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TARGET DEVELOPMENT STANDARDS

JOINT STAFF

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CHAIRMAN OF THE JOINT CHIEFS OF STAFF INSTRUCTION

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Reference(s):
See Enclosure H for References

1. Purpose. The purpose of this instruction is to document DoD policy and standards for target development and target intelligence standards consistent with references A through AH.

2. Superseded/Cancellation. CJCSI 3370.01A, 17 October 2014, "Target Development Standards," is hereby superseded. CJCSM 3370.01, 25 October 2013, "Target Graphics Standards," and CJCSM 3375.01, 29 May 2014, " Target Intelligence Data Standards," are hereby canceled. CJCSI 3370.01B consolidates content from all three directives.

3. Applicability. This Instruction applies to the Joint Staff, Services, Combatant Commands, joint forces, DoD Combat Support Agencies (CSA), and joint activities.

4. Policy. See Enclosures A through G.

5. Definitions. See Glossary, Part II, Terms and Definitions.

6. Responsibilities. See Enclosure A

7. Summary of Changes. This instruction consolidates and updates guidance on target development standards, target graphic standards, and target intelligence data standards. Document updates include:

a. Annexes have been added to provide specific details for the basic, intermediate, and advanced target development of each of the five target types.

b. Vetting: Defines the timeframe for "EXPEDITED" target vetting.

c. Target Graphics: Describes the use of geospatially enabled target materials to produce target graphics to joint minimum standards.

d. Battle Damage Assessment Graphics: Details the joint minimum standards for Battle Damage Assessment graphics.

8. Releasability. LIMITED. (NOT APPROVED FOR PUBLIC RELEASE). This instruction is approved for .mil/.gov access only on NIPRNET. DoD Components (to include the Combatant Commands) and other Federal agencies may obtain copies of this directive through controlled access at http://www.dtic.mil/cjcs_directives/. DoD Components may also obtain access via the SIPR Directives Electronic Library Websites.

9. Effective Date. This INSTRUCTION is effective upon receipt.

For the Chairman of the Joint Chiefs of Staff:

WILLIAM C. MAYVILLE, JR.
LTG, USA
Director, Joint Staff

Enclosures

A - Target Development Roles and Responsibilities
B - Target Development Overview and Concepts
C - Target System Analysis (TSA)
D - Target Development at the Entity Level
E - Vetting, Validation, and Target List Management
F - Aimpoint Data Standards
G - Target Graphic Standards
H - References
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ENCLOSURE A

TARGET DEVELOPMENT ROLES AND RESPONSIBILITIES

1. (U) Introduction. Joint forces are established at three levels: unified commands, subordinate unified (subunified) commands, and joint task forces (JTF). (See reference a). When assigned battlespace and military end states, joint forces have inherent target intelligence production responsibilities. Target development is primarily the responsibility of the joint force, which must manage partnerships to leverage appropriate expertise. These partnerships leverage the roles, capabilities, and production responsibilities of national, Defense, and allied organizations as well as non-intelligence organizations to conduct target development.

2. (U) Command Relationships

a. (U) Joint Forces

(1) (U//FOUO) Unified commands, which are assigned battlespace and objectives through the Guidance for Employment of the Force (GEF) (reference b) and Joint Strategic Capabilities Plan (JSCP) (reference c), **are responsible for coordinating the production of Target System Analysis (TSA) and Electronic Target Folders (ETFs) related to defeating the identified or potential adversaries within their battlespace, and for maintaining Target Lists (TLs) which appropriately catalogue the entities that perform functions for those adversaries.**

(2) (U) When unified commands establish subunified commands or JTFs and give those subordinate joint forces battlespace and objectives to achieve, the responsibilities of producing TSAs, ETFs, and TLs for that battlespace may be transferred to the subordinate joint force. In situations when the subordinate joint force is deemed not to have the target intelligence production capacity to produce these requirements, the parent command may selectively choose which responsibilities to delegate and which to retain. Detailed instructions and orders should be provided per the Adaptive Planning and Execution (Apex) Planning process.

(3) (U) If joint forces and/or Service components cannot fulfill their target intelligence production responsibilities, they may task assigned, attached, and supporting organizations with specific production requirements (PR) and manage those tasks to ensure the resultant products meet requirements. The tasked organization should provide current status

and production updates to the Combatant Command (CCMD), through their requesting Service component, to ensure full visibility throughout the target development process.

(4) (U//FOUO) Joint forces are required to document target intelligence production responsibilities and tasks in their published plans and orders per the APEX process (e.g., Annex B Appendix 4); (reference d).

(5) (U) When production requirements exceed the capability of assigned, attached, and supporting organizations identified in the CCMD's plans and orders, CCMDs may request Joint Staff Targeting federate target intelligence production requirements.

(6) (U) Effective, thorough, diligent, and efficient target development, and target intelligence production are best achieved by close adherence to the standards in this instruction. Any product content, format, and/or process beyond the minimum target intelligence standards outlined in this instruction, or related joint targeting manuals identified in this instruction, remain the responsibility of the joint force.

b. (U) Supporting Organizations. CSAs, Services, Service components, and functional components have responsibilities to support joint forces with target intelligence consistent with their mission, expertise, and organizational relationship with the supported joint force. While supporting organizations may be explicitly tasked by supported joint forces to produce target intelligence within their areas of expertise, the joint force is still responsible for ensuring the target intelligence produced meets the Joint Force Commander's (JFC's) requirements.

3. (U) Joint Staff Targeting

a. (U) Joint Staff (JS) Targeting represents the Department of Defense in policy matters pertaining to Combatant Command, Service, CSA, and allied participation in TSA, ETF, and target materials production. JS Targeting addresses targeting analysis-related issues that are worldwide in scope and/or within the purview of more than one Combatant Command and therefore outside the geographic or functional responsibility of a particular command.

b. (U) JS Targeting utilizes the Military Targeting Committee (MTC) and its procedures to provide direction for target development policy. This includes facilitating and coordinating the approval of new and revised joint processes and graphic types, standardizing these products, and ensuring effective use of resources during federated target intelligence production. See Enclosure D.

c. (U) JS Targeting is responsible for coordinating Combatant Command target development support between national-level organizations, supporting Combatant Commands, and Service elements, upon Combatant Command request. This assistance can be coordinated via intelligence planning or federated production request processes. See Enclosure D.

d. (U) Such requests for target intelligence production should be directed to JS Targeting for review and coordination. JS Targeting will coordinate with the appropriate production organization to ensure these requirements are aligned with suitable responsible offices and reflected in the appropriate intelligence production tasking system. JS Targeting will ensure production requirements are received by the appropriate Responsible Organization. JS Targeting can convene a Joint Targeting Working Group (JTWG) upon Combatant Command request.

4. (U) Defense Intelligence Analysis Program (DIAP), Intelligence Planning, and Modernized Integrated Database Terms and Responsibilities (MIDB)

a. (U) The Defense Intelligence Analysis Program (DIAP) assigns analytic responsibilities in such a manner as to minimize duplication of effort and ensure unique and specialized expertise is available to the full range of intelligence customers. The current General Military Intelligence (GMI) and General Defense Intelligence Program (GDIP) production structure flows from broad to specific intelligence topics from the "National Intelligence Priority Framework (NIPF) topic" to "DIAP topic" and finally "DIAP subtopic." Specific analytic responsibilities are assigned under the DIAP subtopic; those assigned organizations are called "Responsible Organizations." These assignments are for GMI and GDIP intelligence production that supports broad DoD intelligence needs and DoD intelligence support to national intelligence customers.

b. (U) Intelligence planning is the intelligence portion of APEX, the joint capability to create and revise plans rapidly and systematically, as circumstances require (see reference e). APEX supports the overall Joint Operational Planning Process (JOPP) discussed in Enclosure B. Intelligence planning provides a process that effectively integrates, synchronizes, prioritizes, and focuses Defense intelligence (both theater and national) to support planning and phased operations. Additionally, intelligence planning identifies knowledge gaps and capability shortcomings within the DoD Intelligence Enterprise (DIE). A key component of intelligence planning is the Production Requirement Matrix (PRMx). A Combatant Command drafts a PRMx, and Responsible Analytical Center (RACs) and Collaborating Analytic Centers (CACs) are assigned via the intelligence planning process. These RAC/CAC assignments for the production requirements will be in accordance with the DIAP (see reference f). Therefore, while all RACs/CACs are Responsible

Organizations because their Intelligence Task List (ITL) responsibilities will correspond to their DIAP analytical assignments, not all Responsible Organizations are RACs/CACs because they may be producing Defense intelligence that is not in support of a PRMx.

c. (U) Responsible Producer (RESPROD) is an authority assignment made by the DoD GDIP Functional Manager for Intelligence, as prescribed under the DIAP and used in the Modernized Integrated Database (MIDB), to control user permissions and identify intelligence that has been validated by approved subject matter experts (SMEs) as finished intelligence. All RESPRODs are Responsible Organizations because their RESPROD responsibilities correspond to their DIAP analytical responsibilities. However, not all producers are RESPRODs, as they may not have DIAP GMI write authorities or desire to exercise them. (One example would be the Defense Intelligence Agency (DIA) Defense Combating Terrorism Center (DCTC), which assigns Counterterrorism Identification numbers (CTIDs) for terrorist-related targets but does not write the CTIDs or its associated information to the MIDB.) Organizations that do not have RESPROD but do have producer codes have write permissions to specific data sets and can route new record nominations (NOMs) and data change requests (DCRs) to a RESPROD for validation/review. Every user account with producer codes and permissions can create MIDB records in the you-build-it-you-own-it parts of the database or submit NOMs or DCRs to the national producers, but only user accounts that have the correct "RESPROD code" can create, update or delete records in the "RESPROD" controlled data store.

5. (U//FOUO) Intelligence Community (IC) Organizations that Support Targeting. The Intelligence Community (IC) organizations listed below represent many of the DoD and non-DoD agencies and organizations that typically support command target development and may support the IC vetting process. They do not explicitly support targeting or the joint fires function, but they may provide intelligence/intelligence analysis that, on a case-by-case basis, support targeting needs. (Note: This list is not exhaustive. For a complete list of intelligence organizations, see reference g).

a. (U//FOUO) DIA. DIA is the Defense Department's national-level lead organization for providing timely, objective, and cogent GMI to warfighters, defense planners, and defense and national security policymakers. Fused all-source target intelligence products and analysis (text, graphics, and models) generated by DIA support various aspects of target development, capabilities analysis, and assessment. DIA is also the functional manager for MIDB.

b. (U//FOUO) National Security Agency. The National Security Agency (NSA) and Central Security Service (CSS) lead the U.S. Government (USG) in cryptology that encompasses both Signals Intelligence (SIGINT) and Information Assurance (IA) products and services, and enables Cyberspace Operations (CO) in order to gain a decision advantage for the nation and our allies under all circumstances. The Combined Military Planning and Access Strategies (CoMPAS) Office manages the military target vetting process for NSA/CSS, supporting Joint Staff and CCMD target development. CoMPAS conducts analysis, research and development of NSA military target vetting votes, which can include Intelligence Gain/ Loss statements and Restricted Target List considerations.

c. (U//FOUO) National Geospatial-Intelligence Agency. National Geospatial-Intelligence Agency (NGA) is the functional manager for geospatial-intelligence. NGA supports the targeting community through the governing National System for Geospatial-Intelligence Instruction (NSGI) 3103 Geospatial-Intelligence Targeting Support Program (see reference H). It provides timely, relevant, and accurate imagery, imagery intelligence and geospatial information, and services involving the processing and exploitation of geospatial-intelligence (GEOINT) (physical and functional analysis including authoritative installation and facility outline data, 3-dimensional (3D) characterization and geolocation data), in support of U.S. national security objectives. NGA establishes target coordinate mensuration certification standards in accordance with (IAW) reference I and, upon request, reviews and accredits uniformed Service, CSA, Combatant Command, and allied training and certification processes for target coordinate mensuration. NGA also provides reach back assistance through the federated process for Combatant Commands (as needed via the formal federation process) and provides global foundational target materials, to include Digital Point Positioning Data Base (DPPDB)). NGA is leading the development of Object Based Production (OBP) methodology and capabilities within the Targeting Enterprise. Additionally, it evaluates imagery and GEOINT tools that support coordinate derivation for coordinate seeking weapons through its validation program.

d. (U//FOUO) Central Intelligence Agency. Responsible for providing accurate, comprehensive, and timely all-source intelligence on foreign topics related to national security. It also conducts counterintelligence (CI) activities, special activities, and other functions related to foreign intelligence and national security, as directed by the President.

e. (U//FOUO) Department of Treasury, Office of Terrorism and Financial Intelligence. This Department of Treasury (DOT) office provides information on financial networks as they relate to illicit transactions such as weapons trafficking and terrorism activities.

f. (U//FOUO) Air Force Intelligence. The Air Force Deputy Chief of Staff for Intelligence, Surveillance, and Reconnaissance (AF/A2) is responsible for the oversight and implementation of AF intelligence policy and guidance. The AF Director of ISR Capabilities (AF/A2C) is the functional manager for Service-level AF targeting activities, administration, policy, resources, and requirements. Air Combat Command (ACC) is the Lead Major Command (MAJCOM)/Command for Air Force Targeting and is the Core Function Lead Integrator for Global Integrated Intelligence, Surveillance, and Reconnaissance entrusted with guiding and developing the force and inventory of the Air Force. ACC, as the senior command to the Air Force 363rd ISR Wing (363rd ISRW) will deconflict target material production priorities to Air Force components and manage/authorize support to components tasked with federated activities. Other Air Force intelligence organizations include 25th Air Force (25 AF) which governs the Air Force Distributed Common Ground System (480th ISR Wing), intelligence airborne collection assets (i.e., 9th Reconnaissance Wing and 55th Wing), and Service unique analytic capabilities (i.e., 70th ISR Wing and 363rd ISR Wing). The National Air and Space Intelligence Center, a direct reporting unit to Air Staff, which produces multi-source intelligence products pertaining to foreign air and space threats. The Air Force Office of Special Investigations also provides a full range of CI services.

g. (U//FOUO) Army Intelligence. The Army Deputy Chief of Staff for Intelligence (G-2) exercises staff supervision over the U.S. Army Intelligence Enterprise, and is responsible for policy formulation, planning, programming, budgeting, management, staff supervision, evaluation, and oversight of intelligence, counterintelligence, and weather activities for the Department of the Army. The U.S. Army Intelligence and Security Command (INSCOM) conducts intelligence, security, and information operations to support national decision makers and military commanders at every echelon. INSCOMs regionally aligned military intelligence brigades are focused on the support of warfighters across the operational continuum. They perform continuous intelligence preparation of the battlefield to ensure the Army knows its potential adversaries and the theaters in which it must operate. INSCOM is also the headquarters element for the National Ground Intelligence Center, the Defense Intelligence Enterprise lead for producing and disseminating all-source integrated intelligence on foreign ground forces and related military

technologies to ensure that U.S. forces have a decisive edge in current and future military operations.

h. (U//FOUO) Navy Intelligence. The Deputy Chief of Naval Operations, Information Dominance (N2/N6) serves as the Director of Naval Intelligence, the uniformed head of the Naval Service intelligence elements and the Navy's senior official within the defense and national intelligence communities regarding intelligence authorities and responsibilities established in federal law, Executive Orders, and regulations. U.S. Fleet Cyber Command serves as the Navy's Service Cryptologic Component of NSA/CSS, and is the central operational authority for Navy cryptology/SIGINT. U.S. Fleet Cyber Command also serves as Navy Component Command to U.S. Strategic Command and U.S. Cyber Command. The Office of Naval Intelligence is the leading provider of global maritime intelligence for the U.S. Navy and other national IC organizations.

i. (U//FOUO) Marine Corps Intelligence. The Director of Intelligence is the Commandant's principal intelligence staff officer and the functional manager for intelligence, CI, and cryptologic activities. As the Service Intelligence Chief, the Director allocates resources and manpower to the operating forces with specific expertise in the areas of human and technical reconnaissance and surveillance, general military intelligence, Human Intelligence (HUMINT), CI, GEOINT, SIGINT, and tactical exploitation of national capabilities. The Director of Intelligence exercises supervision over the Marine Corps Intelligence Activity (MCIA). MCIA provides Expeditionary all-source intelligence and services to the Marine Corps, the DoD, and the IC to support the National Security Strategy.

j. (U//FOUO) Department of State. The Department of State (DOS) Bureau of Intelligence and Research performs intelligence analysis and production on a wide range of topics essential to foreign policy determination and execution.

k. (U//FOUO) Department of Energy. Department of Energy (DOE) analyzes foreign information relevant to U.S. energy policies, nonproliferation issues, and analysis on nuclear issues. The Oak Ridge National Laboratory is a specialized office within DOE that creates population density tables needed to conduct collateral damage estimation (CDE) as well as other analysis to support the DOE assigned missions.

l. (U//FOUO) National Counterterrorism Center. Serves as the primary organization in the USG for analyzing and integrating all intelligence possessed or acquired by the USG pertaining to terrorism and counterterrorism, with the exception of intelligence pertaining to domestic terrorists/counterterrorism. The National Counter Terrorism Center

(NCTC) is chartered to integrate all instruments of national power, including diplomatic, financial, military, intelligence, homeland security, and law enforcement in order to produce a whole-of-government assessment on foreign terrorist/counterterrorism intelligence issues.

m. (U//FOUO) Department of Justice. The Department of Justice (DOJ) pursues the arrest and prosecution of those who have conducted terrorist acts or aided and abetted those engaged in terrorist acts, and it provides crisis management following acts of terrorism against U.S. interests. DOJ will conduct investigative and intelligence activities against current and emerging national security threats; provide useful and timely information and analysis to the intelligence and law enforcement communities; and effectively develop enabling capabilities, processes and infrastructure consistent with applicable law, Attorney General and Director of National Intelligence guidance and civil liberties.

6. (U//FOUO) Intelligence Organizations that Support Targeting

a. (U//FOUO) The 363rd ISR Wing. The 363rd ISR Wing, as a subordinate organization to the 25th Air Force, is the AF lead for AF TSA and entity level target material production. The 363rd ISR wing provides:

(1) Targeting reach back support to forward-deployed Component Numbered Air Forces (C-NAFs), and Air / Space Operations Centers (AOCs) through established and exercised federated and Service reach back Concepts of Operations (CONOPs). .

(2) TSA in support of geographic and functionally aligned Air Operations Centers (AOCs) and Component Numbered Air Forces. TSA capabilities comprise Air Defense Forces (ADF), Air Forces and Airfields (AFA), Command, control, communications, computers, Intelligence, Surveillance, and Reconnaissance (C4ISR), Ballistic Missile Forces (MSL), Space Forces (SPF), Weapons of Mass Destruction (WMD), and Cyber Forces (CYB).

(3) Geospatial-intelligence, intermediate and advanced target development, weaponeering, precision point mensuration, CDE, Battle Damage Assessment (BDA), and CALCM / JASSM targeting reach back.

(4) Target intelligence for Air Tasking Order (ATO) development; Combatant Command target development and assessment processes, and targeting support for combat unit mission planning and execution.

b. (U//FOUO) 1st Information Operations Command (Land). Provides IO support to the Army and other military forces through deployable IO support

teams, IO reach back planning and analysis, and the integration and synchronization of IO into Army cyberspace operations in coordination with other cyberspace and network operations stakeholders, to operationally integrate IO, reinforce forward IO capabilities, and to defend cyberspace, in order to enable IO throughout the information environment.

c. (U//FOUO) Electromagnetic Space (E-Space) Analysis Center. Delivers full electromagnetic spectrum views of an adversary's electromagnetic space to enable Combatant Commanders to develop operational courses of action (COAs). Ensures access to all-source, targetable, and operational actionable intelligence information relating to the electromagnetic capabilities. Provides potential means of access to those targets, using collaborative tools, knowledge databases, and detailed analysis. NSA is the executive agent for E-Space.

7. (U//FOUO) Other Organizations that Support Targeting. Organizations outside of the IC that typically support command target development include:

a. (U//FOUO) Joint Warfare Analysis Center. Joint Warfare Analysis Center (JWAC) provides Combatant Commands, Joint Staff, and other customers with effects-based analysis and precision targeting options for selected networks and nodes. JWAC integrates social and physical science, engineering, analysis, modeling, simulation, weaponeering, and Special Access Program/Special Technical Operations tools to further national security initiatives.

b. (U//FOUO) Defense Threat Reduction Agency. Defense Threat Reduction Agency (DTRA) provides analysis and analytic products to counter the threat from weapons of mass destruction (WMD). DTRA also produces hazardous plume analysis products used to develop CDE on targets with plume hazards and software to assess munitions effectiveness against hard targets.

c. (U//FOUO) Joint Technical Coordinating Group for Munitions Effectiveness. Joint Technical Coordinating Group for Munitions Effectiveness (JTCG/ME) provides tri-Service-approved non-nuclear weapons effectiveness solutions. The information includes damage/kill probabilities for specific weapons and targets, physical and functional characteristics of munitions and weapon systems, target vulnerability and analytical techniques for assessing munitions effectiveness/risk to friendly forces/collateral damage

d. (U//FOUO) Naval Strike and Air Warfare Center. Naval Strike and Air Warfare Center (NSAWC) trains Naval Air Forces on advanced tactics, techniques, and procedures at the individual, unit, and integrated Air Wing level. Supports Air Wing, Strike Group, Numbered Fleet, and Combatant Commanders with targeting and precision geopositioning reach back support.

Manages the Navy's weaponeering and precision point mensuration training, qualification, certification, and proficiency process.

e. (U//FOUO) Joint Information Operations Warfare Center. Joint Information Operations Warfare Center (JIOWC) assists the Joint Staff in improving DoD ability to meet Combatant Command information-related requirements, improve development of information-related capabilities, and ensure operational integration and coherence across Combatant Commands and other DoD activities in accordance with CJCSI 5125.01, Charter of the Joint Information Operations Warfare Center. The JIOWC provides federated support, including intelligence, to CCDRs, and can be tasked through the JS J-3. The JIOWC provides full spectrum IO to include human influence targeting support that can be tailored for integration into TSAs.

8. (U//FOUO) Allied and Coalition Partners. Allies and coalition members provide unique capabilities and resources to identify, develop, and characterize targets. Each nation's development, listing, and assessments will be synchronized under the assigned commander for combined operations. The CCMD J-2 and other nation's intelligence offices must emphasize and ensure effective synchronization in target development, methodology, automation, tools, and references can occur between the joint force and potential coalition partners.

a. (U//FOUO) Allied producers may contribute to the target intelligence production per memorandum of understanding /memorandum of agreement with the supported Combatant Command and in accordance with the procedures within this instruction. If producing mensurated coordinates from imagery for a U.S. production request, allied partners will ensure personnel who mensurate coordinates are certified by an accredited organization IAW reference I.

b. (U//FOUO) Combatant Commands should work with Allies in their AOR to address regional operational target intelligence issues. Conversely, allies should work with JS Targeting and info copy the appropriate Combatant Command on broader target development policy issues. Targeting-related forums (e.g., MTC) provide a venue for allies and U.S. partners to address topics of mutual interest.

ENCLOSURE B

TARGET DEVELOPMENT OVERVIEW AND CONCEPTS

1. (U) Introduction. This enclosure discusses key overarching concepts of target development. It includes a review of the JOPP and its role in establishing intelligence requirements. The enclosure also discusses target development within the context of the Joint Targeting Cycle (JTC); outlines targeting taxonomy; and describes the target development process.

2. (U) The Joint Operational Planning Process (JOPP) and Joint Intelligence Requirements. Target development is part the APEX process. During the planning process, target intelligence informs mission analysis and Course of Action (COA) development and articulates target intelligence tasks into the plan and execution orders.

a. (U) First in these factors is the initiation of the JOPP. The JOPP begins when an appropriate authority recognizes a potential for military capability to be employed in response to a potential or actual crisis. At the strategic level, the President, Secretary of Defense (SecDef), or the Chairman of the Joint Chiefs of Staff (CJCS) initiates planning by deciding to develop military options. The JSCP, and related strategic guidance statements (when applicable), serve as the primary guidance to begin contingency planning. However, Combatant Commanders and other commanders may initiate planning on their own authority when they identify a planning requirement not directed by higher authority. The JFC typically will provide initial guidance (not to be confused with the JFC's planning guidance that is a product of mission analysis), which could specify time constraints, prioritize efforts, outline initial coordination requirements, authorize movement of key capabilities within the JFC's authority, and direct other actions as necessary.

b. (U) A fundamental intelligence process called Joint Intelligence Preparation of the Operational Environment (JIPOE) informs all other processes that follow in the operations and intelligence processes. JIPOE is the analytical process used by joint intelligence organizations to produce intelligence assessments, estimates, and other intelligence products in support of the JFC's decision-making process. As such, the JIPOE process precedes the JOPP initial phase, but fundamentally, JIPOE is a process used to define the operational environment (including environmental conditions in the Area of Operations and Area of Interest). JIPOE informs the initial Common Operating Picture (COP) and the Common Intelligence Picture (CIP), helps describe and evaluate adversary centers of gravity (COGs), and helps determine adversary

COAs. JIPOE is a continuous analytical process, and it can be specifically applied in the JOPP mission analysis phase. This instruction includes discussion on the mission analysis phase and how joint intelligence organizations use the JIPOE process to produce intelligence estimates, TSA, and other intelligence products in support of the JFC's decision-making process.

c. (U) The JIPOE informs TSA (see Enclosure C) by providing the foundational intelligence data that enables an understanding of the relationship between adversary COGs, critical capabilities, requirements, and vulnerabilities. This baseline intelligence illuminates which decisive points offer opportunities to attack the adversary's COGs (directly and indirectly), extend friendly operational reach, or enable the application of friendly forces and capabilities. Along with threat assessments, JIPOE products provide much of the substantive baseline analysis and characterization of systems and functional capabilities required for TSA. (Note: Defense Threat Assessments (DTA) and JIPOE are not a hierarchy of intelligence production and can be produced concurrently.) The J-2 has the primary staff responsibility for planning, coordinating, and conducting the overall JIPOE analysis and production effort at the joint force level.

(1) (U) At the strategic and operational levels, this baseline analysis and characterization is required for TSA and task assessment.

(2) (U) At the operational level, the JIPOE process supports target development by determining the anticipated times and locations where adversary targets are expected to present themselves within the battlespace.

(3) (U) At the tactical level, JIPOE support may also include analysis of specific target composition and vulnerability.

(4) (U) Taken together, these JIPOE-derived products are key building blocks for identifying relevant target systems and developing comprehensive TSA and detailed ETFs. See reference J for more information on the JIPOE process; see Enclosure C for additional information on operational environment and the TSA process; see Enclosure D for entity level target development process and production.

d. (U) DIA produces threat assessments to support planning activities during the JOPP initiation phase. A threat assessment is an intelligence assessment that details the threat, capabilities, and intentions of adversaries. Depending on the priority of the plan, DIA may produce a Dynamic Threat Assessment (DTA), or the Combatant Command staff may produce the supporting threat assessment. DIA produces a DTA for each top priority plan

identified in reference b and continuously updates each DTA as relevant aspects of the operational environment change. This intelligence analysis serves as an authoritative starting point for TSA development. See reference e for more information on DTA relationship with intelligence planning and reference g for more information on DTA content.

3. (U) Creating Effects in the Operational Environment. Not all military effects in the operational environment are a product of the joint targeting process. It is important to remember that many military operations, activities, and actions (OAA) create effects in the operational environment. Examples of military OAA that create effects outside the joint targeting process include, but are not limited to, cooperative exchanges, foreign internal defense assistance, humanitarian assistance/disaster relief, bilateral or multilateral exercises, and key leader engagements.

a. Joint targeting directly supports the joint fires function, one of six principal joint functions identified in JP 3-0 (see reference K). This publication describes standards and processes necessary to create, identify, characterize, and validate entities that perform functions for adversaries or potential adversaries. Per joint policy, targets are one of five adversary entity types (facility, individual, virtual, equipment, and organization) that can be developed by using standards in this publication for engagement using the joint targeting process.

b. Other friendly or neutral entities may exist in the operational environment. Those entities or objects that do not meet the criteria for joint targets may require alternate development, approval, and engagement processes. These alternate processes may include concepts of operations (CONOPS) or unique development, review, and approval processes established for special capabilities and weapons.

c. Regardless of development, review, approval, or decision process, it is essential that joint force commanders synchronize and integrate all joint operations conducted to achieve their objectives.

4. (U) Target Intelligence. Target intelligence is intelligence that identifies, portrays and locates the target and indicates its vulnerability and relative importance to the adversary. This all-source intelligence underpins the target development process. Target intelligence puts into context the candidate target's significance in support of the operations and documents the proper characterization and currency of the intelligence. While all targets are entities, not all entities in the battlespace are valid targets. To be validated as a target, the function of the entity must be tied to commander's objectives (operationally relevant) and meet Law of War (LOW) requirements (See Enclosure E).

a. (U) Target intelligence includes the characterization of a target and indicates its vulnerability, placement in larger systems, and relative importance to the adversary. Characterization includes analyses of physical and virtual attributes (to support weaponeering and post execution assessment) and signatures (to support target detection and positive identification). It is critical that intelligence analysis supporting targeting remain consistent throughout the joint force.

b. (U) Target intelligence must characterize the target so the resulting analysis can support target engagement options.

c. (U) Intelligence analytic methods and principles apply to target development and target intelligence production. It is beyond the scope of this instruction to direct the use of specific intelligence methods or analytic techniques for use in target development. Nevertheless, a number of intelligence principles, constructs, and operational methods are relevant to target development. These include:

(1) (U) Joint Intelligence Principles. Joint intelligence principles underscore the requirement for due diligence and analytic rigor in system and entity-level target development. See reference g.

(2) (U) The Political, Military, Economic, Social, Infrastructure, and Information (PMESII) Construct. The PMESII construct may be considered in analytical processes such as JIPOE and may be a useful framework for comprehensively examining the environmental conditions surrounding an adversary. PMESII may provide additional insight into adversary functional requirements when seen through the lens of its operating environment. This analysis can help inform and focus target intelligence production priorities.

(3) (U) Critical Factors Analysis. One helpful analytical technique that supports target development is critical factors analysis (see references J and L). This technique can be used to identify adversary weaknesses that can be exploited to achieve the commander's objectives.

(a) (U) Critical Capabilities. Critical capabilities are those means that are considered crucial enablers for a COG to function and are essential to the accomplishment of the adversary's specified or assumed objective(s). This concept can be further applied to target development by evaluating what target systems are crucial to the enabling the adversary COG.

(b) (U) Critical Requirements. Critical requirements are those conditions, resources, and means that enable a critical capability to become

fully operational. This can be further applied to target development by evaluating what essential conditions, resources, or means are required for a target system to be effective.

(c) (U) Critical Vulnerabilities. Critical vulnerabilities are those aspects of critical requirements that are deficient or vulnerable to direct or indirect attack in a manner achieving decisive or significant results.

(4) (U) The Criticality, Accessibility, Recuperability, Vulnerability, Effect, and Recognizability method. The Criticality, Accessibility, Recuperability, Vulnerability, Effect, and Recognizability (CARVER) methodology is one approach to providing metrics and quantifying analysis for a commander's decision-making process. The purpose of this target analysis is to determine the critical systems or subsystems for engagement and provide concrete evaluation criteria from this analysis.

5. (U) Target Development Defined. Target development is an all-source analysis, assessment, and documentation process used to examine potential target systems and identify and characterize entities that, when engaged, support the achievement of the commander's objectives. A fully developed target must comply with national and command guidance, LOW, and applicable ROE to be engaged (see Enclosures D and E for target development standards). Poorly conducted target development can result in target identification errors, improper selection or prioritization based on inaccurate analysis of target function or significance, inaccurate or improper aimpoint selection or weapon/capability choices, and skewed BDA. **In extreme cases, failure to exercise due diligence in target development can result in outcomes that have negative strategic repercussions for the United States and its allies.** These issues may be avoided by applying rigor during target development and by adhering closely to the processes and guidance outlined in this instruction.

a. (U) The all-source analytic methods used by the joint force to conduct joint target development are identical to all-source intelligence analytic methods used by combat support agencies, service intelligence centers, and other defense intelligence organizations. However, the sole focus of joint target development and the all-source target analysis at its core is to provide executable data and an actionable understanding of the critical vulnerabilities associated with specific adversary entities (targets) to joint force planners and operational forces.

b. (U) Entity level target development should be preceded by TSA to provide analytically determined importance to the system and potential vulnerability to

support identification of targets relevant to the commander's objectives and rationale for inclusion on the target list.

c. (U) Finally, target development is only as good as the intelligence products produced and the analysis conducted by target developers. The DIA Functional Manager of Analysis (FMA) manages the intelligence analytical and application standards for GDIP or Military Intelligence Program intelligence production. As DoD target intelligence producers largely fall under functional analytical and application guidance of this office, analysts should consult references M and N defining this relationship and analytic guidance.

6. (U) The Joint Targeting Cycle (JTC) and Target Development

a. (U) The JTC is a fundamental, systematic series of processes that directly underpins the joint fires function in joint operations (see Figure 1). The JTC is an iterative cycle that provides a framework to describe the phases that must be satisfied to successfully conduct joint targeting. The JTC provides a collective thought process and structure that provides a framework to conduct joint targeting successfully. The deliberate and dynamic nature of the JTC supports joint operation planning and execution, providing the depth and flexibility required to support the CONOPS and commander's intent as opportunities arise and plans change. The JTC applies to operations against adversaries or potential adversaries in all domains (air, land, maritime, space, and cyberspace) in which the adversary operates.

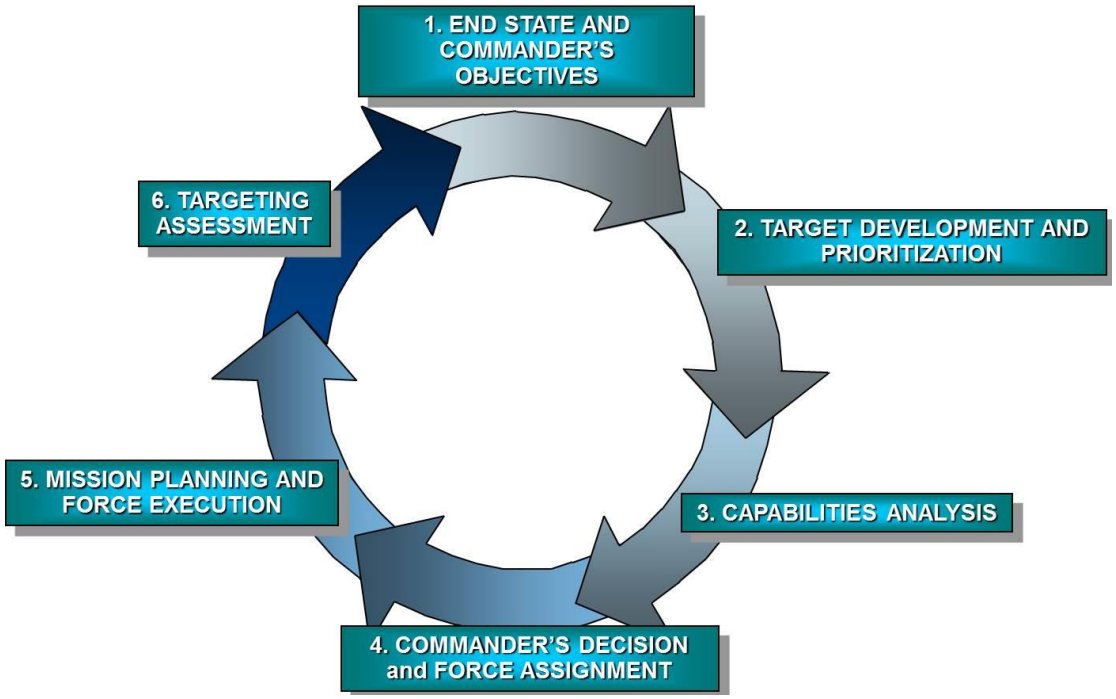

Figure 1. (U) Joint Targeting Cycle

b. (U) The JTC Phase 1, End State and Commander's Objectives, specifies commander's intent, objectives, desired effects, and required tasks, as well as the ultimate military end state. Target development is best performed with a clear understanding of the guidance in this phase. Typically, the Combatant Commander will be concerned with the military end state and related strategic military objectives, while subordinate joint or functional forces will normally focus on operational objectives and supporting tasks. Specific targeting objectives are derived from operational-level objectives, effects and tasks, JOPP results, and operational design. Targeting objectives drive TSA and target development.

c. (U) Target Development and Prioritization is the second phase of the joint targeting cycle. However, in practice, target development is not a static one-time process or procedure. This instruction is focused on guidance for target development. For details on target prioritization, see reference O.

d. (U) Target development begins once the joint force has received the commander's objectives and end state during Phase 1 (End State and Commander's Objectives) and continues in Phase 3 (Capabilities Analysis) and Phase 6 (Targeting Assessment) of the JTC. The focus on continual target development in these phases will ensure that the most current and accurate target intelligence is part of the commander's decision process to execute against a particular target or targets. In addition, documenting analytical decisions and supporting intelligence is a requirement to successfully perform Phase 6. The link between "before" military operations and "after" military operations is necessary, as it is impossible to determine the efficacy of operations without a thorough understanding of the logic and information which drove planning and execution.

7. (U) Targeting Taxonomy. A targeting taxonomy provides an orderly means of classifying the components of an adversary's target system. It is hierarchical in nature, providing terms of reference under which analysts and planners can categorize information for target development and target list maintenance (see Figure 2). The following taxonomy is provided for the purpose of target development.

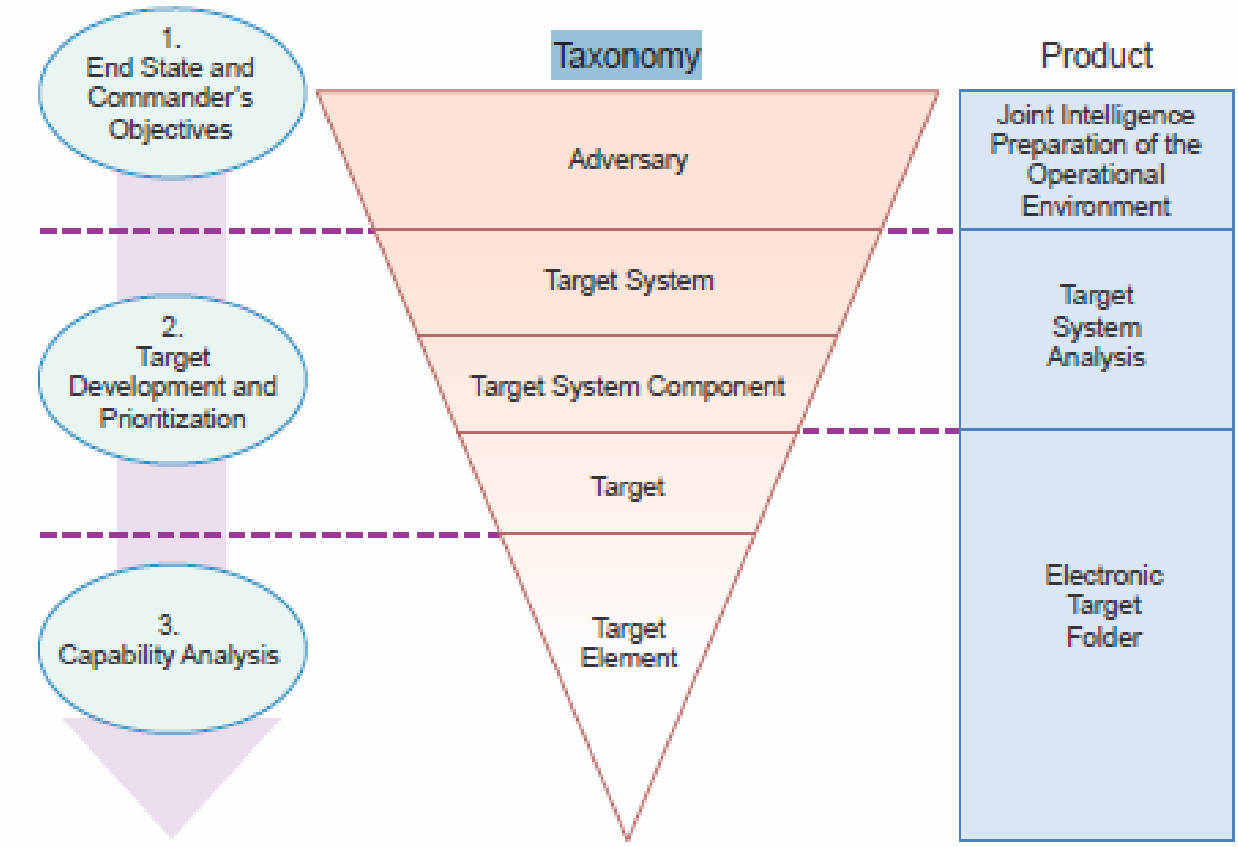

Figure 2. Targeting Taxonomy and Relationships

a. (U) Adversary. A party acknowledged as hostile or potentially hostile to a friendly party and against which operations may be envisioned. For the purposes of target development, an adversary or potential adversary can be categorized as either a nation-state or non-state actor, which can help determine relevant target systems (see Appendix A to Enclosure C).

b. (U) Target Systems. Target systems are typically a broad set of interrelated, functionally associated components and linkages that produce a common output or have a shared task or mission. Target systems enable the adversary to engage in hostile actions against the United States and its allies. In many cases, the entities that comprise a target system also share a particular geographic association. Examples of nation-state military target systems include ground, naval, and air forces. Other examples of target systems that could support a nation-state's military forces might include the electrical power (PWR); petroleum, oil, and lubricant (POL); or transportation/lines of communication (LOC) target systems. Non-state target system examples could include violent extremist organization (VEO) or international criminal organization (ICO) finance, leadership, or ideology target

systems. In most cases, target systems exist and operate in a complex "system-of-systems" context, with numerous shared interrelationships and dependencies that may not be readily apparent or which may not conform to preconceived notions or biases. Thus, exercising rigorous objectivity in TSA (see Enclosure C) can reveal vulnerabilities in one seemingly unrelated system that can be exploited to achieve desired effects in another system.

c. (U) Target System Components. Target system components are entities within a target system that perform or contribute towards a similar function. Target system component examples include the oil distribution component within the POL target system, the electrical production component within the PWR target system, or the subset of manned bomber bases (e.g., airfields) within the air forces target system. A non-state target system component example might include the accounting section within a terror group finance target system.

d. (U) Target. A target is an entity or object that performs a function for the adversary considered for possible engagement or other action. Targets fall into one of five target types: facility, individual, virtual, equipment, or organization. Examples include POL or PWR sites (facilities), the chief accountant of a terrorist group (individual), a Web site (virtual), mobile radar (equipment), or a motorized infantry brigade (organization). (Note: A single target entity may be associated with several target systems or may be a crucial component of one or more of those systems. Furthermore, a target entity may contain functions or elements that are part of other target systems. For example, a POL producing facility may have both a distribution and a communications function within it. In such cases, the joint force may consider developing those aspects as associated target entities (i.e., an equipment target associated to, and possibly collocated with, a facility target). For additional information on associated and collocated targets, see Appendix C to Enclosure D).

e. (U) Target Elements. Target elements are specific features or objects that enable the target to function. Example target elements of a POL facility could include refinery petroleum distillation units, specific pumps or valves, and cracking towers. An element of an individual that is characterized as a terrorist group accountant could be an e-mail account, or even a virtual (commonly known as "cyber") persona. If a specific element contributes to the function of multiple entities, the Joint force must do due diligence to thoroughly account for the relationships between the element and the various entities sharing that element. Failure to do so may result in unintended second and third order effects.

f. (U) Critical Element. A critical element is an element of the target that enables it to perform its primary function. The effective engagement of a critical element will serve to support the achievement of an operational objective and/or mission task. Identification and understanding of critical elements is important, as it supports functionally characterizing the target. An example of a critical element for a POL facility could be the distillation units. A critical element for the airfield could be an air traffic control tower. Note: Sometimes, target elements can become critical elements if they are key to achieving an objective (or objectives). On the other hand, a critical element noted in the DIA CE handbook may no longer be critical if the entity is no longer conducting its primary function

g. (U) Aimpoint. An aimpoint is a point on the target designated for weapon impact or penetration. The aimpoint is normally expressed as geographic coordinates or a grid reference. Desired Point of Impact (DPI) is a geodetic point in space derived via precise point mensuration (PPM) used for target aimpoint identification and generation and is normally used in conjunction with targeting precision guided munitions (PGM). Desired Mean Point of Impact (DMPI) is a geodetic point in space used for aimpoint identification and generation in association with the centroid of area and linear targets to be serviced by unguided and area effect (e.g., cluster, artillery, etc.) weapons. DPI and DMPI are frequently developed and used during operations that require target mensuration only (TMO) activities; but they are also the basis for the codified Joint Desired Point of Impact (JDPI) generated during deliberate planning which employs target material production (TMP) processes (see reference I).

