Civil Governmental Non Governmental Paramilitary Mixed Other (to be specified) Unknown	Air Defence Armour Artillery Aviation Civil Police Coast Guard Customs Engineer Infantry International Committee of the Red Cross (ICRC) Logistic Military Police Organization for Security and Cooperation in Europe (OSCE) Paratroops Signal Special Forces United Nations (UN) United Nations High Commissioner for Refugees (UNHCR) Decoy Mixed (to be specified) Other (to be specified) Unknown	Administration Barracks Building Bunker Camp Checkpoint Combat Post Command Post Headquarters Hospital Maintenance Observation Post Operating Base POW camp Prison Test Centre Training Other (to be specified) Unknown

Examples for 5 (Primary Facilities)

Headquarters Communication centre	

Examples for 5 (Support Facilities)

Power supply	Primary power Backup power
Storage area	Building Bunker Open storage POL
Support area	Accommodation Administration Maintenance Training

CATEGORY 04: HEADQUARTERS and BARRACKS

Access and Approach Terrain (if tasked) Decoy Unknown	Rail Road Water Air Pipeline

CATEGORY 05: STORAGE AND REPAIR INSTALLATIONS

Examples for 1b and 1c.

TYPE	FUNCTION	NATURE
Military Civil Mixed Other (to be specified) Unknown	Depot Distribution Repair Scrapyard Storage Supply Decoy Mixed (to be specified) Other (to be specified) Unknown	Ammunition Chemical Equipment Gas Live stock NBC POL Raw material Vehicle Water Other (to be specified) Unknown

Examples for 5 (Primary Facilities)

Building Bunker Depot Material handling facilities Store Tank Warehouse Workshop	

Examples for 5 (Support Facilities)

Power supply	Primary power Backup power
Support area	Accommodation Administration Maintenance
Transhipment	
Access and Approach	Rail Road Water Air Pipeline
Terrain (if tasked)	
Decoy	
Unknown	

CATEGORY 06: GROUND ACTIVITY

Examples for 1b and 1c.

TYPE	FUNCTION	NATURE
Military	Infantry	Joint
Civil	Airborne Infantry	Combined
Governmental	Infantry	Air Force
Non Governmental	Mechanized Infantry	Air Corps
Paramilitary	Motorized Infantry	Air Division
Terrorist	Armour	Air Brigade
Mixed	Battle Tank	Wing
Other (to be specified)	Tank Destroyer	Squadron
Unknown	Artillery	Army / Paramilitary
	Anti Aircraft Artillery	Army Corps
	Artillery	Division
	Mortar	Brigade
	Rocket Artillery	Regiment
	Self Propelled Artillery	Battalion
	Towed Artillery	Battery
	RECCE	Company
	Reconnaissance Vehicle	Platoon
	UAV	Group
	Engineers	Section
	Armoured Engineers	Reinforced
	Armoured Recovery	Navy
	Construction Engineers	Fleet
	Mine Warfare	Flotilla
	Pipeline Engineers	Division
	River Crossing Engineers	Squadron
	Technical Engineers	Wing
	Command and Control	Battle Group
	Command Post	Unit
	Field Headquarter	Task Force
	Electronic / Signal	Task Group
	Communication	Task Unit
	Electronic Warfare	Task Element
	Radar	Special Forces
	Army Aviation	Police
	Aircraft	Military Police
	Attack Helicopter	Coast Guard
	Helicopter	International Committee of the Red Cross (ICRC)
	Utility Helicopter	United Nations (UN)

CATEGORY 06: GROUND ACTIVITY

	Medical Ambulance Vehicles Field Hospital First Aid Point NBC Decontamination NBC-RECCE Logistic Maintenance Support and Supply Transport Checkpoint Camp Decoy Mixed (to be specified) Other (to be specified) Unknown	United Nations High Commissioner for Refugees (UNHCR) Organization for Security and Cooperation in Europe (OSCE) Other (to be specified) Unknown

Examples for 5 (Primary Facilities)

Deployment

Examples for 5 (Support Facilities)

Terrain (if tasked)

CATEGORY 07: OBSTACLE CROSSING

Examples for 1b and 1c.

TYPE	FUNCTION	NATURE
Military	Boating	Amphibious
Civil	Bridging	Assault
Mixed	Ferrying	Boat Type
Other (to be specified)	Fording	Cable type
Unknown	Rafting	Floating
	Users	Improvised
	For Personnel	Infantry Assault Bridge
	For Vehicles	Landing Craft
	For Rail	Non Floating
	Decoy	Pneumatic
	Mixed (to be specified)	Pontoon
	Other (to be specified)	Ship Type
	Unknown	Submerged
		Temporary Girder Bridge
		Other (to be specified)
		Unknown

Examples for 5 (Primary Facilities)

Banks

Examples for 5 (Support Facilities)

Area	Preparation area
	Waiting area
Transshipment	
Alternate crossing	
Access and Approach	Rail
	Road
	Water
	Air
	Pipeline
Terrain (if tasked)	
Decoy	
Unknown	

CATEGORY 08: SHIPPING

Note: For further information on ships, analysts could report to APP-20 – Annex A.

Examples for 1b and 1c.

TYPE	FUNCTION	NATURE
Military Coast Guard Governmental Civil Paramilitary Terrorist Mixed Other (to be specified) Unknown	Combatant Submarines Principal Surface Combatants Patrol Vessels River/Roadstead Patrol Vessels Mine Warfare Vessels Amphibious Warfare Vessels Special Warfare Vessels Coast Guard Vessels Non Combatant Auxiliary Vessels Service and Support Vessels Government-owned Vessels Merchant Vessels Recreational Vessels Decoy Mixed (to be specified) Other (to be specified) Unknown	To refer to the listed type of ship included in APP-20 Annex A.

Examples for 5 (Primary Facilities)

For military ship: if not standard for class describe modifications.

For merchant ship: describe ship and report nationality and name if possible.

Examples for 5 (Support Facilities)

Not Applicable

CATEGORY 09: ROUTE RECONNAISSANCE

Examples for 1b and 1c.

TYPE	FUNCTION	NATURE
	Roadway Railway Waterway	Roadway Motorway Extra-urban multiple carriageway Extra-urban principal single carriageway Extra-urban secondary single carriageway Urban arterial Urban single carriageway Ring Road Dirt Road Trail Railway Cableway Elevated Railway Railway Subway Suspension Railway Tram Waterway Basin Canal Creek River Wadi Other (to be specified) Unknown

Examples for 5 (Primary Facilities)

Physical features	Cutting Electrified Elevated Embanked Lighted Navigable
Choke points	Bends Bridges Flooding Gradients Landslide Tunnels
Junctions	Cloverleaf Road crossing

CATEGORY 09: ROUTE RECONNAISSANCE

	Roundabout T Junction Triangular Y Junction

Examples for 5 (Support Facilities)

Areas Terrain (if tasked)	Parking Marshalling Refueling

CATEGORY 10: TERRAIN RECONNAISSANCE

Examples for 1b and 1c.

TYPE	FUNCTION	NATURE
	Settlement Man-used area Wooded and Vegetated area Coastal area Desert area Mountainous area Wetland Inner Water body Disaster area Roadway Railway Waterway Other (to be specified)	Settlement City Town Village Hamlet Man-used area Agricultural area Livestock area Quarry Wooded and Vegetated area Forest Hilly Lowland Meadowland Moorland Sparsely vegetated area Coastal area Bay Beach Cliff Coral reef Delta Dune Estuary Fjord Intertidal zone Lagoon Mangrove coast Sea Desert area Dune Sand Mountainous area Bare rocks Escarpment Glaciers Gorge

CATEGORY 10: TERRAIN RECONNAISSANCE

		Mountains Outcrops Pass Perennial snows Valley Wetland Marshland Saline Inner Water body Basin Canal Creek Wadi Waterway Disaster area Burnt area Flooded area Roadway Motorway Extra-urban multiple carriageway Extra-urban principal single carriageway Extra-urban secondary single carriageway Urban arterial Urban single carriageway Ring Road Dirt Road Trail Railway Cableway Elevated Railway Railway Subway Suspension Railway Tram Waterway Basin Canal

CATEGORY 10: TERRAIN RECONNAISSANCE

		Creek River Wadi Other (to be specified) Unknown

Examples for 5 (Primary Facilities)

Significant points and areas	Cable ways Glacier Obstructions Orchard Pipelines Power lines Ski Lifts Telephone lines Urban area Vineyard

Examples for 5 (Support Facilities) Not Applicable

CATEGORY 11: COASTAL RECONNAISSANCE

Examples for 1b and 1c.

TYPE	FUNCTION	NATURE
	Coastal area	Bay Beach Cliff Coral reef Creek Delta Dune Escarpment Estuary Fjord Intertidal zone Lagoon Mangrove coast Marshland Sea Other (to be specified) Unknown

Examples for 5 (Primary Facilities)

Significant points and areas	Head lands	
	Inlets	
	Reef	
	Obstacle	Wreck Obstruction
	Erosion protection	Groynes Sea Wall
		Break water
	Approaches	Shore to the interior of the country Status of the communication routes

Examples for 5 (Support Facilities) Not Applicable

CATEGORY 12: BRIDGES AND TUNNELS

Examples for 1b and 1c.

TYPE	FUNCTION	NATURE
	Route Crossing Canal Pedestrian Rail Road Mixed Distribution Oil distribution Water distribution Water Drainage	Aqueduct Bridge Culvert Pipeline Tunnel Viaduct

Examples for 5 (Primary Facilities)
See diagram below for description, additional information can be added as free text within the flow chart.
Include dimensions if requested.

Examples for 5 (Support Facilities)

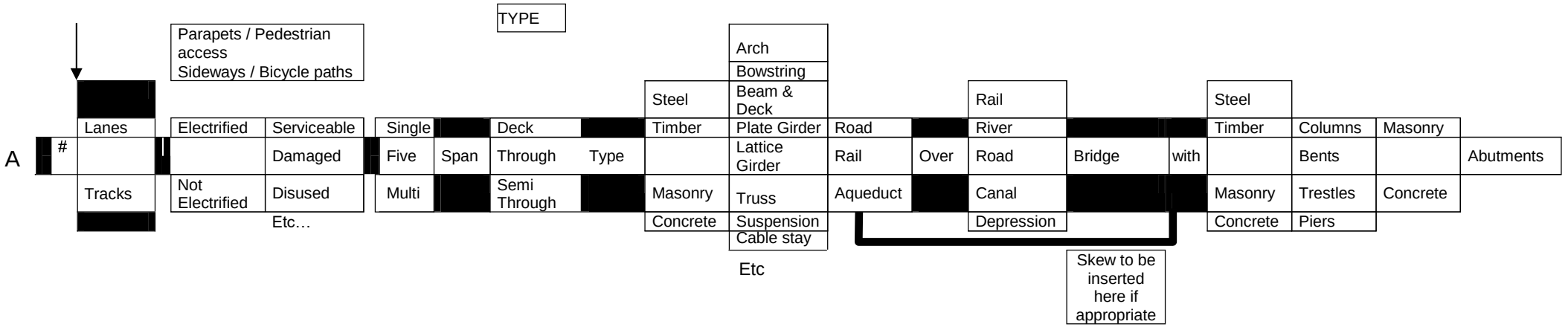
Alternate crossing	
Access and Approach	Rail Road Water Air Pipeline
Terrain (if tasked)	
Control facilities	Control post Signals
Decoy Unknown	

ANNEX B TO
AIntP-21

CATEGORY 12: BRIDGES AND TUNNELS

1. SIMPLE BRIDGE

This may be used for any bridge where the spans are of similar type and form.