(1) Joint Desired Point Of Impact (JDPI). A JDPI is a codified designator associating the mensurated coordinate the Basic Encyclopedia (BE) and O-suffix target database record. The coded association enables archiving and retrieving aimpoint location and associated weaponeering information in the target database for target nomination list inclusion, ATO tasking, employment of single or multiple unguided weapons against an area target, PGM use against unitary or point targets, and assessment. JDPI can be applied to either a DPI or DMPI. See Enclosure G, Appendix B for details on JDPI entry.

(2) (U) Non-Lethal Reference Points (NLRPS). NLRPs designate the intended aimpoint of nonkinetic/non-lethal effects. NLRPs are always associated to a target entity or element but may or may not correspond to a physical location. Unlike a JDPI, an NLRP does not represent a precise three-dimensional geocoordinate that has been measured by an analyst certified in mensuration of target coordinates. For purposes of databasing NLRPs are entered as aimpoints. See Enclosure F for details on NLRP entry.

8. (U) Applying Defense Threat Assessments (DTA), Joint Intelligence Preparation of the Operational Environment (JIPOE), Target System Analysis (TSA), and the Targeting Taxonomy to the Target Development Process

a. (U) Overview. The target development process is versatile, flexible, and applicable to all target types, regardless of capabilities or assets used to engage or affect the target. Target development is both an intelligence analytic and application effort (see reference f). It includes documenting methodology and findings so that discovery and selection of targets can be rationalized, replicated, and retrieved. As an all-source analytic effort, target development examines each aspect of the targeting taxonomy from the system level downward to specific aimpoints. Target development identifies and describes adversary target systems, the target system components, target entities, and target elements. This developing and documenting aspect of target development focuses on producing a recorded and retrievable judgment of a potential target's capabilities and functions at the system and entity level, its significance in the adversary target system, and its critical vulnerabilities with respect to commander's objectives and guidance. As an intelligence application effort, target development evaluates a target's significance and vulnerabilities. This evaluation is based on an expectation that, when successfully engaged, the resulting effect(s) will support the commander's objective. Target intelligence production during target development will ultimately support the operational, planning, and legal requirements necessary to justify and engage an identified target.

b. (U) Steps of the Target Development Process

(1) (U) A planning requirement is a precursor to the target development process. This normally is provided in the JSCP or as directed by a JFC, via JOPP.

(2) (U) Target system and entity-level target development is most effectively initiated upon receipt of the commander's objectives and desired end state. Targeteers must make certain they fully understand the commander's intent, guidance, and objectives and ask for clarification if not understood. As the planning progresses, guidance, ROE and other special instructions will also shape the direction of target development and the potential targets selected, nominated, and prioritized for inclusion on target lists. An important consideration for target development conducted to support allied, coalition, combined, and North Atlantic Treaty Organization (NATO) operations is to ensure that targeteers and planners work with Foreign Disclosure Offices (FDOs) to establish a requirement for release of appropriate target products in support of these operations. Targeteers must receive and understand the

objectives to help avoid ineffective or inefficient target development and to ensure unity of purpose across the joint force.

(3) (U) During planning, targeteers will evaluate the objectives and the adversary COG as described in JIPOE for selection of target systems. The purpose of this step is to ensure that target systems are logically and causally linked to the commander's objectives and to ensure that personnel resources are weighted towards the most relevant and valuable target systems. Targeteers and planners must resolve any misunderstandings over unclear commander's intent, guidance, or objectives before significant effort is spent on TSA.

(4) (U) TSA is the foundational intelligence process of system-level target development. See Enclosure C for a more detailed discussion of TSA.

(5) (U) Entity-level target development builds on TSA and conceptually occurs in three stages: Basic, Intermediate, and Advanced. Each stage is defined by a minimum set of essential data required to advance a target from initial identification and functional characterization to execution-level detail. A target is considered "fully developed" when sufficient intelligence exists to support the operational and legal requirements necessary to proceed with military operations against the target. See Enclosure D for target development at the entity level.

(6) (U) Once an entity has been identified as a potential target (known as a Target Development Nomination (TDN)), an ETF should be started. ETFs are used to store entity-level target intelligence, operational, planning, and legal information. They are catalogued by an Entity Identifier (EID) alphanumeric string in approved national databases. (Note: EIDs are created by the analyst creating the record. Each production organization is responsible for deconflicting the EID alphanumeric string within its organization. See Enclosure D for a detailed explanation on the EID construct.) Target materials are stored in ETFs. See Enclosure D for additional details on ETF Standards.

(7) (U) When potential targets meet intermediate target development and command quality control standards (see Enclosure E), the entity is placed on a Candidate Target List (CTL). Candidate targets may then be submitted to the IC for vetting.

(8) (U) The objective of target vetting is to mitigate risk for the JFC. Target vetting mitigates risk to the JFC by tasking IC members to provide their assessment of the target characterization in the ETF and effectively distributing some risk of engaging the target with the IC. Target vetting is a valuable mechanism to mitigate risk, however it is not required to engage a target, and

may not be a realistic expectation for every joint target list (JTL) and restricted target list (RTL) target. Target vetting should be completed for higher risk targets (e.g., dual-use targets, targets with complex characterizations, and targets in urban areas), in balance with lower risk targets (e.g., adversary units). If conducted, vetting occurs after intermediate level target development is completed. **The vetting process assesses the accuracy of the supporting intelligence and the analysis derived from the supporting intelligence. This includes verifying the candidate target's description, location, functional characterization, expectations statement, and target significance, as well as analyzing the critical target elements.** For effective and efficient vetting, only one target description and functional characterization for each entity record can be presented to the IC. This description and functional characterization should be coordinated between functional, supported, supporting, and geographical Combatant Commands/designated authorities. Where Combatant Commands identify more than one function resident in a single facility target, the commands should coordinate with the RESPROD to determine whether multiple O-Suffixes are required or if there is a single encompassing (i.e., primary) function under which the individual functions may exist (i.e., a facility that possesses both radio communications, computer networks, and television broadcast functions could be identified as having a Telecommunications, General function). (See Enclosure E for further discussion on multiple functions in a single entity.) Target vetting session votes are recorded in the ETF. In a dynamic targeting environment, well-organized, and inclusive target vetting sessions are critically important due to compressed timelines. (Note: No changes or updates will be made to the target intelligence while vetting is taking place. Once vetting has occurred and has been documented in MIDB, subsequent changes/updates to records/remarks must be carefully evaluated for potential impact on the accuracy of the target's functional characterization and operational relevance. While minor administrative changes would have no impact, substantive changes may warrant at least informal coordination with the vetting partners or, if needed, resubmission for formal vetting.)

(9) (U) All candidate targets, regardless of whether they were vetted, go through validation. Validation is a part of the target development process that ensures candidate targets meet the objectives and criteria outlined in the commander's guidance and ensures compliance with the LOW and ROE. Candidate targets are normally reviewed and validated by a target validation board and then added to a Joint Target List (JTL) or Restricted Target List (RTL).

(10) (U) Depending on planning and operational considerations, commands select targets from the JTL and/or RTL, and compile Target Nomination Lists (TNLs) to nominate targets for engagement. The TNLs are

normally reviewed, combined, and prioritized at a Joint Targeting Coordination Board (JTCB) or at a similar review and validation session, to form the Joint Integrated Prioritized Target List (JIPTL). (Note: The JFC may delegate draft JIPTL production and JIPTL target prioritization to the Joint Air Operations Center (JAOC), but JIPTL approval remains the responsibility of the JFC. JIPTL approval authority may be delegated to subordinate JFCs.)

(11) (U) Target records and data in approved databases and automated targeting tools should be associated with operations plan (OPLAN), concept plan (CONPLAN), or other special planning target lists. Target record data, target lists, ETFs, TSAs, and other target development products must be continually updated in accordance with standards established by this instruction to reflect the most current and accurate target intelligence.

(12) (U) Targeteers must continually monitor the operational and planning environment. This is especially important as periodic plan scheme of maneuver revisions may drive significant modifications to the commander's objectives, guidance, or intent that, in turn, may result in additional target development. Further, observed changes in adversary capabilities or intent might necessitate an update of selected target data, target lists, or target development products.

(13) (U) The above concepts of planning, intelligence, and target development and their relationships are depicted graphically in Figure 3.

What	Process	Intelligence Output	Enclosure (Encl); Reference (Ref)
Strategic Guidance	JOPP (Initiation phase)	DIA DTA, JIPOE derived products	Encl A & B; ref d, i, o, q, r, u, x, ae, af
Intelligence support to developing Military Commander Guidance	JIPOE in parallel to JOPP (Mission Analysis)	Commander's Intelligence Estimate. This estimate is formally formatted and the below specified paragraphs provide **adversary analysis** from JIPOE process. -**Paragraph 2.a**, "Characteristics of the Operational Area" answers **JIPOE step 2**, "describe impact of the operational environment" -**Paragraphs 2.b**, **2.c**, "Adversary Military Situation" and "Adversary Unconventional and Information Operations situation" and **paragraph 3**, "Analysis of Adversary Capabilities," answer **JIPOE step 3**, "evaluate the adversary" -**Paragraph 4**, "Analysis of Adversary Capabilities;" and **paragraph 5**, "Conclusions," answers **JIPOE step 4**, "determine adversary courses of action (COA)"	Encl: A & B; ref: q, t, u
System level target development	TSA process; this process starts with a review of DTA, JIPOE products. Can also include a review of Assessment products (see "Assessment" below).	TSA product	Encl: B & C; ref: d, p, q, r, t, u, aa, ab, ac, ad
Entity level target development	Basic, intermediate & advance target development; can also include a review of Assessment products (see "Assessment" below).	Electronic Target Folders	Encl: B, D, E, & F; ref: a, b, e, g, h, j, p, q, r, s, t, aa, ab, ac, ad, ag
Target List management	Nomination process, vetting, validation.	Target Lists	Encl: F & G; ref: t
Assessment	Battle damage/change assessment	Phase 1, 2 and 3 reports; intelligence recommendations for munitions effects assessment and re-engagement recommendations	Encl: B, C & D; ref: i, t, w, y

Figure 3. (U) Planning, Intelligence, and Target Development

c. (U) Target development standards must be applied in both deliberate and dynamic targeting. Due to dynamic targeting's compressed timelines, development must be accomplished quickly. The same general standards for target intelligence diligence and rigor apply, but targets engaged dynamically might not be characterized to the same level of detail before execution that might otherwise occur with deliberate targeting. Thus, a target should be considered fully developed when sufficient target intelligence exists to support the operational and legal requirements to execute operations against it in a dynamic environment.

9. (U) Target Intelligence Production. Properly conducted, target development processes result in target intelligence products that support the requirements necessary to proceed with military operations against a target. Target intelligence production consists of a range of text, database records, graphic, or imagery products that describe, categorize, and document target system, component, entity-level, and element functions, capabilities, and vulnerabilities. Like other intelligence products, target intelligence is living information and always subject to change as adversary activities evolve and/or more current/accurate intelligence becomes available. Detailed guidance for target intelligence is found in the various enclosures and appendices to this instruction. Key target intelligence products include:

a. (U) TSAs (Enclosure C).

b. (U) ETFs (comprised of target materials) (Enclosure D).

c. (U) TLs (Enclosure F).

d. (U) Combat Assessment (CA) (references P and Q).

10. (U) Target Development Resources. A variety of intelligence resources are available to targeteers for TSA research, conducting research and analysis on specific entity-level targets, or for submitting requests for information (RFI).

a. (U) Entity-level target development information is stored in the MIDB. If the target data classification level exceeds MIDB classification limits and protocols, the Combatant Command will store the information in an appropriate location that is discoverable and accessible to the IC during the vetting process.

b. (U) Other useful data will be found in finished intelligence produced by U.S. and allied intelligence organizations and typically accessed through their secure portals and websites. Much of the finished intelligence is referenced by

region, country name, organization, function, or equipment type. Additional intelligence to support TSA and target development may be available by registering intelligence requirements with command collection managers. Detailed SIGINT, open source intelligence (OSINT), HUMINT, Measurement and Signature Intelligence (MASINT) and specialized GEOINT products can be accessed by contacting Combatant Command or component-level representatives and liaisons in these disciplines.

c. (U//FOUO) The Community On-Line Intelligence System for End Users and Managers (COLISEUM) is DIA's approved tool for submitting formal RFIs for intelligence requirement/production requirements (finished intelligence) to DIAP-identified analytical offices. Commonwealth partners can also submit RFIs to COLISEUM and the system is available on different security domains: JWICS, SIPRNET, SIPR Releasable (REL), and STONEGHOST.

ENCLOSURE C

TARGET SYSTEM ANALYSIS (TSA)

1. (U) Introduction

a. (U) TSA is both a process and a product. It is the analytic foundation from which components of systems are analyzed, evaluated, and assessed. The act of performing TSA organizes all-source intelligence into operationally relevant data and increases the DoD's knowledge and understanding of the adversary systems. Both are important principles of warfighting. During TSA, system relationships and linkages within the system and to other systems are documented and evaluated.[1] Effective TSA results in discrete targets being identified, priorities within the system detailed, and potential Courses of Action (COAs) examined. Using established analytic methodology, TSA identifies, describes, and evaluates the composition of an adversary target system and its components to determine its various functions, critical capabilities, nodes, and vulnerabilities. Based upon this synthesized analysis and the commander's objectives, TSA products provide effects-based targeting strategies.

b. (U) Conducting TSA requires an understanding of targeting taxonomy and terms of reference. In order to understand the adversary and begin to identify the adversary's target systems, analysts and targeteers should be familiar with existing adversary-related JIPOE and DTAs. From those processes and products, one should be able to begin identifying and constructing target systems and breaking them down into their discrete targets.

c. (U) A TSA is the product of collaboration between analysts, collection managers, and targeteers. The targeteer's ability to develop successful targeting strategies will depend on a strong working relationship with analysts who have subject matter expertise on adversary military capabilities and collection managers who can help resolve target intelligence gaps with focused collection efforts. Note: In order to develop a holistic all-source assessment, the joint force may need to enlist other analytic expertise to provide portions of a TSA. If necessary, the joint force can also levy a production requirement on CSAs or service components.

[1] The process of evaluating systems with other systems is called "System-of-System Analysis" or "SOSA". Examples include the examination of C4I in conjunction with an adversary Integrated Air Defense System (IADS) or an examination of Lines of Communication when evaluating Theater Ballistic Missiles and their movement along LOCs from garrison to BM Operating Areas (BMOA's).

2. (U) Target System Analysis (TSA) Value

a. (U) TSA is an important prerequisite to identifying and developing enemy target entities. It is used to identify, describe, understand, and document adversary target systems in a way that breaks the system down into components, and may describe key target entities. It explains the functional, spatial/geographic and temporal relationships between system components and other target systems. While joint forces have the latitude to develop and produce target studies on more narrowly focused aspects, capabilities, or features of target systems (e.g., detailed target studies on specific adversary missile units, weapons capabilities, or C2 networks), TSA products are intended to provide a comprehensive, holistic assessment of the entire target system. Ultimately, a TSA should present a comprehensive understanding of the target system and provide recommended, full-spectrum targeting strategies for creating effects within the target system and other associated target systems where appropriate.

b. (U) TSA processes and products help targeteers facilitate two-way communication with planners to help refine commanders' objectives and guidance. For example, during APEX, COA development may rely on TSA products because they detail key functional components, capabilities, requirements, and vulnerabilities within the operational environment that can be engaged to help achieve the commander's objectives. Thus, TSA enables planners to rapidly modify objectives or develop new ones. During current operations planning, finished TSA products can allow planners to more quickly select military engagement options, conduct target selection, and prioritize targets.

c. (U) Vulnerabilities identified in the TSA can provide focal points for allocation of limited resources. Identification of system vulnerabilities allow planners to prioritize target selection in a way that will have the greatest effect on the system while expending the fewest resources (i.e., selection of the single or fewest target entities upon which the entire system depends).

d. (U) TSA products also provide a record of the original state of the system, before targets are engaged. As such, the TSA provides a useful baseline reference product supporting Combat Assessment.

3. (U) The Target System Analysis (TSA) Process. TSA is focused primarily on Phase 2 of the Joint Targeting Cycle, Target Development and Prioritization, but should be maintained and constantly reviewed through Phase 6, Assessment. Figure 4 and the paragraphs below outline the basic steps for

completing TSA in support of specific operational planning efforts associated with deliberate plans.

Figure 4. (U) TSA Process Model

a. (U) Commander's Guidance: TSA begins with an understanding of the commander's guidance that is disseminated upon completion of Phase I, Endstate and Commander's Objectives. The commander's guidance can come in many forms. The most common are those objectives, desired effects, ROE, and required tasks articulated in Combatant Command CONPLANs, OPLANs, or Execution Orders (see reference L).

b. (U) Scoping TSA: Scoping of the TSA results from a dialogue / information exchanges between the producer and requestor that defines the "boundaries" of the TSA product. Bounding of the study can help determine follow-on activities like: product format; what will and what will not be included across/within one or multiple target systems; selection of COAs to be addressed, delivery timelines; classification level of the final product; analytical level of effort; and external agency support requirements.

c. (U) Identification of Relevant Target Systems: Upon receipt of commander's guidance and review of existing intelligence products, targeteers must evaluate which target systems are relevant to the planning effort.

(1) (U) Targeteers should also review relevant intelligence products, to include the DTA and JIPOE-derived products, for COG analysis to determine adversary vulnerabilities. Target analysts should leverage these products or initiate development of new analytic products to address targeting intelligence gaps consistent with the commander's objectives for the target system.

(2) (U) Once targeteers have identified the relevant adversary systems, they should prioritize the systems in relation to the commander's objectives. Not all target systems are applicable to every adversary and targeteers should select and prioritize target systems for analysis and production appropriately.

(3) (U) As resources permit, a TSA can be conducted on target systems that are not associated with a specific plan or order. While this may not be common, there may be a requirement for a TSA to be initiated against target systems with "generic" desired effects as an analytic departure point. For example, a country's naval forces and ports may warrant TSA and a TSA product regardless of whether a specific plan associated with that country has been developed and published. Using traditional action verbs associated with objective development (i.e., deny, degrade, destroy, defeat, disrupt, prevent, isolate, secure, etc.), targeteers can draft an effect or set of generic effects that can then serve as the analytic departure point for these kinds of TSA efforts to support further understanding of target systems' environment to be exploited for later target development. By building these products, the IC can establish a broad foundation of products that can quickly be applied to contingency planning and operations.

d. (U) Analytic Resources: Once the relevant target systems have been determined, available analytic resources must be identified. This step involves scoping the manpower requirements and division of labor necessary to conduct effective analysis on a particular target system over the period of time allotted to complete the process. This involves outlining the types and sources of intelligence data (e.g., SIGINT, allied, OSINT, and finished intelligence available as source material). A list of available analytic tools and databases should be developed to ensure all available resources are consulted and referenced as the TSA process proceeds. Large or complex target systems may require an analytic team from geographic and functional Combatant Commands, CSAs, Service Intelligence Centers, and other IC members, as well as interagency partners, to efficiently complete the TSA process. Ideally, a network of IC SMEs should be developed early in the process to crosscheck and validate the analytic judgments in the TSA product during various stages of the process.

Joint forces may want to consider collaboration with national and/or Service Intelligence Centers to assist in their production efforts. Finally, priority requirements and resource shortfalls should be identified so they can be addressed or mitigated. TSA producers should consider combining process goals, resources, timelines, network contacts, and shortfalls into a TSA production plan to ensure unity of effort and analytic focus as the process proceeds.

e. (U) Target System Research, Analysis, and Assessment: Target system research and analysis marks the point at which TSA product development should begin. Initial assessments about target system functions, capabilities, and specific vulnerabilities are developed and documented in the draft TSA product.

(1) (U) Although there is no prescribed analytic methodology for TSA, target system research should be both qualitative and quantitative in nature. Analysts should use structured analytic techniques to develop the target system and break it down into its discrete entities. By combining both qualitative and quantitative analysis, analysts should be able to provide the most comprehensive picture possible of a target system.

(2) (U) There are a number of analytic techniques useful for conducting systematic target analysis. The use of models and quantitative analysis techniques in targeting offers many advantages. They allow targeteers to handle problems that are both large and complex, allowing consideration of only the most relevant factors. Among these techniques, there are quantitative, qualitative, target system flow-charting, and critical time analysis techniques. Some example techniques include expected value models, transportation models, network models, program evaluation and review technique (PERT), lines of communication (LOC) and decision tree approaches.

(3) (U) Qualitative analysis is not a substitute for quantitative analysis. Both techniques are useful and complementary for structuring a problem to reach a rational conclusion. In targeting, qualitative analysis is the examination of potential targets to determine importance, significance and priority of attack based on value choices that are not quantifiable. It is often necessary when quantitative data is not available.

(4) (U) TSA assessments should be reviewed, challenged, and critiqued by the IC analytic network. Collaboration and coordination on the TSA will facilitate refinements to key judgments and essential findings.

f. (U) Targeting Strategies Development and Documentation: Targeting strategies are developed for the specific target system being examined and

must support the commander's objectives and meet commander's guidance and intent. That said, targeteers should analytically approach each target system holistically. Therefore, if alternative strategies beyond the current scope of the commander's guidance emerge during the TSA process, those strategies should also be captured since those alternatives may become the foundation for additional, viable targeting options at a future time. Targeting strategies are captured in Chapter Three of the TSA (see Appendix B for TSA product format) and should provide, at a minimum, recommendations on which target system components are most vulnerable within the target system.

g. (U//FOUO) TSA Product Published/Posted/Disseminated: TSAs are produced IAW Appendix B to Enclosure C. The TSA product is published in a format determined by the publisher's command with input from the Combatant Command and/or JFC. Products can be published in hardcopy and/or softcopy formats. Commands and producers will post TSA products on accessible Web pages on appropriate security domains and encrypted portals (e.g., SIPRNET, STONEGHOST, Integration Space (i-Space), etc.), and disseminate the products as widely as possible to service components.

4. (U) Target System Analysis (TSA) Product Review or Modification Based on Assessment. The TSA product is periodically reviewed by the producer based on the standards and guidance set by the producer's command. The TSA process continues as new objectives for current plans are developed or older objectives are modified, as the commander's guidance or intent changes, as adversaries develop new capabilities, as changes occur in the system, or as new intelligence analysis indicates a significant change in adversary intent. During combat operations, the TSA will be updated based on the assessments derived from those operations. The TSA will need to capture how the target system has changed, which will aid in future target development and nomination.

APPENDIX A TO ENCLOSURE C

TARGET SYSTEMS

1. Overview. Target systems enable the adversary to engage in hostile actions or wage war. There are two categories of adversary TSAs: nation-state and non-state actor. Note: TSA is not viewed or conducted based on domains (i.e., air, land, maritime, space, or cyberspace) or capability being employed (i.e., direct or indirect fires, or Information Related Capabilities (IRC)).

a. There are many types of target systems. Joint forces have discretion to use the identified target systems below to categorize the adversary. In addition, commands may find symbiotic, causal, complementary, or parallel relationships exist between non-state and nation-state target systems.

b. Nation-state target systems. Nation-state target systems include those target systems associated with sovereign nation-states and their war fighting/war sustaining capabilities. Generally speaking, nation-states comprise legally recognized territory, indigenous populations, and functioning government structures that exercise de facto or de jure sovereignty over the territory. Target systems commonly used for nation-states are:

(1) Air defense forces (ADF).

(2) Air forces and airfields (AFA).

(3) Ballistic missile forces (MSL).

(4) Command, Control, Communications, Computers, and Intelligence (C4I).

(5) Electric Power (PWR).

(6) Ground forces and facilities (GFF).

(7) Industry (IND).

(8) Naval forces and ports (NFP).

(9) Petroleum Industry (POL).

(10) Space forces (SPF).

(11) Special Operations Forces (SOF).

(12) Transportation/Lines of Communication (LOC).

(13) Weapons of Mass Destruction (WMD).

(14) Cyber forces (CYB).

(15) Special Category (SCT).

c. Non-State Actor Target Systems. Non-state actors, as defined by the National Intelligence Council, are non-sovereign entities that exercise significant economic, political, or social power and influence at a national, and in some cases international, level.[2] This definition, in addition to JSCP- directed plans, contingency plans, JIPOE, and ROE, can guide TSA production on ethnically or ideologically based terror groups, narcoterror gangs, local or regional insurgencies, other transnational criminal organizations, and modern day piracy groups, as appropriate. Non-state actor target systems are based on the functions of non-state actors identified in the Counterterrorism Analytical Framework (CTAF) (see Figure 5). Separate TSA products can be produced on each specifically identified non-state actor function.

(1) Leadership.

(2) Safe Havens.

(3) Finance.

(4) Communication.

(5) Movement.

(6) Intelligence.

(7) Weapons.

(8) Personnel.

(9) Ideology.

[2] The IC does not have consensus on non-state actor target systems, and some definitions include trade unions, community organizations, religious institutions, ethnic groupings, and universities in addition to the functions outlined above.

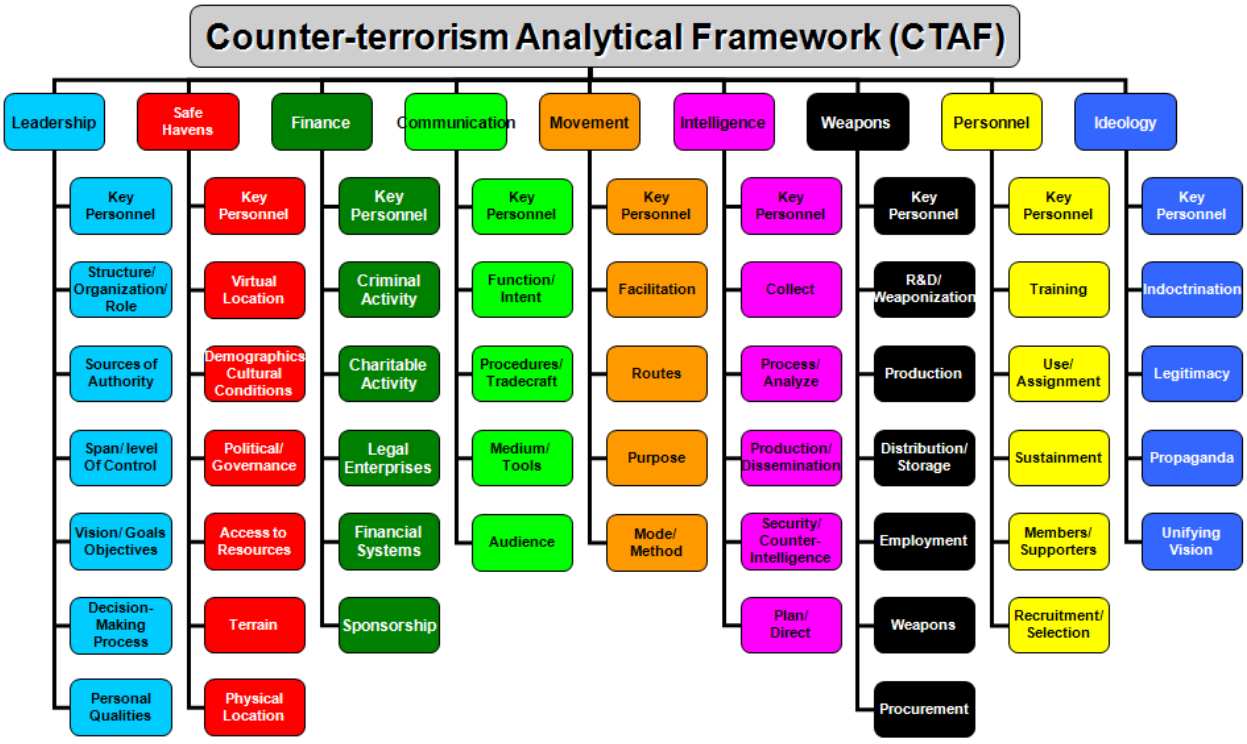

Figure 5. Counterterrorism Analytical Framework (CTAF)

d. Understanding the environment is particularly important when studying non-state actors. Non-state actors are characterized as "open systems" because they influence, and are influenced by, their environment (e.g., the terrain, infrastructure, local population, social and cultural factors, etc.). This is different from nation- states that have sovereignty and formal power over key aspects of the operational environment, such as physical infrastructure (airports) and electric power. TSA development involving non-state actors is obligated to consider environmental conditions affecting the adversary's ability to realize its operational requirements (these operational requirements are categorized by the nine non-state actor target systems in the CTAF model). Specific reasons why characterization of the environment is critical are:

(1) Non-state actors are adaptive and the make-up of their target systems (e.g., specific individuals in leadership) can change rapidly. Therefore, to the greatest extent possible, commands should prioritize resources based on which adversary and which target systems are most critical to commander's objectives, guidance, and intent.

(2) The aforementioned PMESII framework is useful for examining the environmental conditions surrounding a non-state actor organization. The PMESII framework may provide additional insight into a non-state actor's operational requirements when seen through the lens of their operating

environment. In many cases, it may be necessary to use the PMESII framework, or other analytical models found in JIPOE, to inform and complete the TSA.

2. Organization of Purpose. A non-state actor's purpose defines why it exists. The purpose of many non-state actors is to enhance or change specific environmental conditions in ways that are ideologically, politically, or financially advantageous to it. If the purpose of a non-state actor is to change specific cultural or social aspects of its environment, it is crucial for targeteers to understand those same cultural and social factors present in the operational environment.

APPENDIX B TO ENCLOSURE C

TARGET SYSTEMS ANALYSIS (TSA) PRODUCT FORMAT

1. Introduction

a. All traditional TSA products follow a standardized three-chapter structure, regardless of the adversary type. Content and focus of the three chapters will differ among producers depending on the nature of the target system, planning requirements, and the commander's guidance and intent.

b. All TSA chapters are systematically organized and cover topics in a logical fashion (e.g., big to small, first to last, conceptual to practical, etc.) The specific formatting of the TSA product is left to joint force discretion. The following paragraphs describe the analytic focus and content of each chapter.

2. Target Systems Analysis (TSA) Chapter One: Generic Target System

a. Provides a basic textual and graphical description of the purpose, outline, and principal components and functions of the "generic" target system. This chapter should answer the question: "How does a typical target system of this type work?"

b. For example, a LOC Chapter 1 should contain a short, basic description of the purpose of LOCs and common LOC features, functions, infrastructure, and organizations. It would include information on typical kinds of roads or rail systems, common aspects of air and land routes, supporting facilities, and the composition of typical intranational transport- capable waterways (i.e., defined navigable waterways, control features or facilities (dams, locks, the type of traffic utilizing the LOCs)). It should also address typical C2 features or organizations that exercise authority over the described functions of the generic system.

3. Target Systems Analysis (TSA) Chapter Two: Specific Target System

a. In general, Chapter 2 provides a detailed textual and graphical description of an adversary's specific target system. It explains and characterizes the specific features of an adversary's target system and contains detailed descriptions of the target system's capabilities, and vulnerabilities among, at minimum, target system components. While critical capabilities, requirements, and vulnerabilities should be highlighted,

they should not be the only ones listed. Chapter 2 answers the question: "How does the adversary's target system work and what are its vulnerabilities?"

b. In developing this chapter, analysts should consider system criticality and vulnerability factors. The following factors are drawn from JP 3-60 for individual targets but may be applied to target system components as well.

(1) Criticality. Criticality measures a specific target's contribution to a target system's larger function and its relative importance within the target system. Target development focuses on identifying critical nodes within key target systems to achieve objectives and conform to joint force guidance. The four factors that measure a target's criticality are value, depth, recuperation, and capacity. (See JP 3-60 for further discussion.)

(2) Vulnerability. A target's vulnerability refers to susceptibility to damage, disruption, intrusion, interference, or other desired effect. Vulnerability affects the size and types of action required to damage, disrupt, or otherwise affect a target. The six characteristics that contribute to a target's vulnerability are cushion, reserves, dispersion, mobility, countermeasures, and physical characteristics. (See JP 3-60 for further discussion.)

c. After a holistic target system description, Chapter 2 will focus on component functionality, capabilities, requirements, and vulnerabilities. Commands may also choose to identify various specific adversary targets and target elements within the component as required to support analytical judgments. This chapter should also describe functional interdependencies, as well as geospatial and virtual relationships, where appropriate.

d. Considerations for Non-State and State Actors in TSA Chapter Two. Non-state actor TSA builds off the CTAF model and environment analysis done during the JIPOE process. Similarly, some criteria found in CTAF, as well as profiles and other environmental analyses, may also be applicable to state actors. The interrelated nature of the various non-state human actors in the target systems necessitates that the Chapter 2 in the non-state actor of the TSA include the following topics:

(1) Organizational Description. An organizational description provides an executive summary of the non-state actor with an emphasis on the organization's formal and informal decision-making groups, bodies, or structures and their associated processes. The importance of the organizational description lies in its application in Chapter 3, linking the organization's weaknesses with targeting strategies that exploit those

weaknesses. Note: The organizational description should include a brief discussion of the most important aspects of the leadership structure and goals (ideological, monetary, etc.) of the non-state actor.

(2) Key Individuals Description. This description provides an executive summary of the non-state actor's key individuals and/or most important factions within the overall organization. This should be derived from the JIPOE and focused on the target system being studied. It should also include external individuals and groups that interact with the organization. Non-state actor TSA considers both internal and external entities of all types with a particular focus on individuals. Note: Key individuals beyond leadership should be identified for other functional areas (facilitation, finance, safe haven, operational planning).

4. Target Systems Analysis (TSA) Chapter Three: Targeting Strategies

a. Chapter 3 outlines recommended targeting strategies for an adversary's target system. This chapter's recommendations should be tied to the commander's objectives and guidance. The analysis should clearly connect the objectives and desired effects (i.e., lethal or non-lethal) to specific component vulnerabilities within a given target system. This chapter should answer the question: "Which vulnerabilities in the adversary's target system, if exploited, will achieve or help achieve the commander's objectives?"

b. Chapter 3 will:

(1) Evaluate target system criticality in terms of system/component capacity, depth, value, and recuperation. See reference O for further information on measuring criticality.

(2) At a minimum, evaluate target system component vulnerabilities. Analysts may also find utility in evaluating specific targets and their associated vulnerabilities. These vulnerabilities should be evaluated in terms of cushion, reserves, dispersion, mobility, countermeasures, training, logistics, sustainment, and physical characteristics. See reference O for further information on component vulnerabilities.

(3) May include lists of entity-level targets that when engaged would achieve, or help achieve, certain objectives and effects. However, targeteers should exercise caution when referencing TSAs for potential entity targets to be selected, nominated, and prioritized in entity-level target development. TSAs are not normally intended to provide definitive, exhaustive, or convenient solutions for prioritized target lists for impending operations. Targeteers and planners must consider commander's guidance, objectives,

friendly COAs and schemes of maneuver, expected enemy COAs, and any changes in enemy infrastructure, force disposition/order of battle, capabilities, or intent before assembling a final list of entity targets for impending operations.

(4) Recommend target priorities. It is imperative that any specific target recommendations drawn from a TSA product should be properly developed, vetted, validated, and prioritized using processes IAW procedures outlined in instruction before being included on operational target lists.

(5) Discuss functional defeat options for vulnerabilities in priority order. Targeting strategies should leverage and include results of COA modeling and simulation activities, if available. They do not recommend specific weapons, capabilities, assets, or delivery parameters for engaging or influencing the vulnerabilities within the target system, but should consider lethal and non-lethal targeting strategies for all phases of a campaign, as strategies may differ depending on the phase of the campaign.

(6) Address target defenses, to include information systems defenses and network security features if applicable.

(7) Include expectation of results from execution of targeting strategies.

(8) Address the impact on friendly, neutral, and adversary forces of both engaging and not engaging the system.

ENCLOSURE D

TARGET DEVELOPMENT AT THE ENTITY LEVEL

1. (U) Introduction. Entity-level target development is a continuous analytic, assessment, and documentation process. Entity-level target development is not a static, one-time event; new and updated intelligence may continue to shape capability selection, timing, and intelligence and operational priorities. As a result, additional target intelligence may need to be developed prior to execution. Entity-level target development conceptually occurs in three stages: Basic, Intermediate, and Advanced. Each stage is defined by a minimum set of essential data required to progress a target from initial identification and functional characterization to execution-level detail. A target is considered "fully developed" when sufficient intelligence exists to support the operational and legal requirements necessary to proceed with military operations against the target.

a. (U) Basic target development ensures the target has been identified as a unique entity. (A unique entity is singular and distinguishable. It is comprised of a collection of elements that work together to enable the entity to function. In the event that an element contributes to the function of multiple entities, it must be thoroughly examined by the joint force to account for the effects of its engagement. Failure to do so, may result in unintended second and third order effects.) Basic target development includes the identification of entity-level general military intelligence and target intelligence.

b. (U) Intermediate target development ensures the target is sufficiently developed enough to be vetted and added to a target list. (Note: The intermediate target development stage ends upon completion of target vetting.)

c. (U) Advanced target development completes the target characterization process and defines the minimum intelligence necessary to plan for effective target engagement.

d. (U) The various stages of target development are met by identifying, recording, and disseminating a prescribed set of general military and target intelligence data and operational criteria for each potential target. Entity-level target development textual data for all target types is databased in the MIDB and accessed by using various intelligence research or joint targeting tools.

2. (U) Target Development Responsibility and MIDB Permissions

a. (U) The overall responsibility for target development always rests with the targeteer developing the target; however, responsibility for electronic target record population in MIDB is divided between RESPRODs and targeteers.

b. (U) Write permissions for making data or text changes in the MIDB depend on whether the specified field is GMI (a RESPROD responsibility) or is user-populated (i.e., "you-build-it-you-own-it"). In this context, write-permissions refer to MIDB system permissions to create, change, and maintain specific remarks in individual MIDB records. DIAP assigned RESPRODs have write permission to the installation/facility and units view in GMI (see Enclosure A). For user-populated data sets (individuals, equipment, non-military organizations, and virtual) the creator of the record is the authoritative owner and is responsible for data maintenance.

c. (U) There are also fields created specifically for targeting community use. The business rules for write permissions follow the same business rules as user-populated data sets.

d. (U) Targeteers and RESPRODs have a shared responsibility to populate the MIDB, either by DCR process or writer-permissions detailed above, with the most current finished intelligence available on the target.

e. (U) In addition to these considerations, the joint force, Service Intelligence Centers, and CSAs producing target intelligence in support of coalition, combined, and NATO operations should produce target intelligence using appropriately releasable source material.

3. (U) Coordinating Target Development

a. (U) Comprehensive development of a target requires coordination. In order to fully understand a target, its elements, associated entities, and any potential concerns related to engaging that target, targeteers must engage analysts in the Intelligence Community, Combatant Commands, and Service intelligence organizations. **Targeteers must ensure target development for any targets existing in more than one geographic and/or functional command battlespace is coordinated among appropriate Combatant Commands**. This coordination effort should result in a single electronic target folder (ETF) that holistically depicts the target entity for DoD. This single target folder should have utility across the DoD to include functional-to-geographic, geographic-to-functional, and geographic-to- geographic commands. This coordination can involve both push and pull mechanisms for

coordination. Pushing mechanisms, such as notifying appropriate command(s) of intent to develop a target, are the best technique to ensure analyst-to-analyst exchange. Deliberate coordination between the targeteers, the Intelligence Community and other Combatant Commands enables a holistic depiction of the entity, and ensures it is databased properly in a single coordinated ETF.

b. (U) When beginning development on an entity, or initiating an ETF update to an existing target, the joint force should review existing MIDB records. Once this initial review is conducted, the joint force should, depending on currency and completeness of the record, submit requirements to the IC, as appropriate, for discovery and population of new or updated general military intelligence, collateral damage considerations, and intelligence gain/loss concerns.

c. (U) In some instances targeteers may find that target remarks statements already exist in the MIDB. Newly proposed remarks statements may differ due to separate requirements (i.e., a target may support several different numbered plans or objectives). In these instances, Combatant Commands will coordinate to create holistic statements for each field within the ETF. For target significance and expectation statements only: if collaborating commands assess that clarity is improved with the additional statement(s), the new target statement(s) must reference its corresponding plan(s). The existing target statement(s) will not be deleted. If consensus between commands cannot be achieved, the issue should be submitted to the Joint Staff in accordance with the CJCSI 3110.01H (reference C).

d. (U) If a joint force discovers BE consolidation issues, such as overlapping BE outlines, duplicative functional records for an entity, or multiple BEs with similar/supporting functions that should be consolidated into one installation with multiple facilities, the joint force should coordinate with the respective record RESPRODs to prioritize the consolidation of those records. Installation/facility outlines and BE consolidation should be done IAW NGA's Rules for Installation and Facility Analysis, Non-Contiguous Areas and Duplicative Basic Encyclopedia Number (reference R).

4. (U) Types of Targets: Targets typically represent one of five discrete entity types, regardless if they are associated with nation-state or non-state actors. Target development criteria vary by entity type; however, each entity type must be developed sufficiently to ensure that, when engaged, the resulting effects can achieve operational objectives. The five entity types are facility, individual, virtual, equipment, and organization (FIVE-O):

a. (U) Facility. A real property entity consisting of one or more of the following: a building, a structure, a utility system, pavement, and underlying land. These measurable geophysical parameters define the real property. In the context of entity-level target development, a facility provides a function that contributes to a target system's capability. **Note: A facility entity should not be confused with an installation, which is a grouping of associated functionally related facilities, normally geolocated adjacent to each other. It is important to understand that facilities are considered functional subsets of installations and are the targetable entity type for vetting and validation purposes.**

b. (U) Individual. A person who provides a function that contributes to a target system's capability.

c. (U) Virtual. A virtual entity is typically found in cyberspace and the electro-magnetic spectrum, and includes such entities as websites, cyber persona,[3] applications, financial accounts, etc. Targeteers must carefully consider whether a virtual target is best categorized as a unique virtual target type or an element of another target type (e.g., individual, equipment, etc.).

d. (U) Equipment. A tangible device that provides a function that contributes to a target system's capability. Targeteers must also carefully consider whether equipment is best categorized as a unique equipment type (developed to the standards in this publication), or better categorized as associated with a facility (developed to the standards set by the RESPROD) or organizations (e.g., military units) or even an element of other target types (e.g., individual, virtual, etc.).

e. (U) Organization. A group of non-unique entities that perform a function that contributes to a target system's capability (e.g., a front company, a corporation, a nongovernmental organization (NGO), military unit, etc.). For example, a terrorist network is the adversary, not a target. A front company (an entity) that ships lethal aid (a function) for the terrorist network (the adversary) would be a target. Note: In most cases, DoD engagement will require a uniquely identified individual, facility, equipment, and/or virtual target entity. Each target entity must be discretely identified and associated with the adversary organization. Target entities cannot be listed as target elements or any other target entity. However, if the intent is to provide actionable intelligence for whole of government engagement (i.e., coordinating

[3] (U) If a cyber persona is judged with reasonable certainty to be directly associated with an individual that can be developed to intermediate target development standards, then the cyber persona is to be considered an element of the individual. Until such time, they are developed as virtual targets, as it is unknown if the persona is actually one individual, multiple individuals, or an organization.

efforts with Department of State or Department of Treasury) further refinement may not be necessary.

5. (U) Electronic Target Folders. The products of target development, to include both data and materials, are stored within an electronic target folder (ETF). ETF's are standardized to facilitate both federated production and seamless use by forces operating across domains and geographic theaters of operation.

a. (U) ETF Standards Overview

(1) (U) A complete ETF combines both target data and target materials in a collaborative, non-duplicative environment whenever possible, and is fully accessible to authorized organizations. Target data includes all of the general military intelligence and target intelligence remarks referenced in Enclosure D. Target Materials are the building blocks of target intelligence products and are the authoritative source for identifying, locating, and describing the physical, virtual, or functional characteristics of selected targets. Target materials may include graphic, model, textual, tabular, digital, video, or other presentations of target intelligence, primarily designed to support operations against designated targets by one or more capability. The relationship between target data, target materials and target intelligence products is graphically depicted in Figure 6. See reference S (JP 2-0 Joint Intelligence) for a complete discussion on the relationship of data, information and intelligence. Producers of target data and target materials will ensure cross security domain automation is employed to the maximum extent possible in order to support both US and allied partner federated production.

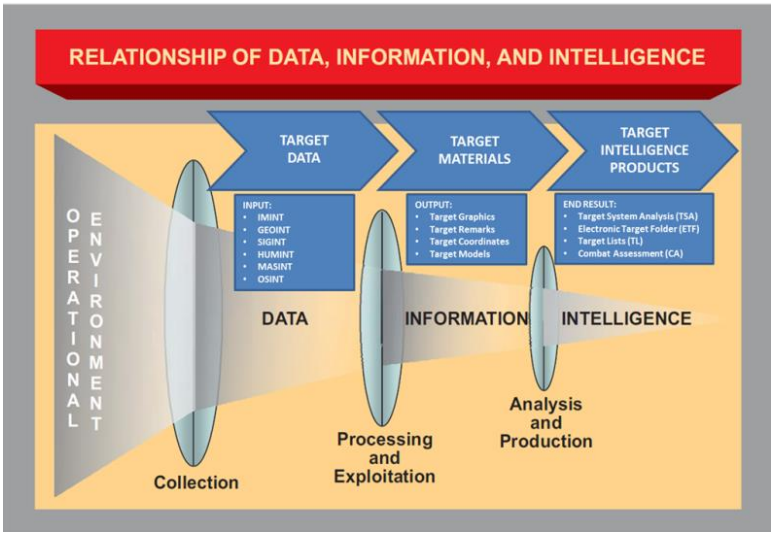

Figure 6. (U) Relationship of Data/Information/Intelligence to Joint Targeting

(2) (U) Geographic Combatant Commands are normally the authoritative ETF producers for targets within their respective areas of responsibility. If multiple joint forces have plans and/or objectives that include the same target, they will populate the same ETF. In these cases, the joint forces must coordinate on collaborative target development. While a single, authoritative ETF is the standard, there are circumstances where target development or target materials production may be distributed or federated among several producers. These situations include:

(a) (U) Instances or arrangements where production responsibilities have been federated to an IC member, joint force, or Service center.

(b) (U) Where functional commands produce target data/target materials in support of their JSCP assigned planning efforts.

(d) (U) Battlespace and objectives are delegated to subordinate joint force.

(d) (U) Instances or arrangements where target data/target material production responsibilities have been explicitly delegated to organizations with supporting relationships, such as Service components.

(3) (U) The results of entity-level target development are documented in, and disseminated by means of, a standardized ETF. The ETF is designed to display a variety of textual data and other forms of target materials, to include graphics and video, audio files, documents, spreadsheets, slides, vector overlays, and 3D models (e.g., Underground Targeting and Analysis System/Integrated Munitions Effects Assessment). See Appendix B and C to this Enclosure for the minimum standards related to target data entry. See Enclosure G for minimum standards related to Installation Outline Graphics (IO-G), Facility Outline Graphics (FO-G), JDPI Graphics, Collateral Damage Estimation Graphics (CDE-G), Critical Elements Graphics (CE-G), and other supplemental graphics.

(4) (U) Well-developed processes, interoperability, and adherence to production standards outlined in this instruction are crucial elements of targeting analysis and materials production. This is especially important when analysis and production are federated across multiple organizations. All target materials producers will adhere to graphic, database, and data format specifications detailed in this instruction.

(5) (U) ETF Content Categories. ETFs are structured around the approved eight general content categories, which are listed below and further described in Appendix C to this enclosure.

(a) (U) Heading

(b) (U) Target Summary

(c) (U) Supporting Materials

(d) (U) Capabilities Analysis Support

(e) (U) Assessment

(f) (U) Associated/Collocated

(g) (U) Objectives & Guidance

(h) (U) Folder Notes/Other Related Information

b. (U) Target Intelligence Source Materials

(1) (U//FOUO) Source Materials. Source materials are intelligence reporting, imagery, and final intelligence products (e.g., serialized reporting). Sourcing will be done IAW reference T. Any non-serialized reporting and other reporting not able to be entered into MIDB, such as ISR feeds, full-motion video, tactical-level intelligence, etc. must be included in the ETF to ensure all intelligence used in target development is maintained in the record and to facilitate a thorough review by the vetting agencies. Non-serialized reporting stored in a digitally searchable and retrievable national database (see reference e. (1) below) must be made available to the IC at the time of vetting.

(2) (U) Updating Target Intelligence in MIDB. Much of the data used in ETFs is extracted from the MIDB, the national repository for finished intelligence. When ETF producers notice a discrepancy in the MIDB, a DCR will be initiated by the ETF producer and forwarded to the responsible MIDB production center

(3) (U) Capture and Update of GEOINT as Vectors/Shapefiles (applicable to facilities and organizations entity types). Target materials producers may capture facility/installation reference points and/or outlines, functional area outlines, or critical element outlines based on the Interactive Target Material (ITM) standards of NGA. Production of this data should be accomplished in collaboration with the responsible organization. When discrepancies are noted in the GEOINT shapefile layer, the owner of the layer will either recompile the information or request assistance from the discovering organization to correct and update the data. Organizations with ITM related

equities (e.g., production, acquisition, etc.) shall coordinate with the NGA Precision Engagement Office to resolve issues with ITM standards and associated TTP.

c. (U) Target Materials Storage and Classification, Disclosure, and Release Guidance

(1) (U) Target Materials Storage. Producers will store target materials in a digitally searchable and retrievable national database and determine their own backup procedures.

(2) (U//FOUO) Classification, Disclosure, and Release Guidance for Target Materials

(a) (U//FOUO) The minimum classification of a target material is CONFIDENTIAL with the applicable REL caveat. In addition, the classification is based on the highest classification needed to protect the source materials used to produce the target material. Note: Training target materials on U.S. ranges that use only UNCLASSIFIED//FOR OFFICIAL USE ONLY or UNCLASSIFIED//LIMITED DISTRIBUTION sources are UNCLASSIFIED because they are not associated with specific military plans, weapons systems, or operations.

(b) (U//FOUO) Classification and release marking of target materials is performed IAW references U, V, W, X, and Y and local guidelines. Target materials will be classified appropriately and marked for widest possible dissemination. Products and data will carry the Security Markings Program (SMP) (formerly the Controlled Access Program Coordination Office [CAPCO]) approved security control markings.

(c) (U) Producers should make every effort to ensure that classifications associated to the materials are the lowest proper classification to ensure the wideset distribution to allied partners.

(d) (U//FOUO) Actions for disclosure must be in accordance with reference W, U.S./allied participation agreements, and DIA/military Service agreements pertaining to target materials. The responsible producing organization or joint force FDO is the approval/denial authority for release.

6. (U//FOUO) Exceptions to Existing Release Policy. Requests for individual and categorical exemptions to release policy must be forwarded to DIA Office of International Engagement for action and JS Targeting for information through the appropriate Combatant Command except when the command has been granted specific authority by CJCS or DIA to release target materials to foreign

government recipients. Additionally, DIA's Office of International Engagement shall coordinate exceptions for targeting materials utilizing NTM imagery with NGA International Affairs.

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APPENDIX A TO ENCLOSURE D

REMARK DEVELOPMENT

1. Introduction. The following guidance details the responsibilities of the intelligence and targeting communities for developing and databasing target intelligence in MIDB and details standards for remark naming conventions, text fields, security markings and confidence level in MIDB. Remark name and text field together make up the overall target development data type. Both fields must be selected and formatted in accordance with (IAW) this instruction to be considered complete. Note: This guidance applies only to remark types used by the targeting community.

2. Remark Development Responsibilities

a. Joint Force. It is the responsibility of the Joint Force to ensure all remark types and sources are documented in MIDB. The Joint Force will provide the data and update the following:

(1) Target Significance

(2) Target Description

(3) Functional Characterization

(4) Target Expectation

(5) Critical Target Elements

(6) Sourcing (shared responsibility)

b. Intelligence Community. Producers of General Military Intelligence (GMI) and the larger Intelligence Community (IC) provide data for the remark types below. These inputs should be made by the responsible producer (RESPROD) but can be made by the targeteer that is updating the record if specific write-access has been delegated via formal agreement.

(1) Facility Significance. Created by the Defense Intelligence Analysis Program designated RESPROD, used to describe the facility's significance to the overall "state or non-state system or systems," and will be reviewed by the targeteer to help develop the target significance remark.

(2) Facility Description. Created by the RESPROD, but must be reviewed by the targeteer. The facility remark will describe the physical layout, dimensions, and features of a facility. The facility remark may suffice for target description, but only if all-source analysis does not add any further information. In these cases, the facility description should be used for vetting unless related to individuals or non-kinetics targets.

(3) Collateral Damage Considerations. A shared responsibility of the IC and Joint Force. IC agencies that produce in MIDB should document the collateral damage considerations statement in MIDB. IC agencies that do not produce in MIDB will provide the collateral damage considerations statement to the Joint Force to document in MIDB. The Joint Force should document any collateral damage considerations it discovers in MIDB as well. If no collateral damage considerations are submitted, the statement within MIDB will reflect in the record remark "No Collateral Damage Considerations Submitted During IC Vetting."

(4) Intelligence Gain/Loss Concern. A shared responsibility of the IC and Joint Force. IC agencies that produce in MIDB should document the Intelligence Gain/Loss (IGL) concerns in MIDB. IC agencies that do not produce in MIDB will provide the IGL concerns statement to the Joint Force to document in MIDB. If no IGL concerns are submitted, the statement within MIDB will reflect "No Intelligence Gain/Loss concerns Submitted During IC Vetting."

(5) Sourcing. A shared responsibility of the IC and Joint Force to document all sources used in Electronic Target Folder (ETF) development.

3. Standard Remark Development Procedures

a. Security. Analysts have to apply the appropriate classification, control and release markings for the overall remark IAW the SMP (formerly CAPCO) (reference Z) and local policy.

b. Intelligence Confidence Level. Evaluation depicts the reliability or degree of confidence of the data contained in the remark record. Analysts have to manually select the confidence level or the system will default to "Truth Cannot Be Judged."

c. Remark Type. Selectable value used to identify the remark type in MIDB.

d. Standard Remark Conventions. For rapid retrieval of remark records and to ensure consistency, the targeting community has developed

standard remark conventions:

(1) Remark Name. A free text field to identify the associated remark data and type. Remark name starts with the Entity Identifier (EID) followed by remark type acronym. See Glossary, Part I for list of acronyms.

(2) Remark Text. A free text field to document target development data for the corresponding remark type. All remark data will have the following elements in this order:

(3) Classification (use standard portion marking guidance)

(4) Date of Last Information (date remark was created/revised)

(5) Free Text Statement (formatted in all sentence case)

(6) EXAMPLE: (U//FOUO) 20120727: This facility, individual, or virtual entity is important to the petroleum, oil and lubrication (POL) system because….

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APPENDIX B TO ENCLOSURE D

TARGET DEVELOPMENT REMARK TYPES

1. (U) Introduction. The following describes each of the remark types and what information is necessary to populate each remark to basic, intermediate, and/or advanced target development standards. (Note: Organizations participating in Object Based Production (OBP) must use the following Basic, Intermediate and Advanced Target Development Remarks standards.)

2. (U) Basic Target Development at the Entity Level. Normally, basic target development begins after diligent intelligence research and TSA. Basic target development can begin the process of identifying, locating, describing, functionally characterizing, and subsequently databasing entity-level target details. Basic target development analysis is required for all TDNs. When complete, basic target development will provide sufficient justification to assign the entity a unique EID if one does not already exist. An EID is a unique alphanumeric character set assigned to an entity for the purposes of unique identification. All entity-level target development data is tied to an EID. Once an EID is assigned, the joint force should track further development of TDNs (i.e., via a target development nomination list). The standards for basic target development are identified by target type below (see Figure 7).

	Target Type				
Target Development Element	**Facility**	**Individual**	**Virtual**	**Equipment**	**Organization**
Identification	BE & O-Suffix	EID	EID	EID	Unit ID/EID
Location	GEOCOORDS	GEOCOORDS, Last known location	IP address, GEOCOORD, Last known location	GEOCOORDS, Last know location	
Function	Category Code	Function Code			
Significance	Facility Significance Remark	Target Significance Remark			
Facility Description	Facility Description Remark	Not applicable to these target types			

Figure 7. (U) Basic Target Development

3. (U) Target Identification. Target identification includes target name (e.g., place, organization name, Web site, account, application, file name, etc.), target "also known as" or "AKA," and the unique EID. If there are several

AKAs associated with the target then at least the wider known ones should be listed. The target name should be constructed in accordance with appropriate MIDB rules where they have been established. Target name and aliases are the shared responsibility of the targeteer and Responsible Organization.

a. (U) Target Location. Target location is vital to define since it is an important factor in determining the RESPROD, applicable authorities, and ROE. This data is the shared responsibility of the targeteer and Responsible Organization, depending on the target entity (see Annexes A-E of Enclosure D, Appendix B).

b. (U) Target Function. Target function is represented by a functional category code that identifies the target's primary purpose/activity within the target system. Typically, a single function discernable and identified by the RESPROD. However, there are cases in which a target entity could have multiple functions. When this occurs targeteers may, with support from the respective RESPROD, either identify a single encompassing (i.e., primary) function, or create separate entity records with individual CATCODEs. See Annex A to this Appendix for additional detail. Regardless of how the targeteer and RESPROD choose to develop the target, the ETF must adhere to all basic and intermediate target development standards.

(1) (U) For facilities with multiple functions, where the Combatant Command and RESPROD jointly identify a single encompassing (i.e., primary) function, that function will be identified by the appropriate CATCODE and all secondary codes will be identified within the functional characterization statement.

(2) (U) For facilities with multiple functions, where the Combatant Commands and the RESPROD jointly determine that multiple O-Suffixes are required, separate entity records with individual CATCODEs will be created.

c. (U) Target Significance. This data conveys the target's value to the adversary. This data is the responsibility of the joint force. A target significance statement should address target affiliation and importance to the adversary's target system(s) or the capability it provides to the adversary (i.e., "This target is important to the system because, or provides the adversary with the capability to…"). It should neither state nor re-state the targets function, functional characterization, or expectation statement, nor should it or be a continuation of the target description. Rather, it should relay the target's value above and beyond its function and our expectation. Note: for facility targets, Target Significance is not required for basic target development, but is required for intermediate target development.

4. (U) Intermediate Target Development at the Entity Level. Intermediate target development completes characterization requirements for phase two (Target Development and Prioritization) of the JTC and ensures the entity qualifies as a candidate target and can be vetted. (Note: Intermediate target development and IC vetting are NOT required for military units, personnel and equipment that by their nature and purpose clearly perform a military function and are governed under GMI production rules.) The requirements for intermediate target development include the basic level requirements, plus the additional requirements listed below (see Figure 8).

	Target Type				
Target Development Element	**Facility**	**Individual**	**Virtual**	**Equipment**	**Organization**
Significance (continued)	Target Significance: Addresses the target's effect to the target system	Completed during basic target development			
Target Description	Describes recognizable attributes of the target entity				
Characterization	Elaborates on assigned category/functional code(s)				
Expectation	Describes why engaging the target entity should affect the target system.				
Elements	Those elements necessary for the target to perform its primary function				
Source Documentation	List of source data, to include serial numbers of associated reports.				
Collateral Damage Considerations	Describes collateral concerns, environmental or population density concerns in the area surrounding the target entity, and second and third order effects on infrastructure and other non-physical entities				
Intelligence Gain and Loss	Describes potential intelligence gains or losses resulting from affecting a target.				

Figure 8. (U) Intermediate Target Development

a. (U) Target Description. The purpose of the target description is to aid identification and characterization of the target. The distinguishing features used for the target description do not necessarily support the target's function; rather this remark is used to uniquely characterize the target from other potential targets. Target description statements vary by target type and consist of physical descriptions, unique aspects, and/or patterns of life sufficient to identify/distinguish the entity from similar or collocated entities.

b. (U) Functional Characterization Statement. Functional characterization elaborates on assigned category/functional code(s) and is the responsibility of the joint force; the joint force also has write permissions for this remark type (see paragraph 2). Functional characterization must define the specific actions/activities the target accomplishes and/or capabilities it provides to the target system. They also help feed critical target elements that are not identified in the DIA CE handbook. Many targets have multiple functions (especially individuals) and there is utility in considering more than just its primary function. The functional characterization statement provides the space and flexibility to describe multiple secondary functions that fall under a single, primary function or category code. If a facility type target is a dual-use facility, it should be reflected in the functional characterization statement. See reference aa for further information on collateral damage and dual-use facilities. (Note: A facility that has been re-purposed by the adversary does not constitute a dual-use facility unless that facility continues fulfilling a civilian and adversary function concurrently.)

c. (U) Target Expectation Statement. **A target expectation statement addresses the anticipated consequences to the adversary's target system or capability should a specific target in question within that system be engaged. In other words, the focus of the target expectation statement is not the target itself, but the affect(s) on the target system (and adversary capability) with which it is associated.** The joint force is responsible for the target expectation statement and has write permissions for the remark type. The target expectation statement must address the following questions:

(1) (U) How will the target system or adversary capability be affected if the target's function is neutralized, delayed, disrupted, or degraded as planned (i.e., operational impact, psychological impact, etc.)?

(2) (U) What is the estimated degree of impact on the target system?

(3) (U) What is the functional recuperation time estimate for the target if the target's function is neutralized, delayed, disrupted, or degraded?

(4) (U) What distinct short- and/or long-term military or political advantage/disadvantage to the joint force do we expect if the target's function is neutralized, delayed, disrupted, or degraded?

(5) (U) What is the expected adversary reaction to loss or degradation of the targets and target system's functions?

d. (U) Identification of Critical Elements. Critical elements (also known as critical target elements) are those elements necessary for the target to perform its primary function. Identification of critical target elements is the responsibility of the joint force; the joint force also has write permissions for this remark type. Additionally, target elements can become "critical" depending on the objective (when tied to a specific objective). Analysts should ID as many target elements as possible to provide the JF commander with as many options as possible to affect the target. The DIA CE Handbook is only a start. All-source analysis, as well as a comprehensive functional characterization statement, will show other "elements" that allow this entity to function.

e. (U) Source Documentation. Sourcing will be done IAW Intelligence Community Directive 206 (reference T) and will be documented in MIDB. Sourcing is especially important when supporting plans that involve combined, NATO, or coalition plans or operations, as the FDO require this information for disclosure or release.

5. (U) Other Considerations in Target Development. In addition to the required basic and intermediate target development requirements, targeteers will review the target for obvious collateral damage considerations and intelligence gain/loss concerns and note them in the appropriate field. At a minimum, the joint force will annotate the record with a "none identified at this time" statement in collateral damage consideration and intelligence gain/loss remarks prior to vetting. At vetting, IC members will answer the following questions concurrent with their vetting vote: "Do you have any known intelligence gain/loss concerns?" and "Do you have any known collateral damage considerations that are not obvious and might not be readily available to the Target Analyst during Advanced Target Development?" In addition to physical collateral objects, collateral effects such as impact on communications, electrical power, and other infrastructure should also be noted. **Note: Collateral damage considerations and intelligence gain loss concerns are concurrent but separate processes from target vetting. These elements will not be part of the IC's vote during target vetting, but are critical injects for the joint force as it progresses with advanced target development, and are required elements in the ETF. ETFs without minimally populated collateral damage considerations and intelligence gain/loss statements prior to vetting shall be considered incomplete and should not be vetted.**

a. (U) Collateral Damage Considerations. As part of the regular target vetting process, the joint force is responsible for requesting IC identification and documentation of collateral damage considerations associated with a

specific target. Identification of collateral damage considerations is not collateral damage estimation, which is completed during advanced target development, but does include identification of collateral objects as defined in CJCSI 3160 (reference aa). Collateral damage considerations should identify category (CAT) I (most sensitive) and CAT II (less sensitive) no-strike facilities in addition to overall environmental considerations (i.e., the target lies in heavily populated urban area or a sparsely populated rural area). Additionally, collateral damage considerations may consider second and third order collateral effects on elements of surrounding infrastructure and entities such as cyber networks, electrical grids, and communications.

(1) (U//FOUO) The complete identification of all collateral damage considerations may require more in-depth all-source analysis to assess function and location (e.g., diplomatic facilities). With regard to target vetting, collateral damage considerations will most accurately represent collateral issues as they exist at the time of vetting.

(2) (U//FOUO) Many collateral damage considerations identified during target development justify the creation of CAT I and CAT II facility records in MIDB; however, not all no-strike facilities will justify the creation of MIDB records (e.g., residential areas). CAT I and CAT II facility record nominations should be submitted to the appropriate RESPROD no later than 30 days after completion of target vetting.

(3) (U) Should any collateral damage considerations be discovered during the vetting process, the information will be stated as a comment along with IC agency's vetting vote, or the agency making the discovery can database their own remark in the ETF or provide the comment directly to the joint force. (Whenever possible, it is preferred that agencies enter their own collateral damage considerations and intelligence gain loss concerns.) Note: If the information is provided directly to the joint force, it should not be misconstrued as a "Concur with Comment" vote. Rather, any collateral damage consideration comments will simply be additional comments provided concurrently with whatever vote the vetting agency deems appropriate.

(4) (U) The joint force is ultimately responsible for ensuring the target folder is updated and reflects the information submitted during vetting. **Ensuring this information is gathered and documented correctly is important, as this information is part of the overall collateral damage estimate completed in advanced target development.** The joint force is ultimately responsible for ensuring collateral damage estimates are accurate and complete prior to targets being engaged (see reference aa).

b. (U) Intelligence Gain Loss (IGL) Concerns. IGL concerns must be evaluated regardless of target type. The IGL assessment is used during validation to evaluate the intelligence cost against the operational benefit of engaging the target. Therefore the assessment should be as detailed as possible and tailored specifically for each target requiring an IGL assessment. It is incumbent upon affected member(s) of the IC to inform the joint force of their IGL concerns. IC agencies that produce in MIDB should document the IGL concerns in MIDB. IC agencies that do not produce in MIDB will provide the IGL statement to the joint force to document in MIDB. It is important to note that targets with IGL concerns may be validated for planning and subsequently placed on the joint force's restricted target list. **(Note: Regardless of how the IGL statement is entered into MIDB, the Joint Force will acknowledge receipt of any RTL requests.** However, it remains the Joint Force Commander's prerogative to determine the appropriate list upon which to place validated targets.) The joint force shall lead coordination with the affected IC member and others to determine a mitigation strategy if appropriate.

(1) (U) IC-provided IGL Concern Statements must:

(a) (U) Demonstrate the target currently provides a documented, significant, and unique intelligence gain.

(b) (U) Explain the nature and value of intelligence gain from not engaging the target.

(c) (U) Explain the nature and anticipated consequence of intelligence loss by engaging the target and the potential disruption of friendly collection efforts.

(2) (U) It is important to note that targets with IGL concerns may be validated and, based on IC input and/or Joint Force Concerns, subsequently placed on the joint forces restricted target list. During deliberate/adaptive planning, the IGL Concern Statement will be presented to the JTCB or designated target validation authority at the target validation step for consideration prior to approval for inclusion on the RTL. **Note: Upon completion of validation, the Joint Force should notify requesting organizations of any decision made to include, or not include, target entities on the RTL.**

(3) (U) During crisis or impending operations, an IGL Assessment will be presented to the JTCB or target engagement authority for engagement decision. The IGL assessment will include as appropriate: classified descriptions of the type of intelligence gained, the intelligence value, any known

or potential mitigation techniques, the anticipated significance of the loss or preservation of the intelligence, and an engagement recommendation. The IGL assessment will be conducted by the joint force J2 in coordination with the appropriate IC, DoD, or USG agency with intelligence collection equities on/at the target.

(4) (U//FOUO) Whereas crisis operations may engage entities that have neither been developed to CJCSI 3370 standards nor undergone the rigors of targeting vetting, it is important that the executing force implement deconfliction measures similar to those implemented during deliberate target engagement. Specifically, the Joint Force, Combined Task Force, or other tactical development and engagement entity, should maintain a standing restriction list of identified sensitive entities within the area of operations that necessitate deconfliction. These entities must be considered during dynamic target validation and deconfliction to mitigate risk to friendly assets during operations.

6. (U) Advanced Target Development at the Entity Level. Advanced target development completes the target characterization process and defines the minimum intelligence necessary to plan for effective target engagement. It normally occurs after a target has been validated to the JTL/RTL for planning by a target validation authority (see Enclosure E). Advanced target development includes the elements listed below (see Figure 9). (Note: Figure 9 included only those items that are required for advanced target development.)

	Target Type				
Target Development Element	**Facility**	**Individual**	**Virtual**	**Equipment**	**Organization**
Weaponeering solutions	Determines the quantity of lethal or nonlethal weapons required to achieve an effect on the target.				
Aimpoint Selection	The appropriate JDPI to engage		The appropriate non-lethal reference point to engage	The appropriate JDPI to engage	N/A
Collateral Damage Estimation	Collateral Damage Estimation		Collateral Effects	Collateral Damage Estimation	N/A

Figure 9. (U) Advanced Target Development

a. (U) Target Vulnerabilities Identification. Target vulnerabilities is an optional input during advanced target development that includes those target elements which, if engaged in a particular way (or ways), would significantly contribute towards achieving the desired effect on the target's function or achieving the commander's objectives. Vulnerabilities could include physical and/or non-physical aspects of the target that are susceptible to engagement. Identification of vulnerabilities is a result of analyzing asset-target interactions, which pairs target engagement types with target vulnerabilities

(see Figure 10 below). The feasibility of these asset-target interactions must be independently judged. Additionally, analysts should assess the estimated first-, second-, and third-order effects of a given asset-target interaction.

Target	Target Engagement Type			
Vulnerability	Weapon System	Direct Action	Information Operations	Interagency Actions
Element #1	Y	N	Y	N
Element #2	Y	N	Y	N
Element #3	N	Y	Y	Y

Figure 10. (U) Target Engagement Types

b. (U) Weaponeering. Weaponeering blends plans, operations and intelligence to determine the quantity of a specific type of lethal or non-lethal weapons required to achieve a specific effect on a given target, considering target vulnerability, weapons characteristics and effects, and delivery parameters in order to meet the commander's intent. Weaponeering considers multiple features of the operational and tactical environment to identify the relevant weapon engagement options commensurate with achieving desired effects. These options will be presented to the commander and/or operations personnel who will select the appropriate capability (one or more) during force assignment. Some portions of target development may occur in later phases of the JTC. Therefore, initial weaponeering analysis, in this case, may be conceptually considered as part of advanced target development but, in practice, it occurs concurrently with, and should also be considered part of, the Capabilities Analysis phase of the JTC.

c. (U) Aimpoint Selection and Development

(1) (U) Aimpoint selection and development consists of identifying, developing, and documenting the geophysical or virtual of location(s) and/or the specific time to place lethal and non-lethal weapons on the target. Aimpoint(s) must be developed with sufficient physical, virtual, and environmental characterization to support effective weapon engagement of the target's vulnerabilities. Aimpoint selection may also be characterized temporally (i.e., in time) if that type of characterization is critical to engaging the target successfully. Examples of aimpoints might include a JDPI or a non-lethal reference point (NLRP). The target's vulnerabilities identified are used as a guide to developing aimpoints.

(2) (U) Aimpoint development, while part of target development must be closely linked with the Capabilities Analysis step of the joint targeting cycle. Aimpoint development results may vary based on the commander's desired effect and desired probability of damage (PD), proximity of collateral concerns and selected weapon/ capability and its availability.

d. (U) Collateral Damage Estimation (CDE). Follow guidance set in reference aa. (Note: Collateral damage estimates are not required for individuals, but are often performed in theater when kinetically engaging the target.)

e. (U) In the event there are changes to target characteristics, such as location, physical makeup, function, etc., it may also be necessary to refine or adjust advanced target development data throughout the remainder of the JTC up to and including during Phase 5 (Mission Planning and Force Execution).

7. (U) Other Targeting Related Remark Types. This textual data is not required for vetting. This data aids target development, engagement and assessment processes and in some cases is required by Joint Pubs and CJCSIs.

Optional Elements	Target Type				
	Facility	Individual	Virtual	Equipment	Organization
Vetting*	Record the results of vetting				
Author	Identification of who created a target list				
Vulnerabilities	Describe the vulnerabilities of the target				
Strike Restrictions	Any restriction placed on the target				
Organizations	Used to document results of validation and when a target is moved				
Desired Effects	Used to record the desired effect on the target				
Collateral Effects	Used to record the unintentional or incidental effects on the target				
Analytical	Used by analysts to record general analytical information				
EEI	Identifies the essential elements of information on the target				
Intelligence Gaps	Used to record identified intelligence gaps on the target				
Target Validation	Used to record target validation				

*Mandatory after vetting is completed

Figure 11. (U) Other Target Remark Development

a. (U) Author Information. The purpose of the author information data is to document target development point of contact information and to facilitate analyst-to-analyst and end-user to analyst coordination. Each target developer or target development team should have only one "Author Information" remark in MIDB. Author information data will be documented in an associated "Author Information" remark record in MIDB. **Although not required for target vetting, author information is mandatory for target lists.** NOTE: Author Information is a recommended "best practice" and must be repeated for all team members. Author Information data will contain the following standard elements:

(1) (U) Individual or Organization Name

(2) (U) Command or Organization Name (Abbreviated)

(3) (U) JWICS E-mail (If applicable)

(4) (U) SIPRNET E-mail (If applicable)

(5) (U) National Secure Telephone System (NSTS)/Top Secret Voice over Internet Protocol (TSVOIP)

(6) (U) Defense Switching Network (DSN)/COMMERCIAL

b. (U) Analytical Comments. The purpose of analytical comments is to add additional information that could be useful. It can also be used if a facility was developed under an old O-Suffix and has been moved to a new one. Analytical comment data will be documented in an associated "Analytical Comments" remark record in MIDB.

c. (U) Essential Elements of Information. The purpose of the essential elements of information data is to describe what targeteers require at the targeted facility both pre- and post-target engagement. It is information that will assist analysts with BDA analysis. EEI will be documented in an associated "Essential Elements of Information" remark record in MIDB.

d. (U) Intelligence Gaps. The purpose of the intelligence gaps data is to document "What We Don't Know" about the target. It is information to aid in determining intelligence or collection requirements. Intelligence gap(s) data will be documented in an associated "Intelligence Gaps" remark record in MIDB.

e. (U) Desired Effects. The purpose of the desired effects remark is to document the effects against a facility and/or specific critical target elements to achieve the commander's guidance and intent. Additionally, desired effects remarks help set the conditions for selecting and optimizing weaponeering solutions and aid capabilities analysis. Desired Effects data will be documented in an associated "Desired Effects" remark in MIDB.

f. (U) Collateral Effects. The purpose of the collateral effects data is to document those effects, physical and functional, not accounted for in collateral damage estimation methodology. Collateral effects are unintentional or incidental adverse consequences of target engagement. Such effects are not unlawful so long as it is not excessive in light of the overall military advantage anticipated from the engagement. Collateral effects estimation provides an estimate of potential collateral effects beyond what can be determined using methods in collateral damage estimation methodology. Collateral Effects data will be documented in an associated "Collateral Effects" remark in MIDB.

g. (U) Strike Restriction. The purpose of the strike restriction data is to document any target engagement restrictions resulting from target validation. If the target validation authority decides there needs to be restrictions placed on the engagement of a valid target, the specifics of the target restriction will be databased in a Strike Restricted Remark in MIDB; the target will be added to the applicable Restricted Target List (RTL). The nature of the restrictions placed on a target can range from a nuanced limitation as a result of on when or how a target can be prosecuted or a specific prohibition on engaging the target due to operational, political, and/or collateral damage considerations. See reference a for specific data elements. Strike Restriction data will be documented in an associated "Strike Restriction" remark record in MIDB.

h. (U) Target Vulnerabilities. The purpose of the target vulnerability remark is to provide information on a target's vulnerability that will aid weapon selection and engagement sequencing. For a full definition of target vulnerabilities, see reference a.

i. (U) Target Validation. Target validation is an operations and legal function. It ensures all vetted targets meet the objectives and criteria outlined in the commander's guidance and ensures compliance with the LOW/ROEs. A candidate target does not become a "target" until it is validated by a designated target validation authority. Target validation data will be documented in an associated U.S. validation remark type in MIDB. Specific data elements include:

(1) (U) Entity ID of the validated target.

(2) (U) What forum validated the target.

(3) (U) When the target was validated.

(4) (U) Which command validated the target.

(5) (U) Who validated the target.

(6) (U) Whether the target was placed on either JTL or RTL.

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ANNEX A TO APPENDIX B TO ENCLOSURE D

FACILITY TARGETS

1. (U) Basic Target Development. This data is the responsibility of the RESPROD.

a. (U) Identification. For facility targets, use the basic encyclopedia (BE) number plus O-Suffix as the target's unique EID.

b. (U) Location. For facilities, target location is defined and recorded as the geocoordinates of the facility's center mass; see reference ab. Geocoordinates should be imagery derived coordinates and include the associated datum. Also provide the corresponding Military Grid Reference Systems (MGRS) coordinates. The facility position in relation to the nearest well-known populated center (i.e., city, town, etc.) in terms of distance (both nautical miles (NM) and kilometers) and cardinal direction from that populated center is also included. A facility outline graphic is required in accordance with Enclosure G.

c. (U) Function. Typically, a single (or primary) function discernable and identified by the RESPROD. The facility's function is represented by a CATCODE that represents the facility's purpose within the target system.

(1) (U) For facilities with multiple functions, where the Combatant Command and RESPROD jointly identify a single encompassing (i.e., primary) function, that function will be identified by the appropriate CATCODE and all secondary codes will be identified within the functional characterization statement. Secondary codes are those within the primary function that go into more detail. Two or more primary functions will not be databased as one facility.

(2) (U) For facilities with multiple functions, where the Combatant Commands and the RESPROD jointly determine that multiple O-Suffixes are required, separate entity records with individual CATCODEs will be created.

d. (U) Facility Significance. Created by the RESPROD to describe the facility's significance to the overall "state or non-state system or systems." This statement will be reviewed by the targeteer to help develop the target significance remark during intermediate target development.

e. (U) Facility Description. Created by the RESPROD to provide a comprehensive description of facility composition, dimensions, layout, and

unique features, as well as a description of the number and types of functional areas, and their respective elements. A facility outline graphic or graphics that meet minimum joint standards for depicting the facility boundary is required as described in Enclosure G.

2. (U) Intermediate Target Development and Other Considerations. This data is the responsibility of the joint force.

a. (U) Target Significance. This data conveys the target's value to the adversary. Targeteers must review the facility significance statement and add to it, where necessary, to address the target's affiliation and importance to the adversary's target system(s). **It should neither state nor re-state the target's function, functional characterization, or expectation statement, nor should it be a continuation of the target description.** Rather, it should relay the target's ***value*** above and beyond its function and our expectation.

b. (U) Target Description

(1) Provides an amplification of the facility description prepared by the RESPROD. A facility target description is a comprehensive description of facility composition, dimensions, layout, and unique features, as well as a description of the number and types of functional areas, and their respective elements. (Note: If the target analyst reviews the facility description and determines it adequately describes the target, then no additional target description is needed.) A facility outline graphic or graphics that meet minimum joint standards for depicting the facility boundary is required as described in CJCSM 3370.01.

(2) (U//FOUO) The correct identification and characterization of physical structures is a specific target intelligence requirement that supports the employment of munitions against certain target types. DIA has established standard structure types to aid in capabilities analysis and maintains two coding systems that serve as shorthand notation for structure types. These coding systems are the physical vulnerability characteristics system and the MIDB enhanced coding system (see reference I and AC). These codes will be used as appropriate when databasing facility descriptions on entity-level targets.

c. (U) Functional Characterization Statement. This statement elaborates on category/function code(s), defines the specific action or activities the target accomplishes and/or capabilities it provides for the target system, and, if applicable, identifies the target as dual use. The functional characterization statements should follow the guidance provided in Appendix B to Enclosure D.

d. (U) Expectation Statement. Addresses the anticipated consequences to the adversary's target system should the facility's function be neutralized, delayed, degraded, or disrupted.. The target expectation statement must address the five questions identified in Appendix B Enclosure D.

e. (U) Critical Elements. Critical elements are an integral part of a target entity that are essential for that entity to function. For facilities, a graphic that meets minimum Enclosure G standards for identifying the critical element is recommended. Depending on the nature and complexity of an entity, it may have more than one critical element. See reference ad for critical elements. (Note: A critical element graphic is required no later than advanced target development; however, production during intermediate target development, if possible, will aid the advanced target development process. Critical element graphics are not considered during target vetting and should not factor into an agency's vetting vote.)

f. (U) Source Documentation. Sourcing will be done IAW Intelligence Community Directive 206 (reference T).

g. (U//FOUO) Collateral Damage Considerations. As part of the regular target vetting process, the joint force is responsible for requesting IC identification and documentation of collateral damage considerations associated with a specific target. Collateral damage considerations for facility targets must include any CAT I, or CAT II entities, and should consider any additional environmental considerations (i.e., the target lies in heavily populated urban area or a sparsely populated rural area), and any second and third order collateral effects on elements of surrounding infrastructure and entities such as cyber networks, electrical grids, and communications. See Appendix B to Enclosure D for additional discussion.

h. (U) Intelligence Gain/Loss Concerns. The IC is responsible for the identification and documentation of intelligence gain/loss concerns associated with a specific target. This process is initiated by the joint force during vetting. Intelligence gain/loss concerns should follow the guidance provided in Appendix B to Enclosure D.

3. (U) Advanced Target Development. This data is the responsibility of the joint force.

a. (U) Target Vulnerability. Target vulnerability identification should follow the guidance provided in Appendix B to Enclosure D.

b. (U) Weaponeering Solutions. Weaponeering solutions should follow the guidance provided in Appendix B to Enclosure D.

c. (U) Aimpoint Selection and Development. Aimpoint selection and development should follow the guidance provided in Appendix B to Enclosure D and Enclosure F.

d. (U) Collateral Damage Estimation. The joint force is responsible for ensuring collateral damage estimates are accurate and complete prior to targets being engaged. Follow the guidance set in reference aa.

4. (U) Example Target Folder for a Facility Target

a. (U) Basic Target Development

Target Identification: 0431XX1234 XX001
Location: 120000000N0630000000E
Target Function: 4XXXX Communications Relay Center Remark Name: 0431XX1234 XX001 FSIG
EXAMPLE Remark Text:
(U//FOUO) 20120423: This facility is one of six CRC nodes in Country X's air defense forces. It has weapons control authority over its assigned aircraft, SAM, and AAA assets. It operates in parallel with upper echelon C2 (0431XX5555 XX001) and, if needed, can assume sector operations center duties. (Provided by the GMI community.)

Remark Name: 0431XX1234 XX001 FAC
(U//FOUO) 20120423: This installation is located about 37 kilometers west-northwest of Main City and about 2.5 kilometers southwest of the Town Center. The nearest documented telecommunications exchange (EXCH A RADREL, 0123XX4567) is located about 32.1 kilometers east-southeast (actual bearing of 116 degrees) of this location. The station probably draws power from the regional power grid - the nearest documented transformer station (TRANS STA-230KV, 0123XX1234) is located about 3.0-kilometers northwest (actual bearing of 311 degrees) of this location. The installation and mountain name were derived from the NGA GEONAMES Server.

This installation is a collection of somewhat disparate communication functions [a possible TV-rebroadcast station, a microwave radio relay (RADREL) and cellular communication site, and a probable RADCOM site] all sharing common high ground.

The RADCOM station is immediately east of and outside the fence-line shared by the other two functions. It consists of a small control building and

a 25-meter high communication mast.

The microwave radio relay and cellular communication site and possible TV-rebroadcast station share a common fence for security (NOTE - - TV-rebroadcast sites are typically stand-alone functions). This area contains a 41-meter high lattice tower supporting RADREL dishes and a probable cellular array, a 12-meter high lattice mast, an associated control building, a support building, a set of walled-off horizontal storage tanks, and the possible TV-rebroadcast station with an associated control building, a small SATCOM dish, and a 15-meter mast for TV re-broadcast.

b. (U) Intermediate Target Development

Remark Name: 0431XX1234 XX001 TSIG
EXAMPLE Remark Text:
(U//FOUO) 20120423: This facility is one of six CRC nodes in Country X's air defense forces. It has weapons control authority over its assigned aircraft, SAM, and AAA assets. It is ultimately responsible for the air security in the Southern geographical location and the border with Country Y, its neighboring country. It operates in parallel with upper echelon C2 (0431XX5555 XX001) and, if needed, can assume sector operations center duties.

Remark Name: 0431XX1234 XX001 TGT
(U//FOUO) 20120423: This facility is located 32.7 kilometers NNE of Main City, and 5.2 kilometers SSW of Town Center. Facility access is via a paved road on the northern side of the facility. Two relay antennas are positioned to the west of the support building. There are three buildings on the site; a main building in the center of the site, a support building in the west side of the site and a barracks in the south side of the site.

(1) (U) Dual-Use Facility

Remark Name: 0431XXI234 XX001 FUNC
(U//FOUO) 20120423: This is a Dual Use Communications Relay Center (CRC) facility used to support civilian communications in the southern portion of Country X; however, this facility is also used to support Country X's air defense forces capable of functioning as a long- range early warning site detecting potential threats to Country X's air forces.

(2) (U) Not Dual-Use Facility

Remark Name: 0431XXI234 XX001 FUNC
(U//FOUO) 20120423: This facility functions as a long-range early warning

site for Country X's air defense forces. Early warning radar at this facility detects potential threats to Country X's air forces.