Notes: If more than one type is involved in a multi span bridge see "Composite bridge "

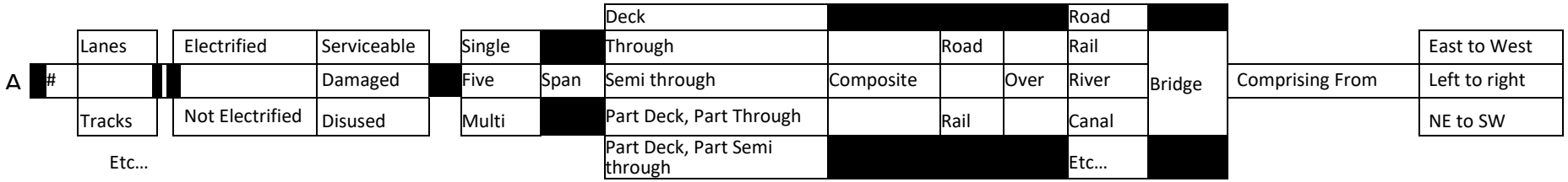
a. If the bridge contains a moveable span or is of cantilever construction see "Cantilever and movable bridges or span "

b. Additional details, like shape of piers/columns/piles/abutments, Truss type, Upper Lateral bracing, should be included if required.

CATEGORY 12: BRIDGES AND TUNNELS

2. COMPOSITE BRIDGE

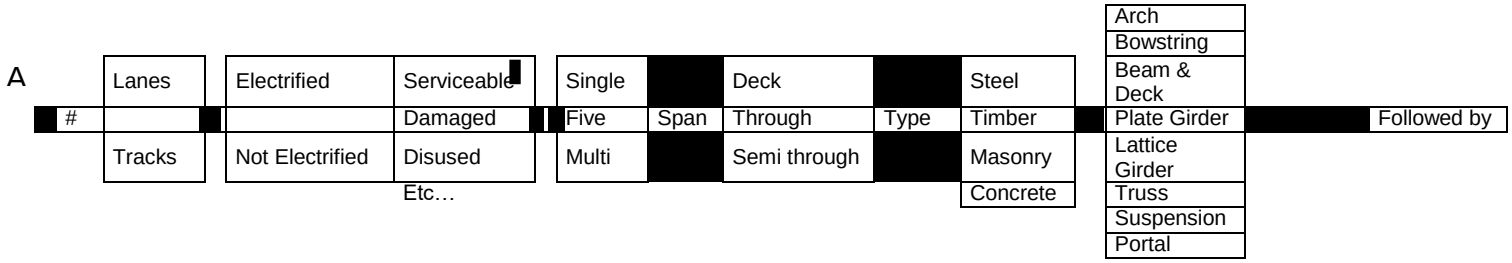
This may be used for any bridge with spans of more than one type or more than one form of construction



Skew to be inserted if appropriate

Parapets / Pedestrian access
Sideways / Bicycle paths

Description of spans:



Repeat sequence until all sections of bridge have been described.

Piers and abutments are then described noting any variations in construction and relation to particular spans.

Notes:

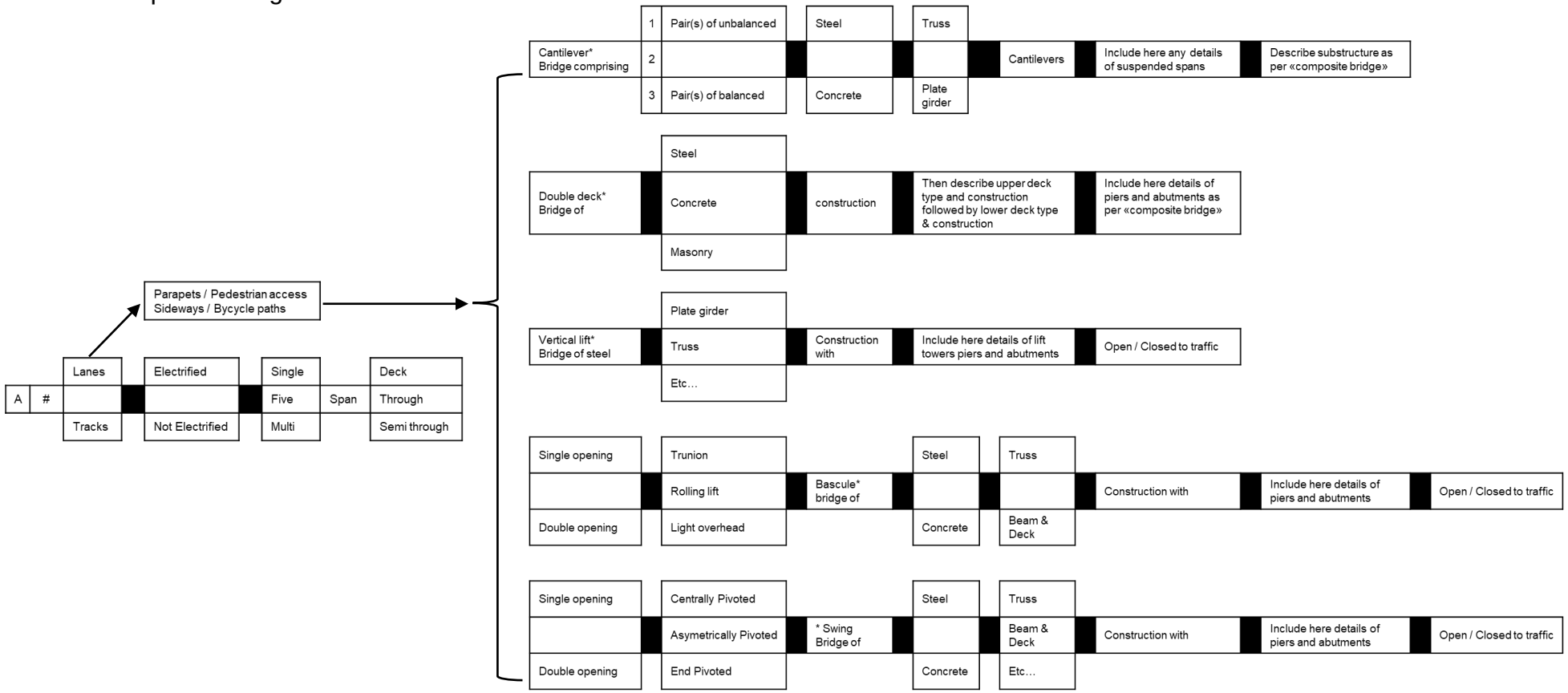
a. If the bridge contains a moveable span or is of cantilever construction see "Cantilever and movable bridges or span"

b. Additional details should be incorporated where appropriate.

CATEGORY 12: BRIDGES AND TUNNELS

3. CANTILEVER AND MOVABLE BRIDGES OR SPANS

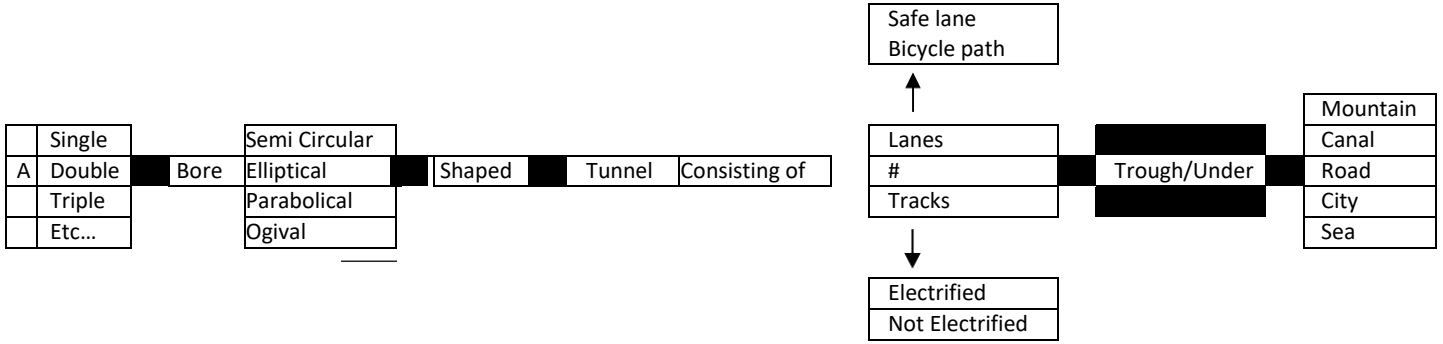
This key may be used for any cantilever or moveable bridge or in shortened form for individual cantilever or movable spans within a composite bridge



CATEGORY 12: BRIDGES AND TUNNELS

4. TUNNELS

This key may be used for any tunnel



CATEGORY 13: WATER CONTROL INSTALLATIONS

Examples for 1b and 1c.

TYPE	FUNCTION	NATURE
	Desalination Flood control Power production Water control Water navigation Water storage Water treatment	Embankment dam Cofferdam Diversionary dam Dyke High Dam Lock Low Dam Sewage treatment plant Tidal barrages Other (to be specified) Unknown

Examples for 5 (Primary Facilities)

Dams	Gravity arch Horizontal arch Multiple arch and buttress Slab and buttress Straight gravity Straight gravity reinforced Weir	Anchor piers Control building Penstocks Pump house Sluice gate Spillways Surge tower Towers Transformer/switch yard Turbine generator house Valve house
Locks	Double Flight/staircase Single Straight Triple Twin Shiplift	Basin Curved turn gate Curved V gate Double opposed curved V gates Double opposed V gate Drop gate False basin Floating caisson Safety gate Segmental gate Sliding caisson gate Transporter sliding caisson gate V gate Vertical lift gate Longitudinal

CATEGORY 13: WATER CONTROL INSTALLATIONS

Water control	Pump house Sluice	Transverse Vertical

Examples for 5 (Support Facilities)

Boom Bridge crossing (see Cat 12) Channel markers Dolphins Electronics Fenders Fish ladder Handling cranes Illumination Layby Marine slipway Mooring piles Pedestrian crossings Power supply Signals Trashracks	
Access and Approach	Rail Road Water Air Pipeline
Terrain (if tasked)	
Decoy Unknown	

CATEGORY 14: PORT INSTALLATIONS

Examples for 1b and 1c.