Remark Name: 0431XX1234 XX001 EXPS
(U//FOUO) 20120423: The loss of this facility's ability to function as a Control and Relay Center (CRC) would have a moderate short-term disruption on Country X's early warning capability. Country X's early warning radar capability will be decreased by 15 percent affecting Country X's ability to react quickly to any air threats along its southwestern littoral. The estimated recuperation time for this facility to regain its function is 3 to 6 weeks. Military or political advantages/disadvantages are currently unknown. Currently, there is no overlapping capability for the early-warning function resulting in all communications ceasing to Country X's outstations in the south. It is expected the adversary will move in portable radar vehicles to reestablish the early warning capability. These vehicles could be in place in 7 to 10 days.

Remark Name: 0431XX1234 XX001 CTE
(U//FOUO) 20120423: The critical elements for this facility are the main building (CE01), the support building (CE02), the south relay antenna (CE03), and the north relay antenna (CE04)..

Remark Name: 0431XX1234 XX001 SRC
Report Serial Number, Report Originator, Report Date (classify/control as necessary)

Remark Name: 0431XX1234 XX001 CCON NSA
(U//FOUO) 20120423: Collateral Damage Considerations for 0431XX1234 XX001, South Communications Relay Center (CRC) for Country X are BE 0442DQ009 DD001 ABC Mosque is 432ft NW of target and 0442DQ0009 ABC Mosque 002 600ft SE of target.

Remark Name: 0431XX1234 XX001 IGL CIA
(U//FOUO) 20120423: No IGL considerations submitted during IC Vetting.

Remark Name: 0431XX1234 XX001 USVT NGA
(U) 20120423: 0431XX1234 XX001 completed vetting on 23 APR 2012. Votes were as follows:
(U) CIA: CONCUR
(U) DIA: CONCUR
(X//XX)NGA: CONCUR W/COMMENT
(X//XX) NGA COMMENT: NGA recommends changing "Unidentified Area" annotated on graphic dated 05 Jul 2008 to "Recreation Area" and include it in the collateral damage considerations. ETF is missing: Collateral Damage

Considerations. Recommend adding the provided Collateral Damage Considerations statement.
(X//XX)NSA: ABSTAIN

c. (U) Advanced Target Development

Remark Name: 0431XX1234 XX001 CDE (U//FOUO)
20120423:
TARGET: 0431XX1234 XX001 South Communications Relay Center (CRC)
CDE imagery date: YYYYMMDDCDE CALL: DUAL USE: CDE 5 HIGH, PGM, WDU-36B (TLAM), DELAY FUZE OR WARHEAD WITH SMALLER CER, HDG 315-360, CE: 13 DAY/20 NIGHT/15 EPISODIC
NCO: 0442DQ0009 DQOOI ABC MOSQUE 001 19FT SSW OF AOZTAD

CAT I CONCERNS: Facility is a CAT I NSF.NA NEAREST CAT I: NCO measured from TAO. Estimate represents engagement at any point within TAO. CAT I: Facility is a CAT I NSF.
ADDITIONAL CONCERNS: Ground CDR must confirm PID.
WARNINGS: High CDE estimates are present reference appropriate ROE for target engagement authority.

ADDITIONAL CAVEATS: NA VO ASSESSMENT, DTRA ANALYSIS, ETC.
ANALYST POC: SSG JONES, COMMAND FIRES,
CCJ1-JF1@command.smil.mil

d. (U) Other: The following remark types are not mandatory for vetting but in some cases required by Joint Publications and CJCSIs. They are not included for all target types, only where appropriate.

Remark Name: 0431XX1234 XX001 USVA
(U//FOUO) 20120226: 0431XX1234 XX001, validated during the USCENTCOM JTCB ON 12 JUL 12 BY REAR ADMIRAL SMITH, USCENTCOM DJ3, placed on the CENTCOM 1075 RTL.

Remark Name: 0431XX1234 XX001 AUTH
(U//FOUO) 20120203: Ms. Jane Smith, USCENTCOM Theater Ballistic Missiles (TBM), JWICS Email: JASMITH@CENTCOM.IC.GOV, SIPR Email:JANE.SMITH.CTR@CENTCOM.SMIL.MIL, NSTS/TSVOIP: 123-1234, DSN: 123 -1234, COMMS: 012-123-1234.

Remark Name: 043lXXl234 XX001 ANAL
(U//FOUO) 20120423: This facility may have as many as 6 civilian workers during the hours of 0800-1600 daily. The civilian workers are responsible for the communications relay to the southern portion of the country.

Remark Name: 0431XXI234 XX001 EEI
(U//FOUO) 20120423:
EEI 1: Report damage to any of the buildings in and around the facility. EEI 2: Report any sightings of personnel or container trucks leaving the facility.
EEI 3: Report increased personnel and civilian equipment for reconstitution/reconstruction efforts.
EEI 4: Report physical damage of assembly and technical support buildings.
EEI 5: Report any Electronic Intelligence (ELINT).

Remark Name: 0431XX1234 XX001 DEFF
(U//FOUO) 20120423: Achieve destruction of 50% structural volume attain a .7 Pd structural kill against targeted elements within the facility.

Remark Name: 0431XX1234 XX001 CEFF
(U//FOUO) 20120423: Engagement of 0431XXI234 XX001 may result in negative media exposure, global criticism, and adversely impact allied partnerships

Remark Name: 0431XX1234 XX001 RSTR
(U//FOUO) 20120423: Lethal operations against 0431XX1234 XX001 are restricted. Coordinate/deconflict with CIA assistant director for military affairs targeting and technical coordination group (ADMA/TCG) prior to the execution of any operations. Restriction levied 23 APR 2012 by REAR ADMIRAL SMITH, USCENTCOM DB for 90 days and may be removed with approval by ADMA/TCG. 0431XXl234 XX001 was listed on the CENTCOM 1075 RTL.

ANNEX B TO APPENDIX B TO ENCLOSURE D

INDIVIDUAL TARGETS

1. (U) Basic Target Development. Individual records are user-populated data sets. The creator of the record is the authoritative owner.

a. (U) Identification. Individual entity identification includes the individual's name, "also known as" or "AKA" (when applicable), and a unique entity identifier (EID). The EID adheres to the following construct: Producer Code (2 characters) + Entity Type (1 character) + Allegiance (2 characters) + one up number (5 letters and/or digits).

(1) (U//FOUO) Example: A Somali Pirate's EID could be EYISO00001.

(2) (U) Counterterrorism-related individuals will continue to be identified by a DIA-assigned Counterterrorism Identification Number (CTID).

(3) (U) Note: Organizations may apply multiple ID codes to targets (i.e., an individual with CTID may also receive an International Security Assistance Force (ISAF) ID number). For targeting operations falling under the auspices of this document, these other codes are not a substitute for an approved EID.

b. (U) Location. Defined and recorded as the individual's last known physical location and/or primary operating area, if applicable. The minimum amount of information necessary to establish an individual's target location (to include time of information) is the last known country in which the individual resides or operates from, since that information is relevant in determining applicable authorities and ROE. Additional detailed information, such as city, town, village, geocoordinates, or a geographic boundary will be useful, but not required for this level of target development.

c. (U) Function. Represented by the functional code plus the nation-state or non-state actor for which/whom the function is performed. Analysts will use functional codes to support related operational planning efforts and the functional categorization and data basing.

d. (U) Target Significance. Conveys the individual target's value to the adversary. All functions the individual entity supports should be considered when developing the individual significance statement.

2. (U) Intermediate Target Development and Other Considerations

a. (U) Target Description. Provide a physical description of the individual (i.e. height, weight, hair color, body build, distinguishing marks, etc.). A photo of the individual is highly desired, but not required. If a physical description is not available, the ETF must contain a body of information (pattern of life, human factors, financial information, e-mail account, internet usage, Web forum(s) used, telephone(s), other communications devices used, etc.) sufficient to accurately identify the individual within the relevant environment.

b. (U) Functional Characterization Statement. Functional characterization statements should follow the guidance provided in Appendix B to Enclosure D.

c. (U) Expectation Statement. Addresses the anticipated consequences to the adversary's target system should an action be taken against the individual. The target expectation statement must address the five questions identified in Appendix B Enclosure D.

d. (U) Critical Elements

(1) (U) Critical elements are an integral part of a target entity that are essential for that entity to function. No elements have been formally agreed upon for individuals. These targets must be evaluated individually and carefully so that the targeteers clearly understand the target's function(s). It is important that the targeteer consider the CTAF analysis to ensure that the elements are clearly tied to the target's functional characterization.

(2) (U) Some examples of potential critical elements for individuals include: freedom of movement, access to secure communications (internet, phone, couriers, etc.), access to transportation, safe havens, anonymity, local populace support, access to weapons/materials/precursors, media support, access to bank accounts, funding from donors or illicit operations, access to recruiting pools, or the trust and confidence of leaders or cell members.

e. (U) Source Documentation. Sourcing will be done IAW Intelligence Community Directive 206 (reference T).

f. (U//FOUO) Collateral Damage Considerations. In addition to physical (i.e., CAT I and CAT II) collateral damage considerations associated with the location from which an individual operates and/or is considered for engagement, there may also be pattern of life or other intelligence that should be considered. For example, "Individual travels and resides with wife and three children."

g. (U) Intelligence Gain/Loss Concerns. The joint force is responsible for tasking the identification and documentation of intelligence gain/loss concerns associated with a specific target. Intelligence gain/loss concerns should follow the guidance provided in Appendix B to Enclosure D.

3. (U) Advanced Target Development. This data is the responsibility of the joint force.

a. (U) Target Vulnerability. Target vulnerability identification should follow the guidance provided in Appendix B to Enclosure D.

b. (U) Weaponeering Solutions. Weaponeering solutions should follow the guidance provided in Appendix B to Enclosure D.

c. (U) Aimpoint Selection and Development. Aimpoint selection and development should follow the guidance provided in Appendix B to Enclosure D and Enclosure F.

4. (U) Collateral Damage Estimation. Collateral damage estimates are not required for individuals, but are often performed in theater when kinetically engaging the targets.

5. (U) Example Target Folder for an Individual Target

a. (U) Basic Target Development

Target Identification: ECXXP01234 Location:
Bad Landia
Target Function: A1111, Terrorist, General Remark
Name: ECXXP01234 TSIG
(U//FOUO) 20120423: Jon Doe is the most senior member and is therefore recognized as the senior leader and backbone of the BadPeople (BDPPL) terrorist group. Doe is a revered figure amongst the BDPPL members, provides guidance and mentorship to the BDPPL leadership and serves as an inspirational figure for the group.

b. (U) Intermediate Target Development

Remark Name: ECXXP01234 TGT
(U//FOUO) 20120423: John Doe is 5'4" tall, medium build with black hair, brown eyes, and a scar on his lower right leg. See attached photo.

Remark Name: ECXXP01234 FUNC
(U//FOUO) 20120423: John Doe is the figurehead of the BadPeople (BDPPL),

and provides broad operational guidance to the BDPPL leadership and members who work to carry out his ideals. Doe also advocates attacks on BDPPL adversaries and provides commentary and sound bites for BDPPL propaganda distributed through their media outlets. Of note, on XX MAY 20XX John Doe was seen on Al Jazrah breathing out murderous threats against all "western" nations and cultures.

Remark Name: ECXXP01234 EXPS
(U//FOUO) 20120423: The loss of John Doe's function as the senior figurehead/leader of BadPeople (BDPPL) would cause a long-term severe disruption to the overall morale and guidance he currently provides to the group. However, removing Doe's function would only cause a light, short-term disruption to BDPPL's operations and ability to conduct attacks against their enemies, as BDPPL has established strong, independent leadership figures that can carry on the operations of the BDPPL's organization. Military or political advantages/disadvantages are currently unknown. BDPPL would likely carry on operations as normal, but may suffer internal struggles without a strong figure to anchor their group.

Remark Name: ECXXP01234 CTE
(U//FOUO) 20130423: The critical elements for John Doe are his person, cell phone, e-mail account, bank accounts, and computer.

Remark Name: ECXXP01234 SRC
Report Serial Number, Report Originator, Report Date (classify/control as necessary)

Remark Name: ECXXP01234 CCON
(U//FOUO) 20120423: No collateral damage considerations submitted during IC Vetting.

Remark Name: ECXXP01234 IGL
(U//FOUO) 20120712: Gain: The capture of John Doe would likely yield significant amount of information on named organization logistics networks, as well as ongoing operational planning. He could also provide significant information on named organization's organization and structure, as well as details on senior leaders. Loss: The loss of John Doe would likely have a short-term impact on intelligence collections, however would not likely have any long-term impact. NSA requests that this entity be placed on the restricted target list due to IGL concerns.

Remark Name: ECXXP01234 USVT
(U) 20120423: ECXXP01234 completed vetting on 23 APR 2012. Votes were as follows:

(U) CIA: CONCUR
(U) DIA: CONCUR
(U) NGA: ABSTAIN
(X//XX) NSA: CONCUR W/COMMENT
(XX//XX) NSA COMMENT: NSA request target be placed on the restricted target XXXX list due to IGL considerations.

Remark Name: ECXXP01234 USVA
(U//FOUO) 20120226: ECXXP01234, validated during the USCENTCOM JTCB ON 12 JUL 12 BY REAR ADMIRAL SMITH, USCENTCOM DJ3, placed on the CENTCOM 1075 RTL.

c. (U) Advanced Target Development

Remark Name: ECXXP01234 CDE
(U//FOUO) 20120813: XXXXX – Not used for this target type due to the nature of this target. Target vulnerability remark is more appropriate.

(INTENTIONALLY BLANK)

ANNEX C TO APPENDIX B TO ENCLOSURE D

VIRTUAL TARGETS

1. (U) Basic Target Development. Virtual records are user-populated data sets. The creator of the record is the authoritative owner.

a. (U) Identification. Virtual entity identification includes the entity name (e.g., name of the website, account, application etc.), entity "also known as" or "AKA" (when applicable), and a unique EID. If there are several AKAs associated with the entity the wider known ones should be listed. The entity name should be constructed in accordance with appropriate MIDB rules.

(1) (U) The unique EID adheres to the following construct: Producer Code (2 characters) + Entity Type (1 character) + Allegiance (2 characters) + one up number (5 letters and/or digits).

(2) (U) Example: A terrorist web site in Afghanistan could be RTVOM00001.

(3) (U) Counterterrorism-related virtual entities also will continue to be identified by a DIA-assigned Counterterrorism Identification Number (CTID).

(4) (U) Note: Organizations may apply multiple ID codes to targets. For targeting operations falling under the auspices of this document, these other codes are not a substitute for an approved EID.

b. (U) Location. Virtual entity location is vital to define since it impacts applicable strike authorities and ROE. Virtual entities comprise targets that do not normally possess a fixed geospatial location typically attributable to either coordinates or national boundaries. Entities found in cyberspace may have a virtual location/address such as an Internet Protocol (IP). Virtual entities may also possess a physical location; a Signal of Interest (SOI) has points of origin and points of arrival, which exist in the physical world at a geographic and electromagnetic spectrum location. (Note: All execution against a virtual target will include some aspect of sovereignty and should be identified as early as possible to allow for proper risk calculations.)

c. (U) Function. Represented by the functional code plus the nation-state or non-state actor for which/whom the function is performed. Analysts will use functional codes to support related operational planning efforts and the functional categorization and data basing.

d. (U) Target Significance. Conveys the virtual entity's value to the adversary. All functions the virtual entity supports should be considered when developing the individual significance statement.

2. (U) Intermediate Target Development and Other Considerations

a. (U) Target Description. Describes recognizable attributes and content that operates within the cyberspace domain or information environment. In the case of a Website, these recognizable attributes could include a description of the domain name registration, the links between the target website and other websites, links from the target website to other websites, web browser(s), forums on the website, and active/contributing members, as well as the digital files that comprise the website. Descriptors for a cyber-persona might include internet usage and Web forums used. Descriptors for an SOI might include signal content.

b. (U) Functional Characterization Statement. When characterizing virtual entities targeteers must focus on the virtual entity itself. Characterization should not include those things that are not elements of the entity. For example, a virtual target may be located within a facility, but the facility and its characterization should not be reflected in this statement.

c. (U) Expectation Statement. Addresses the anticipated consequences to the adversary's target system should an action be taken against the entity. The target expectation statement must address the five questions identified in Appendix B Enclosure D.

d. (U) Critical Elements. Critical elements are an integral part of a target entity that are essential for that entity to function. No elements have been formally agreed upon for the virtual entity type and therefore, elements may have to be evaluated individually for every virtual entity.

(1) (U) It is important for targeteers to consider that analysis of a virtual target and its target elements may lead to the identification of other target types (i.e., equipment, individuals, facilities) for development and nomination. If further development is warranted, the newly identified targets become associated targets, rather than elements of the original virtual target.

(2) (U) For websites and software, target elements could include the digital files that comprise the website or software.

(3) (U) Cyber persona elements can be e-mail accounts, telephone(s), other communication and networked digital devices used, and financial entities.

e. (U) Source Documentation. Sourcing will be done IAW Intelligence Community Directive 206 (reference T).

f. (U) Collateral Damage Considerations. Collateral damage considerations should not be limited to the distance or physical connections, but should consider any second and third order cascading effects.

g. (U) Intelligence Gain/Loss Concerns. The joint force is responsible for tasking the identification and documentation of intelligence gain/loss concerns associated with a specific target. Intelligence gain/loss concerns should follow the guidance provided in Appendix B to Enclosure D.

3. (U) Advanced Target Development. This data is the responsibility of the joint force.

a. (U) Target Vulnerability. Target vulnerability identification should follow the guidance provided in Appendix B to Enclosure D.

b. (U) Weaponeering Solutions. Weaponeering solutions should follow the guidance provided in Appendix B to Enclosure D.

c. (U) Aimpoint Selection and Development. Aimpoint selection and development should follow the guidance provided in Appendix B to Enclosure D and Enclosure F.

d. (U) Collateral Damage Estimation. CJCS CDE policy does not exist for virtual targets.

4. (U) Example Target Folder for Virtual Targets

a. (U) Basic Target Development

Target Identification: RTXV123456 Location: Bad Landia
Target Function: A3AAA, Terrorist Related Broadcast Remark
Name: RTXV123456 TSIG
(U//FOUO) 20120423: BadPeople (BDPPL) Satellite Television Broadcast Signal transmits anti-western propaganda contributing to instability in Country X and foments religious tensions. BDPPL benefits from the continued propaganda, winning the hearts and minds of the local population. This

satellite broadcast reaches a larger audience than BDPPL print media, radio and Internet venues combined, and is translated into several languages to include English.

b. (U) Intermediate Target Development

Remark Name: RTXV123456 TGT
(U//FOUO) 20120423: BadPeople (BDPPL) Satellite Television Broadcast Signal is a satellite signal broadcast between 4 - 8GHz in the C-band. Its content is translated and broadcast in English, Spanish, French, Portuguese, and Russian. The content of the broadcast includes anti-western messages and programs.

Remark Name: RTXV123456 FUNC
(U//FOUO) 20120423: BadPeople (BDPPL) Satellite Television Broadcast Signal is a satellite signal used to spread anti-western ideology and propaganda. The broadcast features video and audio commentaries from BDPPL senior leadership, condemning the invasion and subsequent occupation of GoodPeople (GDPPL) within their territories.
This satellite broadcast is aired every day at 0800, 1200 and 1600 for an hour duration each. One broadcast aired on, XX AUG 20XX was titled "Death to the Invaders." This program had a record number of listeners in the local area.

Remark Name: RTXV123456 EXPS
(U//FOUO) 20120423: Affecting the function of BadPeople (BDPPL) Satellite Television Broadcast Signal will have a moderate short-term disruption to BDPPL's ability to communicate its message and propaganda. BDPPL Satellite Television Broadcast has established alternate avenues for communicating its ideology and propaganda through venues such as print media and Internet sites. The functional recuperation time is assessed at 2-4 weeks as BDPPL does not have immediate access to anyone with experienced Web site maintenance capability. Military or political advantages/disadvantages are currently unknown. If BadPeople Satellite Television Broadcast Signal cannot function, it is expected distribution of BDPPL propaganda will increase through the BDPPL monthly print publication "BDPPL Speak," and/or through their Websites "www.radicalman.com" and "www.badpeoplespeak.com."

Remark Name: RTXV123456 CTE
(U//FOUO) 20120423: The critical element for BadPeople (BDPPL) Satellite Television Broadcast Signal is the RF signal and the three broadcast operators.

Remark Name: RTXV123456 SRC
Report Serial Number, Report Originator, Report Date (classify/control as necessary)

Remark Name: RTXV123456 CCON
(U) 20120813: No collateral damage considerations submitted during IC Vetting.

Remark Name: RTXV123456 IGL
(U//FOUO) 20120423: No IGL considerations submitted during IC Vetting.

Remark Name: RTXV123456 USVT
(U) 20120423: RTXV123456 completed vetting on 23 APR 2012. Votes were as follows:

(U) CIA: CONCUR
(U) DIA: CONCUR
(U) NGA: ABSTAIN
(U) NSA: CONCUR
Remark Name: RTXV123456 USVA
(U//FOUO) 20120226: RTXV123456, validated during the USCENTCOM JTCB ON 12 JUL 12 BY REAR ADMIRAL SMITH, USCENTCOM DJ3, placed on the CENTCOM 1075 RTL.(

c. (U) Advanced Target Development

Remark Name: RTXV123456 CDE
(U//FOUO) 20120813: Not used for this due to the nature of this target. Collateral Effects remark type is more appropriate.

d. (U) Other

Remark Name: ECXX056789 CEFF
(U//FOUO) 20120423: Engagement of ECXX056789 may result in negative media exposure, global criticism, and adversely impact allied partnerships.

(INTENTIONALLY BLANK)

ANNEX D TO APPENDIX B TO ENCLOSURE D

EQUIPMENT TARGETS

1. (U) Basic Target Development. Equipment records primarily are user-populated data sets. The creator of the record is the authoritative owner. Targeteers must consider the inherent associations with developing an equipment target, a facility, or organizations. There are few instances in which equipment targets are not associated with other entities. NOTE: For data automation purposes in MIDB, all Equipment target type targets must be associated with another target type to prevent "orphaned" equipment.

a. (U) Identification. Equipment entity identification includes the entity name, entity "also known as" or "AKA" (when applicable), and a unique EID. If there are several AKAs associated with the entity the wider known ones should be listed. The entity name should be constructed in accordance with appropriate MIDB rules.

(1) (U) The unique EID adheres to the following construct: Producer Code (2 characters) + Entity Type (1 character) + Allegiance (2 characters) + one up number (5 letters and/or digits).

(2) (U) Example: a North Korean Satellite EID could be PAENKO00001.

(3) (U//FOUO) Counterterrorism-related equipment also will continue to be identified by a DIA-assigned Counterterrorism Identification Number (CTID).

b. (U) Location. Equipment entity location is defined and recorded as its last known physical location, its primary operating area, or the location/position in which the equipment will be engaged (and the time of this information).

c. (U) Function. Represented by the functional code plus the nation-state or non-state actor for which/whom the function is performed. Analysts will use functional codes to support related operational planning efforts and the functional categorization and data basing.

d. (U) Target Significance. Conveys the equipment's value to the adversary. All functions the equipment supports should be considered when developing the significance statement.

2. (U) Intermediate Target Development and Other Considerations

a. (U) Target Description. Describes the physical makeup, characteristics, and/or composition of the piece of equipment.

b. (U) Functional Characterization Statement. When characterizing equipment entities, targeteers must focus on the equipment and its elements. The characterization should not include those things that are not elements of the entity itself. For example, an equipment target may receive, house, and transmit virtual entities, but those entity characterizations should not be reflected in this statement.

c. (U) Expectation Statement. Addresses the anticipated consequences to the adversary's target system should an action be taken against the entity. The target expectation statement must address the five questions identified in Appendix B Enclosure D.

d. (U) Critical Elements. The critical elements of an equipment target may be both virtual and physical. All elements must be resident on or integrated into the entity.

e. (U) Source Documentation. Sourcing will be done IAW Intelligence Community Directive 206 (reference T).

f. (U//FOUO) Collateral Damage Considerations. The joint force is responsible for tasking the identification and documentation of collateral damage considerations associated with a specific target. Collateral damage considerations for equipment targets, like facility targets, must include any CAT I, or CAT II entities, and should consider any additional environmental considerations (i.e., the target lies in heavily populated urban area or a sparsely populated rural area), and any second and third order collateral effects on surrounding infrastructure and entities such as cyber, electricity, and communications. See Appendix B to Enclosure D for additional discussion.

g. (U) Intelligence Gain/Loss Concerns. The joint force is responsible for tasking the identification and documentation of intelligence gain/loss concerns associated with a specific target. Intelligence gain/loss concerns should follow the guidance provided in Appendix B to Enclosure D.

3. (U) Advanced Target Development. This data is the responsibility of the joint force.

a. (U) Target Vulnerability. Target vulnerability identification should follow the guidance provided in Appendix B to Enclosure D.

b. (U) Weaponeering Solutions. Weaponeering solutions should follow the guidance provided in Appendix B to Enclosure D.

c. (U) Aimpoint Selection and Development. Aimpoint selection and development should follow the guidance provided in Appendix B to Enclosure D and Enclosure F.

d. (U)Collateral Damage Estimation. The joint force is responsible for ensuring collateral damage estimates are accurate and complete prior to targets being engaged. Follow the guidance set in reference aa.

4. (U) Example Target Folder for Equipment Targets

a. (U) Basic Target Development

Target Identification: ABEXX12345 Target
Location: Country X
Target Function: ZAAAA MSL ICBM NFI Remark
Name: ABEXX12345 TSIG
(U//FOUO) 20130423: The ABEXX12345 Killer XX-XX ICBM of Country X is one of four ICBMs own by Country X. This ICBM has the capability to be employed in four hours and can strike anywhere in the world at a moment's notice. The ABEXX12345 Killer XX-XX ICBM's range provides Country X with an unparalleled strategic capability and military prestige.

b. (U) Intermediate Target Development

Remark Name: ABEXX12345 TGT
(U//FOUO) 20130423: The ABXE123456 Cisco 2200 Router is 13"x8"x3" with 4 USB ports, 2 ethernet ports, 1 power source input port, indicator lights on the front and 2 omni-directional antenna mounted on the back of the device.

Remark Name: ABEXX12345 FUNC
(U//FOUO) 20130423: The ABXE123456 Cisco 2200 Router provides Internet protocol (IP) routing functionality and allows traffic to move in and out of the LAN.

Remark Name: ABEXX12345 EXPS
(U//FOUO) Affecting the function of the ABXE123456 Cisco 2200 Router will cause a short-term disruption to Bad Guy Unit's ability to communicate with higher HQ that will disrupt Country X's ability to order launches of ICBMs

and may increase amount of time needed for ICBM unit to prepare ICBMs for launch. Network administrators in Bad Guy Facility will have to identify a problem with the target before the target can be repaired or replaced. Identification of issue with target could take minutes to hours and the repair or replacement of the router could take minutes to hours depending on the abilities of the network administrators to perform their duties. If attribution of action against the target is made against US, there may be little political impact since Country X implies that US actions are constantly being taken against Country X infrastructure correctly or incorrectly. The likely outcome probably would be simply replacing the router.

Remark Name: ABEXX12345 CTE
(U//FOUO) 20130423: The critical elements of ABXE123456 Cisco 2200 Router are the firmware, software, ARP cache, routing table, ports, power source, connecting wires and hardware.

Remark Name: ABEXX12345 SRC
(U//FOUO) Report Serial Number, Report Originator, Report Date (classify/control as necessary)

Remark Name: ABEXX12345 CCON
(U//FOUO) 20120423: Collateral Damage Considerations for ABEXX12345, Killer XX-XX ICBM for Country X are BE 0442DQ009 DD001 ABC Mosque is 432ft NW of target and 0442DQ0009 ABC Mosque 002 600ft SE of target.

Remark Name: ABEXX12345IGL
(U//FOUO) 20120423: No IGL considerations submitted during IC Vetting.

Remark Name: ABEXX12345USVT
(U) 20120423: ABEXX12345 completed vetting on 23 APR 2012. Votes were as follows:

(U) CIA: CONCUR
(U) DIA: CONCUR
(X//XX)NGA: CONCUR W/COMMENT
(X//XX) NGA COMMENT: NGA recommends changing “Unidentified Area” annotated on graphic dated 05 Jul 2008 to “Recreation Area” and include it in the collateral damage considerations. ETF is missing: Collateral Damage Considerations. Recommend adding the provided Collateral Damage Considerations statement.
(X//XX)NSA: ABSTAIN

c. (U) Advanced Target Development

Remark Name: ABEXX12345 CDE
(U//FOUO) 20120423:
TARGET: ABEXX12345, Killer XX-XX ICBM Center
CDE imagery date: YYYYMMDD, CDE CALL: NON-DUAL USE: CDE 5 HIGH, PGM, WDU-36B (TLAM), DELAY FUZE OR WARHEAD WITH SMALLER CER, HDG 315-360, CE: 13 DAY/20 NIGHT/15 EPISODIC NCO: 0442DQ0009 DQOOI ABC MOSQUE 001 432FT SSW OF AOZTAD CAT I CONCERNS: Facility is a CAT I NSF.NA NEAREST CAT I: NCO measured from TAO. Estimate represents engagement at any point within TAO NCC: 0442DQ0009 DQOOI KABUL MOSQUE 001 19FT SSW OF AOZTAD NEAREST CAT I: Facility is a CAT I NSF.
ADDITIONAL CONCERNS: Ground CDR must confirm PID and ensure no civilians or non-combatants within TA prior to engagement.
WARNINGS: High CDE estimates are present reference appropriate ROE for target engagement authority.
ADDITIONAL CAVEATS: NA VO ASSESSMENT, DTRA ANALYSIS, ETC.
ANALYST POC: SSG JONES, COMMAND FIRES, CCJ3-JF1@command.smil.mil

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ANNEX E TO APPENDIX B TO ENCLOSURE D

ORGANIZATION TARGETS

1. (U) Basic Target Development. Organization records primarily are user-populated data sets. The creator of the record is the authoritative owner.

a. (U) Identification. Organization entity identification includes the entity name and a unique EID. The entity name should be constructed in accordance with appropriate MIDB rules.

(1) (U) The unique EID adheres to the following construct: Producer Code (2 characters) + Entity Type (1 character) + Allegiance (2 characters) + one up number (5 letters and/or digits).

(2) (U) Example: an EID for a terrorist organization in Yemen could be RTOOM00001.

(3) (U) Military units (e.g., battalions, squadrons, etc.) will include a UNIT identification (ID) is the target's unique ID. Note: While military units will be listed in TSAs and will be tracked as part of the greater intelligence, plans, and operations efforts, intelligence analysis pertaining to military units follows the analytical standards set by the RESPROD and not the entity-level target development standards described in this instruction. RESPROD has the write permissions to change this MIDB record.

(4) (U) Counterterrorism-related organizations also will continue to be identified by a DIA-assigned Counterterrorism Identification Number (CTID).".

(5) (U) Organizations may apply multiple ID codes to targets. For targeting operations falling under the auspices of this document, these other codes are not a substitute for an approved EID.

b. (U) Location. Location information for this target type is the organization's headquarters location and operating area (i.e., a company may be headquartered in one country and operate in multiple countries; however, if this company performs a targetable function in country "A", then country "A" would be its operating area.) Location of a nation-state military unit is center of mass of the last known location of the unit/organization and will be accomplished to RESPROD analytical standards.

c. (U) Function. Represented by the functional code plus the nation-state or non-state actor for which/whom the function is performed. Analysts will use functional codes to support related operational planning efforts and the functional categorization and data basing.

d. (U) Target Significance. Conveys the organization's value to the adversary. All functions the organization supports should be considered when developing the individual significance statement.

2. (U) Intermediate Target Development and Other Considerations

a. (U) Target Description. Describe organization type (i.e., corporations, NGOs, front companies, military units, etc.), in addition to organizational and leadership structure and mission; sources of power, such as the number of members and financial resources (i.e., revenue and revenue sources); training; etc. Note: Military units are typically analyzed and tracked via order of battle standards set by the RESPROD; developing military units for vetting is rare and is not required, but may be done at the discretion of the joint force.

b. (U) Functional Characterization Statement. This statement should holistically capture al of the functions currently provided by the organization and not just those that resulted in target development.

c. (U) Expectation Statement. Addresses the anticipated consequences to the adversary's target system should an action be taken against the entity. The target expectation statement must address the five questions identified in Appendix B Enclosure D.

d. (U) Critical Elements. No critical elements have been formally agreed upon for organizations. These targets must be evaluated individually and carefully so that targeteers clearly understand the target's function(s). It is important that the targeteer consider CTAF analysis to ensure the critical elements are clearly tied to the target's functional characterization. **Note: If further refinement of an organization target into unique individual facility, equipment, and/or virtual target entities is required for DoD engagement, the new entities must be associated targets to the organization and cannot remain elements of that organization. If the intent is to build the target for whole of government engagement (i.e., coordinating efforts with the Department of State or Treasury) further refinement may not be necessary.**

e. (U) Source Documentation. Sourcing will be done IAW Intelligence Community Directive 206 (reference T).

f. (U) Collateral Damage Considerations. Organizations will often consist of elements that are both physical and virtual; therefore, collateral damage considerations for organization targets should include any CAT I, or CAT II entities, any additional environmental considerations (i.e., the target lies in heavily populated urban area or a sparsely populated rural area), and should consider any second and third order collateral effects on elements of surrounding infrastructure and entities such as cyber networks, electrical grids, and communications. See Appendix B to Enclosure D for additional discussion.

g. (U) Intelligence Gain/Loss Concerns. The joint force is responsible for tasking the identification and documentation of intelligence gain/loss concerns associated with a specific target. Intelligence gain/loss concerns should follow the guidance provided in Appendix B to Enclosure D.

3. (U) Advanced Target Development. This data is the responsibility of the joint force.

a. (U) Target Vulnerability. Target vulnerability identification should follow the guidance provided in Appendix B to Enclosure D.

b. (U) Weaponeering Solutions. Weaponeering solutions should follow the guidance provided in Appendix B to Enclosure D.

c. (U) Aimpoint Selection and Development. Aimpoint selection and development should follow the guidance provided in Appendix B to Enclosure D and Enclosure F.

d. (U) Collateral Damage Estimation. CJCS CDE policy does not exist for organizational targets.

4. (U) Example Target Folder for Organization Targets

a. (U) Basic Target Development

Target Identification: ECXX056789 Location:
Bad Landia
Target Function: A2230 Terrorist Front Company Remark
Name: ECXX056789 TSIG
(U//FOUO) 20120423: ABC Shipping Company is a global distributor of seaborne goods. ABC Company is acting as a front company for the BadPeople (BDPPL) Terrorist Group, and is one of XX different front companies that provide witting, sustained and active sole support to BDPPL for seaborne transportation and movement of arms shipments from Europe to

Central Asia.

b. (U) Intermediate Target Development

Remark Name: ECXX056789 TGT
(U//FOUO) 20120423: ABC Shipping Company is a global organization responsible for mass distribution of communication devices and equipment. The multi-tiered organization has two HQ locations: one in Paris, France and another in Beijing, China; as well as over two dozen known subsidiaries spanning across Europe and Asia. ABC Shipping Company is a $14 Billion company.

Remark Name: ECXX056789 FUNC
(U//FOUO) 20120423: ABC Shipping Company is a highly successful company having an established and well-respected reputation amongst the communication & technology community. ABC Shipping Company uses this reputation as well as falsifying documents, manifests, etc., to mask its illicit activities to support the BadPeople (BDPPL). ABC Shipping Company is responsible for shipping assault rifles, submachine guns, pistols, and grenade launchers.

Remark Name: ECXX056789 EXPS
(U//FOUO) 20120423: Neutralizing the function of ABC Shipping Company's ability to support BadPeople's (BDPPL) transshipment of communications materials and equipment would result in a medium- long term, severe disruption to BDPPL's ability to move their equipment by sea, which is BDPPL's primary means of transporting these materials. The time needed to recuperate this function would depend greatly on the specific methods used to disrupt this function, ranging from a few weeks to several months. Military or political advantages/disadvantages are currently unknown. A disruption to BDPPL's ability to move and transship communication materials by sea would cause the BDPPL to look for alternate means to transshipment methods (air, land) which are not well established, if at all.

Remark Name: ECXX056789 CTE
(U//FOUO) 20130423: The critical elements of ABC Shipping are the company cell phones, landlines, computers, routers, switches, servers, email accounts and bank accounts.

Remark Name: ECXX056789 SRC
Report Serial Number, Report Originator, Report Date (classify/control as necessary)

Remark Name: ECXX056789 CCON

(U//FOUO) 20120423: No collateral damage considerations submitted during IC Vetting.

Remark Name: ECXX056789 IGL
(U//FOUO) 20120423: No IGL considerations submitted during IC Vetting.

Remark Name: ECXX056789 USVT
(U) 20120423: ECXX056789 completed vetting on 23 APR 2012. Votes were as follows:
(U) CIA: CONCUR
(U) DIA: CONCUR
(X//XX)NGA: CONCUR W/COMMENT

(X//XX) NGA COMMENT: NGA recommends changing "Unidentified Area" annotated on graphic dated 05 Jul 2008 to "Recreation Area" and include it in the collateral damage considerations. ETF is missing: Collateral Damage Considerations. Recommend adding the provided Collateral Damage Considerations statement.
(X//XX)NSA: ABSTAIN

c. (U) Advanced Target Development

Remark Name: ECXX056789 CDE
Not used for this due to the nature of this target. Collateral Effects remark type is more appropriate.

d. (U) Other

Remark Name: ECXX056789 CEFF
(U//FOUO) 20120423: Engagement of ECXX056789 may result in negative media exposure, global criticism, and adversely impact allied partnerships.

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APPENDIX C TO ENCLOSURE D

ELECRONIC TARGET FOLDERS (ETF) STRUCTURE AND CONTENT

1. (U) Overview. ETF structure will be standard across all target types. The ETF structure described in this appendix is intended to be used by all joint forces, Services, CSAs, and allied producers in a joint/combined environment. While the appearance of some target materials contained in the ETF may vary slightly by command, all ETFs shall be structured IAW the eight categories described below and the minimums established in Enclosure D. This appendix builds on the detailed discussion of intelligence development for targets in this enclosure. When appropriate, the applicable stage of target development is next to the ETF content category or sub-content category.

a. (U) Heading (Basic Target Development)

(1) (U) Classification and Release

(2) (U) EID Number

(3) (U) Name

(4) (U) Function/Cat Code (as appropriate)

(5) (U) O-suffix (Facilities only)

(6) (U) Location

(7) (U) Country Code

(8) (U) Original Production Date/Last Update

(9) (U) Facility Description

(10) (U) Facility Significance

b. (U) Target Summary (Basic and Intermediate Target Development)

(1) (U) Significance Statement (Intermediate for Facilities)

(2) (U) Target Description (Intermediate)

(3) (U) Functional Characterization (Intermediate)

(4) (U) Expectation Statement (Intermediate)

(5) (U) Critical Elements (Intermediate)

(6) (U) IGL Concern Statements (Intermediate)

(7) (U) Collateral Damage Considerations (Intermediate)

(8) (U) Source Documentation (Basic and Intermediate)

c. (U) Supporting Materials (Basic, Intermediate, and Advanced Target Development)

(1) (U) Geospatial-Intelligence

(2) (U) Other

d. (U) Capabilities Analysis Support (Advanced Target Development)

(1) (U) Target Vulnerability

(2) (U) Suggested Weaponeering

(3) (U) Aimpoint

(4) (U) Collateral Damage Estimate

(5) (U) Target Type Specialized Materials/Analysis

e. (U) Assessment

(1) (U) Physical damage/change assessment

(2) (U) Collateral Damage Assessment

(3) (U) Functional damage/change assessment

(4) (U) Munitions Effectiveness Assessment

(5) (U) Reattack Recommendation

(6) (U) Additional/Collateral Effects Assessment

f. (U) Associated/Collocated

(1) (U) Units

(2) (U) Equipment

(3) (U) Facilities

(4) (U) Individuals/Personnel

(5) (U) Groups/Organizations

(6) (U) Resources

(7) (U) Virtual

g. (U) End State and Commander's Objectives

h. (U) Related Information

2. (U) Minimum ETF data requirements. The following data elements, extracted from MIDB, are the minimum required for ETF production. If a data element is not contained in MIDB, then other sources may be used. However, MIDB must be updated with the new data.

a. (U) Heading. The Heading category of the ETF includes the following target development standards: Target Identification, Target Location, and Target Function.

(1) (U) Classification and release. Self-explanatory.

(2) (U) Entity Identifier (EID)

(a) (U) Use the EID for the entity from the MIDB when available. The data base construct for a targeted entity is the unique facility or entity record identified by a BE and O-Suffix or EID (as appropriate for other target types) in the MIDB. If no MIDB record is available the producer must coordinate with the appropriate responsible organization to obtain a suitable unique EID. The term "NONE" should never be used in this field. (Note: Prior to submitting a new entity for record facility or installation creation, analysts should conduct a search of NGA's National Exploitation Services (NES) database to confirm a record for the entity does not already exist. This will aid in ensuring uniqueness of BE numbers.)

(b) (U) Alternate BE(s) (Facilities only). Occasionally, more than one BE number may exist in the MIDB for a single entity. In these instances, coordinate with the responsible organization for that particular record to select the most accurate BE. The RESPROD should then either delete the inaccurate BE number from the database and assure any reporting under that BE number is incorporated within the accurate BE and cross reference any unique functional O-Suffixes into the most accurate BE.

(3) (U) Name

(a) (U) Use the entity name as it appears in MIDB. If no record is available, the target analyst must liaise with the appropriate responsible organization office to develop a suitable name using a standard naming convention. A "Q" record is the formal method to recommend MIDB record changes with the responsible organization.[4] The term "NONE" should never be used in this field.

(b) (U) Alternate Name. If there is a command-recognized alias name for the entity, which is different from the MIDB entity name, include that name under the heading "ALTERNATE NAME." Use the alias in conjunction with the entity name as provided in the MIDB. In instances where there is a difference between the entity names used in the MIDB and those by the tasking command, ETF producers should submit a DCR.

(4) (U) Category and Functional Code

(a) (U) Facility. Use CATCODE from the MIDB. If more than one functional area is designated, then a facility is created for each functional area. Installations are assigned the CATCODE of 00000. A single installation is assigned functional CATCODES for the different facilities or functions of importance within that installation. Use reference AE for a complete number breakdown.

(b) (U) Other entity types. Use non-facility functional codes.

(5) (U) O-Suffix (Facilities only)

(a) (U) The O-suffix is a five-character alphanumeric code (e.g., AA000) within MIDB. The first two characters identify the production

[4] (U) A Q-NOM (nomination) is used to request entry of new records in MIDB. Because these nominated records must be validated by the producer, the value in RECORD_STATUS = Q. This was done to distinguish between active records (A), inactive records (I), and records pending deletion (P) A Q-DCR (data change request) is used to request revision of an existing MIDB record.

center that created the record; the last three numbers are sequentially assigned by the MIDB.

(b) (U) Select the O-suffix from the MIDB correlating to the appropriate FACILITY. Provide the O-suffix with its corresponding PHYSICAL DESCRIPTION that best describes the FACILITY being produced.

(6) (U) Location. See Annexes B-E of Enclosure D, Appendix B for non-facility entity location data. For facilities, include the following information:

(a) (U) Latitude/Longitude (Lat/Long). Use the latitude and longitude from MIDB. State in the header block, "FOR REFERENCE ONLY." The coordinates are for reference only and they are selected by approximating the center of mass for an installation or facility. If MIDB coordinates are used, the following warning will be listed: "FOR REFERENCE ONLY." If the coordinates are more than one nautical mile (NM) from the facility center of mass (see reference ab) or do not plot on the facility then derive the coordinates using one of the sources, in priority order, listed in Table 1 below. These new coordinates, together with other pertinent location data, should be entered into the MIDB via a DCR. Coordinate production method and sources will be cited with the appropriate MIDB coordinate derivation code. Derivation codes are found in MIDB.

Priority	Coordinate Source
1	Digital Point Positioning Database (DPPDB) (Stereo)
2	Multiple Image Geopositioning with National Technical Means (NTM) or in combination with commercial imagery sources.
3	Precise Orthorectified Image Datasets
4	CIB (1 Meter (M), followed by 5 M, then 10 M)
5	Uncontrolled NTM with Rapid Positioning Capability and Digital Terrain Elevation Data (DTED)

Table 1. Prioritized Sources for Deriving Positional Data

(b) (U) MGRS. MGRS coordinates will be computed from the MIDB LAT/LONG coordinates. Provide grid coordinates of the point to the 100-meter grid square (minimum).

(c) (U) Datum. Insert reference to the proper datum used for the derived coordinates (e.g., World Geodetic System (WGS) 84).

(7) (U) Country Code. Use the two-character country code from the MIDB for all databased text fields.

(8) (U) Original Production Date & Last Update. Note the day, month, and year the ETF was originally produced and last updated in eight-digit format as follows: YYYYMMDD (i.e., 20050906 for 6 September 2005). When a target material is reviewed and determined to still be current and valid, an additional statement of "REVALIDATED YYYYMMDD" will be added. Note: The "PRODUCTION DATE" remains unchanged.

b. (U) Target Summary. The Target Summary category includes the following target development standards: Target Significance, Target Description, Functional Characterization, Target Expectation Statement, Critical Target Elements, Collateral Damage Considerations, IGL Concern Statement, and Source Documentation.

(1) (U) Target Significance Statement. Targeteers will develop a Target Significance statement and associate the remark to the target record.

(2) (U) Target Description

(a) (U) For facilities, targeteers will review the RESPROD-provided facility remark for currency and accuracy. A Target Description for a facility target is comprised of a target description remark in MIDB, as well as, at a minimum, a graphic or graphics meeting minimum standards for depicting the installation and facility boundaries (see Enclosure G for additional details).

(b) (U) For non-facility targets, targeteers will identify the target type and provide a comprehensive description of the target in the target description remark. For an individual, the Target Description is located in subviews in MIDB plus a photo of the individual, if available.

(3) (U) Functional Characterization Statement. This statement will be stored in the function characterization remark in MIDB.

(4) (U) Expectation Statement. Whenever feasible, use data from the Expectation remark from the MIDB. If there is no expectation statement listed in MIDB or if the existing target expectation statement does not meet joint force requirements, ETF producers will use their targeting analysts as well as responsible organization national agency assets to assess and document a target expectation statement. Once finalized, the target expectation statement will be added and stored in MIDB.

(5) (U) Elements. Use the critical target elements remark from MIDB. For facilities, a graphic identifying the critical element boundaries at the facility level is required for advanced target development and should be placed in the geospatial-intelligence section of the ETF.

(6) (U) Collateral Damage Considerations. Use the Collateral Concerns remark in MIDB.

(7) (U) Intelligence Gain Loss Concern Statements. Intelligence Gain Loss Concern Statement remark in MIDB to record Intelligence Community identified concerns.

(8) Source Documentation. Use the Sources remark in MIDB. To apply proper sourcing, when databasing use two letter code from the MIDB RELEASE MARK field. The code is the authoritative source for two-letter release codes.

c. (U) Supporting Graphic Materials

(1) (U) Geospatial-Intelligence. As a minimum, all ETFs produced on facilities will include a graphic or graphics defining the geospatial boundary of the facility. Multiple defined boundaries could be shown on a single graphic. For example, an IO-G could also clearly show the facility outline(s), or a CE-G could clearly show facility outlines. In these cases, the graphics must meet the minimum standards for all associated graphics. For example, a CE-G that is used to also depict the geospatial boundary for the facility must meet the minimum standards for both the FO-G and a CE-G. Graphics should be suitable for printing as hardcopy documents. Thumbnails should only be included within full sized graphics if the analyst determines they will be of value. This does not preclude graphics/image-based support for other target types. These could also include individual headshots, banners depicted on a Web site, etc. Regardless of graphic type, each should be properly dated, sourced, and marked with the appropriate security classification and release statement.

(2) (U) Joint force operational needs may require production of additional GEOINT based graphics. These include, but are not limited to, JDPI graphics, Orientation View Graphics, and CDE graphics. Joint forces should also identify and support imagery graphic requirements for tactical planning (e.g., “north up” imagery) to operational components and units that are tasked to engage targets.

(U) **Note:** For deliberate planning environments, all target graphics will be revalidated every five years for accuracy and currency unless shorter timelines

are established within other instructions and/or manuals or operational necessity dictates an earlier review. However, during crisis situations all operationally relevant target graphics will be revalidated as quickly as possible before operations commence.

(3) (U) See Enclosure G for graphics standards.

d. (U) Capabilities Analysis Support

(1) (U) Target Vulnerability. See discussion in Appendix B to Enclosure D.

(2) (U//FOUO) Suggested Weaponeering. If appropriate, air-to-surface and surface-to-surface munitions weaponeering solutions derived from Joint Technical Coordinating Group for Munitions Effectiveness (JTCG/ME) and DTRA automated tools noting weapon selection and expected results should be included in completed ETFs for unit-level mission planners. Joint forces will establish the minimum requirements for lethal or non-lethal capabilities and the associated solutions found in their completed ETFs.

(3) (U) Aimpoint

(a) (U) Aimpoint is a weapon placement term that applies to both lethal and non-lethal capabilities. A JDPI is a type of geophysical aimpoint. Tasking agencies may specifically request mensurated points support and must provide acceptable accuracy standards consistent with command releasability guidance. Mensurated points should include accuracy statements specifying circular and linear errors meeting a 90 percent assurance and identify source. JDPI graphics will include the DPPDB stock number on the graphic if used and be referenced within the MIDB associated databases when supported. This will facilitate the MIDB review process as directed IAW reference I. Personnel who conduct target coordinate mensuration from imagery must be certified to do so IAW reference I.

(b) (U) Mensurated coordinates will be to the nearest 1000th of a second and the nearest 10000th minute. Additional coordinate formats may be provided based on weapons system compatibility and joint force requirements. Any coordinate conversion must be accomplished using NGA Geographic Translator, the only coordinate conversion program approved by the U.S. Department of Defense.

(c) (U) Aimpoints associated with non-lethal weapons are NLRPs. An NLRP is databased as a JPDI record with the number 8 in the second

position of the JDPI identifier field. See Enclosure F for specific NLRP database requirements.

(d) (U) Aimpoint data is stored in MIDB.

(4) (U) Collateral Damage Estimation (CDE). CDE is an integral part of advanced target development. CDE helps complete the characterization of risk to nearby collateral objects and noncombatants associated with the use of military action against a particular target. In order to expedite advanced target development and the subsequent preparation of execution-level products in the ETF, the joint force identification and characterization of the nearest collateral damage consideration may begin during the Basic stage of target development.

(a) (U) Collateral Damage Considerations. For facility target types, if the nearest collateral concerns fall within the CDE Level 1 collateral effects radius (CER), it must be functionally characterized and identified by distance and direction from the target. If no collateral objects fall within the CDE Level 1 CER, then this will be stated in the ETF. For all target types, joint forces may also choose to address collateral damage considerations separate and distinct from the identification of the nearest collateral object. This could include second and third order effects associated with engaging a target (reference aa).

(b) (U) Collateral Damage Estimation (CDE). CDE will be accomplished IAW reference aa and the estimate will be recorded in the Collateral Damage Estimation remark in MIDB and on the CDE graphic.

(5) (U) Assessment. This section of the target folder is for combat assessment (CA), which requires a coordinated and integrate effort between joint force intelligence and operations functions. Combat assessment is the determination of the overall effectiveness of force employment during military operations. Combat assessment is composed of four major components: BDA, munitions effectiveness assessment (MEA), collateral damage assessment (CDA), and reattack recommendation (RR). All four components of CA require a coordinated and integrated effort between joint force intelligence and operations functions.

(a) (U) Battle Damage Assessment (BDA). BDA is composed of physical damage/change assessment, functional damage/change assessment, and target system assessment. At a minimum, this section will include areas for physical damage assessments/change assessments

and functional damage assessments. See reference P and Q for detailed instruction on conducting BDA analysis.

1. (U) Physical Damage/Change Assessment

a. (U) Physical damage assessment estimates the quantitative extent of physical damage through munitions blast, fragmentation, and/or fire damage effects to a target resulting from the application of military force. This assessment is based upon observed or interpreted damage. Physical damage assessment is the physical damage equivalent of change assessment.

b. (U) Change assessment is the identification and assessment of measurable change to the target resulting from weapons that do not create physical damage. Change assessment is the non-physical damage equivalent of physical damage assessment.

2. (U) Functional Damage/Change Assessment. Functional damage assessment estimates the effect(s) of military force on the functional or operational capability of the target to perform its intended mission. Functional damage also estimates the level of success in achieving operational objectives established against the target.

3. (U) Target System Assessment. Target System Assessment is an all-source assessment of the change and remaining target system functional capabilities and capacities relative to the targeting objectives after military operations have commenced. This assessment is based on the aggregate of physical damage assessment, change assessments, and functional damage/change assessments of the individual targets, and on changes resulting from second and higher order effects.

(b) (U) Munitions Effectiveness Assessment. MEA is an operations-led assessment supported by intelligence data and analysis to determine if a particular weapon or capability performed as it was intended to during operational use. In other words, MEA compares what was expected of the weapon with how the weapon actually performed. MEA evaluates actual weapon/capability performance in terms of delivery tactics, fusing, observed delivery parameters, and munition functionality. Deviations from the weapon/capability expectation (developed during the JTC capability analysis phase) are reviewed and analyzed to allow targeteers, planners, and operators to adapt tactics, fusing, or other delivery parameters during combat operations. MEA results are aggregated after combat operations have ended and help shape future weapons development and improvements.. MEA is primarily an operational responsibility and is supported by

intelligence. It is accomplished during operations and/or in the post operations environment.

(c) (U) Reattack Recommendation. Reattack recommendation (RR) is an assessment, derived from the results of BDA and munitions effectiveness assessment. It provides the commander systematic advice on reattack of targets and further target selection to achieve objectives. The reattack recommendation is a combined operations and intelligence recommendation.

(2) (U//FOUO) Collateral Damage Assessment. Collateral Damage Assessment (CDA) is defined as "an analytical judgment derived by determining the amount and effects of collateral damage post target engagement" (see reference aa). CDA is a logical extension of the well-defined collateral damage estimation process detailed in reference aa. CDA is primarily part of operations with required deliverables from and coordination with target intelligence producers. While it is not yet included in current assessment literature, it is an operational imperative in the targeting assessment process.

b. (U) Collocated Facilities

(1) (U) Collocated facilities are those facilities in the vicinity of the primary target facility that may not fall under the same installation record and may support or defend the primary target. Collocated facilities located outside the boundary of the primary facility may be annotated at the option of the producer. However, collocated facilities inside the installation boundary outline must be annotated consistent with the releasability of the basic product.

(2) (U) MIDB provides a list of installations/facilities collocated with the primary FACILITY target. As a minimum, the ETF will show following information of these installations/facilities: NAME, BE NUMBER, CATCODE, O-suffix, and COORDINATES. Collocated FACILITY or INSTALLATION will be annotated on a Collocated Facility Graphic (CF-G).

(3) (U) Non-facility targets may also be in collocated status. For non-facility entities, collocated targets are two or more unique entities that exist in the same geographic location but are able to function independently of each other. Two adversary naval vessels tied up adjacent to each other within the same port/pier facility could represent collocated targets, as each may be able function independently of the other. Collocated targets may or may not be associated targets as they may or may not perform supporting or complimentary functions.

c. (U) Associated Targets. Associated targets are distinct entities with a functional relationship to another identified target entity. **Associated targets differ from target elements in that they must be able to function independent of any of the targets to which they have been associated.** Associated targets may or may not be collocated targets.

(1) (U) The same two adversary naval vessels mentioned above represent possible associated targets that are also collocated targets in situations where the two vessels have a functional relationship (e.g., an oiler/resupply ship and combatant vessel).

(2) (U//FOUO) Another example of associated targets that are not necessarily collocated are the various target entities associated with signals of interest (SOIs). SOIs are functionally related to the equipment and facilities involved in their transmission and reception. Consequently, the unique target entities should be individually developed and associated.

d. (U) End State and Commander's Objectives. This information is documented in Target Objective records in MIDB if classification allows. Include associated strategic, operational, and/or tactical objectives and tasks and other command-determined information as required.

e. (U) Related Information. This is an open section for additional information considered as important to complete or augment the ETF such as sourcing or vetting votes. Source document serial numbers will be included in MIDB. ETFs may be expanded to meet specific joint force and operational unit requirements. Additional information, such as supplemental graphics, vector (shapefile) overlays, capability specific supporting materials, 3D models, and other analytical or source documentation, may be entered in the ETF.

APPENDIX D TO ENCLOSURE D

FEDERATED ELECTRONIC TARGET FOLDERS (ETF) PRODUCTION

1. Overview. Intelligence federation enables joint forces to form support relationships with other joint intelligence operations centers (JIOCs), Service intelligence units, Reserve organizations, other intelligence agencies, or appropriate non-intelligence DoD organizations to assist with the accomplishment of the joint force's mission. The joint force may leverage the existing intelligence federation and Service reach back and distributed architectures to surge ETF production. Federated ETF production may include any portion of the ETF for which the producer or supporting organization is capable and qualified to produce. This appendix provides additional guidance for how Combatant Commanders will obtain standardized federated ETF production.

2. Assumptions.

a. Producers and supporting organizations have appropriate production capability and write access to pertinent databases (i.e., MIDB).

b. The supported commander will coordinate intelligence collection necessary to meet PRs.

c. Producers and supporting organizations will have sufficiently trained and qualified personnel to satisfy PRs.

d. The supported commander will authorize federated producers access to relevant information.

e. During crisis, DIAP production may be suspended or delayed.

f. Hardware and software are compatible and connectivity is sufficient.

3. Participating Organizations/Agencies.

a. DIA

b. NGA

c. USSTRATCOM/J2

d. JIOC, USPACOM

e. JIOC, USEUCOM

f. JIOC, USCENTCOM

g. JIOC, USSOUTHCOM

h. JIOC, USAFRICOM

i. 363rd ISR Wing

j. Air Force Air Operations Centers ISR Divisions (ISRD)

k. Naval Strike and Air Warfare Center

l. Appropriate non-intelligence DoD organizations

m. Selected allied producers

4. Tasking and Production Management Procedures.

a. Federation applies to steady state and crisis situations. In both steady state and crisis target planning, the joint force must first determine whether existing, internal production resources are capable of meeting requirements or if federated production efforts should be requested. This assessment will include all assigned, attached, and supporting organizations, functional and associated Service components, and CSAs with explicit support relationships. If external production capabilities are required, the joint force should identify those requirements.

b. For pre-planned situations, external production requirements will be documented to the greatest extent possible in the National Intelligence Support Plan for a particular OPLAN, CONPLAN, or within the text of an execute order (EXORD). The details of a crisis intelligence federated partnership should, if possible, be coordinated and agreed upon by the supported command J2 target intelligence producers, JS Targeting, and all federated partners well in advance of the potential crisis or anticipated military operation the relationship is designed to support. Once these relationships are established, the joint force executes the established plan when given the appropriate approval. The joint force may use JS Targeting to assist with the execution of its existing formal agreement.

c. In ad hoc situations, external production requirements will also be documented. The supported joint force targeting intelligence producer is responsible for requesting, via the Joint Staff Targeting, crisis intelligence federation support. To initiate ad hoc federated support, commands will submit requests to JS Targeting. Upon receipt of request, JS Targeting will identify potential federated partners and coordinate federated production assignments with the supported command. This process is primarily designed to facilitate distribution of ETF production across multiple partners.

d. Requests must be clear and specific. At a minimum, this includes relevant information on each entity, as well as the associated production requirements for the entities being requested. Information may also be furnished directly to participants by the supported command via e-mail. Information will include as a minimum:

(1) Target EID

(2) Country Code

(3) CATCODE/functional code

(4) O-suffix

(5) Suspense Date

(6) Classification and releasability requirements

(7) Distribution requirements/procedures

(8) Long-term maintenance of data elements

(9) Special coordinating instructions

(10) Damage Criteria

(11) CCMD-unique graphics/data formatting standards, with templates (if exceptional circumstances exist to warrant deviating from supplementing standards identified in Enclosure G)

(12) For advanced target development production, a statement that each facility and critical element/JDPI is still present/has been verified

e. Allocation of workload is situational. Methods may be based on BE/CATCODE or location (e.g., all airfields north of certain latitude or all

targets within a geographic grid). The overall intent is to expedite production and prevent overloading a single producer. Requesting commands must ensure target materials requirements are submitted in a timely manner consistent with planning or execution timelines. Service production centers/agencies that conduct analysis and produce target materials for specific weapon systems must be given ample lead time and will balance priorities of competing requirements from other commands.

f. If multiple production centers are required, JS Targeting will coordinate the requirement and proposed production allocation with identified producers via the most expedient means. Potential federated partners will identify to JS Targeting any limiting factors affecting participation and production or analysis suspended or reduced to support federation arrangements. JS Targeting will then determine what corrective action to take, to include assigning production to a different or additional production element as required.

g. National agencies, joint activities, and Service components and associated intelligence production centers servicing joint requirements will adhere to supported Combatant Command's guidance in all federated taskings.

5. Production Standards. ETFs or individual target materials produced by federated production centers under this guidance will adhere to standards set forth in this Instruction.

6. Quality Control. The initial requirements set by the supported command greatly impact the quality of products. Quality control is the responsibility of both supporting and supported commands. Both the end user and supporting analysts must review finished materials to ensure they are accurate. The supported command must ensure its exact specifications are clearly understood by federated producers and should rigorously review finished products to ensure they meet requirements.

APPENDIX E TO ENCLOSURE D

SAMPLE TARGET DEVELOPMENT CHECK LIST

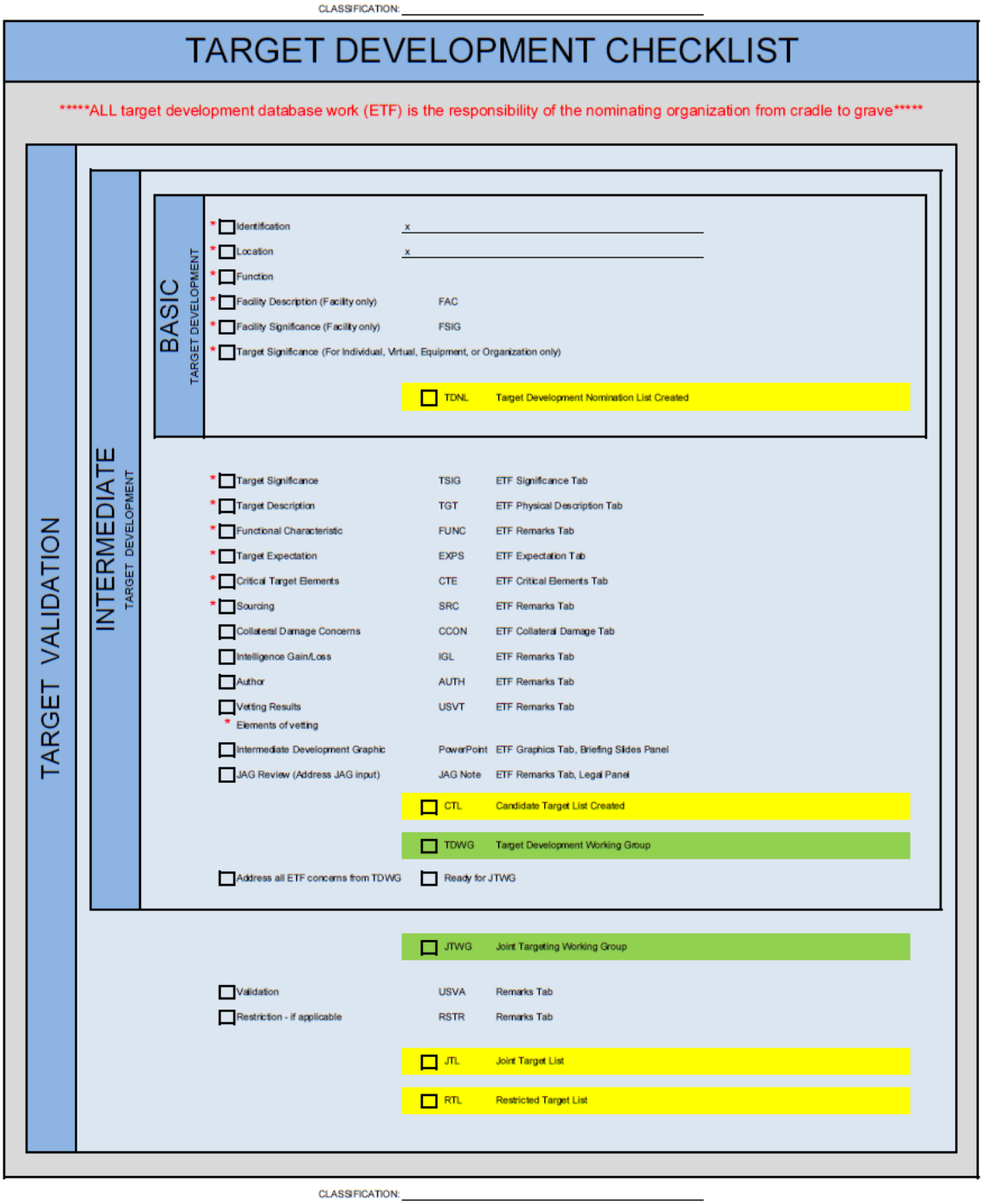

Figure 12. Sample Target Development Checklist

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ENCLOSURE E

VETTING, VALIDATION, AND TARGET LIST MANAGEMENT

1. Introduction. This enclosure describes a series of important milestone steps necessary to move a candidate target forward in the target development process. These steps enable subsequent selection and prioritization of valid targets for operational use. While these steps are relatively straightforward, the responsibility for portions of the process varies among commands. For example, vetting is clearly an intelligence function and while target list management is generally a J2 function, the validation step is a command-specific function, with some commands completing this task via the J2 and others through the J3. Detailed below are the necessary steps and additional guidance on completing key steps in the target development process.

a. Target development nomination (TDN)

b. TDN review

c. Target vetting

d. Target validation

e. Target listing

f. Target nomination

g. Target prioritization

h. Maintenance.

2. Procedures. Joint force commands are established at three levels: unified commands, subordinate unified (subunified) commands, and JTF (see Enclosure A and reference A). When assigned battlespace and end state, joint forces normally have target list management responsibilities as described below. Target list management starts with Step 1 of the Target List Management Process: TDN. The Target List Manager oversees the administrative and process steps to ensure the candidate targets progress to the JTL or RTL and, when properly prioritized, the JIPTL. The target list manager is also responsible for maintaining awareness of the joint force's targets and minimizing target duplication between multiple lists. Combatant Commands should issue guidance on how to manage target lists.

a Step 1: Target Development Nomination

(1) An entity nominated for target development is known as a TDN. TDNs may represent a number of different target types that require basic and intermediate target development in order to be eligible for vetting and subsequent validation.

(2) TDNs can be submitted to joint forces for development from any Combatant Command, Service, or agency (i.e., CSA and interagency). Applicable graphics should be attached to the nomination, including images, photos, screen shots, link diagrams, or any other graphics or vectors that illustrate any aspect of the entity's information.

b. Step 2: TDN Review

(1) The joint force may track a TDN via a target development nomination list. A TDN will be cataloged in the MIDB to standards in Enclosure D.

(2) The TDN will then continue to be developed to the intermediate stage of target development.

(3) Joint force commands will establish a quality control process to independently review the TDN. A TDN submission is scrutinized to ensure that intermediate target development standards are met and properly documented. See Enclosure D for target development standards. See Enclosure D for MIDB and other ETF documentation standards.

(4) Upon completion of TDN Review and the determination that the target is sufficiently developed, the TDN can be considered a candidate target, eligible for vetting, and may be added to the CTL. The CTL is a list of candidate targets that are eligible to be vetted and validated. In the event the TDN does not pass the TDN Review, it is not considered a candidate target and is returned to the nominator or developer, as appropriate, with detailed feedback on why it did not pass review.

c. Step 3: Target Vetting. Vetting is an intelligence function that helps mitigate operational risk by assessing the accuracy of the supporting intelligence to establish a confidence level in the characterization of the candidate target. In order to properly vet this intelligence, it must be developed and databased to the standards in Enclosure D. **IC members responsible for vetting must familiarize themselves with the requirements for each vetting element as defined in Enclosure D.** Vetting allows the joint force to

engage the IC and other organizations' SMEs to establish a reasonable level of confidence in a candidate target's functional characterization based on a review of the ETF and supporting intelligence. Note: The importance of vetting cannot be overstated. Commanders may choose to forgo vetting, but this approach is not recommended and may significantly increase the commander's operational risk. See Enclosure E, Appendix A for additional details on Target Vetting.

d. Step 4: Target Validation

(1) Target validation is an operations and legal function. It ensures all candidate targets meet the objectives and criteria outlined in the commander's guidance and ensures compliance with the LOW and ROE.

(2) A candidate target does not become a "target" until it is validated to the JTL/RTL by a designated target validation authority. Ultimately , the Joint Force Commander is responsible for validating targets to the JTL/RTL, however, validation authorities vary by command and can be delegated to a properly appointed flag officer (typically the J-3 or assigned representative). A legal advisor will make a recommendation to the target validation authority regarding the candidate target's validity with respect to the LOW and other legal considerations, as well as recommended engagement restrictions based on ROE and known operational environment concerns. JTL/RTL validation results shall be documented in MIDB.

(3) Validation occurs during two distinct phases: during the future plans phase, targets are validated to the JTL/RTL (valid for planning), and during the future operations phase targets are validated to the JIPTL (valid for engagement). It is important to maintain this distinction, as targets should not be withheld entirely from planning (JTL/RTL inclusion) due to operational environment considerations (CDE, ROE, etc.) which are constantly evolving. This is the primary function of the RTL, on which the target can be placed with the appropriate restriction remark (see para e. below).

e. Step 5: Target Listing

(1) (U)Once validated, targets can be added to a JTL or restricted target list (RTL). (See Figure 13 for graphical representation of target development from target nomination to target listing.) If the target is placed on an RTL by the validation authority, specific restrictions will be annotated. The nature of the restrictions placed upon a target can range from a nuanced limitation on when or how a target can be serviced, to a specific prohibition on engaging the target due to known operational, political, and/or collateral damage concerns. Specifics will include what the restriction is, precisely how target engagement is restricted, when the restriction was levied, who levied the restriction, why the

restriction was levied, what is the duration of the restriction, and, finally, who may lift the restriction. Regardless, these restrictions do not change the fact that targets on the RTL are valid military targets.

(2) The JTL and RTL of a given plan combine to form the "menu" of targets, regardless of target value, having some military significance in a particular plan.

(3) If a candidate target is not assessed as a valid military target, it is removed from all target lists for the corresponding planning effort. There is no prescribed list on which to place the rejected candidate target. However, in certain cases the entity could go on the No Strike List (NSL).

(4) The NSL is distinct from the JTL and RTL. **The NSL is not a target list.** The NSL consists of a list of objects or entities whose function is characterized as protected from the effects of military operations under the LOW, international law, and/or ROE. Deliberately engaging or not taking sufficient precaution to avoid engaging these objects may violate the LOW. Such actions could interfere with friendly relations with indigenous personnel or governments and jeopardize or hamper other legitimate operations. Under some circumstances, No-Strike entities can lose their protected status and become legitimate, valid targets. Generally, this situation occurs when protected entities (e.g., hospital, school) are used for military purposes (e.g., AAA site, military barracks) and are no longer exclusively performing the functions that provide them legal protection from military action. See reference aa for these provisions and additional guidance.

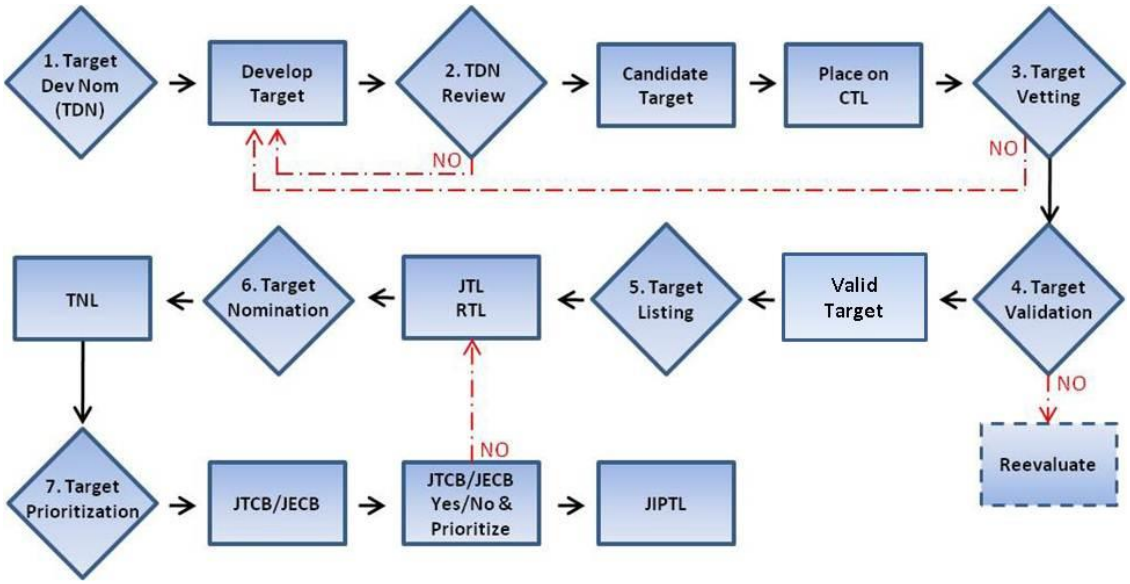

Figure 13. Target List Development

(5) See Appendix B for greater detail on target list types and justifications.

f. Step 6: Target Nomination

(1) Combatant Command staff, components, subordinates, and task forces select targets from the JTL and/or RTL, and compile TNLs to nominate targets for engagement. Where feasible, targets on TNLs will be developed to the advanced target development standards in Enclosure D.

(2) In order to best support "options" planning or "limited operations" (e.g., flexible response options, flexible deterrent options, etc.), each option of each plan should have a JIPTL. The targets and aimpoints on the JIPTL should represent the approved list of prioritized targets and aimpoints that contribute to the objectives of the option.

(3) For "limited operations," each plan or branch plan option should have one consolidated draft JIPTL. All target nominations from assigned, attached, and supporting organizations should be sent to a coordinating authority, who should add the target nominations to the draft JIPTL. The coordinating authority should actively manage the draft JIPTL, periodically review the commander's priorities, objectives and guidance, and seek approval for new or reprioritized targets at a JTCB for inclusion on the draft JIPTL.

(4) Each planned major combat operation will have one JIPTL and multiple TNLs. Each assigned, attached, and supporting organization required to maintain a TNL will be tasked in a CONPLAN/OPLAN.

g. Step 7: Target Prioritization

(1) The TNLs are normally reviewed, combined, and prioritized at a designated board/cell or working group (e.g., a JTWG or within the JAOC) and approved at the JTCB or similar review and approval session, to form the approved JIPTL.

(2) All vetting results, validation results, target restriction(s), and target list decisions will be recorded in MIDB.

h. Step 8: Maintenance/Periodicity Requirements

(1) Targets approved to an existing JTL, RTL, or JIPTL should be continually monitored and updated to reflect the latest intelligence. Targets should only be re-vetted if significant changes to the target's functional characterization have been observed. In these cases, the MIDB

record should be amended with new voting data after the target has been re-vetted.

(2) Joint forces with a joint targeting mission will establish a currency requirement based on the intelligence cut-off date (ICOD) for targets on their JTLs, RTLs, and JIPTLs. The ICOD currency requirement may be published in policy, base plans or annexes, operations orders, fragmentary orders, record message, or by other appropriate means. The functional characterizations of all targets on a JTL or RTL are required to be updated and supported by information within the established ICOD currency requirement.

i. Joint forces can tailor their validation and target listing processes to accommodate their requirements. Often, operational timelines, expanded or compressed planning, and unique considerations drive commanders to adjust processes. These tailored processes are acceptable as long as targets are added to JTLs and RTLs by authorized target validation authorities and are prioritized and added to JIPTLs by an approved authority.

3. Target Lists in Modernized Integrated Database (MIDB). MIDB is a continuously replicating database and is used for **operational target list(s) only**. MIDB shall not be used to create lists for other reasons (test, historical, and research). Following SecDef approval of OPLANS and CONPLANS after the Joint Planning and Execution Community review process, joint forces **will delete** target lists stored in MIDB that are associated with the superseded plan(s).

4. Removing Targets from Target Lists

a. A target is removed from a JTL, RTL, or JIPTL when either:

(1) The validation authority determines the target should be removed.

(2) The established ICOD has been exceeded. When the ICOD is exceeded, the validation authority must be notified of the expiration of the target's validity.

(3) When analysis leads to consolidation of the target with a different installation (i.e., BE Number).

b. When a target is removed from a JTL, RTL, or JIPTL it will be documented in MIDB with a Justification "JUST" remark stating why and when it was removed from the target list.

c. Once a target has been removed from a JTL, RTL, or JIPTL as a result of exceeding the joint force's ICOD, it should be re-vetted and re-validated in order to be put back on the JTL, RTL, or JIPTL. Note: Targets are not vetted through the IC for deletion from a target list.

5. Target List Naming Convention. In order to facilitate rapid retrieval and federated support, users will name target lists in a standard naming convention that is clear, concise, and searchable.

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APPENDIX A TO ENCLOSURE E

TARGET VETTING

1. Vetting is initiated when the joint force sends a vetting request to points of contact in the IC. The standard list of participating agencies will include the CIA, DIA, NGA, and the NSA. Other members of the IC, agencies, or SMEs with applicable specialties can be included at the invitation of the joint force; however, their vetting vote is not required.

2. When a joint force is vetting a target located in another joint force's battlespace, the joint force vetting the target will coordinate with the joint force that owns the battlespace. In these circumstances, the joint force that owns the battlespace will be a voting member in the vetting session.

3. The IC has a limited capacity to vet targets. In order to maintain that capacity, commands will follow these guidelines:

a. The nominal, routine timeline for vetting responses is 10 working days. (Note: Vetting participants should notify the requestor if the response will not be forthcoming in the 10-day period.)

b. Operational needs may require vetting responses sooner than the nominal 10 working days. When a joint force requests "EXPEDITED" vetting, responses from the IC shall not exceed 48 hours from the time of the request. (Note: This standard does not preclude the possibility of a requirement for vetting responses quicker than the expedited 48 hours.) All "EXPEDITED" requests shall be clearly indicated up front and a justification provided. If the required timeframe is short than the routine 10 working days but does not require an "EXPEDITED" turn around, the desired timeline shall be clearly noted up front in the vetting request along with justification.

c. Justification. The operational necessity for other than routine vetting must be explicitly defined and correlate to an imminent window of execution, an unplanned targeting requirement, or emergent operational constraint. Statements of operational necessity should also detail the risk incurred, or overall impact on the JFC objectives if the target is not vetted expeditiously. For example, "Pending validation this target is expected to be engaged within x days (or xx hours)." Statements that cite "operational necessity," by themselves do not justify operational necessity. EXPEDITED vetting will not be used to accelerate routine target development, and the JFC must make every reasonable effort to plan and prioritize target development that allows

routine IC vetting in accordance with CJCSI 3370. It is the responsibility of the Joint Force to ensure that EXPEDITED vetting requests are used judiciously. The submission of an EXPEDITED vetting request does not alleviate the responsibility of the Joint Force to ensure all vetting requirements are satisfied IAW CJCSI 3370.

d. The number of candidate targets submitted for vetting by the joint force for each vetting session should be manageable in size (approximately 20) to provide adequate time for assessment.

e. Joint force operational considerations may require a shorter timeline or a larger number of targets than normally allowed by policy. If the required timeframe is shorter than 10 working days or the number of targets to be vetted exceeds 20, justification from the joint force will be included with the vetting request.

4. The nine elements of vetting are:

a. Target identification and the use of the appropriate naming convention.

b. Target location.

c. Target Function (the appropriate CATCODE or functional code)

d. Target description.

e. Functional characterization of the target

f. Target significance focused on the significance of the target considering the system.

g. Elements. This includes characterization and geospatial definition within the target facility, as appropriate.

h. Target expectation statement, focused on the effect on the overall target system.

i. Sourcing.

5. Vetting agencies should reply to the vetting request with their vetting votes. Agencies vote on the accuracy of the characterization within their intelligence discipline. Votes are not dependent on any target engagement concerns. Engagement concerns must be addressed during

target validation. IC vetting votes reflect SME feedback WRT the body of intelligence they produce to confirm that this entity performs the databased function for the defined adversary. Agencies will cast their vote by annotating their vote and any comments in the MIDB vetting remark. Modifications to target intelligence during the vetting session are not permitted. The only four votes that can be cast are:

a. Concur. The agency agrees with the candidate target's characterization. Administrative comments (i.e., misspellings, grammar, etc.) are authorized with this remark, but the vote remains Concur.

b. Concur with Comments. The agency concurs but notes some non-significant errors or has additional information regarding any of the elements of vetting. Administrative discrepancies (i.e., misspellings, grammar, etc.) do not warrant this vote. **Note: In order to ensure visibility and appropriate consideration during validation, vetting agencies should duplicate any RTL requests in their vetting comments.**

c. Nonconcur. The agency disagrees with the target's characterization. The agency must include rationale for this vote. (Note: The vetting agency should refrain from non-concurring based on grammar, spelling, and typographic mistakes unless these errors significantly distort the proposed characterizations.)

d. Abstain. The agency will provide a vote of abstain when the agency does not have any expertise on the target type or intelligence available to check the accuracy of the functional characterization, to include specialized agencies not having their own original reporting on the candidate target. A statement of this fact is required with the vote, i.e., "Agency has no supporting intelligence to make an assessment on this target."

6. Vetting votes and comments must be recorded and associated with the target in MIDB and linked to the ETF. CIA, DIA, NGA and NSA will record their votes in MIDB directly. (Note: During crisis planning it may be necessary to provide vetting responses by other means to facilitate operational planning. The IC should populate crisis planning vetting responses in MIDB when able to formally provide the organizations response for the ETF. For ETFs databased outside of MIDB the IC will provide their response as requested by the joint force.) Any other agencies' votes (e.g., DoS, DoE, Treasury, etc.) will be recorded by the joint force in a vetting remark in MIDB. Note: Voting agencies may not change their vote outside of a formal vetting session without JFC notification.

a. If vetting votes are not received in the allocated time the joint force may not record the missing vote as an "abstain." The joint force should exercise due diligence in obtaining a vote. If the joint force cannot obtain a vote from a vetting partner, it should document all efforts to obtain a vetting vote and enter no response was received from that agency. This "not received" vote must be briefed to the commander or delegated Target Validation Authority.

b. Vetting agencies are required to verify the accuracy of their votes and comments. If a vote has been documented incorrectly, the agency should immediately contact the joint force to make the correction. If the record is not corrected to the agency's satisfaction, the agency should refer the matter to JS Targeting for adjudication.

APPENDIX B TO ENCLOSURE E

TARGET LIST TYPES AND JUSTIFICATION

1. (U) Introduction. This appendix sets the standard for production of target list management data relevant to target intelligence production. Target list management includes list types, naming convention, source documentation and quality control.

2. (U) Target List Types in MIDB. MIDB contains all doctrinal target lists types as well as additional options under the "target list" label to assist targeteers with information management. Finally, No-Strike List, while not doctrinally a "target list" is under this field for ease of use. See reference af for additional details.

a. (U) Candidate Target List (CTL) – A list of objects or entities submitted by component commanders, appropriate agencies, or the Joint Force Commander's staff for further development and inclusion on the joint target list and/or restricted target list, or moved to the no-strike list.

b. (U) Joint Target List (JTL) – A consolidated list of selected targets, upon which there are no restrictions placed, considered to have military significance in the Joint Force Commander's operational area.

e. (U) Restricted Target List (RTL) – A list of restricted targets nominated by elements of the joint force and approved by the Joint Force Commander or directed by higher authorities.

d. (U) Target Nomination List (TNL) – A prioritized list of targets drawn from the joint target list and/or restricted target list to be nominated by component commanders, appropriate agencies, or the Joint Force Commander's staff for inclusion on the joint integrated prioritized target list.

e. (U) Joint Integrated Prioritized Target List (JIPTL) – A combined and prioritized list of targets approved and maintained by the Joint Force Commander.

f. (U) No Strike List (NSL) – A list of objects or entities characterized as protected from the effects of military operations under International Law and/or Rules of Engagement.

g. (U) Time Sensitive Target (TST) List – A Joint Force Commander validated target or set of targets requiring immediate response because it is a highly lucrative fleeting target of opportunity or it poses (or will soon pose) a danger to friendly forces.

h. (U) Target Development Nomination (TDN) List – A list of nominated targets that meets basic target development criteria but requires additional intermediate target development before submitting as a candidate target. See reference aa for details.

i. (U) Other – Lists associated with targeting that do not fall under the above categories but are important for target intelligence purposes. Each CCMD will determine the management of its lists in the "other" category.

3. (U) Target List Naming Convention. Target lists shall be named using the following convention: command name, then plan or operation (number or name), then list type. For JIPTLs, additional identifiers may be appended to distinguish between otherwise identical list names. For limited access lists, coordinate with the appropriate intelligence organization for proper naming convention. To distinguish Flexible Deterrent Option (FDO) or Flexible Response Option (FRO) supporting target lists, the target list will be annotated with FDO or FRO as appropriate. NOTE: Validated Targets Lists are not based on capability being used. Do not name target list "Kinetic JTL/RTL/JIPTL," as it tangibly draws lines between communities and lessens integration for the commander's plan.

(U) EXAMPLES:
(U) AFRICOM 123 CTL
(U) CENTCOM 1575 JTL
(U) CENTCOM OPORD92 RTL
(U) CENTCOM 1575 FDO
(U) CENTCOM 1575 FRO
(U) AFCENT 1575 TNL
(U) TF OPORD92 TDN
(U) AFRICOM Northwest Regional JIPTL A
(U) AFRICOM Northwest Regional JIPTL B

4. (U) Supporting Documentation. Supporting documentation to the target list record may be provided by associating the reference with the document identified in the Document Management View. An example would be an operational order (OPORD) or message.

5. (U) Target List Quality Control

a. (U) **Test and exercise target lists will not be saved in the active production MIDB** but may be saved on a local exercise server if local policy allows.

b. (U) If test and/or exercise target list(s) are identified in the active production MIDB, the CCMD or Service owners will be notified of the list(s) and given 3 days to delete the list(s). If not deleted within that time, Joint Staff Targeting will submit a change request to MIDB to have the list(s) deleted.