TYPE	FUNCTION	NATURE
Military	Military	Tidal
Civil	Naval Base	Non tidal
Governmental	Naval Arsenal	Inland
Mixed	Civil	Offshore
Other (to be specified)	Commercial	Other (to be specified)
Unknown	Passenger	Unknown
	Shipyard	
	Governmental	
	Coast Guard	
	Police	
	Other (to be specified)	
	Anchorage	
	Decoy	
	Mixed (to be specified)	
	Other (to be specified)	
	Unknown	

Examples for 5 (Primary Facilities)

Basin	Tidal
	Non tidal
Lock	
Breakwater	
Mole	
Building way	
Patent Slip	
Dock	Dry dock
	Floating dry dock
Quay	
Hard	
Wharf	
Pier	L shaped pier
	Finger pier
	Oiling pier
	Jetties
Dolphin	Trot
	Shore connected
Pile	
Buoy	Mooring
	Transhipment
	Navigation

CATEGORY 14: PORT INSTALLATIONS

Crane	Hammerhead crane Portal jib crane Gantry crane Container crane Floating crane
Conveyor	
Elevator	
Pipeline	
RoRo Ramp	

Examples for 5 (Support Facilities)

Shipbuilding	Fabrication building Assembly building
Transhipment facilities	Shed Building Container Open
Storage facilities	Ammunition POL Gas Shed Warehouse Dry products Building Container Open Silo
Command and control	Harbour control building Navigation aids
Administration	Headquarters Barracks Offices
Access and Approach	Rail Road Water Air Pipeline
Terrain (if tasked)	
Decoy	
Unknown	

CATEGORY 15: RAIL INSTALLATIONS

Examples for 1b and 1c.

TYPE	FUNCTION	NATURE
Military	Passenger Transport	Passenger / Material Transport
Civil	Material Transport	Terminal stations
Mixed	Depot	Through stations
Other (to be specified)	Marshalling	Depot
Unknown	Service and Repair	Locomotive depot
	Decoy	Rolling stock depot
	Mixed (to be specified)	Marshalling
	Other (to be specified)	Flat shunting yard
	Unknown	Gravity shunting yard
		Hump shunting yard
		Other (to be specified)
		Unknown

Examples for 5 (Primary Facilities)

Number of tracks	Description (precise Electrified / Non electrified)
Yards	Forwarding yard
	Receiving yard
	Secondary sorting yards
	Sorting yard
Junctions	Burrowing
	Cross over
	Diamond crossing
	Double junction
	Fly over
	Level crossing
	Single junction
	Single turnout
	Square crossways
	Symmetrical turnout
	Three throw turnout
	Triangular
	Turntable
Tunnel	See Cat 12 for details
Bridge	See Cat 12 for details

CATEGORY 15: RAIL INSTALLATIONS

Examples for 5 (Support Facilities)

Command and Control	Control post
	Signal building
	Station building
	Supply post
Loading area	Bays
	Bulk handling equipment
	Conveyor belts
	Cranes
	Platforms
	Ramps
Repair facilities	Assemble shop
	Inspection pit
	Rolling platform
	Round house
	Shed
	Traverser
	Work shop
Storage facilities	Ash pit
	Coal storage
	Covered storage area
	Grain silos
	Open storage area
	POL storage
	Water storage
Signals	Signal box
	Traffic light
Access and Approach	Rail
	Road
	Water
	Air
	Pipeline
Terrain (if tasked)	
Decoy Unknown	

CATEGORY 16: INDUSTRIAL INSTALLATIONS

Examples for 1b and 1c.

TYPE	FUNCTION	NATURE
Military	Distribution	Agricultural
Civil	Extraction	Crops
Mixed	Mining	Fishery
Other (to be specified)	Drilling	Forestry
Unknown	Pumping	Grain
	Processing	Livestock
	Refining	Molasses
	Reduction	Rape
	Recycling	Salt
	Concentration	Sugar beet
	Finishing	Sugar cane
	Production	Chemical
	Research and Development	Acids
	Decoy	Amonia
	Mixed (to be specified)	Explosive
	Other (to be specified)	Fertilizer
	Unknown	Fuels
		Pharmaceutical
		Consumer goods
		Automotive
		Electrical industry
		Food industry
		Furniture industry
		Paper industry
		Sugar industry
		Timber industry
		Engineering
		Aeronautical industry
		Armaments industry
		Automotive
		Engineering industry
		Railway industry
		Shipbuilding industry
		Metal
		Aluminum
		Bauxite
		Copper
		Copper ore
		Iron

CATEGORY 16: INDUSTRIAL INSTALLATIONS

		Iron ore Magnesium ore Steel Uranium ore Mineral Clay Coal Coke Gravel Hard Coal Lignite Limestone Rare Earth Element Sand Sulphur Timber Construction material Cement Tar Nuclear Fuel rods Uran hexafluorid Petrochemical Benzol Gas Oil Polymer Other (to be specified) Unknown

Examples for 5 (Primary Facilities)

Distribution	Loading rack Loading ramp Pipeline
Extraction	Drilling rig Mine Pump Quarry
Processing	Crushing mill Distillation unit Filtration bed

CATEGORY 16: INDUSTRIAL INSTALLATIONS

	Fractionating tower
	Rotary kiln
Production	Building way
	Fabrication building
	Fractionating tower
	Reactor building
	Rolling mill
	Saw mill
R & D	Laboratories
	Test area
	Wind tunnel

Examples for 5 (Support Facilities)

Transhipment facilities	Building
	Container
	Open
	Shed
Storage facilities	Ammunition
	Building
	Container
	Dry products
	Gas
	Open
	POL
	Shed
	Silo
	Warehouse
Administration	Control building
	Accommodation
	Offices
Access and Approach	Rail
	Road
	Water
	Air
	Pipeline
Terrain (if tasked)	
Decoy	
Unknown	

CATEGORY 17: POWER INSTALLATIONS

Examples for 1b and 1c.

TYPE	FUNCTION	NATURE
	Production Distribution Decoy Mixed (to be specified) Other (to be specified) Unknown	Thermal Coal Oil Gas Waste Biomass Diesel Hydroelectric Cavern type High Dam type Low Dam type Penstock type Pumped storage type Stream energy Tidal type Wave energy Nuclear Boiling water reactor Fast breeder reactor High temperature reactor Pressurized water reactor Research reactor Alternative Geothermal Solar Wind Substation Switchyard Transformer Yard Other (to be specified) Unknown

Examples for 5 (Primary Facilities)

Main buildings	Boiler house Condensor Generator hall Heat exchangers Reactor building Reflectors

CATEGORY 17: POWER INSTALLATIONS

	Solar collectors
	Station control building
	Turbine hall
	Turbine\Generator hall
	Wind turbine
	Windmill
Penstock system	Anchor Pier
	Penstock (burried/not burried)
	Surge tower
	Valve house
Transformer switch yard	Power tensions tower
	Switch house
	Transformer yard
Cooling	Cooling tower battery
	Cooling water inlet
	Cooling water outlet
	Fuel rod cooling pod
	Pump/valve house
	Spray pounds
	Venturi cooling tower

Examples for 5 (Support Facilities)

Storage	Basin (precise type)
	Nuclear waste
	Pumped storage
	Stock pile
	Tank (precise type and number)
	Trash (recycling)
Other Buildings	Administration
	Accommodation
	Workshop
Coal preparation plant	Coal handling
	Coal treating
	Conveyor belt system
Water purification plant	Water pounds
Stacks	Electrostatic precipitator
	Plant stack
	Smoke stack
	Waste stacks
Other facilities	Ash handling plant
	Cranes
	Pipe line

CATEGORY 17: POWER INSTALLATIONS

Access and Approach	Pump house Valve house Rail Road Water Air Pipeline
Terrain (if tasked) Decoy Unknown	

CATEGORY 18: URBAN AREAS

Examples for 1b and 1c.

TYPE	FUNCTION	NATURE
	Agricultural area Camp Green area Industrial area Infrastructural area Urban Framework Roadway Railway Waterway Decoy Mixed (to be specified) Other (to be specified) Unknown	Agricultural area Arable land Permanent crop Stable lawn Camp Caravan camp Container camp Prisoner camp Refugee camp Tented camp Work camp Green area Sport and Recreational area Urban green area Industrial area Commercial area Industrial installation Infrastructural area Airport area Port area Urban Framework Administrative Historical center Residential Suburb Roadway Motorway Extra-urban multiple carriageway Extra-urban principal single carriageway Extra-urban secondary single carriageway Urban arterial Urban single carriageway Ring Road Dirt Road Trail

CATEGORY 18: URBAN AREAS

		Railway Cableway Elevated Railway Railway Subway Suspension Railway Tram Waterway Basin Canal Creek River Wadi Other (to be specified)

Examples for 5 (Primary Facilities)

Administration facilities	Administrative building Local government building Police station Security force building
Storage / Supply facilities	Food storage Food tent Mess tent POL distribution POL storage Water storage Water supply Water treatment
Medical facilities	Hospital Medical center Medical tent
Communications facilities	Telephone commuters Communication center Communication building Communication tent
Other facilities	Bus station Industrial facilities Rail facilities School building School tent

CATEGORY 18: URBAN AREAS

Examples for 5 (Support Facilities)

Access and Approach	Rail Road Water Air Pipeline
Terrain (if tasked)	
Decoy	
Unknown	

CATEGORY 19: SPECIFIC STRUCTURES

Examples for 1b and 1c.

TYPE	FUNCTION	NATURE
Military Civil Mixed Other (to be specified) Unknown	Commercial and Financial Cultural Education Governmental Health Media/Communication Religious Residential Sport/Recreation Decoy Mixed (to be specified) Other (to be specified) Unknown	Commercial and Financial Bank Bazaar Business building Bus station Car park Commercial building Department store Exchange building Filling station Hotel Mall Market place Motel Post office Restaurant Service area Shop Stock exchange Supermarket Tree nursery Workshop Cultural Archeological site Castle Cinema Fortress Memorial Monument Museum Palace Pyramid Ruin Theatre Education Library Nursery Observatory Playschool

CATEGORY 19: SPECIFIC STRUCTURES

		Research and test center School Scientific center University Governmental Administration building Border Crossing Point Building yard City Hall Consulate Court House Customs Office Department building Embassy Firefighting station Guard building Police station Polling station Prison Health Ambulance station Dispensary Field hospital Health resort Hospital Nursing home Pharmacy Sanatorium Media/Communication Communication center Movie studio Printing works Publishing building TV / Radio station Religious Basilica Burial site Cathedral Cemetery Chapel Church

CATEGORY 19: SPECIFIC STRUCTURES

		Madrassa Mausoleum Monastery Mosque Pagoda temple Pilgrim place Shrine Soldier memorial cemetery Stupa Synagogue Temple Residential Block of flats Bungalow Compound Dwelling Farm house House Residential building Slum Villa Sport/Recreation Athletic field Campsite Club house Fair Fun park Golf course Gymnasium Horse race-course Multipurpose hall Park Playground Race circuit Sport facility Stadium Swimming pool Tennis court Winter sports facility Zoo Other (to be specified) Unknown

CATEGORY 19: SPECIFIC STRUCTURES

Examples for 5 (Primary Facilities)

Storey	**Roof**	**Shape**	**Materials**
Single	Butterfly	Circular	Concrete
Two	Clerestorey	Composite	Glass
Three, etc…	Curved	Hollow square	Masonry
Multi	Deck	Horseshoe	Steel
	Flat	Multiple arm	Stone
	Gambrel	Offset block	Timber
	Hipped	Rectangular	Mixed (to be specified if possible)
	Multi curved	Square	Unknown
	Multi ridge	Triangular	
	Near flat	E shaped	
	Ridge	F shaped	
	Sawtooth	L shaped	
	Sloped	T shaped	
		U shaped	
		X shaped	

Examples for 5 (Support Facilities)

Parking	
Power supply	
Communication supply	
Access and Approach	Rail Road Water Air Pipeline
Terrain (if tasked)	
Other (to be specified)	
Decoy	
Unknown	

ANNEX C DAMAGE CONSIDERATIONS AND REPORTING TERMINOLOGY

1. Runways and Taxiways (Cat 01)

   a. Physical Damage Definitions

No damage	No observable damage.
Damaged	Craters and ground distortions. It's necessary to define the size, position and distance between craters when damage is observed on the runway, the taxiway or apron.

   In assessing physical damage to runways and taxiways, the functional capability of the runway or taxiway is also implied.

   b. Functional Damage Considerations. The effectiveness of attacks on runways/taxiways is based upon surface cratering sufficient to prevent aircraft takeoff or land. To achieve interdiction, no undamaged part of the runway/taxiway must be long enough or wide enough for use as a take off surface. The critical factor when assessing runway/taxiway damage is knowledge of the type/category of aircraft that can or cannot use the airfield. A fighter or bomber base may be considered interdicted if normal operations of the aircraft stationed there are precluded. However, the airfield may be usable by other aircraft types which can operate an unimproved runway and the analyst should always have access to information on enemy aircraft types and their minimum operating surfaces (MOS).

2. Steel Towers (Cat 03)

   a. Physical Damage Definitions

No damage	No apparent/observable damage.
Damaged	Damage to support member(s), but the tower remains standing.
Destroyed	Tower is collapsed or toppled.

   b. Functional Damage Considerations. The level of functional damage associated with physically damaged steel towers will depend upon the function and connectivity with other target elements. Examples of steel tower usage/functions include electric power transmission and communication antenna support.

3. Satellite Dishes (Cat 03)

a. Physical Damage Definitions

No damage	No apparent damage.
Light damage	A few reflective panels blown off.
Moderate damage	Less than 25 percent of dish reflective panels blown off plus damage to dish support structure and/or damage to feedhorn.
Severe damage	25 to 60 percent of reflective panels blown off plus some deformation of the dish and/or the dish's structural components. Antenna pointing changed.
Destroyed	Feedhorn is destroyed, and/or greater than 60 percent of reflective panels blown off and/or extensive structural deformation of the dish, and/or dish dislodged.

b. Functional Damage Considerations. Functional degradation to sites will depend on damage to the dish and/or its associated control building(s). When making this assessment, knowledge of the dish type (fixed or tracking) and location of the damage is critical.

4. Hardened Facilities (Cat 04)

a. Physical Damage Definitions

No damage	No apparent damage.
Light damage	No apparent weapon(s) penetration into facility observed, however damage to facility exterior is apparent.
Moderate damage	Weapon penetration observed.
Severe damage	Less than 1/3 of roofs / walls collapsed.
Destroyed	More than 1/3 of roofs / walls collapsed

Evidence of successful weapon(s) penetration may include entrance doors that have been blown oft burn marks outside entrances, and/or venting of smoke (caused by fire or secondary explosions) through openings other than the weapon(s) penetration hole(s) (i.e., doors, air vents, etc.). Analysis of aircraft cockpit video (ACV) is essential to the assessment process of hardened facilities. The venting of weapon blast energy through doors and ventilation shafts can be readily seen on video. This must be compared to information on the internal configuration of the facility to determine approximate weapon detonation location relative to the critical element within the hardened target intended for destruction.

b. Functional Damage Considerations

(1) A hardened facility is designed to protect the enclosed equipment and/or function. Extensive use of thick concrete, burster slabs, and soil layers, as well as facility size, generally precludes a partial collapse or physical destruction of the facility from a single weapon. Although external physical damage may be limited, a high order weapon detonation inside the facility will generally destroy the contents. Knowledge of how the hardened facility is constructed (i.e., dimensions, placement of walls, roof/floor/wall thickness etc.) is essential to assess accurately the extent of internal physical and functional damage that has occurred.

(2) Functional damage to a hardened target depends on the facility's mission. If the hardened target serves in a storage capacity (aircraft or munitions), depending upon internal compartmentation, a weapon penetration usually results in damage/destruction of the contents. In these situations, depending on the degree of physical damage, the damaged contents can be removed and the facility can sometimes be reconstituted to serve as a protective structure for new equipment/supplies.

(3) When the hardened facility serves in a command, control, and communications role, a successful weapon(s) penetration and detonation generally results in the damage or destruction of its mission/operations. In these situations, the extent of functional damage is dependent on estimates of physical damage to the internal structure, ventilation system, electronic/communication equipment, power supplies, lights, water lines, tools/equipment, etc. Generally, long recovery times are associated with this type of internal damage.

5. POL Storage Tanks (Cat 05)

a. Physical Damage Definitions

No damage	No apparent damage.
Light moderate	Above ground tanks: Top and/or side walls Damage punctured, possible spillage of contents: no evidence of sustained fire: structural integrity remains intact. Underground or semi-buried tanks: Weapon(s) penetration of tank confirmed: evidence of secondary explosion or sustained fire.
Destroyed	At least partial collapse/buckling of side wall: alternatively, evidence of sustained fire and/or a secondary explosion.

b. Functional Damage Considerations. Significant functional damage of a POL storage installation is expressed in terms of storage capacity rendered unusable and the time required to repair or replace denied capacity. Although a POL tank may have sustained damage, its contents may be retrievable and usable.

6. Military Equipment (Cat 06)

a. Physical Damage Definitions

No damage	No apparent damage.
Damaged	Physical deformation present, such as holes in equipment; Scorching visible on exterior; and/or equipment Components blown off (broken tracks/wheels, armoured plates). Major components are still intact.
Destroyed	Unrepairable, possibly scrap. Catastrophic damage (K kill).

(1) Careful consideration must be made when reporting NO DAMAGE. In certain cases physical deformation may not be seen. Analytical judgments using multiple sources/types of information, which may indicate no vehicular movement for extended periods, lack of detectable radio transmission, etc., must be considered by the BDA analyst.

(2) When reporting physical damage, also include the NUMBER of pieces of equipment damaged or destroyed (where possible).

b. Functional Damage Considerations

In terms of equipment, the DAMAGED category generally equates to the following partial or complete disruption of the equipment's ability to function, although in some cases visible damage may have only minimal or no effect on this ability.

(1) Armoured vehicles and artillery: affects the equipment's fire power capability (F kill) and/or its mobility (M kill). This damage is not repairable by the crew on the battlefield.

(2) Tracks: prevents vehicle mobility (M kill) and/or internal equipment usage for a number of hours until repairs can be made.

(3) Radar antennas or their associated vans/trailers: prevents radar system from performing its intended function, either missile firing (F kill) or target acquisition/target tracking, until repairs can be made.

(4) Functional damage of equipment also reduces the functional capability of command and control nodes; of logistics nodes to perform tasks of

resupply such as fuelling, arming, and of engineering resources to provide mobility, countermobility, and survivability support.

(5) The level of functional damage of a missile or radar site depends upon the extent of damage, the number/redundancy of critical elements and their damage, and the relationship of the various elements that make up the site.

(6) For armoured vehicles, artillery, and trucks, refer to the section on ground force personnel functional damage considerations for additional information.

7. Ground Force Personnel (Cat 06)

a. Physical Damage Definitions

No damage	No apparent/observable casualties or damage to occupied positions or organic equipment operated by ground force personnel.
Damaged	Visible casualties or damage to occupied positions or organic equipment.
Destroyed	Visible casualties or damage to occupied positions or organic equipment resulting in 30 percent or more casualties.

(1) For equipment, use the damage definitions for military equipment. Occupied positions (bunkers, structures, trenches) or equipment (personnel carriers, trucks, etc.) that have been damaged/destroyed will result in casualties.

(2) The destruction of ground force personnel is defined in terms of unit effectiveness. 30% or more casualties will normally render a unit combat ineffective.

b. Functional Damage Considerations

(1) Generally, the greater the number of casualties and damage to equipment and communications/supply network, the greater the ground force attrition and the lower the combat effectiveness. As part of determining enemy combat effectiveness (the ability to function), two factors must be addressed in clear and simple terms:
   (a) Reconstitution of forces and recuperation of facilities,
   (b) Residual capabilities (to perform defence, assault, and supply missions).

(2) Desertions or POW losses may also render a unit ineffective.

8. Ships (Cat 08)

a. Physical Damage Definitions

No damage	No apparent / observable damage.
Moderate damage	Physical deformation, and/or holes in ship/ship's equipment, and/or ability to move/manoeuvre reduced.
Severe damage	More than 1/3 of superstructure/deck area destroyed or burned, and/or major subsystems inoperable (weapon sensors, radar), and/or ability to move/manoeuvre destroyed.
Destroyed	More than 1/3 of the ship's waterline length is flooded (uncontrolled flooding). The ship's MAJOR subsystem supporting operations is destroyed.

When determining the level of physical damage, also consider the following:

(1) Seaworthiness: listing (in degrees), capsized, sunk.

(2) Firepower: level of damage to guns/launchers/magazines (described according to functions surface to air, surface to surface, antisubmarine): and damage to flight deck, hangars and aircraft elevators.

(3) Mobility: Percentage damage to steering/rudder(s), percentage degradation to speed (of sustained speed capability).

(4) Sensors: Search (air surface, subsurface), radars/sonars, and fire control in terms of percent damage.

(5) C2: Damage to pilot house/bridge, combat information centre, communications centre/antennas, computer systems and data links. all need to be addressed in terms of percentage type, level of damage, and estimates of reconstitution times.

b. Functional Damage Considerations. The type and location of damage will determine the ship's ability to continue offensive/defensive operations and the requirement to conduct repairs back at the shipyard. When assessing functional damage, consider the ship's ability/inability to move and manoeuvre, and the degree of disruption to particular ship subsystems (e.g. weapons delivery capability, sensor functioning, etc.).

9. Roads (Cat 09)

a. Physical Damage Definitions

No damage	No apparent damage.
Cratered	Road cratered, but vehicles are able to manœuvre around damaged section of roadway.
Cut	Road and adjacent shoulders with multiple craters in line and sufficiently close to prohibit vehicle movement through the cratered area of road surface.

Where geographically possible, an alternative to damaging a road with crater(s) is to stud the adjacent hillside to cause a landslide to cover the road.

b. Functional Damage Considerations. The effectiveness of attacks on roads is dependent upon the ability to reduce or stop the level of traffic flow. Factors used to estimate flow reduction and road repair requirements (typically roads can be rapidly repaired) include the ability to bypass the damaged road section by using the terrain adjacent to the shoulder, depth and width of cratered area, availability of repair equipment and personnel, etc.

10. Tunnel Entrances (Cat 12)

a. Physical Damage Definitions

No damage	No visible damage.
Light damage	No damage to portal, but a crater or soil, rock, or debris is partially blocking the entrance to the tunnel if existing, the tunnel doors can be opened/closed and are passable.
Moderate damage	No damage to portal, but a crater or soil, rock, or debris is completely blocking the entrance to the tunnel; or if existing, the tunnel doors either cannot be opened/closed or have been blown off.
Severe damage	Partial collapse of portal and/or tunnel lining: entrance completely blocked.
Destroyed	Complete collapse of portal and/or tunnel lining. Depending on the hardness of tunnel entrances and the number/type of weapon employed, a complete collapse of the portal may or may not occur.

b. Functional Damage Considerations

(1) Physical damage to a tunnel entrance generally makes the entrance impassable. It may also reduce the protection to the facility's internal contents in follow on attacks. The extent of functional damage depends

on the size of the crater or the amount of soil, rock, or debris that is blocking the entrance.