6. (U) MIDB Inactive (I) Records: MIDB I records should not be included in a target list, however they could be on a No Strike List (NSL) if the category code is a protected CAT CODE based on reference aa. Before the CCMD, subordinate joint force, or component nominates an "I" record to a target list, the nominating organization should initiate a production request to the RESPROD to have the facility re-assessed. Once the analysis is complete and the RESPROD has determined the status to be active, the records status will be changed from "I" to "A." Once that change is made, the nominating organization should then include the target on a target list.

7. (U) Target List Record Review/Deletion

a. (U) Operation Plans (OPLANs) and Concept Plans (CONPLANs) are reviewed on a periodic basis under the Joint Planning and Execution Community (JPEC) process.

b. (U) Existing OPLAN or CONPLAN target lists should be reviewed no less than every **3 years**. Old, outdated, or superseded lists will be deleted or exported and saved offline by the originator.

c. (U) CCMD targeting branches are responsible for reviewing and updating target lists.

d. (U) CCMDs will be responsible for checking the number of TDNs in their area of responsibility and how long potential targets remain on the TDN List at least every 365 days. More frequent reviews can be required through local policies.

e. (U) Once a plan and its associated target lists have been approved, previous versions of the target list should be immediately purged from MIDB or stored offline to avoid potential confusion over which list is current.

f. (U) Lists no longer needed shall be deleted from MIDB. MIDB is an operational active database and not a historical archive. If there is a requirement to archive the target list, export and save offline following local procedures.

8. (U) Target List Management Remark Type

a. (U) Justification. The purpose of the justification remark is to explain why a target list was created or a target was moved to or removed from a list. **Note: This is a mandatory remark.**

b. (U) The remark will include contact info of target list owner(s), the name of any person coordinated with, the date of coordination and a brief explanation of why the target list is required. NOTE: When a target is removed from a JTL, RTL, or JIPTL, it will be documented with a justification remark stating why and when it was removed from the target list.

c. (U) The target list manager will only write one Justification remark for the target list. The target list manager or target developer may write multiple Justification remarks for targets. Justification remark data will be documented in an associated "Justification" remark record in MIDB.

(U) EXAMPLE Remark Name for target List: AFCENT 1575 TNL JUST

(U) EXAMPLE Remark Text for target list:

(U//FOUO) 20120423: AFCENT 1575 TNL created due to CONPLAN 1575 approval on 20120422.

(U) EXAMPLE Remark Name for target: EY12345678 JUST

(U) EXAMPLE Remark Text for target:

(U//FOUO) 20120210: EY12345678 removed from list due to his confirmed death on 20111216.

ENCLOSURE F

AIMPOINT DATA STANDARDS

1. Introduction. Aimpoints are developed during advanced target development. For policy on aimpoints see Enclosure D. This enclosure sets the standard for production and maintenance of Joint Desired Point of Impact (JDPI) and Non-lethal Reference Point records and the content of associated data relevant to production.

2. Joint Desired Point of Impact. A JDPI record represents a three-dimensional (latitude, longitude, elevation) mensurated point derived at the location the weapon is seeking that is identified by a unique alphanumeric identifier and includes the associated accuracy, source(s) and derivation method. Note: Only certified Precision Point Mensuration (PPM) Analysts are authorized to provide precise point data to be stored in MIDB. Changing JDPI coordinate or elevation data is not authorized, if an error is discovered the JDPI must be deleted and the JDPI re-created with a new identifier.

a. JDPI Database Standards. New minimum and optional JDPI record fields are described in paragraph 2.b. Following are the minimum information needed for a JDPI record using Joint Targeting Toolbox (JTT) naming conventions.

(1) JDPI ID – Six character ID automatically assigned by the JTT or National Geospatial-Intelligence Agency's (NGA's) Target Management System (TMS). Authorized JDPI prefix designation is tracked through Joint Staff. See reference af for the assigned JDPI identifiers.

(2) JDPI Name – For rapid retrieval of JDPI records, the targeting community has developed standard naming conventions. Start this field with the JDPI ID. Describe the point, incorporating the target element name when applicable. A description of the relative vertical position of the aimpoint may also be included, as described in this enclosure paragraph 2.h.5. The JPDI Name field is limited to 54 characters. Example: D2017K CEN OF VOL OF S SEC OF REPROC BLDG.

(3) Country – Country code of the associated facility record.

(4) Basis – The object or entity to which the coordinate is related. For JDPIs, use code 11 (Targeting Desired Mean Point of Impact of

Location).

(5) Coordinate – DDMMSSSSSHDDDMMSSSSSH formatted mensurated coordinate.

(6) Datum – JDPI should be disseminated in WGS-84/EGM-96 (Code WGE).

(7) Circular Error – At 90 percent confidence level in feet.

(8) Elevation – JDPI vertical position is defined by at least two elevation measurements as described below and depicted in Appendix B to Enclosure G.

(a) JDPI Height Above Ellipsoid (HAE) – The HAE elevation of the mensurated aimpoint in feet.

(b) JDPI Mean Sea Level (MSL) – The MSL elevation of the mensurated aimpoint in feet.

(c) If JDPIs are databased in GMI Target Detail and JTDB, the only available elevation data fields in GMI are JDPI Elevation (HAE) and JDPI Elevation (MSL). The elevation of the actual aimpoint is stored in this field regardless if it falls on or above the ground surface. The JDPI Name is used to clarify the relative vertical position of the aimpoint.

Examples:
D2012A BASE OF 3M DISH PEDESTAL ON ROOF 27 FT AGL
D20A14 CEN OF VOL OF FOURTH FLOOR OF HQ BLDG 40 FT AGL

(9) Linear Error/Elevation Accuracy – At 90 percent confidence level in feet.

(10) Height - Each JDPI will have up to two associated height measurements.

(a) JDPI AGL - When this field is available, it represents the height in feet of the aimpoint above ground level. JDPI-AGL is equivalent to the difference between JDPI HAE and GND HAE. When the JDPI is placed at ground level, JDPI AGL should be recorded as “0”.

(b) FEAT HGT - Height in feet of the feature on which the aimpoint is placed. Equivalent to the difference between TOP HAE and GND HAE. FEAT HGT is not applicable in all situations.

(11) Source – A code representing the geopositioning method used in mensurating the JDPI. ID for Digital Point Positioning Database (DPPDB) direct, IE for DPPDB indirect (registration and resection), IT for multi-image geopositioning (MIG) without Synthetic Aperture Radar (SAR), and RM for MIG employing SAR.

(12) Source Reference – List of source materials used in the geopositioning solution. Mandatory items include DPPDB stock number/edition when DPPDB is used to create the JDPI. Image ID's used to create JDPI's are mandatory when there are no dissemination restrictions.

(a) DPPDB Stock Number – DPPDB stock number should be recorded in this separate field (when available) to facilitate database searches for obsolete or inaccurate DPPDB.

(b) DPPDB Edition Number – DPPDB edition number should be recorded in this separate field (when available) to facilitate database searches for obsolete or inaccurate DPPDB.

(c) Imagery ID(s) – Up to six image IDs should be recorded in these separate fields (when available).

(13) Record Creation

(a) Coordinate Date/Time – YYYYMMDDHHMMSS formatted date time group (DTG). The date and time the JDPI was created or last changed.

(b) Mensuration User ID – Mensuration analyst name or identifier.

(14) Quality Control (QC)

(a) QC Date/Time – YYYYMMDDHHMMSS formatted DTG. The date and time the JDPI was quality reviewed.

(b) QC Userid – Quality Controller name or identifier.

(15) Revalidation

(a) Validation Date – YYYYMMDDHHMMSS formatted DTG. The date and time on which the JDPI was most recently validated.

(b) Validation Userid – Revalidation analyst name or identifier.

(c) MIDB – If a JDPI is databased in the GMI Target Detail instead of JTDB, the revalidation fields will not be available. In this case, revalidation should be documented by updating the Coordinate Date/Time field and the JDPI remarks field stating the date in the YYYYMMDD format that their JDPI record was revalidated and the analyst's name.

(16) RESPROD/Record Owner – The organization that owns the JDPI record.

(17) Location Name/JDPI Element Name – If not entered by the system, enter the Facility BE and O-Suffix for the associated Facility or Unit ID for the associated Unit. If a Facility or Unit record is deleted without proper coordination resulting in an orphaned JDPI record, the JDPI originator will need the BE and O-Suffix or Unit ID to determine if the orphaned JDPI should be re-assigned or deleted.

(18) Classification and Release Instructions

(a) Classification

(b) Release Mark

(c) Domain

(d) Declassify On

(e) Declassify On Date

b. Additional JDPI data elements. Additional data elements can be used to support complex weaponeering and to enhance the JDPI pedigree. Projected JDPI related fields include:

(1) Ground Elevation (HAE) - In JTDB the Ground Elevation (HAE) field represents the JDPI Elevation (HAE) and is populated from the MIDB ELEVATION field. Ultimately, the HAE ground will be surface elevation in feet at the same latitude and longitude as the mensurated aimpoint.

(2) Ground Elevation (MSL) - In JTDB the Ground Elevation (MSL) represents the JDPI Elevation (MSL) and is populated from the MIDB ELEVATION MSL field. Ultimately, the MSL ground surface elevation in feet will the surface elevation at the same latitude and longitude as the mensurated aimpoint.

(3) JDPI Elevation (HAE) - In JTDB this value should be left blank. JDPI Elevation (HAE) will ultimately represent the elevation of the JDPI and mirrors the JDPI ELEVATION field in MIDB.

(4) JDPI Elevation (MSL) - Is not included in JTDB. Ultimately, the JDPI Elevation (MSL) will represent the elevation of the JDPI and mirrors the JDPI ELEVATION MSL field in MIDB.

(5) Top of Feature (HAE) - In JTDB this value may be left blank. TOF (HAE) will ultimately represent the HAE elevation in feet at the top of the feature on which the aimpoint is placed. When TOP HAE is not applicable this field should have a value of N/A.

(6) Top of Feature (MSL) - This value is not available in JTDB. TOF (MSL) will ultimately represent the MSL elevation in feet at the top of the feature on which the aimpoint is placed. When TOP MSL is not applicable this field should have a value of N/A.

c. JDPI Use and Maintenance Rules

(1) JDPI Creation. A JDPI is 'owned' by the organization that creates it and enters it into the database. This 'originating organization' is responsible for maintenance and, if necessary, deletion of the JDPI and associated data.[5]

(2) JDPI Deconfliction. Any user may use any JDPI in the database. Users should exhaust existing JDPI to meet targeting requirements before creating new JDPI. No organization may create a duplicate JDPI at an aimpoint where a JDPI already exists. If an existing JDPI meets targeting requirements based on review of the JPDI descriptive name and graphic, the existing JDPI will be used unless:

(a) The existing JDPI coordinates do not plot within acceptable relative horizontal and vertical accuracy of the desired aimpoint using the most current geopositioning data.

(b) The existing JDPI does not meet currency requirements IAW paragraph c below.

[5] Only the Cruise Missile Support Agencies (CMSA) are authorized to produce, maintain, and delete Tomahawk Land Attack Missile (TLAM) aimpoints and only the 363 ISRW and its affiliated Guard and Reserve units are authorized to do same for Joint Air-to-Surface Standoff Missiles (JASSM) and JASSM Extended Range (JASSM-ER) aimpoints.

(c) If either criteria are met, the user will coordinate with the originating organization to delete the discrepant JDPI. The user may create a new JPDI or request a replacement JDPI from the originating organization.

(d) If duplicate JDPI are identified in the database, the appropriate Combatant Command will coordinate with the originating organization(s) to delete all but one JDPI.

(e) MIDB does not support association of a JDPI to multiple facilities. A JDPI within multiple overlapping facility boundaries is associated with only one facility. In the rare instance where an organization requires an existing JDPI to be associated to an alternate overlapping facility, the organization should first coordinate with the producer of the JDPI and/or the appropriate Geographic Combatant Command (GCC) to re-associate the JDPI. If the JDPI producer or the GCC determines that the JDPI will not be re-associated, a duplicate JDPI with identical coordinate, elevation, and accuracy data may be created on the alternate facility. The creation of duplicate JDPI on the same aimpoint associated to different facilities should only be used as a last resort when a single JDPI-facility association will not satisfy both organization's missions and no other work around is possible.

(3) JDPI Record Maintenance. A JDPI remains valid as long as no issues with the original derivation of the JDPI have been discovered (e.g., invalidated DPPDB, known mensuration software discrepancy). Combatant Commands will establish local policy on how often JDPI must be reevaluated for use in their OPLANs; however, it is recommended that JDPIs be reevaluated every 5 years. Due to the potentially large volume of revalidation requirements, the Combatant Commands must prioritize and formally task JDPI revalidation to the originating organizations. If coordinated with the originating organizations, JDPI revalidation may also be tasked to an alternate production center. Assuming Basic and Intermediate Level Target Development information is still current and valid, JDPI revalidation will include the steps below. Revalidation may result in modification, deletion, or replacement of the JDPI, or may verify that all JDPI data are still correct. In the latter case, the reviewer and revalidation date should be documented. Minimum revalidation requirements:

(a) Review current imagery to validate the status and function of the feature with which the JPDI is associated.

(b) Ensure JDPI coordinates plot within acceptable horizontal and vertical accuracy of the desired aimpoint using current geopositioning data.

(c) Check the NGA Obsolete DPPDB listing to ensure that the original source DPPDB has not been invalidated due to accuracy or geolocation errors. NOTE: As long as the DPPDB is still valid, the age of DPPDB source imagery is not a determining factor in the assessment of JDPI quality.

(d) Review JDPI record data fields and database relationships (association to proper facility record, status of facility record, association to target lists, presence of weapon plans in target detail, etc.)

(e) Ensure JDPI records have appropriate Control or Release Markings to allow or prevent replication of target detail data to other domains.

(f) Ensure Declass Date has not passed.

(g) For JDPI records associated to Inactive Facilities, determine the reason for inactivation of the facility and whether a DCR was submitted to change the status. JDPI on an inactive record can remain on an inactive facility if the originating organization determines a need to keep the JDPI. The RESPROD should be contacted if the reviewer determines the facility record should be returned to Active status in the MIDB production program. NOTE: A newly created JDPI may trigger maintenance on nearby existing JDPI when the horizontal location and/or elevation of the new measurement do not pass a relativity test with the existing JDPI. This can be true even when all JDPI are consistent with image horizontal and vertical accuracies. Example: A JDPI exists on a section of the roof of a complex building. A new JDPI is dropped on a higher section of the roof, but the elevation of the new JDPI is lower than that of the existing JDPI. Review of the existing JDPI may be warranted.

(4) JDPI Changes. Only the originating organization may change an existing JDPI record, although any organization may request the change. Any change to an incumbent JDPI coordinate (latitude, longitude, or elevation) represents a new JDPI and requires creation of a new JDPI ID and deletion of the old JDPI. Minor changes to the remaining JDPI data fields, such as JDPI Name, may be made without creating a new JDPI ID. JDPI may also be reassociated to a new facility to accommodate RESPROD facility record deletion or consolidation.

(5) JDPI Deletion. Only the originating organization may delete a JDPI record, although any organization may request deletion. Due to the often-extensive database associations between JDPI, target lists, and

weaponeering solutions, all JDPI deletions and replacements will be coordinated between the originating organization and the appropriate Combatant Command(s). Once notified, Target List owners have 10-days to delete Target List ties to the JDPI. If no action is taken by the Target List owners, the JDPI's originating organization may delete the JDPI. Deletion and/or replacement of an existing JDPI is recommended when:

(a) JDPI coordinates (latitude, longitude, and elevation) do not validate within accuracy criteria when using the most current geopositioning data or tools.

(b) Accuracy can be significantly improved using newer geopositioning data or tools.

(c) The feature corresponding to the JDPI is no longer present.

(d) The JDPI is no longer required.

3. Non-Lethal Reference Point Data Standards. This enclosure sets the standard for production and maintenance of Non-Lethal Reference Point (NLRP) records and the content of associated data relevant to production. An NLRP designates the intended target of nonkinetic/non-lethal effects. It is always associated to a target entity or element, but may or may not correspond to a physical location. Unlike a JDPI, an NLRP does not represent a precise three-dimensional geocoordinate and does not have to be measured by a certified PPM Analyst. The NLRP data is stored in the database as a JPDI record until a separate record type can be developed and implemented.

a. NLRP Database Standards. Minimum required fields are as follows, referencing the JTT field names.

(1) NLRP ID – A six character ID automatically assigned by JTT based on the JDPI identifier. NLRPs will start with 'C' or have the number 8 in the second position signifying it as an NLRP. Authorized NLRP designation is tracked through the Joint Staff.

(2) NLRP Name – For rapid retrieval of NLRP records, the targeting community has developed standard naming conventions. Start with NLRP followed by the NLRP identifier and aimpoint name. This field is limited to 54 characters. Example – NLRP C100A0 BadPeople Sat TV Router.

(3) Country – Country code of the related facility record.

(4) Basis – Object or entity to which the coordinate is related, for NLRPs use code 3 (Equipment Location).

(5) Coordinate – Enter the MIDB coordinate for entity the NLRP is associated to (facility/unit/equipment).

(6) Datum – NLRPs should be disseminated in WGS-84/EGM-96, (Code WGE).

(7) Circular Error – Left Blank.

(8) Ground Elevation HAE – Left Blank.

(9) Ground Elevation MSL – Left Blank.

(10) Linear Error/Elevation Accuracy – Left Blank.

(11) Source – CIB (Controlled Image Base).

(12) Height – Left Blank.

(13) Coordinate Date/Time – Left Blank.

(14) Source Reference – List source materials used in sources for the ETF.

(15) Weaponeering Parameters are as follows:

(a) Aircraft Type – 0

(b) Weapon Type – NON-LETHAL

(c) Number Aircraft – 1

(d) Number of Weapons per Aircraft – 1

(e) Probability of Damage (percent) – 100

(f) Number of Passes – 1.0

b. NLRP Use and Maintenance Rules

(1) Only one NLRP per target entity or element is required to enable the targeting automation necessary to plan a non-lethal effect against the

entity/element. A single NLRP can be used to task any number of effects any number of times. Users and producers should not create a new NLRP for a target entity that already has one assigned and will coordinate the replacement or deletion of discrepant NLRPs with the producers and the CCMD.

(2) NLRP should be deleted when:

(a) The target entity or element corresponding to the NLRP is no longer present or active.

(b) Any change to an incumbent NLRP location or ID represents a new NLRP and requires creation of a new NLRP ID. The remaining information elements can be modified without necessarily creating a new NLRP ID. Producers are responsible for deleting any obsolete NLRP IDs and their associated data as part of the maintenance process.

(3) Due to the nature of NLRP characteristics, producers are responsible for reevaluation of their NLRP records every 5 years. NLRP reevaluation shall include a review of current intelligence to evaluate the status and function of the feature the NLRP is associated with, as well as the database relationships and associated data.

(4) U) Delete or re-associate NLRPs when the RESPROD for the virtual record requests NLRP deletion or re-association prior to virtual record deletion or consolidation and before affected records and NLRP's have been de-linked to target list.

(5) NLRP Record Quality Control

(a) Ensure NLRP records have appropriate Control or Release Markings to allow or prevent replication of NLRP record data to other domains.

(b) Ensure Declass Dates are greater than today's date.

(c) Review NLRPs for reevaluation, classification and country code every 5 years.

NLRPs no longer within acceptable standards, along with the NLRP's associations to target lists or possible weaponeering solutions, will be deleted.

(6) NLRP deletion will only be initiated by the organization that

created the NLRP. It is the originators responsibility to determine the currency and need for the continued use. Therefore, NLRP's on an inactive record can remain on an inactive record if the originators determine there is a need to keep them.

(7) It is the CCMD's responsibility to coordinate the deletion of duplicate and/or orphan NLRPs with the originating organizations.

(8) Valid NLRP associations to target lists or possible weaponeering solutions will be deleted when coordinated with or by the NLRP originating organization.

4. Weapon Characteristics Standards. The following identifies the standard mandatory and non-mandatory data for production and maintenance of weapon characteristics and the content of associated data relevant to weaponeering-related production.

a. Mandatory Data

(1) Platform Type

(2) Weapon type

(3) Number of Platforms

(4) Number of Weapons/Platforms

(5) Number of Passes (based on weapons and platforms)

(6) Probability of Damage

b. Non-Mandatory Data

(1) Circular Error

(2) Ground Elevation HAE

(3) Ground Elevation MSL

(INTENTIONALLY BLANK)

ENCLOSURE G

GEOSPATIALLY ENABLED TARGET MATERIALS
AND TARGET GRAPHIC STANDARDS

1. Introduction. Target graphics (TGs) are the visual output of geospatially enabled target materials (GETM). While the tools used to create and visualize geospatially enabled target materials may vary, the finished GETM product must meet the minimum joint standards provided in this enclosure and be accessible in the ETF. Required TGs remain the authoritative reference throughout the targeting cycle. GETMs and TGs are primarily used to support the development and maintenance of ETFs and are often incorporated into operational support products. TGs provide interpretive support of raw imagery and include labels, pointers and other annotations utilizing standard formatting procedures. TGs are the authoritative depictions of the location and functional characterization of selected targets and in some cases the target's elements or associated collateral objects. This enclosure prescribes standards for GETMs generated prior to the production of TGs, the required TGs, and several common supplemental TGs. Supplemental TGs are produced in special circumstances as designated within this manual or as further directed by joint forces.

2. Geospatially Enabled Target Materials (GETM) Database Standards

a. The following are common standards that apply to GETM data generated during the production of TGs. A standardized schema common to all producers is important to maintain data interoperability. See APPENDIX D TO ENCLOSURE G – GEOSPATIALLY ENABLED TARGET MATERIALS DATA ATTRIBUTE TABLE EXAMPLE.

b. The minimum required data fields or attributes for GETM are as follows:

(1) Target EID – The BE number associated with the Modernized Integrated Database (MIDB) facility or installation record, as applicable.

(2) Target Name - The name associated with the MIDB facility or installation record, as applicable.

(3) O-Suffix – The five character, alphanumeric code for the o-suffix associated with the feature.

(4) Country - The two-character country code associated with the MIDB facility or installation record, as applicable.

(5) Target Coordinates – MIDB reference coordinates for the facility or installation record, as applicable.

(6) Category Code – Five-digit MIDB category code for the facility or installation record, as applicable.

(7) Intelligence Cutoff Date (ICOD) – The date of the latest intelligence data inputted to a feature.

(8) Feature Name – Descriptive name applied to the polygon feature defining its function. Examples: Barracks Area, HQ/Admin Area.

(9) Outline Type – This field enables visualization tools to sort features hierarchically for proper display.

(a) Features should be characterized as: Installation, Facility, Functional Area, Critical Element, Element, Collateral Area, or NOM/DCR Pending.

(b) When the outline type is a critical element (CE), populate additional fields for:

1. CE Length (feet/meters)

2. CE Width (feet/meters)

3. CE Height (feet/meters)

4. CE Physical Vulnerability Characteristic (PV CHAR) Code

(10) Feature Label – When a feature is collected during graphic production, populate this field with the feature identifier used on the corresponding graphic. Example: B1, B2 for separate barracks areas. (Optional).

(11) Confidence Level – Characterize features as Confirmed, Probable, or Possible.

(12) Classification Information and Release Instructions

(a) Classification

(b) Releasability

(c) SCI Control

(d) Classified By

(e) Classification Derived From

(f) Classification Reason

(g) (g) Declassify On

(13) Collection Information

(a) Collection Source – Enter the Image ID from which features were collected

(b) Collection Method – Orthorectified Mono Imagery or Digital Point Position Database (DPPDB). If DPPDB is used, also populate fields for

1. Circular Error

2. Linear Error

(c) Collection Date

(d) Date of Source Image

(e) Time Over Target

(f) Analyst – Identifier code for producing analyst

(g) QC – Identifier code for quality control analyst

c. GETM Use and Maintenance Rules

(1) GETM Creation. A GETM is 'owned' by the organization that creates it and enters it into the database. This 'originating organization' is responsible for maintenance and, if necessary, deletion of the GETM.

(2) GETM Deconfliction. Any user may use any GETM in the database. If an existing GETM meets targeting requirements based on review of the GETM descriptive name and graphic, the existing GETM will be used unless:

(a) The existing GETM does not plot within acceptable relative horizontal and vertical accuracy of the desired entity.

(b) The existing GETM does not meet currency requirements IAW Combatant Command specific guidance.

(c) If either criteria is met, the user will coordinate with the originating organization to delete the discrepant GETM. The user may create a new GETM or request a replacement GETM from the originating organization.

(d) If duplicate GETMs are identified in the database, the appropriate Combatant Command will coordinate with the originating organization(s) to delete all but one GETM.

(3) GETM Revalidation. A GETM remains valid as long as no issues with the original derivation of the GETM have been discovered (e.g., incorrect analytic judgments or data collection methods). Combatant Commands will establish local policy on how often GETM must be revalidated for use in their OPLANs; however, it is recommended that GETMs be revalidated every 5 years. Due to the potentially large volume of revalidation requirements, the Combatant Commands must prioritize and formally task GETM revalidation to the originating organizations. If coordinated with the originating organizations, GETM revalidation may also be tasked to an alternate production center. If Basic and Intermediate Level Target Development information is still current and valid, GETM revalidation will include the steps below. Revalidation will result in one of the following actions to the existing GETM: Verification, Minor Modification, Deletion and Replacement, or Deletion without Replacement.

(4) GETM Verification. In the case of GETM verification, the reviewer and revalidation date should be documented. Minimum verification requirements:

(a) Review current imagery and intelligence reporting to validate the status and function of the feature with which the GETM is associated.

(b) Ensure GETM plots within acceptable horizontal and vertical accuracy of the desired entity.

(c) Review GETM record data fields and database relationships for accuracy and completeness.

(d) Ensure GETM records have appropriate Control or Release Markings to allow or prevent replication of target detail data to other domains.

(e) Ensure Declass Date has not passed.

(f) For GETM records associated to Inactive Facilities, determine the reason for inactivation of the facility. GETM on an inactive record can remain on an inactive facility if the originating organization determines a need to keep the GETM. The RESPROD should be contacted if the reviewer determines the facility record should be returned to Active status in the MIDB production program. NOTE: A newly created GETM may trigger maintenance on adjacent or nearby existing GETMs when the horizontal location and/or elevation of the new GETM does not pass a geospatial relation test with the existing GETM.

(5) GETM Modifications. Only the originating organization may make modifications to an existing GETM record, although any organization may request the change. Any change to the outline will require creation of a new GETM record. Changes to the GETM data fields, such as GETM Name, may be made without creating a new GETM ID by the originating organization.

(6) GETM Deletion and Replacement. Only the originating organization may delete a GETM record, although any organization may request deletion. All GETM deletions will be coordinated between the originating organization and the appropriate Combatant Command(s). Any change to an incumbent GETM data layer represents a new GETM and requires creation of a new GETM ID and deletion of the old GETM.

(7) GETM Deletion without Replacement. Only the originating organization may delete a GETM record, although any organization may request deletion. All GETM deletions will be coordinated between the originating organization and the appropriate Combatant Command(s). Deletion or archival of an existing GETM without replacement may be recommended when the feature(s) or entity corresponding to the GETM is no longer present or the function and/or status has changed such that the entity is no longer considered a military objective.

3. Target Graphics (TG) Standard Annotations. Mission requirements and classification/dissemination restrictions may reduce or increase the information that is included on Target Materials. The following are common standards that apply to every type of TG:

a. Graphic style reference: Imagery exploitation and graphic design software do not share an enterprise standard. The general reference for text and shape attributes, and the enterprise standard for color, font type, font size, line spacing and outline height (line weight) is based on a Microsoft PowerPoint slide sized for letter paper (8 1/2 x 11 inches) when printed. Organizations will

use this reference to determine their equivalent attributes on the organization's local imagery exploitation system. Variations due to operational requirements and system limitations are authorized.

b. Graphic orientation: The graphic orientation standard is landscape. However, orientation may be changed to portrait when necessary to support operational requirements. This exception should be limited.

c. Graphic font: All graphic text fonts are Arial.

d. Graphic text case: All graphic text will be upper case.

e. Graphic text boxes: When graphic text box sizes are prescribed, the analyst should strive to maintain box size standards; however, width and height may be altered by exception to accommodate increased annotations when altering font size becomes illegible, to increase the viewing area of the image, or to decrease a large amount of wasted white space left in the header box. All text boxes will have 0 pt line spacing and 0 pt character spacing.

f. Graphic text alignment and justification: All text will be center aligned (vertical). All text horizontal justification will be centered except in the header box and Joint Desired Point of Impact (JDPI) detail box that will be left justified.

g. Numbering conventions for names or labels: When numbers are used within a name for quantification, a 2-digit number is used (e.g., STAGING AREA 01, BUILDING 01, TANK 01-05). This numbering convention is not applicable to installation or facility names.

h. Standard Abbreviations: Unless noted otherwise within this manual, abbreviations may be used. If an abbreviation is used once on a graphic, use it consistently throughout the graphic.

i. Graphic header box:

(1) Location: Flush to top edge of graphic.

(2) Shape: Rectangle spanning the width of the graphic and height minimum is 1 1/4". 1 1/2" height is recommended.

(3) Outline color: Black.

(4) Outline weight: Solid, 1.5 point.

(5) Fill color: White.

(6) Text font size: 14 Bold, the first two lines; 10, all other lines.

(7) Command / Organization emblem or device (2): Top-left, inside of header box, centered in minimum 1 x 1 inch and no greater than 1.5 x 1.5 inch. The emblem may be no lower than the unit level (e.g., no work center emblems or devices).

(8) Annotations:

(a) Text line 1 (required): Name and country code. Use the name and country code associated with the Modernized Integrated Database (MIDB) facility or installation record, as applicable. A comma with one space and the associated country code will follow the name. In coalition environments, the target name may be expressed in more than one language.

(b) Text line 2 (required): Graphic type. Do not use abbreviations. Use the designations contained in this manual (e.g., FACILITY OUTLINE GRAPHIC, CRITICAL ELEMENT GRAPHIC, etc.). When multiple graphics are produced, the graphic number, for example "Graphic 2" can be optionally added.

(c) Text line 3: Blank. This line is used to separate the detailed information in the subsequent line from the preceding lines.

(d) Text line 4 (required when applicable): Categorization descriptors. This line is for basic encyclopedia numbers (BE), entity identification (EID), unit identification, or counterterrorism identification (CTID), O-suffix (if applicable), and category code or functional code. See Enclosure D, Figure 7 for further explanation of how these descriptors apply to target development. Separate descriptors by three spaces.

(e) Text line 5 (required): Geographic location. Express geographic coordinates as degrees, minutes, seconds (as recorded in MIDB), preceded by "MIDB GEOS:". The geographic coordinates will be the facility (or installation, when applicable) coordinates. Separate latitude and longitude with three spaces. Analysts will submit a data change request (DCR) in accordance with MIDB business rules and/or coordinate with MIDB Responsible Producers (RESPRODS) to improve the quality of these coordinates over the course of TG production.

(f) Text line 6 (required): Date categorization. Supply intelligence cut-off date (ICOD) in DDMMMYYYY format and date of image (DOI) in

DDMMMYYYY format separated by three spaces (e.g., ICOD: DDMMMYYYY DOI: DDMMMYYYY). The Image Identification (IID) may be used instead of the DOI. If an image is not being used, omit DOI.

(g) Text line 7 (required, unless restricted due to classification restrictions): Provide producer identification and quality controller identification. (Note: producer and quality controller identification might take the form of individual names, employee identification codes, or branch identifiers, as appropriate for CCMD, Service, or IC OPSEC procedures.) Precede the producer identification with ANALYST: and quality controller with QC:

1. The quality control analyst is a second analyst that has reviewed the graphic for analytic and content accuracy.

2. Unique identifiers, whether individual names, employee identification codes, or branch identifiers, allow the work center to determine who created or verified each of their products.

(h) Text line 8 (only used on the JDPI Graphic): Provide the source of JDPI coordinate information. See para 7.a.1.a.4.

(9) Graphic classification designation box (upper) and derivative classification information: The classification designation and derivative classification information are required for all classified materials in accordance with reference ag. The declassification date or event is the most stringent requirement whether it is for the imagery itself or the intelligence contained or derived from the product. Consult reference AG and current GEOINT security classification and marking guidance for details on marking standards for TGs. The example graphics provided in Appendix A of Enclosure G reflect current guidance as of the date of production.

(a) Location: Top-right, flush to top and right edges of header box.

(b) Shape: Rectangle where width is maximum 2 1/2" (including outline) and height is the same as the header box

(c) Outline color: Black.

(d) Outline weight: Solid, 1.5 point.

(e) Fill color: White.

(f) Text font size: Classification and Dissemination / Handling Controls: 12, Bold; Derivative Classification Information: 8

(g) Annotations:

1. Line 1 (flush to the top) is the classification line.

2. Line 2 is for dissemination controls and additional special handling instructions.

a. Strive to be as inclusive as possible to increase the ability to coordinate, collaborate and federate amongst targeting enterprise members. If additional special handling instructions are required ensure the instructions are placed in line 2 and the graphics are stored and disseminated within the designated channel(s).

b. Whenever in doubt, seek guidance from the supported command's Special Security Office (SSO) via the supported command's targeting policy liaison or representative.

3. Lines 3-6 are blank lines. Use the appropriate number of blank lines to place the classification information at the top of the text box and the derivative classification information along the bottom of the text box.

4. Lines 7-10 are for derivative classification information.

(10) Copyright and licensing box: The copyright and licensing box is required for TGs utilizing commercial imagery.

(a) Location: Top-center, flush to the top edge of the header box and centered between the area of interest map inset, if used, and the entity name.

(b) Shape: Rectangle.

(c) No outline; no fill. Information is contained within the header box outline.

(d) Text font size: 8

(e) Annotations: Annotate copyright symbol, followed by the year of the imagery followed by the vendor on the first line and license information on the second line (e.g., Line 1: "© YYYY DIGITAL GLOBE", Line 2: "NEXTVIEW LICENSE").

(11) Area of interest (AOI) map inset: The AOI map inset is not required for every TG type. If the AOI map is required, the respective description will state specific requirements.

(a) Location: Inside the header box and flush to the left of the classification box (upper) and derivative classification information.

(b) Shape: Rectangle where height matches the header box. The bottom edge of the box will match the bottom edge of the header box.

(c) Outline color: Black. Use of the outline included in the map graphic is acceptable.

(d) Outline weight: Solid, 1.5 point.

(e) Fill: Map inset of country listed with the country code in header box text line 1 (Name and Country Code); however, if the country is extremely large (i.e., Russia or China), a subsection map may be used, provided that a non-intelligence planning person could reasonably ascertain the country depicted.

(f) AOI designator:

1. Location: On map inset, centered on approximate geographic location data from header box text line 5 (Geographic Location).

2. Shape: Square.

3. Outline color: Black.

4. Outline weight: Solid, 1/2 point. Outline weight may be adjusted to best orient the user to the general location.

5. Fill color: None.

j. Additional Annotations:

(1) Orientation reference: The orientation reference is used to annotate true north.

(a) Location: Top-right centered below classification box (upper).

(b) Arrow color: White is the standard but may be changed to black only if white does not provide enough contrast with the background of the graphic.

(c) Arrow size: Base to tip is 3/4" in length. If an organization's production software has a default arrow size, this may be used instead.

(d) Arrow line weight: Solid, 3 point. If an organization's production software has a default arrow line weight, this may be used instead.

(e) North designation: The north designation "N" will be the same color as the arrow, Arial, Bold 20 and fixed to the right side of the arrow base with a 0-point character spacing separating the text from the arrow. If an organization's production software has a default north designation, this may be used instead.

(f) If no spatial orientation is required, do not include this attribute. These instances will be noted within specific TG categories.

(g) TGs will be built using imagery rotated to ensure optimal interpretability by non-imagery analyst users and best portrayal of Geospatial-Intelligence (GEOINT) content.

(2) Graphic classification box (lower):

(a) Location: Bottom-left, flush to bottom and left edges of graphic.

(b) Outline color: Black.

(c) Outline weight: Solid, 1.5 point.

(d) Fill color: White.

(e) Text font size: 12, Bold

(f) Annotations:

1. Line 1 (flush to the top) is the classification line.

2. Line 2 is for dissemination controls and additional special handling instructions.

(3) Call-out box:

(a) Location: Attempt to place all call-out boxes where they will not hide key features. The call-out box must be at least 1/2" but no more than 5" away from the element to be called out.

(b) Shape: The smallest rectangle in both height and width that encompasses the required text.

(c) Outline color: Black.

(d) Outline weight: Solid, 1 point.

(e) Fill color: White.

(f) Text font size: 10.

(g) Annotations: Annotations will be covered within each specific graphic type.

(4) Leader line (also known as a call-out or stave line):

(a) Location:

1. Leader lines will depart from the center of the nearest edge of the corresponding call-out box. If multiple leader lines depart from a single call-out box, all lines will depart from the center of the nearest edge using the same departure point as much as possible.

2. The call-out endpoint for a geographic point will be directly over the point being called out and will terminate as a straight line (i.e., no arrows). The call-out endpoint for an unbounded geographic area will be the approximate center of the area. The call-out endpoint for a bounded geographic area or shape will be on the boundary at the closest point of approach from the call-out box to the bounded area or shape.

3. At no time can a leader line intersect with another leader line; however, multiple leader lines emanating from a single call-out box may follow the same path, overlapping, until a logical departure to the called out element.

(b) Line color: White is the standard but may be changed to black if white does not provide enough contrast with the background of the graphic. This is especially relevant for the leader line termination point.

(c) Line weight: Solid, 2 point.

(d) Line shape: The standard is a straight line; however, bends in the line, when used judiciously, may be used to remove clutter to the graphic or to provide an unfettered view of the target. The goal is to clearly link the feature on the image to the call-out box while not detracting from the GEOINT content.

(5) Scale lines: Scale lines are not required for any TG type but may be added if determined to add value to the user.

(a) Outline color: White is the standard but may be changed to black if white does not provide enough contrast with the background of the graphic.

(b) Outline weight: Solid, 2 point.

(c) Location: Lower-left corner immediately above the graphic classification box (lower). If a legend box is used, the scale lines will be above the legend box.

(d) Shape: Scale line formats will be as derived from organization programs of record and will be both horizontal and vertical. Scale lines representing a single axis will not be used.

(e) Scale Labels: Provide both vertical and horizontal axis labels with the scale distance in feet (e.g., 800 FT) using a standard call-out box with 8 pt font.

(6) Legend Box: A legend box may be used with annotations when standard labels will obscure more of the target than is operationally acceptable.

(a) Location: Lower-right, flush to the right.

(b) Shape: Rectangle where height and width are the minimum required to fit the text.

(c) Outline color: Black.

(d) Outline weight: Solid, 1.5 point.

(e) Fill color: White.

(f) Text font size: 10

(g) Character spacing: 0 point.

(h) Line spacing: 0 point.

(i) Annotations: Annotate symbology or designator followed by a minimum of two spaces and the description (e.g., A1 BE/O-Suffix Facility Name or B1 Functional Area). One symbol/designator and description pair per line.

4. TG types are not normally combined onto one graphic. However, a Facility Outline Graphic and a Critical Elements Graphic may be combined if it does not clutter the graphic. These graphic types may be combined when the targeted facility is relatively small, contains a limited number of critical elements, and doing so preserves clarity of the target's function and physical layout (e.g., small bridge targets). The multi-purpose graphic must be databased, metadata-tagged, or otherwise processed to enable discovery as each individual graphic type it replaces.

5. When a TG becomes so saturated with annotations that a single graphic is inordinately cumbersome, or injects risk or a hindrance to a decision maker, the analyst may partition the single graphic into multiple splits. Partitioning will be done to a standard with additional requirements.

a. A partitioned graphic may have a reference overview that depicts how the graphic will be split. Each split will be depicted on the reference overview and labeled with a call-out box and leader line. The splits will be numbered 1 of XX, depending on the total number depicted. Number the splits in a clockwise fashion starting in the top-left most split.

b. A split graphic may also be partitioned non-uniformly. Each split will be a rectangle with each side parallel to the reference overview graphic edges so that when looked at in series, all of the graphics have the same geospatial orientation. Hence, each individual split will maintain the same orientation as the reference overview. If the analyst must change the orientation, place a call-out box under the orientation reference stating, "ORIENTATION MODIFIED FROM REFERENCE OVERVIEW GRAPHIC".

(1) Shape: Rectangle as outlined in the preceding paragraph.

(2) Outline color: White.

(3) Outline weight: Solid, 2 point.

(4) Annotations: The following additional annotations must be included in the header box text line 2 (Graphic Type): Following the name of the graphic type, add "(SPLIT REFERENCE OVERVIEW)" on the reference overview graphic. On the corresponding split graphics add "(SPLIT X OF X)" after the graphic type.

6. Target Graphics (TG) Standards for Basic Target Development. There are no required TGs to meet the basic target development standards.

7. Target Graphics (TG) Standards for Intermediate Target Development of Facility Target Types. A Facility Outline Graphic (FO-G) is the only graphic required to meet intermediate target development standards. However, whenever possible, Critical Element Graphics (CE-G) also should be produced prior to the completion of the intermediate target development. **(Note: Due to mission priorities and/or time constraints, it is possible a CE-G may not be finished prior to the completion of intermediate target development, but must be produced no later than advanced target development.)**

a. Facility Outline Graphic (FO-G). The purpose of the facility outline is to identify the intended target by geospatially distinguishing the target from its surrounding environment. The FO-G is the authoritative functional outline for facilities of interest to the targeting community. A separate FO-G should be produced for each targeted facility.

(1) In cases where there are multiple facilities within an installation, an additional graphic may be produced to show the location and relationship of the targeted facility to other facilities within the same installation. Use FACILITY BREAKOUT GRAPHIC (FB-G) as the graphic type. Standards for the FB-G should closely follow those of the IO-G with the facility outlines and associated call-outs clearly visible on the graphic.

(2) Depict the facility outline around the largest area covering the function and support infrastructure. The facility outline must account for aspects of terrain, so the outline is seldom an arbitrary geometrical figure. The facility includes all areas bounded by the line but not residing underneath the graphical line itself. For this reason, the boundary outline serves as the demarcation and is not an actual part of the facility boundary.

(a) If a wall or fence is the physical demarcation of the facility and was built as part of or is maintained by the facility, then the facility outline will be directly adjacent to the outside of that boundary.

(b) If the facility borders a body of water or public road, the facility outline will be directly over the inside edge of these features.

(c) If obliqueness of the image is such that a building or structure obscures a facility boundary, treat the outline as if it continues on the ground such that the line will seem to end at the edge of the feature and will continue on the other side of the feature.

(3) Draw the outline tightly around the facility in order to negate as many collateral objects as possible.

(4) Area Targets. Area targets are not a designated target type for the purpose of target development. When describing an area target, continue to treat the area target as a facility target type IAW the definition of a facility, as prescribed in Enclosure E and reference ah. The corner coordinates geospatially defining the area target should be annotated on the FO-G using standard call-out boxes and leader lines.

(5) In addition to the standards set above for all TGs, the following standards apply specifically to the FO-G:

(a) Facility outline:

1. Shape: Do not obstruct any significant features. Annotate the facility outline as close to walls and corners as possible. This is vital when estimating weapon effects.

2. Outline color: White is the standard but may be changed to black if white will not contrast with the background of the graphic. A dashed white outline is acceptable for use to delineate a notional area that contains the unknown functional area of the facility such as an underground facility.