(2) Functional damage is also dependent on the purpose of the tunnel facility. For example, a storage type tunnel facility is much more vulnerable to tunnel entrance damage than a C2 type tunnel facility. The time required to repair tunnel entrances will depend on the extent of damage or the availability of personnel and equipment. There may also be multiple entrances to the underground facility.

(3) Finally, when assessing functional damage to a tunnel facility, the level of physical damage to the facility's air vent(s) must also be considered.

11. Bridges (Cat 12)

a. Physical Damage Definitions

No damage	No apparent damage
Light damaged	Superficial damage to bridge but road is intact.
Moderate Damaged	All spans are attached but one or more have 50% of the deck bridge destroyed. in the case of pontoon bridges two or more non adjacent pontoons have been sunk.
Severe damage	All spans attached, but one or more spans have 50 percent of the deck width destroyed.
Destroyed	One or more spans have been dropped; piers or abutments may be damaged/destroyed. One or more pontoon sections have been sunk.

The IA should report the number of spans dropped together with the total number in the bridge.

b. Functional Damage Considerations. In reporting moderate or severe, indicate the number of remaining usable lanes and direction of travel. In considering recuperation times report the presence of alternative crossings and sightings of spare parts for pontoon bridges.

12. Dams and Locks (Cat 13)

a. Physical Damage Definitions

No damage	No apparent/observable damage.
Damaged	Dam/lock has been breached (or penetration of dam/lock face) leading to seepage on downstream side.
Destroyed	Dam/lock has burst resulting in the inability of

dam/lock to operate and to contain water on upstream side.

b. Functional Damage Considerations. For this target, the functional capability of damaged dams/locks is contained within the physical definitions.

13. Rail Lines and Railyards (Cat 15)

a. Physical Damage Definitions

No damage	No apparent damage.
Cut	Track severed, prohibiting movement around the damaged area. Movement around or past the damaged area (choke point or railyard) still possible on other lines.
Destroyed	Multiple tracks with multiple Cuts to prevent rolling stock from moving around or past damaged area (choke point or railyard).

These definitions cover the functional capability of the railyard.

b. Functional Damage Considerations. The location of rail yard "cuts" and the ability to bypass the damage will determine the extent of functional damage to the facility. The presence of new rails and repair equipment/manpower may mean a short recuperation time.

14. Distillation Towers (Cat 16)

a. Physical Damage Definitions

No damage	No apparent damage.
Light damage	No apparent penetration of tower shell or disruption to piping connections; however, portions of the insulation covering the tower shell appear damaged and/or scorched.
Moderate damage	Tower shell remains standing; tower has been penetrated by weapon(s) or shrapnel and/or piping connections are deformed or severed.
Destroyed	Tower at least toppled or partially collapsed.

When reporting physical damage to a specific tower you should include damage or lack of damage to equipment directly associated with the tower. This equipment will usually include one or more furnaces, heat exchangers or condensers, and elevated pipeways. If identified, report damage or lack of damage to the control building associated with the distillation tower.

b. Functional Damage Considerations. The effects of damaged distillation towers on a target's production capabilities depend on the specific functions of the towers, i.e., primary distillation or secondary processing. Functional damage to distillation towers is expressed in terms of time required for repair or replacement and the specific production capabilities denied. It is important to report damage to equipment directly associated with a distillation tower because the results could be comparable to inflicting significant damage to the tower.

15. Transformers (Cat 17)

a. Physical Damage Definitions

No damage	No apparent damage.
Damaged	The structure of the unit is intact, but appears to be blackened as a result of a fire or leakage of oil.
Destroyed	The structure of the unit appears to be torn apart or extensively distorted. Catastrophic damage.

When reporting physical damage, include the NUMBER of transformers damaged or destroyed.

b. Functional Damage Considerations The effect of transformer damage on the target's function is dependent on the power requirements of the facility and the ability to re route the power.

16. Powerplant Turbines and Generators (Cat 17)

a. Physical Damage Definitions

No damage	No apparent / observable damage.
Damaged	No apparent weapon penetration of unit, but the environmental housing over the unit has sustained damage and disfigurement. The unit may also have been displaced from its foundation.
Destroyed	Turbine or generator unit breached/penetrated and has sustained extensive structural deformation, unit appears to be torn apart Catastrophic damage (K kill).

When reporting physical damage, report if possible the NUMBER of turbines or generators that are damaged and destroyed out of the total number of units at the facility. The common type of powerplant consists of a multistorey framed building containing multiple turbine and generator units. Physical damage to the turbine/generator units may be difficult to identify if the generator hall remains relatively intact. Therefore, damage estimates to the units are based upon the weapon detonation location and physical damage to the building itself. The

closer to the floor that a weapon detonates, the greater the probability of unit damage. The extent/location of structural damage, vice roof panel damage, to the building is another indicator of unit damage the greater the extent of wall damage and structural collapse, the greater the likelihood that the unit(s) are damaged or destroyed under the rubble. When performing BDA on a generator hall report physical damage to both the building and where possible an estimate of turbine/generator damage located inside.

b. Functional Damage Considerations. Destruction of one turbine/generator unit will partially degrade the electrical production function of a power plant. These target components are an example of machinery being less vulnerable than the structure in which it is contained. The generator hall may be moderately damaged, while the turbine/generator unit(s) contained within the building may have received little damage.

17. Buildings(Cat 19)

a. Physical Damage Definitions

No damage	No visible damage to target area
Light damage	Up to 15% of the target area damaged
Moderate damage	15 to 45% damage to target area
Severe damage	45 to 75 % damage to target area
Destroyed	75 to 100% damage to target area

(1) Framed structures rarely collapse in the same way as load bearing structures. It is not necessary for the structural members of a framed building to collapse to obtain a percentage of damage. Damage to windows, cosmetic panels, etc should be included in the estimate of percentage damage. Monitor distortion is often an indicator of damage to a structural member.

(2) In the case of buildings higher than four storeys the damage report should be restricted to those storeys where damage is visible.

(3) In reporting on buildings with multiple wings, report destroyed wings and damage to other sections.

b. Functional Damage Considerations

(1) A building is designed to provide an environmental shelter for the enclosed function or equipment. Destruction of the building may not be the aim; rather, destruction of the critical element(s) inside should be the objective. The greater the extent of physical damage to the building, the greater the likelihood of destroying the critical element(s) and hence, the longer the required recuperation time to restore the function.

(2) Although there is a correlation between the level of physical damage to a building and functional damage to its critical element(s), the LOCATION and HARDNESS of a building's contents are key to a meaningful functional assessment. For example, in an industrial building, the machinery may be less vulnerable than the structure in which it is contained. The structure might be moderately damaged with the machinery receiving little or no damage. On the other hand, in a HQ building that contains fragile computer or electronic equipment, the equipment may be destroyed before the structure is significantly damaged.

(3) When assessing framed structures, it may be more difficult to determine functional damage to the building's contents because framed structures are less likely to collapse (less apparent physical damage). In contrast, load bearing structures tend to collapse more easily (more apparent physical damage) thereby making functional damage of the structure's contents more likely and possibly easier to assess.

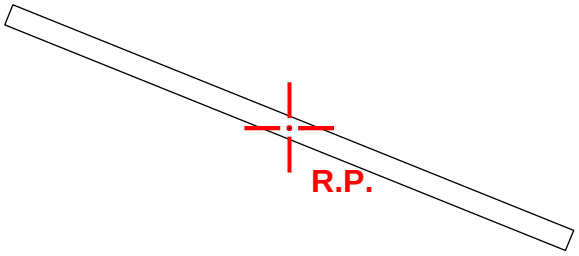
(4) General weaponeering guidance considers a building unusable (functionally destroyed) when it has sustained 50 percent STRUCTURAL damage. Depending on the type and location of critical elements, a lesser percentage of damage may be adequate to achieve the desired level of functional degradation.

(5) A building may also serve as an important landmark or other symbol of national unity and resolve; in these cases, the entire building may be the critical element.

ANNEX D REFERENCE POINT CONVENTIONS

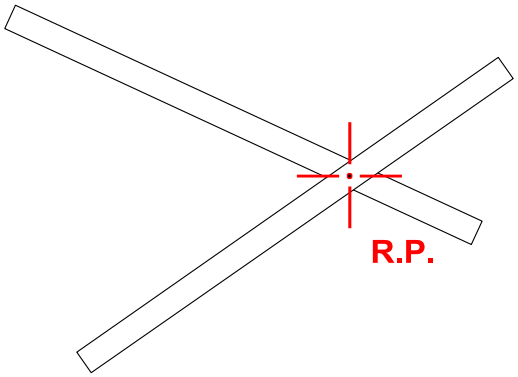
1. Category 01 / Airfields.
The location of an R.P. for this category, differs according to the number and the configuration of runways within the site. The general rule is that the R.P. of the site is the centre of the runway (from threshold to threshold).

   a. Airfield with single runway. It is the most common case. The R.P. is the centre of the runway, delineated by its runway thresholds.

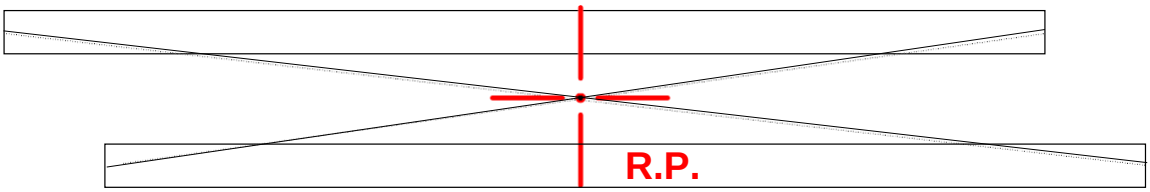


   b. Multiple runways: where there are multiple runways and one is clearly defined as a main runway (i.e. by its features or provided by collateral information), the procedures for single runway will be followed; otherwise, the following rules apply. In cases different than the ones depicted, the IA will choose the best solution.

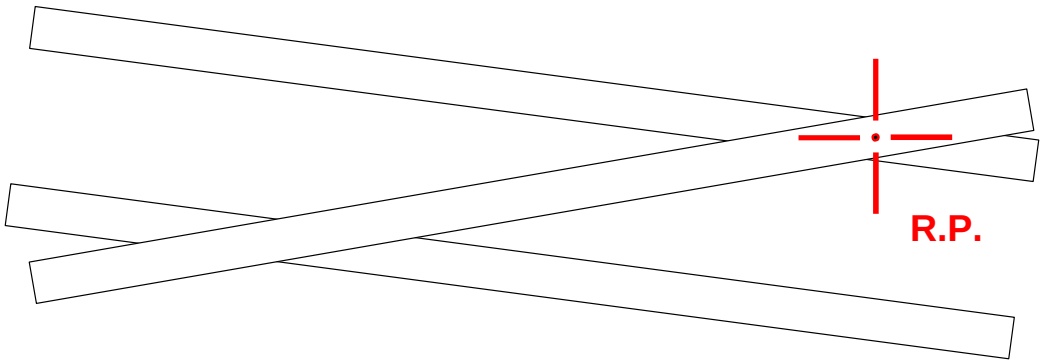
   c. Two intersecting runways. When the two runways are intersecting, the R.P. is to be placed where the runways cross.



d. Two parallel runways. When two runways are not interconnected, the R.P. is the middle of the segment defined by the centres of the two runways.



e. Airfield with three runways. In the case of an airfield with three runways, the R.P. is one of the intersections between the runways chosen by the IA.