3. Outline weight: 3 point. All outlines containing at or above the ground facilities will use solid lines, and outlines containing below the ground facilities will use a dashed line. Underground facility outlines should reflect authoritative Intelligence Community assessments when available.

4. Fill color: No fill.

(b) Installation outline: Optional. Annotation of the portion of the installation outline contained within the graphic frame is recommended when the FO-G portrays multiple facilities or when the analyst judges that inclusion of the installation outline is essential to comprehension of the facility location, function, or other vetting concerns. A legend box is required when the installation outline is included.

(c) Area of interest (AOI) map inset: Optional.

(d) Annotations: Header box text line 1 (Name and Country Code) must use the same facility name and country code associated with the MIDB record. A comma with one space and the associated country code will follow the name. If there are multiple facilities on the TG, the installation name will be used. Header box, text line 4 will include the BE, O-suffix and category code, associated with the MIDB record.

b. Critical Element Graphic (CE-G). The purpose of the CE-G is to identify the critical elements (CEs) that enable a facility to perform its primary function. The CE(s) annotated on the CE-G and the CE(s) listed in the MIDB Critical Targeting Element remark must remain consistent and must be clearly labelled so that like CE(s) may be uniquely identified. See example (reference the CE-G in this document). Elements not deemed critical may be annotated on the graphic if it will add intelligence value to the product or help eliminate confusion.

(a) Installation outline: Situational. Annotation of the portion of the installation outline contained within the graphic frame is recommended when the CE-G portrays elements from multiple facilities. A legend box is required when the installation outline is included.

(b) Facility outline: The facility outline used within the FO-G will be displayed to standard on the CE-G unless there is a large negative impact to the legibility of the identified elements. The analyst should try to keep the entire FO on the graphic but may zoom into an area for better viewing of the CE. Note: GETMs will always include the facility outline.

(c) Critical element call-out:

1. CEs may be outlined to clearly delineate the boundaries of the element (optional). CE outlines should follow similar standards as those applied to facility outlines (paragraph 6.a.1 and following), as applicable. CE outlines must be clearly distinguishable from both the facility outline and the installation outline, if shown, through the use of leader lines and call-out boxes and/or a legend box.

a. Critical elements consisting of unitary objects with clear boundaries may be annotated using a simple leader line. Examples: An element consisting of a single piece of equipment; a single, contiguous building, or a single transformer should be annotated with a leader line.

b. Critical elements without clear boundaries or critical elements consisting of multiple objects should be outlined in order to annotate the full extent of the element. In this case, the leader line should point to the closest part of the outline rather than the element itself. Examples: An element consisting of a cluster of related equipment; a building complex or a building with separate outlying features; or a transformer yard should be outlined. Outlines should also be used for underground features such as bunkers or buried storage tanks and terrain features such as storage yards or parking areas.

2. CE call-out boxes: Using standards for call-out boxes and lines, annotate all CEs. CE call-out boxes will be a non-standard size; however, all other attributes remain the same. Separate call-out boxes should be annotated for each critical element.

a. Text line 1: CE Unique Identifier. Critical elements shall be designated by a one-up numbering system such that each element within the facility (or installation) will have a unique identifier (e.g., CE1, CE2, etc.).

b. Text line 2 (Optional): CE name/description. Space permitting, line 2 should consist of the abbreviated name/description of the critical element. If multiple instances of an element type exist in the facility, add directional modifiers or two numeric digits in sequence to distinguish elements from each other. Examples: N ADMIN BLDG or ADMIN BLDG 02. Where space is limited, CE unique identifiers can be annotated in a legend on the TG. Refer to Legend Text Box (para 2.a.10.f). Examples: Call-out CE1, CE2, CE14 Legend: CE1 - ADMIN BLDG CE2 – N COMM BLDG, CE14 – SE STRG BLDG.

c. Text line 3: Physical Vulnerability Characteristics Code. Annotate as PV CHAR: followed by the appropriate code.

d. Text line 4: Critical Element dimensions annotated as L=, W=, and H=.

(d) Annotations: Header box text line 1 (Name and Country Code) must use the same facility name and country code associated with the MIDB record. A comma with one space and the associated country code will follow the name. Header box, text line 4 will include the BE number, O-suffix and category code, associated with the MIDB record. If CEs from multiple facilities are included on the same CE-G, the installation name, BE number, O-Suffix and category code will be used in the header box, and each facility with its associated BE number, O-Suffix and CATCODE will be called out on the graphic.

8. Target Graphics (TG) Standards for Advanced Target Development of Facility Target Types. In addition to the FO-G and CE-G required for intermediate target development, there are two TGs required to meet advanced target development standards: JDPI Graphic and Collateral Damage Estimation Graphic.

a. Joint Desired Point of Impact Graphic (JDPI-G). The purpose of the JDPI-G is to support the employment of precision weapons with coordinate, elevation, source, and associated accuracy data derived from MIDB target details produced in accordance with reference I. The JDPI-G couples mensuration data with detailed visual intelligence that focuses on identified JDPI(s).

(1) Annotations:

(a) Header box text line 1 (Name and Country Code) must use the same facility name and country code associated with the MIDB record. A comma with one space and the associated country code will follow the name.

(b) Header box, text line 4 will include the BE, O-suffix and category code, associated with the MIDB record.

(c) Header box, text line 5 will identify the target facility's geocoordinates.

(d) Header box, text line 6 will include the information cut-off (ICOD) date and date of image (DOI).

(e) Header box will include text line 7 designating the mensuration analyst and quality control analyst (using appropriate analyst and quality controller identifiers).

(f) Header Box Line 8: For JDPI-G add the coordinate source information on line 8 of the header box preceded by "JDPI COORDS DRV FROM:". The common sources are Digital Point Positioning Database ("DPPDB"), Multi-Image Geopositioning ("MIG"), and "Image Registered DPPDB". List the DPPDB stock number and image ID as appropriate.

1. When ATACMS or GMLRS may be employed include the instructions for converting EGM96 to EGM10D for the area depicted on the graphic.

2. For Example: ATACMS/GMLRS GEOTRANS CONVERSION ON THIS GRAPHIC ONLY: SUBTRACT 20FT FROM MSL ELEVATIONS

(g) Datum Box:

1. When MSL is displayed, the earth gravity model and geodetic separation calculation method used to generate the MSL value. NGA recommends using EGM96 with 15 minutes post-spacing and bi-linear interpolation abbreviated as EGM96 15M BI-LINEAR.

2. Datum Box Format

a. Location: Bottom-left, flush to bottom and left edges of graphic classification box (lower)

b. Outline color: Black.

c. Outline weight: Solid, 1.5 point.

d. Fill color: White.

e. Text font size: 10, Bold

f. Annotations:

g. Line 1 (flush to the top) Horizontal and Vertical Datum.

(2) JDPI call-out box

(a) Using standards for call-out boxes and lines, annotate all JDPIs. JDPI call-out boxes will be a non-standard size; however, all other attributes remain the same. Appendix B to Enclosure G provides reference illustrations for placing leader lines on JDPI graphics in different elevation scenarios for various types of facility targets.

(b) Text line 1 (JDPI Identifier): Use the assigned JDPI identifier for the JDPI (e.g., Z012ER).

1. The leader line termination point will be placed in accordance with the examples in Appendix B to Enclosure G.

2. Do not place JDPI call-out boxes on the graphic that do not have a corresponding JDPI detail box (see below).

(3) JDPI detail box (JDPI Legend): Using standards for call-out boxes, annotate JDPI detailed data points in separate boxes for each JDPI. JDPI detail boxes will be non-standard in size due to increased data points; however, all other attributes remain the same. All boxes will be uniform in size, when possible, and centered at the bottom of the graphic, just above the classification box.

(a) Analysts should order detail boxes based on the JDPI ID. Font size for the JDPI detail box may be reduced to allow for a maximum of six boxes to fit along the bottom of the graphic.

(b) JDPI detail boxes may be placed on the image in lieu of JDPI call-out boxes. Analysts should ensure no relevant features are obscured and the image is not cluttered when using this option.

(c) JDPI detail boxes will have a minimum of 9 lines and a maximum of 15 lines depending on the number of optional elevation and height measurements included. Analysts should include the fewest lines required to accurately portray the JDPI position in accordance with Appendix B to Enclosure G.

NOTE: Storage of Elevation and Accuracy Values – Current precision point mensuration systems collect elevation and accuracy values to three units of precision (0.000). If automated rounding procedures are employed, elevation and accuracy values may be displayed on the JDPI-G to the nearest tenth of a unit (0.0 FT or 0.0 M). Storage of these values to a precision of a hundredth (0.00) or thousandth (0.000) of a unit is acceptable. Manual rounding of elevation and accuracy values is not acceptable.

1. Text line 1 (JDPI Identifier): Use the assigned JDPI ID (e.g., Z012ER). If the JDPI descriptor, text line 2, will not fit on one line, it may be started on text line 1 with three spaces separating the JDPI identifier from the descriptor.

2. Text line 2 (JDPI Descriptor): Use the assigned JDPI name/descriptor (e.g., CEN BLDG).

3. Text line 3 (1st Geospatial Reference): Latitude and longitude with hemispheric designation (e.g., N, S, E or W) separated by 1-space in degrees, minutes, seconds-decimal-seconds (DDMMSS.SSSH DDDMMSS.SSSH). DD:MM:SS.SSSH DDD:MM:SS.SSSH is also acceptable when dictated by system requirements.

4. Text line 4 (2nd Geospatial Reference): Latitude and longitude with hemispheric designation (i.e., N, S, E or W) separated by 1-space in degrees, minutes-decimal-minutes (DDMM.MMMMH DDDMM.MMMMH). DD:MM.MMMMH DDD:MM.MMMMH is also acceptable.

5. Text line 5 (3rd Geospatial Reference): This line is optional. Military Grid Reference System (MGRS) is an alphanumeric system for expressing coordinates. When used, a ten digit coordinate is needed for targeting level precision. For example, 15SWC8081751205.

6. Text line 6 (1st Elevation Detail): The height above ellipsoid (HAE) elevation at the JDPI point. Label as "JDPI HAE:" with value displayed in feet (FT) (e.g., JDPI HAE: 24.1 FT).

7. Text line 7: The Mean Sea Level (MSL) elevation at the JDPI Point. Label as "JDPI MSL" with value displayed in feet (FT) (e.g., JDPI MSL: 22.8 FT).

8. Text line 8 (optional): Text line 8 will be a blank line to allow for visual separation between JDPI elevation and other elevations. This line is required when more than three of the following lines are used.

9. Text line 9 (2nd Elevation Detail, optional): HAE elevation at the feature top. Label as "TOP HAE:" with value displayed in feet (FT) (e.g., TOP HAE: 49.3 FT).

10. Text line 10 (optional): MSL elevation at the feature top. Label as "TOP MSL:" with value displayed in feet (FT) (e.g., TOP MSL: 47.9 FT).

11. Text line 11 (3rd Elevation Detail, optional): HAE elevation at the ground surface. Label as "GND HAE:" with value displayed in feet (FT) (e.g., GND HAE: 8.0 FT).

12. Text line 12 (optional): MSL elevation at the ground surface. Label as "GND MSL:" with value displayed in feet (FT) (e.g., GND MSL: 6.7FT).

13. Text line 13 (1st Height Description): The height of feature from the ground surface or base of feature to the upper surface position (see Appendix B to Enclosure G for examples). Label as "FEAT HGT:" with value displayed in feet (FT) (e.g., FEAT HGT: 41.2 FT). Use "N/A" as the value if the feature is a ground point with no associated height.

14. Text line 14 (2nd Height Description): The height of JDPI above ground level measured at the JDPI coordinate position. Label as "JDPI AGL:" with value displayed in feet (FT) (e.g., JDPI AGL: 16.0 FT).

15. Text line 15 (Horizontal and Vertical Accuracies): The method used to derive elevation and coordinates may precede the Circular and Linear Error values. Derivation methods include Uncontrolled/Resection (UNCTRL), Controlled/Registration (CTRL), Multi-Image Georegistration (MIG) or Direct (DIR): Circular Error at 90% (CE90) and Linear Error at 90% (LE90) provided in feet (FT) (e.g., CE90: 99.1 FT / LE90: 97.7 FT).

(4) Multiple JDPI Graphics: In many cases, JDPI placed on a facility will be too widely spaced to depict them all on a single JDPI-G at the desired level of detail. IAW with paragraph (c) above, a multiple JDPI-G are also required to depict detail boxes for more than six JDPI on a single facility. When multiple JDPI graphics for a single facility are created as part of the same production effort, JDPI-G may be created IAW the following guidelines:

(a) Facility-level split: When multiple JDPI-G are created for one facility, JDPI on the same target element will appear on the same JDPI-G. Each JDPI-G should depict all the JDPI on one or more target elements (up to six JDPI total). JDPI on a single target element will not be split between JDPI-G except as described in paragraph 2 below.

(b) Element-level split: When multiple JDPI-G are required for one target element (i.e., more than six JDPI on one element), JDPI will be grouped by location on the target element. Each JDPI-G should depict all the JDPI on one or more sections of the element (up to six JDPI total). Example: A building with 10 total JDPI would have two JDPI-G, each depicting JDPI on one wing.

(c) Large numbers of JPDI on a single facility can create an organizational challenge for operational and tactical level targeteers, especially if JDPI have been created by multiple production centers. This situation may require targeteers to locate multiple JDPI-G from multiple storage locations in order to visualize and select JDPI. The optimal solution to this problem is to overlay MIDB-generated JDPI locations on an orthorectified image of the facility. When this is not a sufficient solution, or if more a more permanent product is desired, multiple JDPI-G may be organized into sets using the following guidelines:

1. JDPI Overview Graphic: a JDPI Overview Graphic provides a single reference that depicts JDPI locations from multiple JDPI-G.

a. The JDPI Overview Graphic format will be similar to the JDPI-G format described in paragraph (a) above, with the exceptions that line seven of the header box is not required and line six of the header may list the graphic creator if different than the mensuration analyst.

b. The JPDI Overview Graphic will include JDPI call out boxes as described in paragraph (b) above, but not JDPI detail boxes.

c. The coverage areas of each individual JDPI-G will be depicted by a rectangle IAW with the graphic partitioning procedure in paragraph 4.b of this enclosure.

2. JDPI-G modifications. Each JDPI-G in the set will be numbered and labeled IAW the graphic partitioning procedure in para 4.b of this enclosure.

b. Collateral Damage Estimation Graphic (CDE-G). The CDE-G visually depicts the output of a collateral damage estimate and assists engagement authorities in weighing risk against military necessity and in assessing proportionality within the framework of the military decision-making process. This manual addresses CDE pertaining to conventional munitions as delineated in reference aa.

NOTE: Organization automated systems of record not meeting joint standards may be used. These standards should be followed to the maximum extent possible within the systems.

(1) Facility outline: The facility outline used within the FO-G will be displayed to standard on the CDE-G.

(2) Installation outline: Optional. Annotation of the portion of the installation outline contained within the graphic frame is recommended when the CDE-G portrays target entities from multiple facilities or when the analyst judges that inclusion of the installation outline provides essential information for the collateral damage estimate. Examples: when the installation outline is used to differentiate collateral and additional damage or when the collateral hazard area is drawn from the installation boundary.

(3) JDPI call-out

(a) A JDPI call-out is required for any JDPI from which a collateral effects radius (CER) is measured and/or annotated. Annotate the target JDPI using established standards for TG call-out boxes and leader lines.

(b) JDPI call-out text line 1 (JDPI ID): Use the JDPI ID used on the JDPI graphic.

(4) Dual-use target element: Annotate dual-use target elements and collateral concerns using established standards for TG call-out boxes and leader lines (or a legend box, as required).

(a) Dual-use call-out text line 1 (Name): Name elements in accordance with the naming convention established within the CE-G section (6.a.2.c.2).

(b) Dual-use call-out text line 2 (Characterization): Characterize by functionality, structure type and square footage.

(5) Collateral Hazard Area (CHA): A CHA is required for facility target types. The CHA is based on the collateral effects radius (CER) and is meant to illustrate the geospatial relationship between the target and collateral objects. The CHA represents the largest collateral hazard distance for a given warhead, weapon or weapon class. This is based on predetermined and acceptable collateral damage thresholds established for each CDE level. When multiple JDPIs are shown on a single CDE-G, CHAs may be omitted if they do not contain/encompass any collateral concerns.

(a) Shape: The CHA is an area formed by measuring the CER used in the CDE call from the edge of a target facility boundary, a JDPI, or a set of JDPIs, or the edge of an engagement zone or artillery sheaf.

(b) Outline color: White (primary) or black to contrast.

(c) Outline weight: Solid, 2 point.

(d) Fill color: No fill.

(e) CHA call-out box: Using established standards for the TG call-out box and leader line, annotate the CER measured in feet or meters.

(6) Nearest Collateral Concern (NCC) call-out: Annotate the NCC using established standards for facility outlines, call-out boxes and leader lines. In most cases, there will be only one NCC; however, if more than one collateral concern is equidistant from the facility outline or JDPI, apply the same NCC standard for all.

(a) NCC call-out text line 1 (Name and Structure Type): Name collateral concern in accordance with the naming convention established for

collateral structure functionality in the CDE Level 5 Population Density Reference Table. General functionality descriptions may be used in cases where the formal naming convention is too long (e.g., Residential, Urban). "NCC:" followed by the applicable name and structure type (e.g., NCC: CTRL BLDG 01 (MSWB)). If the NCC is not a structure, then use the applicable naming/numbering conventions contained within this manual and omit the structure type (e.g., NCC: EAST NEIGHBORHOOD PARK 01).

(b) NCC call-out text line 2 (Geographic Reference): Annotate distance in feet or meters and cardinal direction from the facility outline, target element or JDPI.

(c) NCC call-out text line 3 (Element Area): Annotate the square footage of the affected structure.

(7) Collateral concern call-out: Using established standards for facility outlines, call-out boxes and leader lines, annotate all collateral concerns (CC) within the annotated CER.

(a) Shape fill: White.

(b) CC call-out text line 1 (Name and Structure Type): Name collateral concerns in accordance with the naming convention established for collateral structure functionality in the CDE Level 5 Population Density Reference Table. General functionality descriptions may be used in cases where the formal naming convention is too long (e.g., Residential, Urban). "CC:" followed by the applicable name and structure type (e.g., CC: CTRL BLDG 01 (MSWB)). If the CC is not a structure, then use the applicable naming/numbering conventions contained within this manual and omit the structure type (e.g., CC: EAST NEIGHBORHOOD PARK 01).

(c) CC call-out text line 2 (Geographic Reference): Annotate distance in feet or meters and cardinal direction from the facility outline, target element or JDPI.

(d) CC call-out text line 3 (Element Area): Annotate the square footage of the affected structure.

(8) Weakest collateral concern (WCC) call-out: The NCC generally is used to drive collateral damage analysis. In most cases this approach is valid because collateral structures located in the vicinity of a target are similarly constructed. However, there will be instances when construction types vary and the weakest structure type is used to determine the CER. Using

established standards for facility outlines, call-out boxes and leader lines, annotate the WCC.

(a) Shape fill: The standard for a call-out box is white.

(b) WCC call-out text line 1 (Name and Structure Type): Name collateral concerns in accordance with the naming convention established for collateral structure functionality in the CDE Level 5 Population Density Reference Table. General functionality descriptions may be used in cases where the formal naming convention is too long (e.g., Residential, Urban). "WCC:" followed by the applicable name and structure type (e.g., WCC: CTRL BLDG 01 (MSWB)). If the WCC is not a structure then use the applicable naming/numbering conventions contained within this manual and omit the structure type (e.g., WCC: EAST NEIGHBORHOOD PARK 01).

(c) WCC call-out text line 2 (Geographic Reference): Annotate distance in feet or meters and cardinal direction from the facility outline or JDPI.

(d) WCC call-out text line 3 (Element Area): Annotate the square footage of the affected structure.

(9) Collateral damage estimate (CDE) box: The CDE will be provided in accordance with reference aa.

(a) Location: Flush to the bottom of the graphic and to the right edge of the classification box (lower).

(b) Shape: Rectangle where width is equal to the width between the rightmost edge of the classification box (lower) and the rightmost edge of the graphic and height is no greater than the classification box (lower) height.

(c) Outline color: Black.

(d) Outline weight: Solid, 2 point.

(e) Fill color: White.

(f) Text font size: 14, Bold for the CDE level; 10 for all other text.

(g) Annotations: All annotations will follow in succession, as applicable, separated by a comma.

1. Data point 1 (Use): Use one of the following three: DUAL-USE, NOT DUAL-USE or DUAL-USE AND NOT DUAL-USE followed by a colon.

a. If both dual-use and not dual-use estimates are done on the same CDE-G, the following will be added after the last data point: "TARGET ENGAGEMENT AUTHORITY IS RESPONSIBLE FOR DUAL-USE DETERMINATION OF TARGET."

b. It is not recommended to provide both dual-use and not dual-use estimates on the same graphic. Dual-use determination is made within CDE level-1 analysis. Elements may be either CC or AD based on the analysis and engagement options.

2. Data point 2 (CDE Level): CDE 1-5 with additional notation of LOW or HIGH, as applicable (e.g., CDE 2 LOW).

3. Data point 3 (Weapon Class, Weaponeering and Heading Restrictions): This field is mandatory and will be in accordance with reference aa. Separate multiple annotations with a comma.

4. Data point 4 (Casualty Estimate): This field is mandatory for CDE Level 5 in accordance with reference aa. Precede the estimate numbers with "CE:" and include day and night estimates separated by a backslash (e.g., CE: 4 DAY / 5 NIGHT).

(h) Additional Annotations:

1. Law of War (LOW) category I elements: Call out databased LOW CAT I entities on a CDE-G by BE number or O-Suffix, if part of the targeted installation.

2. Weapons of Mass Destruction (WMD)/Chemical, Biological, Radiological, Nuclear (CBRN) elements:

a. All WMD elements on a CDE-G that have a BE number will have the BE included in the call-out box.

b. If a facility containing WMD/CBRN, or other toxic materials that may create a plume hazard, is located within a CDE 3 CHA, when CDE Level 3 is performed as the final step due to inability to fuze the weapon, add the following additional call-out box (no leader line required) directly above the CDE box with "WARNING: HAZARDOUS RELEASE FROM FACILITY IS POSSIBLE. DTRA HAZARDOUS PLUME CASUALTY ESTIMATE IS REQUIRED."

c. If a facility containing WMD, or other toxic materials that may create a plume hazard, is located within a CDE 4 CHA, add the following additional call-out box (no leader line required) directly above the CDE box with "WARNING: TARGET IS SENSITIVE. HAZARDOUS RELEASE FROM FACILITY IS PROBABLE. DTRA HAZARDOUS PLUME CASUALTY ESTIMATE IS REQUIRED."

d. If a facility containing WMD or other toxic materials which may create a plume hazard is being engaged, add the following additional call-out box (no leader line required) directly below the original with "WARNING: TARGET IS SENSITIVE. THIS IS A FACILITY CONTAINING WMD OR OTHER TOXIC MATERIALS THAT MAY CREATE A PLUME HAZARD. [INSERT APPROVER PER ROE] APPROVAL REQUIRED. DTRA HAZARDOUS PLUME CASUALTY ESTIMATE IS REQUIRED."

9. Target Graphics (TG) Standards for Facility Target Type Supplemental Graphics

a. The following are considered supplemental graphics that may be produced to meet operational requirements.

(1) Installation Outline Graphic (IO-G). The purpose of an installation outline is to geospatially define functionally related targets within one outline. The IO-G geospatially distinguishes the boundary of the installation from the immediate surrounding terrain. The IO-G is a supplemental graphic and may be requested when the target is one of two or more facilities / targets within the same installation. If an IO-G is not requested an installation outline should still be created when producing facility and CE outlines.

(a) Shape: The installation boundary outline includes all areas bounded by the line as well as anything residing inside the line. For this reason, the boundary outline serves as the demarcation and is part of the installation boundary. If a wall or fence is the physical demarcation of the installation and was built as part of or is maintained by the installation, then the installation outline will be directly adjacent to the outside of that boundary. A single installation boundary can consist of two separate polygons when there are non-contiguous sections of the installation.

1. If the installation borders a body of water or public road, the installation outline will be directly over the inside edge of these features. Draw the outline tightly around the installation in order to negate as many collateral objects as possible. If obliqueness of the image is such that a building or structure obscures a facility or installation boundary, treat the outline as if it

continues on the ground in that the line will seem to end at the edge of the feature and will continue on the other side of the feature.

2. The installation boundary outline must encompass all facilities above and below terrain level. When an installation outline traces an underground facility, do not change the outline color or weight. The underground aspect will be delineated by the facility outline dashed line.

3. When an installation boundary outline and facility boundary outline overlap, the installation outline will take precedence and be visible over the facility outline.

4. When developing the installation outline, if the analyst discovers there are separate BE's that fall within said installation outline, every effort should be made to either change the outline to exclude the other BE or consolidate it into the primary BE.

(b) Outline color: Yellow. The installation outline must be distinguishable from the facility outline.

(c) Outline weight: 3 point.

(d) Fill color: No fill.

(e) Facility call-out: Optional. Using standards for facility outlines, call-out boxes and leader lines, annotate all facilities by name and BE/O-suffix. Leader lines will terminate on the facility outline. A separate FB-G may also be produced in accordance with paragraph 6.a.(1).(a).

(f) AOI map inset: Optional.

(g) Annotations: Header box text line 1 (Name and Country Code) must use the same installation name that has been used within MIDB. Text line 4 will include the BE, O-suffix, and CATCODE associated with the MIDB installation record.

(h) Legend box: Situational. A legend box is required when facility outlines are included.

(2) Collocated Facility Graphic (CF-G). The CF-G is an imagery product to aid in orientation and location of the target in relationship to other installations / facilities and no-strike entities. The installation or facility outline is required on the CF-G with the respective name in the header box. Collocated facilities in the vicinity of the primary target facility that may not fall

under the same installation record and may support or defend the primary target. To aid in orientation and increase situational awareness, the CF-G may include any installation/facility with a BE number/O-suffix that would fall in or near the CER used for the CDE-G.

(a) Collocated Facility (CF) Outline.

1. Shape: Annotate CF outlines as close to walls and corners as possible.

2. Outline color: White is the standard but may be changed to black only if white does not provide enough contrast with the background of the graphic.

3. Outline weight: 2 point. All outlines containing at or above the ground facilities / installations will use solid lines, and outlines containing below the ground facilities / installations will use a dashed line.

4. Fill color: No fill

(b) Collocated facility call-out: Using standards for call-out boxes and lines, annotate all CF by name and BE/O-suffix.

(3) Orientation View Graphic (OV-G). The OV-G is an imagery product to aid in orientation and location of the target in relationship to the surrounding terrain. The view should be at least 3km (1.62NM) around the target area. The scale and selection of the OV-G is to be used operationally. There is no date of imagery restriction, but it is preferred to use imagery less than 12 months old. Other objects of interest such as collocated facilities and no-strike entities can be displayed as a visual aid. Display of prominent terrain features helps the user correlate the imagery with a chart. Small targets such as bridges may require less coverage of the surrounding terrain than that of large targets. The installation or facility outline is required on the OV-G with the respective name in the header box. The OV-G is not essential to target development or the target validation process, but it may be very important to the weaponeering process when using standoff munitions.

(4) Physical Vulnerability Assessment Graphic (PVA-G). DIA and CENTCOM produce PVA-Gs to support weaponeering and defeat analysis of hardened structures. These graphics are designed to provide operational planners with recommendations that either bound the penetration problem for bunker attacks or provide baseline aimpoints and weapon impact conditions or effects for tunnel targeting. DIA maintains the standards for PVA-G production.

(5) Reverse Plot Graphic (RP-G). The RP-G is used to provide the requestor with a visual representation of where coordinates plot on current imagery. This is primarily for use in dynamic targeting, and there are no BE number or databasing requirements for the RP-G.

10. Target Graphics (TG) Standards for Battle Damage Assessment (BDA) of Facility Target Types. The purpose of a BDA graphic is to visually depict the damage to a facility target resulting from joint force engagement of that target. The BDA graphic will display both pre- and post- strike imagery of the target entity with appropriate annotations of aimpoints and destruction to those aimpoints. BDA graphics may be presented as either side-by-side pre- and post-strike images or as a single post-strike image with a pre-strike inset. A step in facility analysis, installation and facility characterization and delineation analysts create facility and installation outlines in the format of objects (polygons) with the metadata fields that correspond to the basic, intermediate and advanced target development standards described in this instruction. These objects require post-strike editing to reflect physical damage. The following BDA graphics standards should be followed in OBP system graphic generators.

a. Annotations: All BDA graphics will contain header and footer boxes.

(1) Header Box.

(a) Text line 1 (Name and Country Code) must use the same facility name and country code associated with the MIDB record. A comma with one space and the associated country code will follow the name.

(b) Text line 2 will depict BDA phase (i.e., BDA PHASE 1 BATTLE DAMAGE ASSESSMENT GRAPHIC).

(c) Text line 4 will include the BE, O-suffix and category code, associated with the MIDB record.

(d) Text line 5 will identify the target facility's geocoordinates.

(e) Text line 6 will include the ICOD DOI.

(f) Text line 7 will indicate the image identification number.

(g) Text line 8 will identify analyst responsible for annotating the graphic (using appropriate analyst and quality controller identifiers).

(2) Footer Box. All BDA graphics will contain a free text box, oriented immediately to the right of the lower graphic classification box and running the remaining length of the image, identifying pertinent strike information, to include date and time of engagement, weapons employed, BDA call, re-strike recommendations, and estimated reconstitution time.

b. Side-by-Side Graphics. Side-by-side graphics will contain two images partitioned uniformly, with the pre-strike graphic on to the left of the post-strike graphic.

(1) Both images will contain text boxes labeling the images, as appropriate, the image as "PRE-STRIKE DDMMMYYYY" or "POST-STRIKE DDMMMYYYY." The date shall be the date of the image.

(2) Both images shall include a north orientation arrow.

(3) The pre-strike image shall contain no other annotations other than JDPI call-out boxes, using standards for call-out boxes and leader lines.

(4) The post-strike image shall include call-out boxes identifying the JDPI and assessed physical damage with a confidence level. Inclusion of a functional assessment in the call-out box is optional.

c. Inset Graphics. Inset graphics shall contain the pre-strike image inset on the post-strike image. The inset shall be positioned at the top left-hand corner of the post-strike graphic unless doing so obscures the details of any post-strike damage. Should an upper left-hand corner inset obscure post-strike damage detail, the inset should be moved to an alternate, non-obstructive, location on the image.

(1) The pre-strike inset shall contain no annotations other than a text box labeling the image as "PRE-STRIKE DDMMMYYYY" and a north orientation arrow.

(2) The post-strike image shall follow the requirements for the side-by-side post-strike image. It shall contain a text box labeling the image as "POST-STRIKE DDMMMYYYY," a north orientation arrow, and call-out boxes identifying the JDPI and assessed physical damage with a confidence level. Inclusion of a functional assessment in the call-out box is optional.

11. Deviation from Standard. All TGs will meet requirements unless exceptional circumstances dictate deviation. Exceptional circumstances exist where the standard inhibits target validation or creates undo targeting risk acceptance by engagement authorities. Exceptional circumstances also apply

when an agreement has been reached between supported and supporting commands for a limited period of time (i.e., dynamic targeting or a specific operation or exercise).

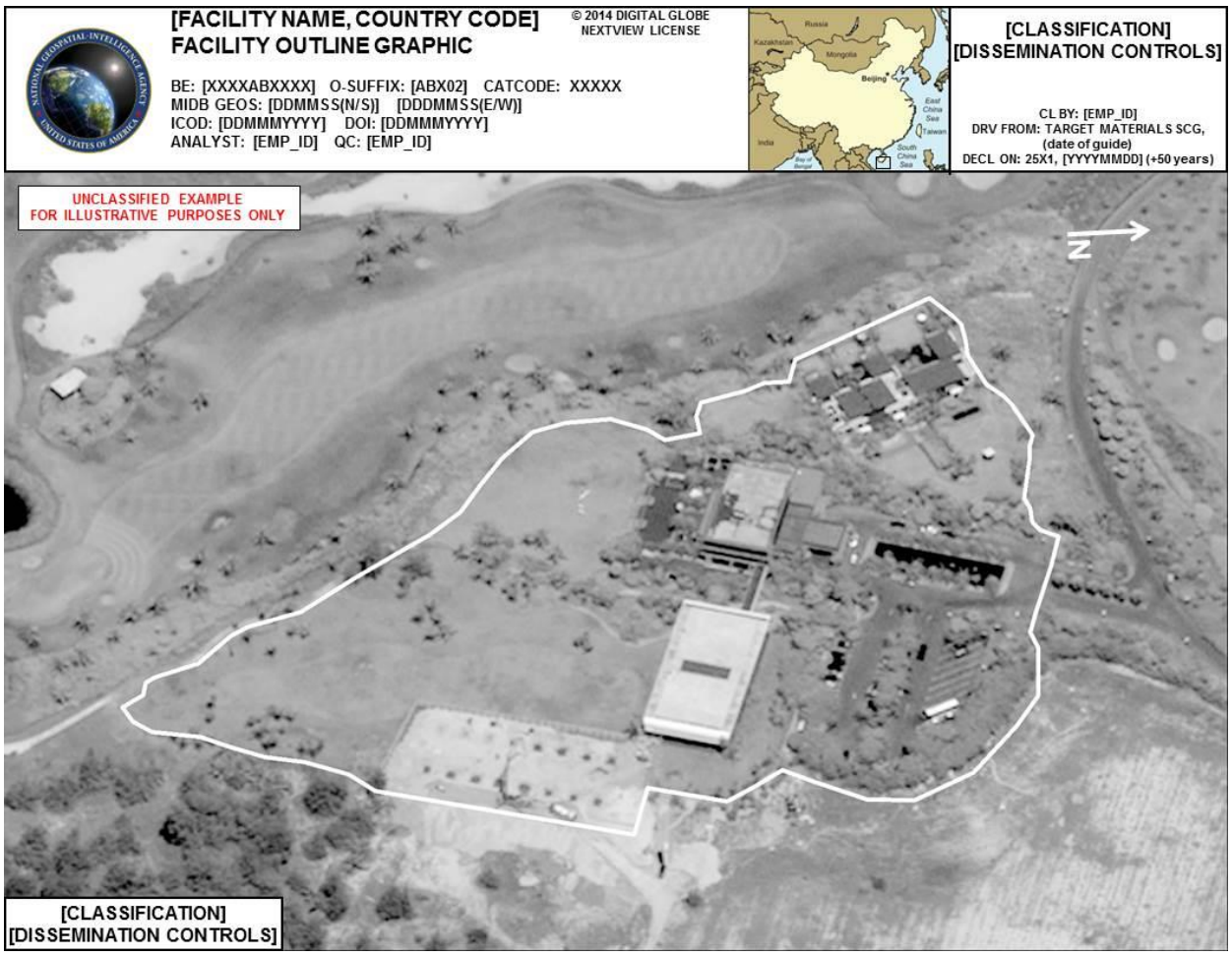
12. Magnification/Zoom Box. Magnification boxes will not be used on required TGs: FO-G, CE-G, JDPI-G, or CDE-G. In the case that they are used on supplemental target graphics, the magnification box will coincide with a corresponding box on the image with leader lines from two diagonal corners extending to their matches on the corresponding box.

13. Imagery Standards. Subject to operations tempo (OPTEMPO), imagery analysts should strive to produce TGs with panchromatic (visible spectrum), National Imagery Interpretability Rating Scale (NIIRS) 4.8 or higher and 0% obscurity of the target or CHA. The analyst should strive to keep the date of image as close to the date of production as possible without going over periodicity requirements. There is no requirement for elevation angle other than the elevation angle should serve to support the functionality of the graphic. Choose imagery with elevation angles, look azimuths and quality to maximize interpretability by the non-imagery analyst user.

APPENDIX A TO ENCLOSURE G

TARGET GRAPHIC EXAMPLES

All data reflected on example graphics is unclassified and for illustrative purposes only.

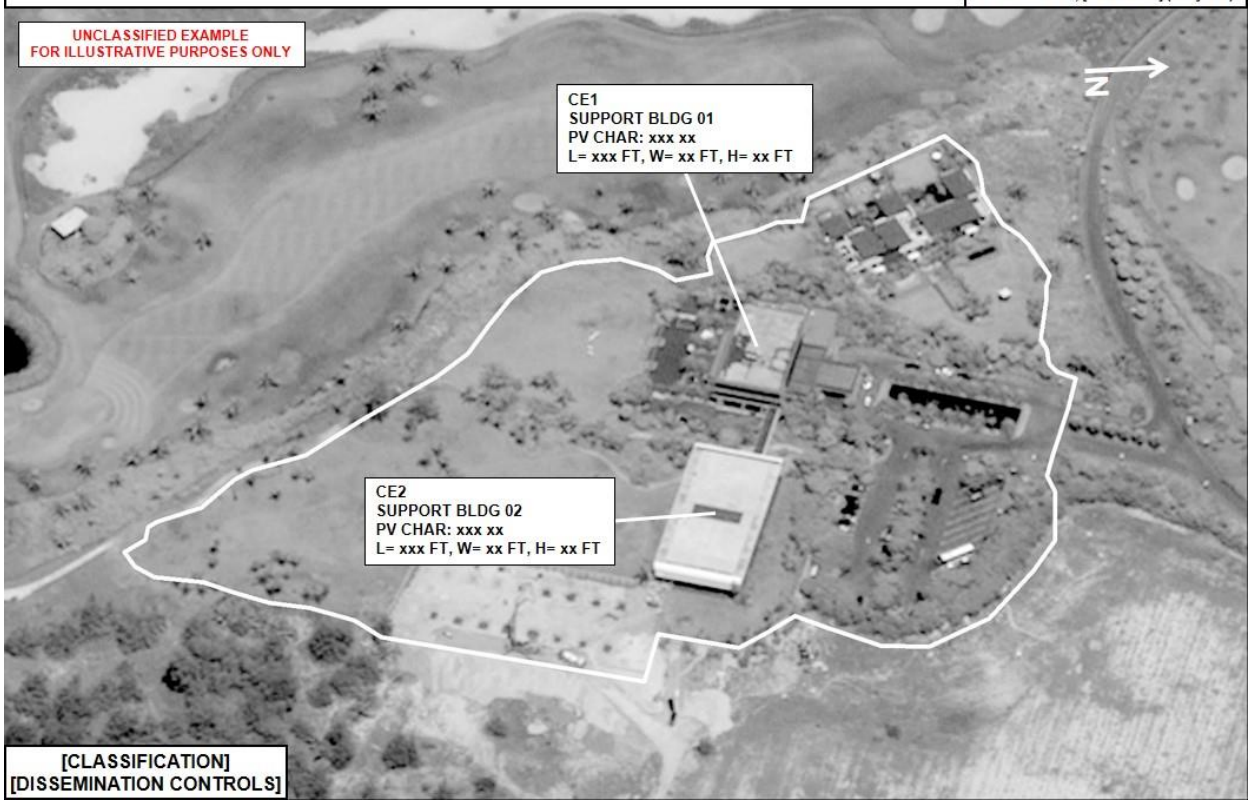


[FACILITY NAME, COUNTRY CODE]
CRITICAL ELEMENT GRAPHIC

BE: [XXXXABXXXX] O-SUFFIX: [ABX02] CATCODE: XXXXX
MIDB GEOS: [DDMMSS(N/S)] [DDDMMSS(E/W)]
ICOD: [DDMMMYYYY] DOI: [DDMMMYYYY]
ANALYST: [EMP_ID] QC: [EMP_ID]

[CLASSIFICATION]
[DISSEMINATION CONTROLS]

CL BY: [EMP_ID]
DRV FROM: TARGET MATERIALS SCG, (date of guide)
DECL ON: 25X1, [YYYYMMDD] (+50 years)

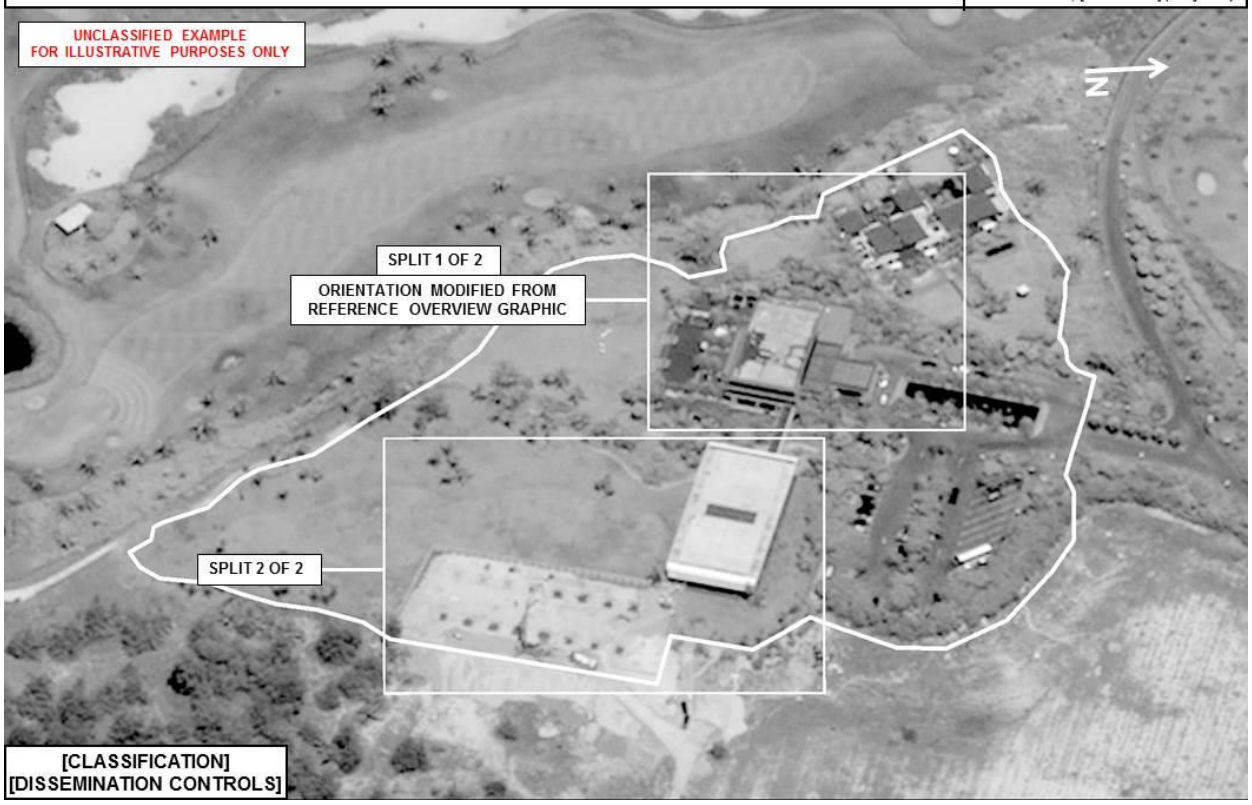


[FACILITY NAME, COUNTRY CODE]
CRITICAL ELEMENT GRAPHIC SPLIT REFERENCE OVERVIEW

BE: [XXXXABXXXX] O-SUFFIX: [ABX02] CATCODE: XXXXX
MIDB GEOS: [DDMMSS(N/S)] [DDDMMSS(E/W)]
ICOD: [DDMMMYYYY] DOI: [DDMMMYYYY]
ANALYST: [EMP_ID] QC: [EMP_ID]

[CLASSIFICATION]
[DISSEMINATION CONTROLS]