2. Category 02 / Air Defence and Missile System Installations.

a. Fixed air defence / missile site. The R.P. will be defined, in order of priority, as the fire control radar location, the command and control building/ location, or another crucial element.

b. Mobile air defence / missile system. The location of the R.P. will be decided by the IA.

3. Category 03 / Electronic installations

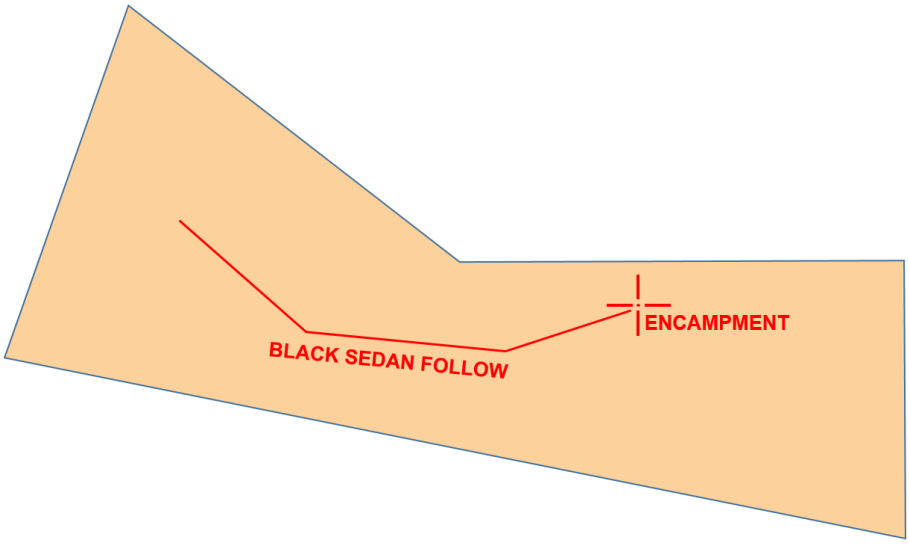
a. Fixed electronic site. The R.P. will be the main entrance of the site.

b. Mobile electronic system. The R.P. will be defined as the location of the command and control tent or vehicle. The location of the R.P. will be decided by the IA.

4. Category 04 / Headquarters, Command Posts and Barracks. The R.P. is the main entrance.

5. Categories 05 / Storage and Repair installations. The R.P. is the main entrance. For sites with several entrances, the R.P. is the main one. If it is not possible to distinguish between the entrances, the IA will select an entrance among the options.

6. Category 06 / Ground Activity. In the case of a deployed site that cannot be classified into another category, the R.P. will be defined utilizing the command and control tent or vehicle location on the observed site. If not practicable, it will be annotated to a geographical point within the site. When ground activity is tasked as target geometry Strip or Area search, graphic reports should include a visualization of the entire tasked area, as well as a R.P. for each target detected. See below example of report from a mission that included reporting for one target and a vehicle follow:



If nothing significant is reported and a graphic report is needed, graphic reports may include only a visualization of the tasked area.

7. Category 07 / Obstacle crossing. The R.P. will be defined on the bank occupied by the equipment permitting the crossing of the obstacle. If these are not visible, the R.P. will be defined on the waiting zone.

8. Category 08 / Shipping.

   a. Activity including only one ship. The R.P. will be defined by the position of the ship, taken on its superstructure.

   b. Activity including several ships. The R.P. will be defined by the location of the main ship according to abovementioned rule. The main ship will be chosen in priority as follows:
      - in case of a military ship deployment: the command ship;
      - in case of a mixed ship deployment: the military command ship;
      - in case of a civilian ship deployment or unknown command ship: the IA will choose one of the ships as the main ship.

9. Category 09 / Route reconnaissance. This target will be defined by a Start Point (SP) and an End Point (EP).

10. Category 10 / Terrain reconnaissance. The R.P. will be defined by the IA as the most appropriate element according to the tasked EEIs.

11. Category 11 / Coastal reconnaissance. The R.P. will be defined by the IA as the most appropriate element according to the tasked EEIs.

12. Category 12 / Bridges and tunnels

   a. Bridges, aqueducts and viaducts. The R.P. will be defined as the centre of the target.

   b. Tunnels. The R.P. will be defined on one of the tunnel entrances.

   c. Channels, ducts, and pipe-lines. The IA will report, if possible, entrance and exit points and choose one as the R.P.

13. Category 13 / Water control installations. Three big types of hydraulic infrastructures are included in this category: control, storage and treatment installations.

   a. Dams and sluices. The R.P. is defined at the centre of the structure.

   b. Pumping and purification stations. The IA will apply the general rule for permanent sites. In other words, the R.P. is the main entrance of the site.

14. Category 14 / Port installations. The R.P. of a port installation is defined at the far end of the pier, or on the angle of a main mole if there is no pier. When the port consists of several civilian and military areas, the R.P. will be located in priority on the pier of the military area.

15. Category 15 / Rail installations. The R.P. of a rail installation is the main building entrance of the area.

16. Category 16 / Industrial installations. The general rule for permanent sites is applied: the R.P. is the main entrance of the site (same as categories 05 and 17). In the case where there are several entries, the R.P. is taken utilizing the main entrance. If it is not possible to distinguish the most important entry, the IA will choose an entrance among the options.

17. Category 17 / Power installations. The permanent sites general rule for the R.P. designation is applied: the R.P. is the main entrance of the site (same as for categories 05 and 16). In the case where the site presents several entries, the R.P. is taken in the main entrance. If it is not possible to distinguish the importance of the entries, the IA will choose an entrance among the others.

18. Category 18 / Urban area. Two types of urban areas can be distinguished: those that are temporary (refugees camp, prisoner camp, etc) and those that are permanent or fixed sites (cities, villages, etc).

    a. Temporary sites. For this kind of site, the R.P. will be the main entrance of the site.

    b. Permanent sites. For this kind of site, the R.P. should be an easily identifiable point within a town. This point will be placed at a permanent and easily identifiable infrastructure. Often, a religious building will be chosen, or, if not, a crossroads close to the town centre.

19. Category 19 / Specific structures. The R.P. will be placed at the main entrance of the infrastructure or building.

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ANNEX E IMINT MESSAGE TEXT FORMATS EXAMPLES

The listed messages are examples, not a description of the report format itself.

E.1. Reconnaissance Exploitation Report (RECCEXREP)

SET FORMAT NAME	EXAMPLE MESSAGE
EXERCISE IDENTIFICATION	EXER/CMX 95/DISTAFF//EXER/DISPLAY DETERMINATION/NICK:COBRA GOLD//
OPERATION CODEWORD	OPER/DENY FLIGHT//OPER/DENY FLIGHT/SACEUR 106/PAPER WASTE/ORANGE//OPER/PROVIDE VALUE/STRIKEFORSOUTH 202/-/LOW COST//
MESSAGE IDENTIFIER	MSGID/RECCEXREP/APP-11(D)/3/MARCOM/02/DEC/-/-/NATO/UNCLASSIFIED//MSGID/RECCEXREP/APP-11(D)/3/LIVE WELLS/-/20150630T103030Z/UPD/1/GBR/OTH:PROTECT/MEDICAL//
REFERENCE	REF/A/BARNSTORM/-/SHAPE/20260810T032518Z/AIR 051/NOTAL/LGQ//REF/B/TYPE:LTR/FUTURE USE OF MTFS/SACLANT/150830ZJAN2026/-/-/FN:4503B//REF/C/TYPE:CHT/CHAT:CITRIX-JCHAT-COMMAND/SACLANT/JAN2026//
GEODETIC DATUM	GEODATUM/EUS//GEODATUM/WGE//GEODATUM/WGE/BNG//
RECCE REPORT TYPE	RECCEREP/SPOT//
MISSION DATA	RELEAINF/NAT:SWE/RELEASABILITY COMMENTS/LIMDIS/DOWNGRADE TO SECRET /30MAY2025//RELEAINF/PFP NATIONS/RELEASABILITY COMMENTS/LIMDIS/DOWNGRADE TO SECRET/30MAY2025//

TASKED LOCATION AND TARGET IDENTIFIER	GENTEXT/TASKED LOCATION AND TARGET IDENTIFIER/HERE YOU MAY ADD ANY COMMENTS IN FREE TEXT OF AN UNLIMITED NUMBER OF CHARACTERS THAT IS REQUIRED BY THE MESSAGE//
TARGET CATEGORY	TGTCAITM/02/B/01-1//
ACTUAL TIME ON TARGET	DTOT/021215ZOCT2025/021210ZOCT2025/021220ZOCT2025//
CATEGORY IDENTIFICATION	CATIDENT/0191-GBR12-0001-GE001/DEVILS HORN/-/-/-/43304//CATIDENT/E-2000-DEU02-12345/JOINT TRANSPORTATION EXERCISE/-/MILMOV/NOR//CATIDENT/B-GBRXX-12345/MAIER/M//
GEOGRAPHIC COORDINATES	SITELOC/THE SEVERN ESTUARY/GRID:SU654345/GRID:SU785543//
ITEM TYPE	ITMTYP/MILCIV:CIV//
ITEM FUNCTION NATURE AND SUBORDINATION	FCTNAT/AAIR:LAS/AAIR:GUNS/N/MAR:FLT/OTH:SUBDIVISION//
STATUS	STATUS/PERM/UNSRV/OCCUP/DECOY/HARDN/UNDCNS/NONOBS//
ITEM LOCATION	ITMLOC/15KM EAST/UPS:N20450002245522/UPS:N20460002345522/UPS:N20470002445522//
ITEM DETAILS	ITMDET/4/TROPO/TWIN PLATE/LOS, NE AND SW/DEPLOYED//
ITEM DESCRIPTION	GENTEXT/ITEM DESCRIPTION/HERE YOU MAY ADD ANY COMMENTS IN FREE TEXT OF AN UNLIMITED NUMBER OF CHARACTERS THAT IS REQUIRED BY THE MESSAGE//
TYPE OF DEFENCE	TYPDEF/LAD//
DEFENCE LOCATION	ITMLOC/15KM EAST/UPS:N20450002245522/UPS:N20460002345522/UPS:N20470002445522//

DEFENCE DETAILS	ITMDET/4/TROPO/TWIN PLATE/LOS, NE AND SW/DEPLOYED//
DEFENCE DESCRIPTION	GENTEXT/DEFENCE DESCRIPTION/HERE YOU MAY ADD ANY COMMENTS IN FREE TEXT OF AN UNLIMITED NUMBER OF CHARACTERS THAT IS REQUIRED BY THE MESSAGE//
TYPE OF PRIMARY FACILITY	PRIFAC/AAIR:LPOS//
PRIMARY FACILITY LOCATION	ITMLOC/15KM EAST/UPS:N20450002245522/UPS:N20460002345522/UPS:N20470002445522//
PRIMARY FACILITY DETAILS	ITMDET/4/TROPO/LOS, NE AND SW/DEPLOYED//
PRIMARY FACILITY DESCRIPTION	GENTEXT/PRIMARY FACILITY DESCRIPTION/HERE YOU MAY ADD ANY COMMENTS IN FREE TEXT OF AN UNLIMITED NUMBER OF CHARACTERS THAT IS REQUIRED BY THE MESSAGE//
TYPE OF SUPPORT FACILITY	SUPFAC/AAIR:POWER//
SUPPORT FACILITY LOCATION	ITMLOC/15KM EAST/UPS:N20450002245522/UPS:N20460002345522/UPS:N20470002445522//
SUPPORT FACILITY DETAILS	ITMDET/4/TROPO/LOS, NE AND SW/DEPLOYED//
SUPPORT FACILITY DESCRIPTION	GENTEXT/SUPPORT FACILITY DESCRIPTION/HERE YOU MAY ADD ANY COMMENTS IN FREE TEXT OF AN UNLIMITED NUMBER OF CHARACTERS THAT IS REQUIRED BY THE MESSAGE//
PHYSICAL DAMAGE	PHYDAM/DST/SMOKE VISIBLE FROM IMPACT POINT AND AIR VENTS.//
FUNCTIONAL DAMAGE	GENTEXT/FUNCTIONAL DAMAGE/HERE YOU MAY ADD ANY COMMENTS IN FREE TEXT OF AN UNLIMITED NUMBER OF CHARACTERS THAT IS REQUIRED BY THE MESSAGE//

COLLATERAL DAMAGE	GENTEXT/COLLATERAL DAMAGE/HERE YOU MAY ADD ANY COMMENTS IN FREE TEXT OF AN UNLIMITED NUMBER OF CHARACTERS THAT IS REQUIRED BY THE MESSAGE//
ADDITIONAL DAMAGE	GENTEXT/ADDITIONAL DAMAGE/HERE YOU MAY ADD ANY COMMENTS IN FREE TEXT OF AN UNLIMITED NUMBER OF CHARACTERS THAT IS REQUIRED BY THE MESSAGE//
ENVIRONMENTAL DAMAGE	GENTEXT/ENVIRONMENTAL DAMAGE/HERE YOU MAY ADD ANY COMMENTS IN FREE TEXT OF AN UNLIMITED NUMBER OF CHARACTERS THAT IS REQUIRED BY THE MESSAGE//
ANALYST COMMENT	GENTEXT/ANALYST COMMENT/HERE YOU MAY ADD ANY COMMENTS IN FREE TEXT OF AN UNLIMITED NUMBER OF CHARACTERS THAT IS REQUIRED BY THE MESSAGE//
FOLLOWING REPORT AND CONFIRMATION DATA	RPTCONF/YES/YES//
PRECEDENCE	PRECED/FLASH//
OTHER INFORMATION	GENTEXT/OTHER INFORMATION/HERE YOU MAY ADD ANY COMMENTS IN FREE TEXT OF AN UNLIMITED NUMBER OF CHARACTERS THAT IS REQUIRED BY THE MESSAGE//
TARGET WEATHER INFORMATION	TARWI/4/6/7/1/MEDIUM/N//
IMAGERY REFERENCE DATA	IMREFDAT/VISMOTION/VV/A1094-1511/DB/2500/50/CL/SH/20271022/AB 012/AB/V/F//

E.2. Reconnaissance Exploitation Spot Report (RECCESPOTREP)

SET FORMAT NAME	EXAMPLE MESSAGE
EXERCISE IDENTIFICATION	EXER/CMX 95/DISTAFF//EXER/DISPLAY DETERMINATION/NICK:COBRA GOLD//
OPERATION CODEWORD	OPER/DENY FLIGHT//OPER/DENY FLIGHT/SACEUR 106/PAPER WASTE/ORANGE//OPER/PROVIDE VALUE/STRIKEFORSOUTH 202/-/LOW COST//
MESSAGE IDENTIFIER	MSGID/RECCEXREP/APP-11(D)/3/MARCOM/02/DEC/-/-/NATO/UNCLASSIFIED//MSGID/RECCEXREP/APP-11(D)/3/LIVE WELLS/-/20150630T103030Z/UPD/1/GBR/OTH:PROTECT/MEDICAL//
GEODETIC DATUM	GEODATUM/EUS//GEODATUM/WGE//GEODATUM/WGE/BNG//
RECCE REPORT TYPE	RECCEREP/SPOT//
MISSION DATA	RELEAINF/NAT:SWE/RELEASABILITY COMMENTS/LIMDIS/DOWNGRADE TO SECRET /30MAY2025//RELEAINF/PFP NATIONS/RELEASABILITY COMMENTS/LIMDIS/DOWNGRADE TO SECRET/30MAY2025//
TASKED LOCATION AND TARGET IDENTIFIER	GENTEXT/TASKED LOCATION AND TARGET IDENTIFIER/HERE YOU MAY ADD ANY COMMENTS IN FREE TEXT OF AN UNLIMITED NUMBER OF CHARACTERS THAT IS REQUIRED BY THE MESSAGE//
TARGET CATEGORY	TGTCAITM/02/B/01-1//
ACTUAL TIME ON TARGET	DTOT/021215ZOCT2025/021210ZOCT2025/021220ZOCT2025//
CATEGORY IDENTIFICATION	CATIDENT/0191-GBR12-0001-GE001/DEVILS HORN/-/-/-/43304//CATIDENT/E-2000-DEU02-12345/JOINT TRANSPORTATION EXERCISE/-

	/MILMOV/NOR//CATIDENT/B-GBRXX-12345/MAIER/M//
GEOGRAPHIC COORDINATES	SITELOC/THE SEVERN ESTUARY/GRID:SU654345/GRID:SU785543//
ITEM TYPE	ITMTYP/MILCIV:CIV//
ITEM FUNCTION NATURE AND SUBORDINATION	FCTNAT/AAIR:LAS/AAIR:GUNS/N/MAR:FLT/OTH:SUBDIVISION//
STATUS	STATUS/PERM/UNSRV/OCCUP/DECOY/HARDN/UNDCNS/NONOBS//
ITEM LOCATION	ITMLOC/15KM EAST/UPS:N20450002245522/UPS:N20460002345522/UPS:N20470002445522//
ITEM DETAILS	ITMDET/4/TROPO/TWIN PLATE/LOS, NE AND SW/DEPLOYED//
TYPE OF DEFENCE	TYPDEF/LAD//
DEFENCE LOCATION	ITMLOC/15KM EAST/UPS:N20450002245522/UPS:N20460002345522/UPS:N20470002445522//
DEFENCE DETAILS	ITMDET/4/TROPO/TWIN PLATE/LOS, NE AND SW/DEPLOYED//
TYPE OF PRIMARY FACILITY	PRIFAC/AAIR:LPOS//
PRIMARY FACILITY LOCATION	ITMLOC/15KM EAST/UPS:N20450002245522/UPS:N20460002345522/UPS:N20470002445522//
PRIMARY FACILITY DETAILS	ITMDET/4/TROPO/LOS, NE AND SW/DEPLOYED//
TYPE OF SUPPORT FACILITY	SUPFAC/AAIR:POWER//
SUPPORT FACILITY LOCATION	ITMLOC/15KM EAST/UPS:N20450002245522/UPS:N20460002345522/UPS:N20470002445522//
SUPPORT FACILITY DETAILS	ITMDET/4/TROPO/LOS, NE AND SW/DEPLOYED//

PHYSICAL DAMAGE	PHYDAM/DST/SMOKE VISIBLE FROM IMPACT POINT AND AIR VENTS.//
ANALYST COMMENT	GENTEXT/ANALYST COMMENT/HERE YOU MAY ADD ANY COMMENTS IN FREE TEXT OF AN UNLIMITED NUMBER OF CHARACTERS THAT IS REQUIRED BY THE MESSAGE//
FOLLOWING REPORT AND CONFIRMATION DATA	RPTCONF/YES/YES//
PRECEDENCE	PRECED/FLASH//
OTHER INFORMATION	GENTEXT/OTHER INFORMATION/HERE YOU MAY ADD ANY COMMENTS IN FREE TEXT OF AN UNLIMITED NUMBER OF CHARACTERS THAT IS REQUIRED BY THE MESSAGE//

E.3. Initial Programmed Interpretation Report (IPIR) and Supplemental Programmed Interpretation Report (SUPIR)

SEQ	FORMAT	DESCRIPTION
1	EXERCISE IDENTIFICATION	Provides the Exercise name. Identifies the Exercise the message pertains to. Not to be used in conjunction with Set OPER.
2	OPERATION CODEWORD	Provides the Operation codeword. Identifies the Operation the message pertains to. Not to be used in conjunction with Set EXER.
3	MESSAGE IDENTIFIER	Specifies the message identifier, message originator and other message identifying details.
4	REFERENCE	Specifies identifying details regarding a document, image or other information exchange media that is applicable to the content of this message.
5	GEODETIC DATUM	Provides geodetic datum reference for geographic locations in the message.
6	REPORT AND MISSION DATA	Specifies the report type, mission number and associated data.
7	TIME SPECIFICATION	Specifies the time period for which the mission is tasked.
8	GENERAL MISSION STATEMENT	Provides information applying to the entire mission such as graphic reference, sensors, overall image quality, other general mission data, or any other information deemed useful.
9	**PART I** MISSION HIGHLIGHTS	Provides significant information derived from the mission, must include any information that should

		be brought to the reader's immediate attention and should be written as the mission is interpreted and reported in each report increment.
10	**PART II** SIGNIFICANT RESULTS - TYPE OF RESULT	Specifies the type of result described in the ITEMS INFORMATION segment. Only one type of result can be reported in every occurrence of the PART II-SIGNIFICANT RESULTS segment.
11	ITEM ID DATA	Specifies the identification data.
12	ITEM IDENT	Provides identification elements for the item.
13	CATEGORY IDENTIFICATION	Provides the identification of already known object.
14	DATE-TIME ON TARGET	Gives the date-time on target and specifies the time period(s) when the sensor was active.
15	TASK LOCATION DATA	Specifies the location of the item.
16	STATUS AND ACTIVITY DATA	Indicates the interpreter's assessment of the degree of change in the installation status, capability or function of the area or activity since previous mission coverage.
17	PHYSICAL DESCRIPTION	Gives the physical description of the installation.
18	INTERPRETER REMARKS	Provides description of a known target and possible comments on its status or activity.

19	TYPE OF OB DESIGNATION	Specifies the type of Order of Battle to be impacted.
20	OB ELEMENTS	Provides information relative to objects and equipment not reported under Order of Battle entries.
21	OB ELEMENTS COMMENTS	Provides comments relative to the Order of Battle.
22	DEFENCE AND SECURITY	Specifies the Order of Battle elements defences and security.
23	PRIMARY FACILITIES	Specifies the Order of Battle elements primary facilities according to Chapter 3 of the appropriate target category.
24	SUPPORT FACILITIES	Specifies the Order of Battle elements support facilities according to Chapter 3 of the appropriate target category.
25	DAMAGE LEVELS	Provides physical and functional damage level.
26	PHYSICAL DAMAGE	Provides the physical damage assessment which is an estimate of the extent of damage caused to a planned target by the application of military force. The assessment is based on the observed or interpreted damage to the aim point.
27	FUNCTIONAL DAMAGE	Provides the functional damage assessment.
28	UNPLANNED COLLATERAL DAMAGE	Describes unintentional or incidental damage, caused by the application of military force, affecting facilities, equipment or

		personnel which are not militarily acceptable targets.
29	UNPLANNED ADDITIONAL DAMAGE	Describes unintentional or incidental damage caused by the application of military force on militarily acceptable targets.
30	UNPLANNED ENVIROMENTAL DAMAGE	Describes all strikes where the resulting damage, or the munitions expended during the attack, have caused, or may cause an environmental hazard.
31	IMAGERY REFERENCE DATA	Provides sensor and imagery types, and imagery mission details.
32	TARGET WEATHER INFORMATION	Provides the target weather information.
33	SEA STATE AND CLIMATE HAZARDS	Gives details of sea state and weather or surface conditions.
34	**PART III** OTHER RESULTS	Provides in an abbreviated form those items/targets which should not be placed in Part II sections.
35	COLLECTION OBJECTIVES SATISFIED	Provides consolidated information as required by the collection authority on collection objectives that have been satisfied.
36	COLLECTION OBJECTIVES NOT SATISFIED	Provides consolidated information as required by the collection authority on collection objectives that have not been satisfied.
37	INTPOC	Identifies point(s) of contact to obtain additional information or establish liaison.

E.4. Inflight Report (INFLIGHTREP)

SET FORMAT NAME	EXAMPLE MESSAGE
EXERCISE IDENTIFICATION (or OPERATION CODEWORD)	EXER/CMX 95/DISTAFF// OPER/DENY FLIGHT//
MESSAGE IDENTIFIER	MSGID/INFLIGHTREP/APP-11(D)/1/MARCOM/02/DEC/-/-/NATO/UNCLASSIFIED//
REFERENCE	REF/A/BARNSTORM/-/SHAPE/20060810T032518Z/AIR 051/NOTAL/LGQ//
GEODETIC DATUM	GEODATUM/WGE//
INFLIGHT TARGET REPORT	TGTREP/MSNO:A134/MC267/ID:B1234F12345/140831ZFEB2010/S//
TARGET WEATHER INFORMATION	TARWI/4/6/7/1/MEDIUM/N//
INFLIGHT SIGHTING REPORT	SIGHTREP/MSNO:A135/MC701/EQPMT:T-34/4520.3500N-02126.1500E/141355ZFEB2010//
INFLIGHT REMARKS	GENTEXT/INFLIGHT REMARKS/HERE YOU MAY ADD ANY COMMENTS IN FREE TEXT OF AN UNLIMITED NUMBER OF CHARACTERS THAT IS REQUIRED BY THE MESSAGE//
POINT OF CONTACT INFORMATION	POC/F. BURNS/MAJ/UNIT:4077 MASH/LOC:CAMP SWAMPY/TEL:804-555-4142 /SECTEL:555-4311//

ANNEX F LEXICON

F.1. Acronyms and Abbreviations

3-D	three-dimensional
AAA	anti aircraft artillery
AAP	allied administrative publication
AEDP	allied engineering documentation publication
AIntP	allied intelligence procedure
AJP	allied joint publication
APP	allied procedural publication
ATP	allied tactical publication
BAS	baseline
BDA	battle damage assessment
C2	command and control
CAT	category
CCIR	commander's critical information requirements
CM	collection management
CTL	collection task list
Des GI	designated geospatial information
DMPI	desired mean point of impact
DTG	date time group
EEI	essential elements of information
EO	electro-optical
EP	ending point
GEOINT	geospatial intelligence
GMTI	ground moving target indicator
HQ	headquarters
HVI	high value individual
IA	imagery analyst
IMINT	imagery intelligence
INFLIGHTREP	inflight report
IPIR	initial programmed interpretation report
IRM&CM	intelligence requirement management and collection management
JIPOE	joint intelligence preparation of the operating environment
JISR	joint intelligence, surveillance and reconnaissance
JTAC	joint terminal attack controller
LIDAR	light detection and ranging
LOAC	low of armed conflict
LOC	line of communication
LPD	amphibious transport, dock

LR	lower right
LWIR	long-wavelength infrared
MBT	main battle tank
MGRS	military grid reference system
MIN	minor or minimum change
MISP	Motion Imagery Standards Profile
MSI	multi-spectral instrument
MWIR	mid-wavelength infrared
NAC	no apparent change
NIIRS	NATO image interpretability rating scale
NIR	near-wavelength infrared
NRT	near real time
PMM	паромно-мостовая машина (ferry bridge vehicle)
POL	pattern of life
POL	petroleum, oils and lubricants
RECCEXREP	reconnaissance exploitation report
R.P.	reference point
RWY	runway
SAM	surface to air missile
SAR	synthetic aperture radar
SIG	significant change
SIGINT	signals intelligence
SIR	specific intelligence requirement
SP	starting point
SPAD	self propelled air defence
STANAG	standardized agreement
SUPIR	supplemental programmed interpretation report
SWIR	short-wavelength infrared
TARWI	target weather information reporting code
TELAR	transporter, erector, launcher and radar
TST	time sensitive target
TTP	tactics, techniques and procedures
UL	upper left
UNK	significance of change is not known or change, if any, cannot be determined
WGS	world geodetic system

F.2. Terms and Definitions

Active sensor
An instrument by means of which information is obtained by the emission of electromagnetic waves and the reception of the waves after they have been reflected or re-radiated back towards the instrument. (NATO Adopted)

Annotation
A marking placed on imagery or drawings for explanatory purposes or to indicate items or areas of special importance. (NATO Agreed)

Area Search
Reconnaissance or search of a specific area to provide new or updated information on general or specific situations and/or activities. (NATO Agreed)

Collection Management (CM)
In intelligence usage, the process of satisfying collection requirements by tasking, requesting or coordinating with appropriate collection sources or agencies, monitoring results and re-tasking, as required. (NATO Agreed)

Essential Element of Information (EEI)
EEIs add detail to specific intelligence requirement and allow the production of a Collection Task List (CTL) based on an Intelligence Collection Plan (ICP). EEIs could be related to several SIRs and should provide enough guidance to allow analysts to give a complete and satisfactory answer to each requirement. EEIs are the basis to create collection requirements and to establish relevant tasking and coordination with dedicated and non-dedicated collection capabilities or relevant agencies. [AJP-2.1 (not NATO Agreed)]

Exploitation
Within this step of the JISR process, processed data and information is further exploited. The time required to conduct exploitation varies depending on the characteristics of the collection assets. [AJP-2.7 (not NATO Agreed)]

Facility
A sub-division, by area and function, of an installation. (NATO Agreed)

Federated Processing, Exploitation and Dissemination (PED)
Federated PED allows CM elements to plan, task or request component or higher, lower and adjacent level PED nodes and resources. In this sense, collected JISR data can be processed and exploited at different PED locations establishing an architecture of federated PED nodes. A federated PED architecture allows collection managers to better utilise JISR resources amongst the coalition where collected JISR data by one system or nation is appropriately exploited using PED systems from another system or

nation. This is enabled by the Nations identifying PED capacity available to the Joint Force Commander (JFC) for each coalition operation. [AIntP-14 (not NATO Agreed)]

Frame
In photography, any single exposure contained within a continuous sequence of photographs. (NATO Agreed)

Information
Unprocessed data of every description which may be used in the production of intelligence. (NATO Agreed)

Intelligence
The product resulting from the directed collection and processing of information regarding the environment and the capabilities and intentions of actors, in order to identify threats and offer opportunities for exploitation by decision-makers. (NATO Agreed)

Intelligence Requirement (IR)
A statement that provides the rationale and priority for an intelligence activity, as well as the detail to allow the intelligence staff to satisfy the requirement in the most effective manner. (NATO Agreed) 2020-11-13

Intelligence Requirements Management (IRM)
The management function that develops, validates and prioritizes intelligence requirements, forwards validated intelligence requirements to the collection management function, and oversees dissemination of the intelligence products. (NATO Agreed) 2020-07-31

Intelligence Requirement Management and Collection Management (IRM&CM)
The combination of IRM&CM, which provides a set of integrated management processes and services to satisfy intelligence requirements coming from any customers, by making the best use of the available collection, PED and processing capabilities. [AJP-2.1 (not NATO Agreed)]

Imagery
Collectively, the representations of objects reproduced electronically or by optical means on film, electronic display devices, or other media. (NATO Agreed)

IMINT
Intelligence derived from imagery acquired by sensors which can be ground based, sea borne, or carried by air or space platforms. (NATO Agreed)

Imagery Interpretation
The extraction of information from photographs or other recorded images.
The process of location, recognition, identification, and description of objects, activities, and terrain represented on imagery. (NATO Agreed)

Interpretability
Suitability of imagery for interpretation with respect to answering adequately requirements on a given type of target in terms of quality and scale.
a. Poor - Imagery is unsuitable for interpretation to answer adequately requirements on a given type of target.
b. Fair - Imagery is suitable for interpretation to answer requirements on a given type of target but with only average detail.
c. Good - Imagery is suitable for interpretation to answer requirements on a given type of target in considerable detail.
d. Excellent - Imagery is suitable for interpretation to answer requirements on a given type of target in complete detail. [NATO Agreed, AAP-06]

Installation
A manmade feature existing on the Earth or in Space which has a specific identifiable function. (NATO Agreed)

ISR Request (ISRR)
A formal request for joint intelligence, surveillance and reconnaissance assets from adjacent or subordinate commands to support their prioritized intelligence requirements for a specific mission, operation or time period. (NATO Agreed)

Joint Intelligence, Surveillance and Reconnaissance (JISR)
An integrated intelligence and operations set of capabilities, which synchronises and integrates the planning and operations of all collection capabilities with the processing, exploitation, and dissemination of the resulting information in direct support of the planning, preparation, and execution of operations. (NATO Agreed)

Passive sensor
An instrument by means of which information is obtained by reception of electromagnetic waves of natural origin. (NATO Adopted)

Place
The point or area on the Earth or in Space, occupied by a unit, person or equipment and delineated by a specific set of coordinates. A Place may be a natural or manmade feature, an area, or a reference point, and may be sub-divided. This category also covers installations and facilities. (NATO Agreed)

Priority Intelligence Requirements (PIR)
A vital part of the Commander's Critical Information Requirement (CCIR) development process and is normally formulated by the intelligence staff in close cooperation with the commander and other staff elements, particularly the planning and operations staffs. PIRs encompass those IRs for which commanders have an anticipated and stated priority in their tasking of planning and decision-making. [AJP-2.1 (not NATO Agreed)]

Processing (in JISR process)
The third step in the JISR process is the conversion of collected data and information into appropriate readable or useable formats that enable further exploitation, storage or dissemination. [AJP-2.7 (not NATO Agreed)]

Reference Point
A prominent, easily located point in the terrain. (NATO Agreed)

Request For Information (RFI)
The term RFI is used to describe an intelligence requirement that has been passed to the IRM staffs at higher, lower or adjacent levels. A RFI is used when a commander does not have sufficient allocated collection capabilities, or the intelligence staffs are unable to answer a question through retrieval from existing data and intelligence, research or other means. They are generated when the information or intelligence that relates to the PIR/SIRs/EEIs cannot be obtained internally. [AJP-2.1 (not NATO Agreed)]

Specific Intelligence Requirements (SIR)
An intelligence requirement that supports and complements each priority intelligence requirement and provides a more detailed description of the requirement. (NATO Agreed) 2020-07-31

Target
In intelligence usage, a country, area, installation, agency or person against which intelligence activities are directed. (NATO Agreed)

Target Complex
A geographically integrated series of target concentrations. (NATO Agreed)

Time On Target
Time at which aircraft are scheduled to attack or photograph a target. (NATO Agreed)

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