CL BY: [EMP_ID]
DRV FROM: TARGET MATERIALS SCG, (date of guide)
DECL ON: 25X1, [YYYYMMDD] (+50 years)



[FACILITY NAME, COUNTRY CODE]
CRITICAL ELEMENT GRAPHIC SPLIT 1 OF 2

BE: [XXXXABXXXX] O-SUFFIX: [ABX02] CATCODE: XXXXX
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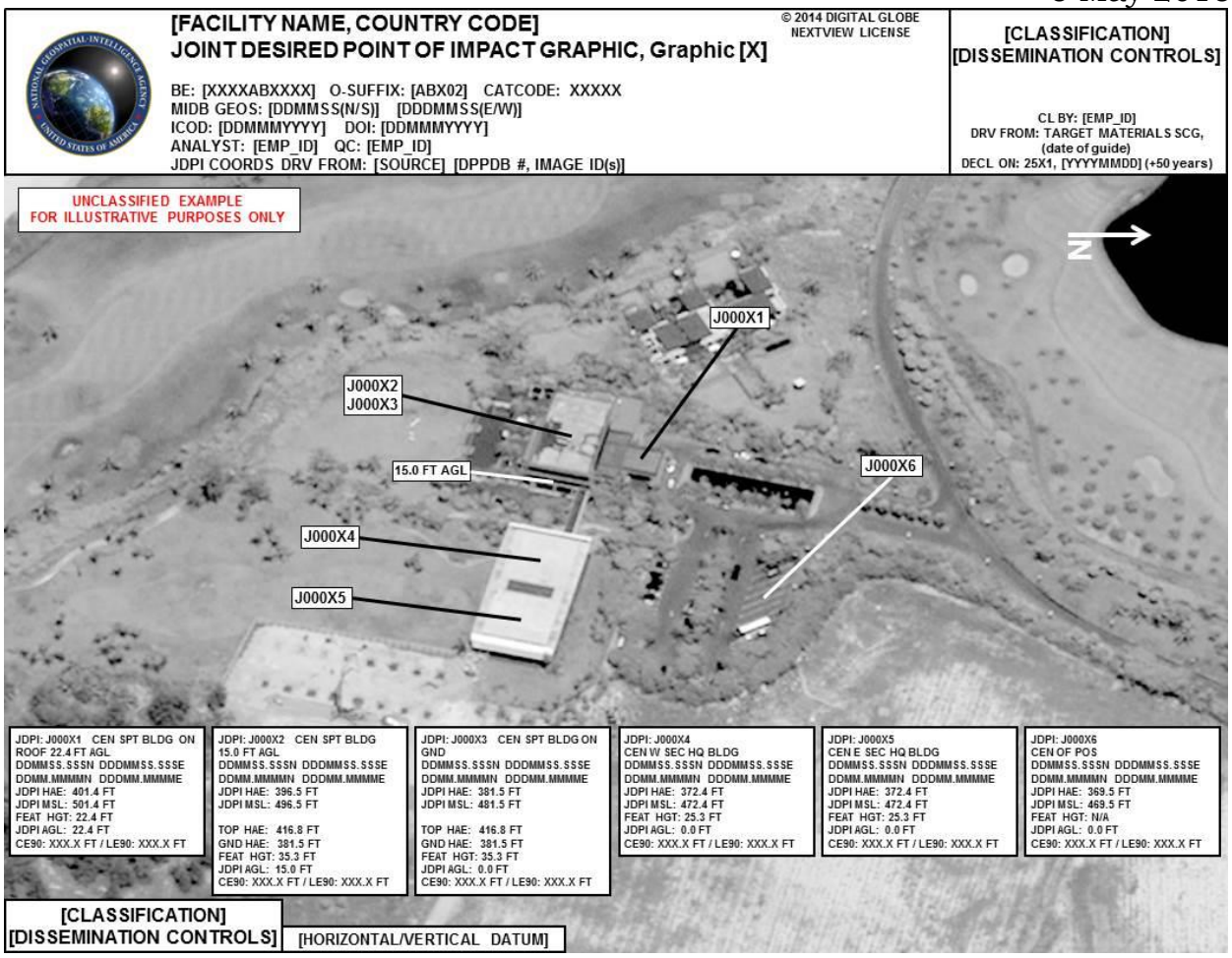
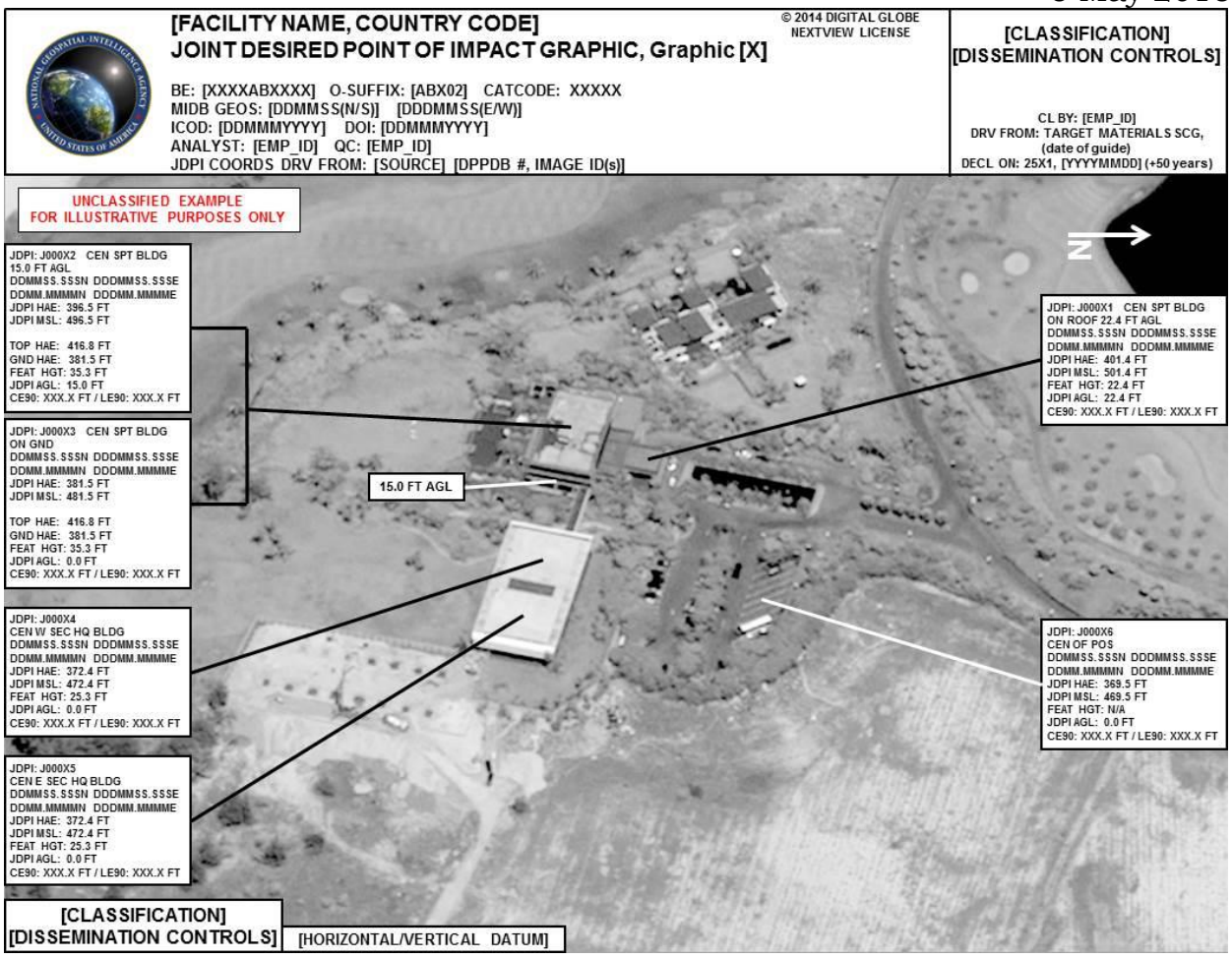
ICOD: [DDMMMYYYY] DOI: [DDMMMYYYY]
ANALYST: [EMP_ID] QC: [EMP_ID]

[CLASSIFICATION]
[DISSEMINATION CONTROLS]

CL BY: [EMP_ID]
DRV FROM: TARGET MATERIALS SCG, (date of guide)
DECL ON: 25X1, [YYYYMMDD] (+50 years)


[FACILITY NAME, COUNTRY CODE]
JOINT DESIRED POINT OF IMPACT GRAPHIC, Graphic [X]
© 2014 DIGITAL GLOBE
NEXTVIEW LICENSE
BE: [XXXXABXXXX] O-SUFFIX: [ABX02] CATCODE: XXXXX
MIDB GEOS: [DDMMSS(N/S)] [DDDMMSS(E/W)]
ICOD: [DDMMMYYYY] DOI: [DDMMMYYYY]
ANALYST: [EMP_ID] QC: [EMP_ID]
JDPI COORDS DRV FROM: [SOURCE] [DPPDB #, IMAGE ID(s)]
[CLASSIFICATION]
[DISSEMINATION CONTROLS]
CL BY: [EMP_ID]
DRV FROM: TARGET MATERIALS SCG, (date of guide)
DECL ON: 25X1, [YYYYMMDD] (+50 years)
UNCLASSIFIED EXAMPLE
FOR ILLUSTRATIVE PURPOSES ONLY
N
J000X1
J000X2
J000X3
15.0 FT AGL
J000X6
J000X4
J000X5
JDPI: J000X1 CEN SPT BLDG ON ROOF 22.4 FT AGL
DDMMSS.SSSN DDDMMSS.SSSE
DDMM.MMMMN DDDMM.MMMME
JDPI HAE: 401.4 FT
JDPI MSL: 501.4 FT
FEAT HGT: 22.4 FT
JDPI AGL: 22.4 FT
CE90: XXX.X FT / LE90: XXX.X FT
JDPI: J000X2 CEN SPT BLDG
15.0 FT AGL
DDMMSS.SSSN DDDMMSS.SSSE
DDMM.MMMMN DDDMM.MMMME
JDPI HAE: 396.5 FT
JDPI MSL: 496.5 FT
TOP HAE: 416.8 FT
GND HAE: 381.5 FT
FEAT HGT: 35.3 FT
JDPI AGL: 15.0 FT
CE90: XXX.X FT / LE90: XXX.X FT
JDPI: J000X3 CEN SPT BLDG ON GND
DDMMSS.SSSN DDDMMSS.SSSE
DDMM.MMMMN DDDMM.MMMME
JDPI HAE: 381.5 FT
JDPI MSL: 481.5 FT
TOP HAE: 416.8 FT
GND HAE: 381.5 FT
FEAT HGT: 35.3 FT
JDPI AGL: 0.0 FT
CE90: XXX.X FT / LE90: XXX.X FT
JDPI: J000X4
CEN W SEC HQ BLDG
DDMMSS.SSSN DDDMMSS.SSSE
DDMM.MMMMN DDDMM.MMMME
JDPI HAE: 372.4 FT
JDPI MSL: 472.4 FT
FEAT HGT: 25.3 FT
JDPI AGL: 0.0 FT
CE90: XXX.X FT / LE90: XXX.X FT
JDPI: J000X5
CEN E SEC HQ BLDG
DDMMSS.SSSN DDDMMSS.SSSE
DDMM.MMMMN DDDMM.MMMME
JDPI HAE: 372.4 FT
JDPI MSL: 472.4 FT
FEAT HGT: 25.3 FT
JDPI AGL: 0.0 FT
CE90: XXX.X FT / LE90: XXX.X FT
JDPI: J000X6
CEN OF POS
DDMMSS.SSSN DDDMMSS.SSSE
DDMM.MMMMN DDDMM.MMMME
JDPI HAE: 369.5 FT
JDPI MSL: 469.5 FT
FEAT HGT: N/A
JDPI AGL: 0.0 FT
CE90: XXX.X FT / LE90: XXX.X FT
[CLASSIFICATION]
[DISSEMINATION CONTROLS]
[HORIZONTAL/VERTICAL DATUM]

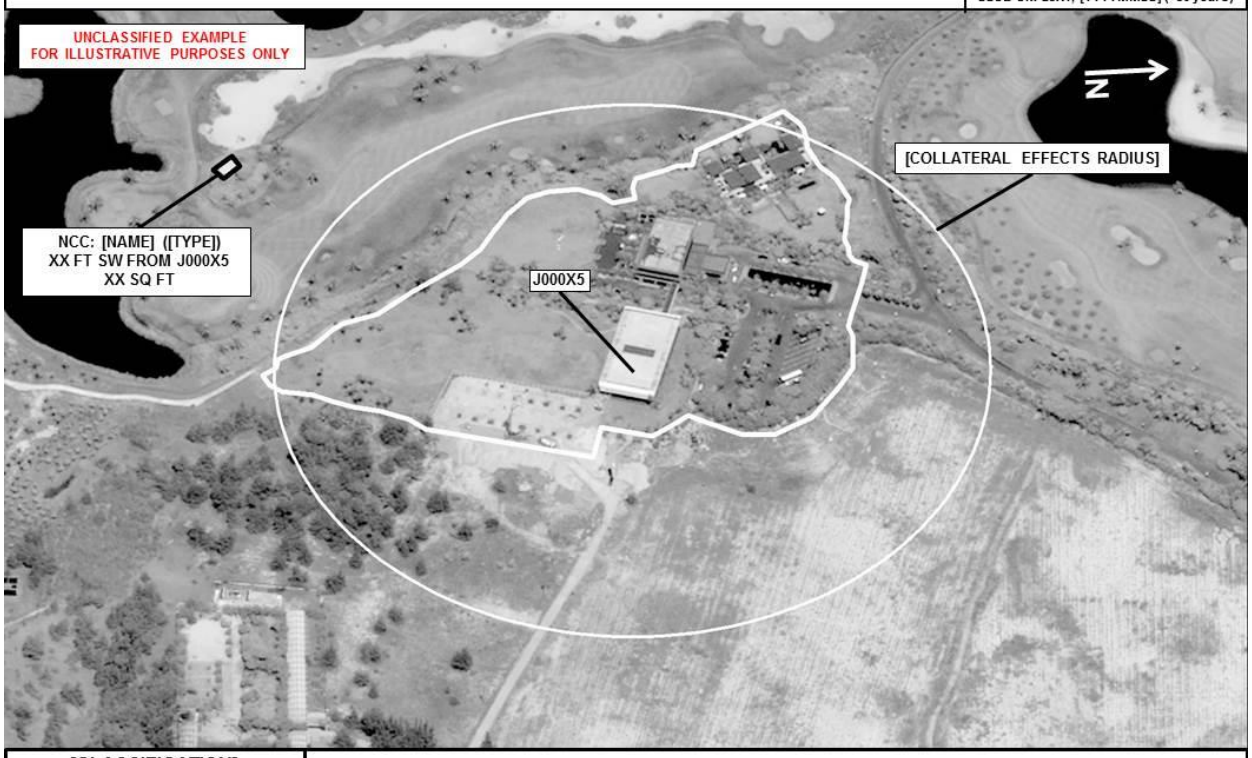

[FACILITY NAME, COUNTRY CODE]
JOINT DESIRED POINT OF IMPACT GRAPHIC, Graphic [X]
© 2014 DIGITAL GLOBE
NEXTVIEW LICENSE
BE: [XXXXABXXXX] O-SUFFIX: [ABX02] CATCODE: XXXXX
MIDB GEOS: [DDMMSS(N/S)] [DDDMMSS(E/W)]
ICOD: [DDMMMYYYY] DOI: [DDMMMYYYY]
ANALYST: [EMP_ID] QC: [EMP_ID]
JDPI COORDS DRV FROM: [SOURCE] [DPPDB #, IMAGE ID(s)]
[CLASSIFICATION]
[DISSEMINATION CONTROLS]
CL BY: [EMP_ID]
DRV FROM: TARGET MATERIALS SCG, (date of guide)
DECL ON: 25X1, [YYYYMMDD] (+50 years)
UNCLASSIFIED EXAMPLE
FOR ILLUSTRATIVE PURPOSES ONLY
N
JDPI: J000X2 CEN SPT BLDG
15.0 FT AGL
DDMMSS.SSSN DDDMMSS.SSSE
DDMM.MMMMN DDDMM.MMMME
JDPI HAE: 396.5 FT
JDPI MSL: 496.5 FT
TOP HAE: 416.8 FT
GND HAE: 381.5 FT
FEAT HGT: 35.3 FT
JDPI AGL: 15.0 FT
CE90: XXX.X FT / LE90: XXX.X FT
JDPI: J000X3 CEN SPT BLDG
ON GND
DDMMSS.SSSN DDDMMSS.SSSE
DDMM.MMMMN DDDMM.MMMME
JDPI HAE: 381.5 FT
JDPI MSL: 481.5 FT
TOP HAE: 416.8 FT
GND HAE: 381.5 FT
FEAT HGT: 35.3 FT
JDPI AGL: 0.0 FT
CE90: XXX.X FT / LE90: XXX.X FT
JDPI: J000X4
CEN W SEC HQ BLDG
DDMMSS.SSSN DDDMMSS.SSSE
DDMM.MMMMN DDDMM.MMMME
JDPI HAE: 372.4 FT
JDPI MSL: 472.4 FT
FEAT HGT: 25.3 FT
JDPI AGL: 0.0 FT
CE90: XXX.X FT / LE90: XXX.X FT
JDPI: J000X5
CEN E SEC HQ BLDG
DDMMSS.SSSN DDDMMSS.SSSE
DDMM.MMMMN DDDMM.MMMME
JDPI HAE: 372.4 FT
JDPI MSL: 472.4 FT
FEAT HGT: 25.3 FT
JDPI AGL: 0.0 FT
CE90: XXX.X FT / LE90: XXX.X FT
15.0 FT AGL
JDPI: J000X1 CEN SPT BLDG
ON ROOF 22.4 FT AGL
DDMMSS.SSSN DDDMMSS.SSSE
DDMM.MMMMN DDDMM.MMMME
JDPI HAE: 401.4 FT
JDPI MSL: 501.4 FT
FEAT HGT: 22.4 FT
JDPI AGL: 22.4 FT
CE90: XXX.X FT / LE90: XXX.X FT
JDPI: J000X6
CEN OF POS
DDMMSS.SSSN DDDMMSS.SSSE
DDMM.MMMMN DDDMM.MMMME
JDPI HAE: 369.5 FT
JDPI MSL: 469.5 FT
FEAT HGT: N/A
JDPI AGL: 0.0 FT
CE90: XXX.X FT / LE90: XXX.X FT
[CLASSIFICATION]
[DISSEMINATION CONTROLS]
[HORIZONTAL/VERTICAL DATUM]

[FACILITY NAME, COUNTRY CODE]
COLLATERAL DAMAGE ESTIMATION GRAPHIC

BE: [XXXXABXXXX] O-SUFFIX: [ABX02] CATCODE: XXXXX
MIDB GEOS: [DDMMSS(N/S)] [DDDMMSS(E/W)]
ICOD: [DDMMMYYYY] DOI: [DDMMMYYYY]
ANALYST: [EMP_ID] QC: [EMP_ID]

[CLASSIFICATION]
[DISSEMINATION CONTROLS]

CL BY: [EMP_ID]
DRV FROM: TARGET MATERIALS SCG, (date of guide)
DECL ON: 25X1, [YYYYMMDD] (+50 years)



[CLASSIFICATION]
[DISSEMINATION CONTROLS]

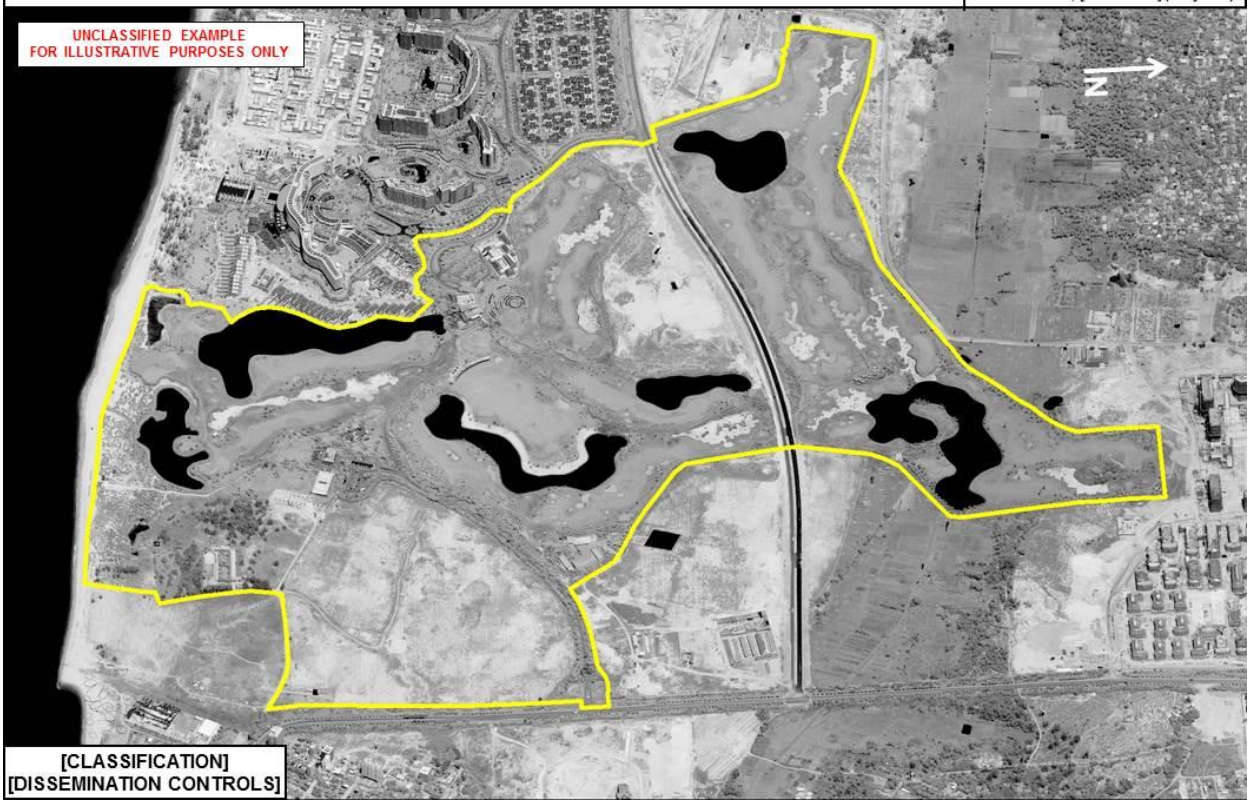
NOT DUAL-USE: **CDE 2 LOW**, PGM, UNITARY

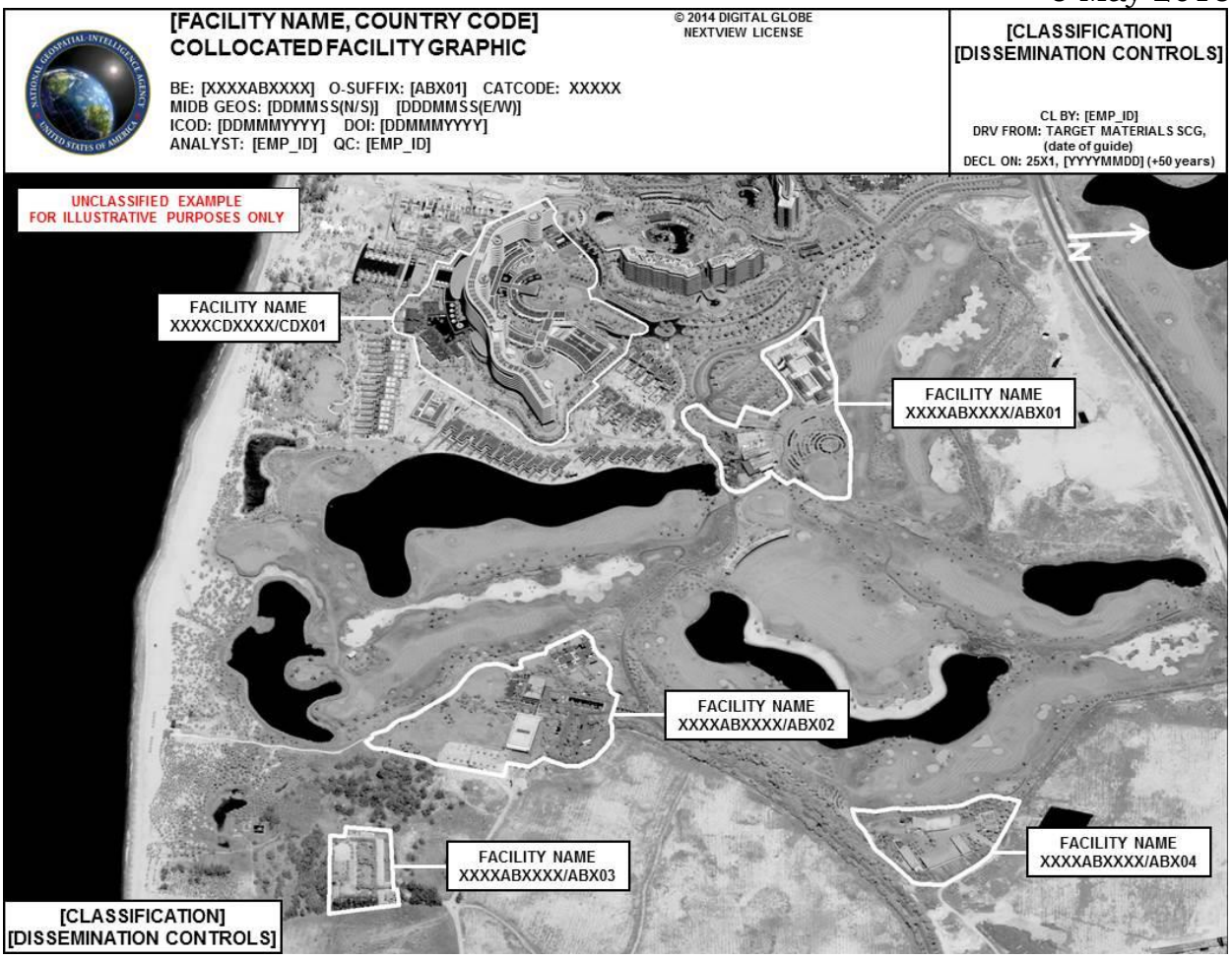
[INSTALLATION NAME, COUNTRY CODE]
INSTALLATION OUTLINE GRAPHIC

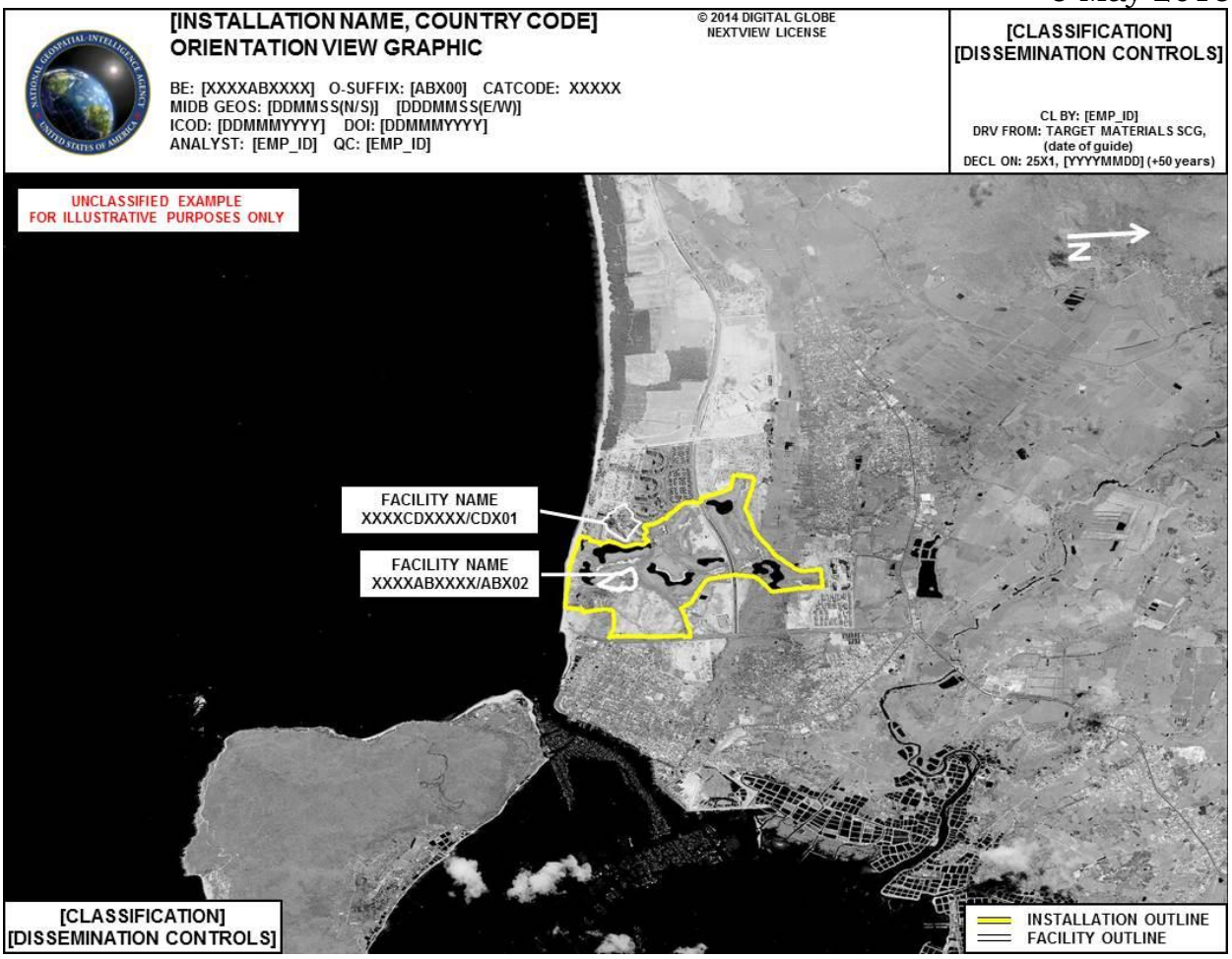
BE: [XXXXABXXXX] O-SUFFIX: [ABX00] CATCODE: XXXXX
MIDB GEOS: [DDMMSS(N/S)] [DDDMMSS(E/W)]
ICOD: [DDMMMYYYY] DOI: [DDMMMYYYY]
ANALYST: [EMP_ID] QC: [EMP_ID]

[CLASSIFICATION]
[DISSEMINATION CONTROLS]

CL BY: [EMP_ID]
DRV FROM: TARGET MATERIALS SCG,
(date of guide)
DECL ON: 25X1, [YYYYMMDD] (+50 years)




[FACILITY NAME, COUNTRY CODE]
COLLOCATED FACILITY GRAPHIC
© 2014 DIGITAL GLOBE
NEXTVIEW LICENSE
BE: [XXXXABXXXX] O-SUFFIX: [ABX01] CATCODE: XXXXX
MIDB GEOS: [DDMMSS(N/S)] [DDDMMSS(E/W)]
ICOD: [DDMMMYYYY] DOI: [DDMMMYYYY]
ANALYST: [EMP_ID] QC: [EMP_ID]
[CLASSIFICATION]
[DISSEMINATION CONTROLS]
CL BY: [EMP_ID]
DRV FROM: TARGET MATERIALS SCG, (date of guide)
DECL ON: 25X1, [YYYYMMDD] (+50 years)
UNCLASSIFIED EXAMPLE
FOR ILLUSTRATIVE PURPOSES ONLY
N
FACILITY NAME
XXXXCDXXXX/CDX01
FACILITY NAME
XXXXABXXXX/ABX01
FACILITY NAME
XXXXABXXXX/ABX02
FACILITY NAME
XXXXABXXXX/ABX03
FACILITY NAME
XXXXABXXXX/ABX04
[CLASSIFICATION]
[DISSEMINATION CONTROLS]


[INSTALLATION NAME, COUNTRY CODE]
ORIENTATION VIEW GRAPHIC
BE: [XXXXABXXXX] O-SUFFIX: [ABX00] CATCODE: XXXXX
MIDB GEOS: [DDMMSS(N/S)] [DDDMMSS(E/W)]
ICOD: [DDMMMYYYY] DOI: [DDMMMYYYY]
ANALYST: [EMP_ID] QC: [EMP_ID]
© 2014 DIGITAL GLOBE
NEXTVIEW LICENSE
[CLASSIFICATION]
[DISSEMINATION CONTROLS]
CL BY: [EMP_ID]
DRV FROM: TARGET MATERIALS SCG,
(date of guide)
DECL ON: 25X1, [YYYYMMDD] (+50 years)
UNCLASSIFIED EXAMPLE
FOR ILLUSTRATIVE PURPOSES ONLY
N
FACILITY NAME
XXXXCDXXXX/CDX01
FACILITY NAME
XXXXABXXXX/ABX02
[CLASSIFICATION]
[DISSEMINATION CONTROLS]
INSTALLATION OUTLINE
FACILITY OUTLINE


[FACILITY NAME, COUNTRY CODE]
BATTLE DAMAGE ASSESSMENT GRAPHIC
© 2015 DIGITAL GLOBE
NEXTVIEW LICENSE
BE: [XXXXEFXXXX] O-SUFFIX: [EFX01] CATCODE: XXXXX
GEOS: [DDMMSS(N/S)] [DDDMMSS(E/W)] MGRS: [XXXXXXXXXXXXXXX]
ICOD: [DDMMMYYYY] DOI: [DDMMMYYYY]
ANALYST: [EMP_ID] QC: [EMP_ID]
[CLASSIFICATION]
[DISSEMINATION]
CL BY: [EMP_ID]
DRV FROM: TARGET MATERIALS SCG,
(date of guide)
DECL ON: 25X1, [YYYYMMDD] (+50 years)
UNCLASSIFIED EXAMPLE
FOR ILLUSTRATIVE PURPOSES ONLY
POST-STRIKE
N
TARGET OBJECTIVE
DAMAGE/CHANGE ASSESSMENT
JDPI: [XXXXXX]
PRE-STRIKE
N
TARGET OBJECTIVE
[CLASSIFICATION] [DISSEMINATION]
DOI: [DDMMMYYYY]
CL BY: [EMP_ID]
DRV FROM: TARGET MATERIALS SCG,
(date of guide)
DECL ON: 25X1, [YYYYMMDD] (+50 years)
BDA REMARK: [CLASSIFICATION] [DISSEMINATION] Assessment
[CLASSIFICATION]
[DISSEMINATION]

(INTENTIONALLY BLANK)

APPENDIX B TO ENCLOSURE G

JOINT DESIRED POINT OF IMPACT (JDPI) REFERENCE ILLUSTRATIONS

NOTE: To enhance understanding of leader line placement, the following JDPI placement figures depict features at a high obliquity angle. This is for illustrative purposes only. Imagery for JDPI-G should be selected in accordance with para 11.a.

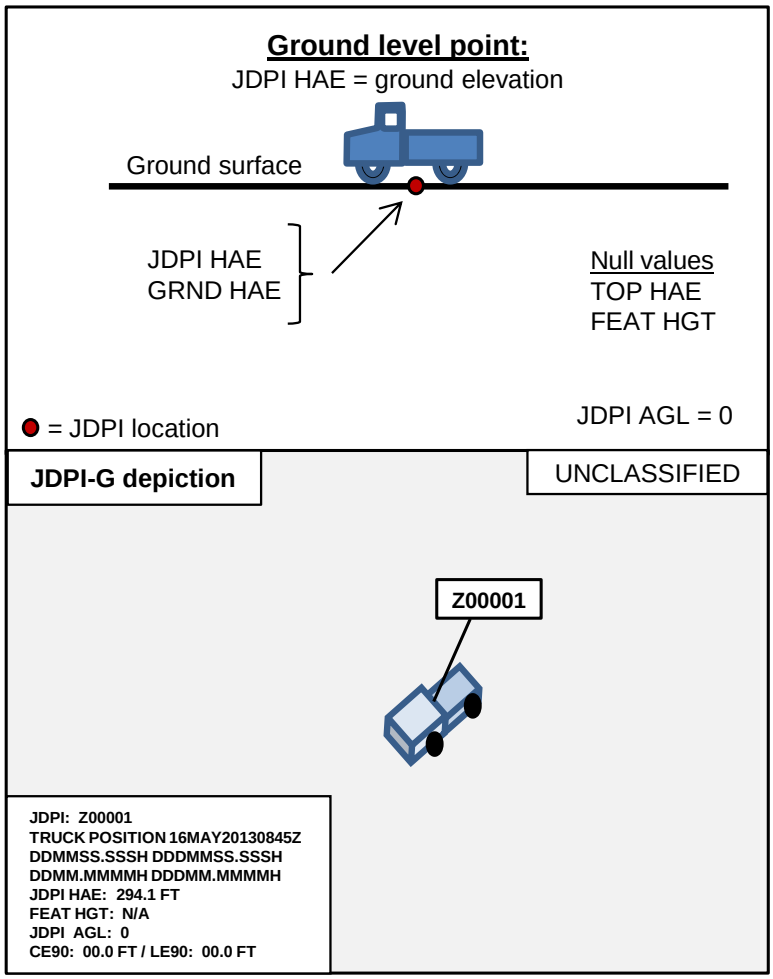


Figure 14. (U) Ground Level Point, JDPI on ground

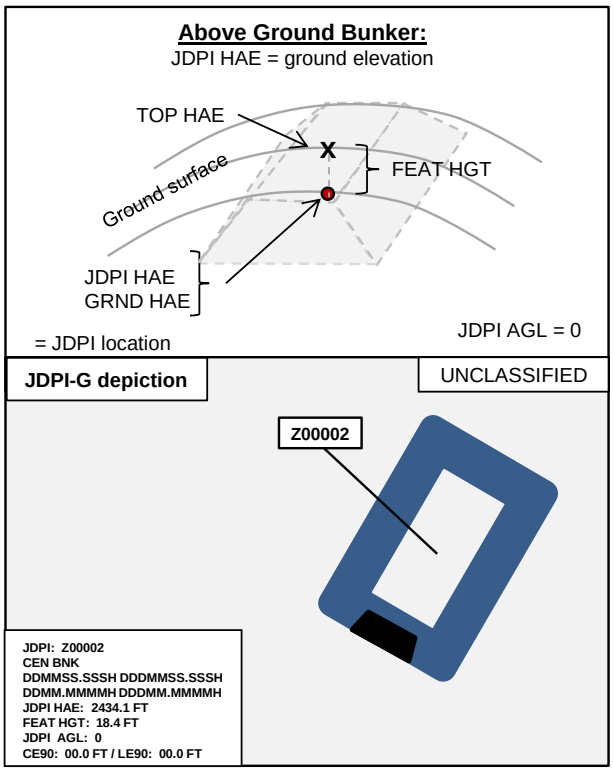


Figure 15. (U) Above Ground Bunker, JDPI on ground

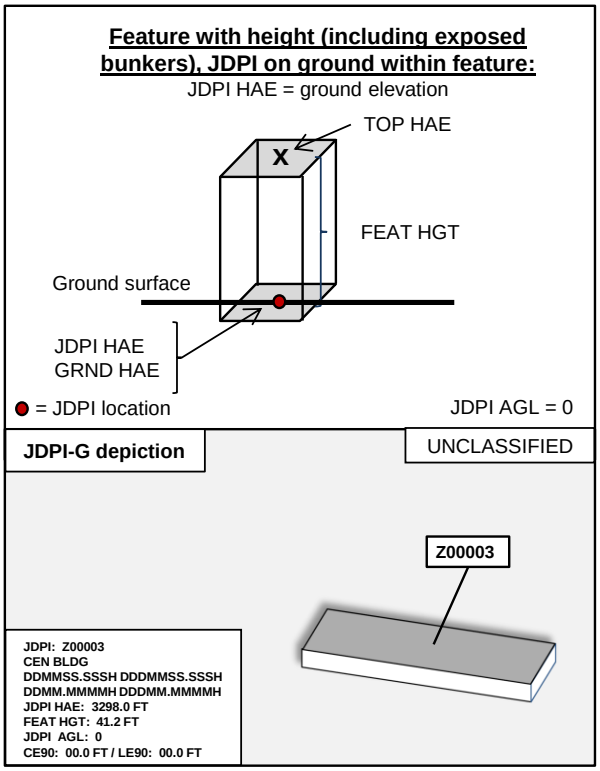


Figure 16. Feature with Height, JDPI inside feature on ground

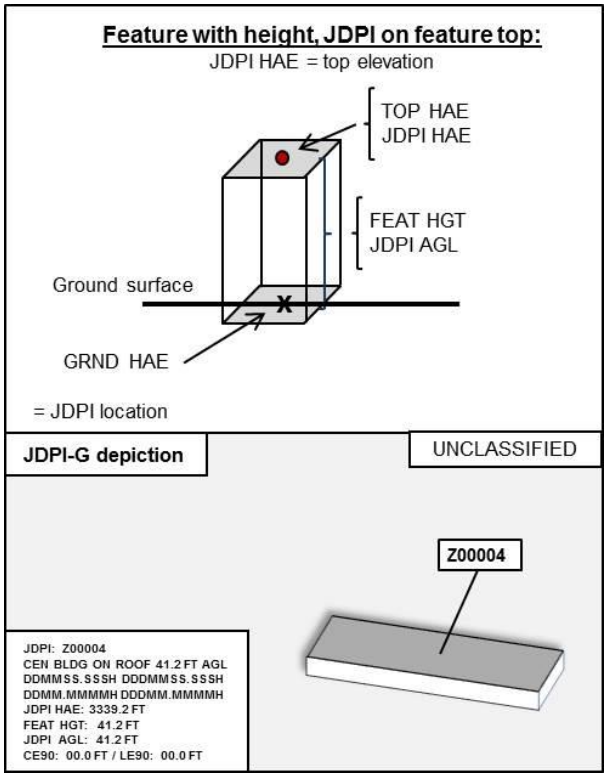


Figure 17. (U) Feature with height, JDPI on feature top

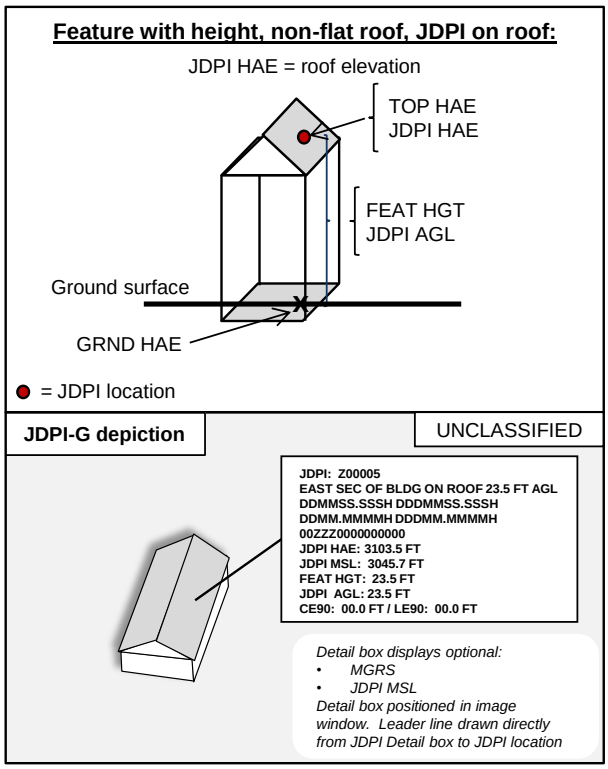


Figure 18. (U) Feature with height, JDPI on sloped roof

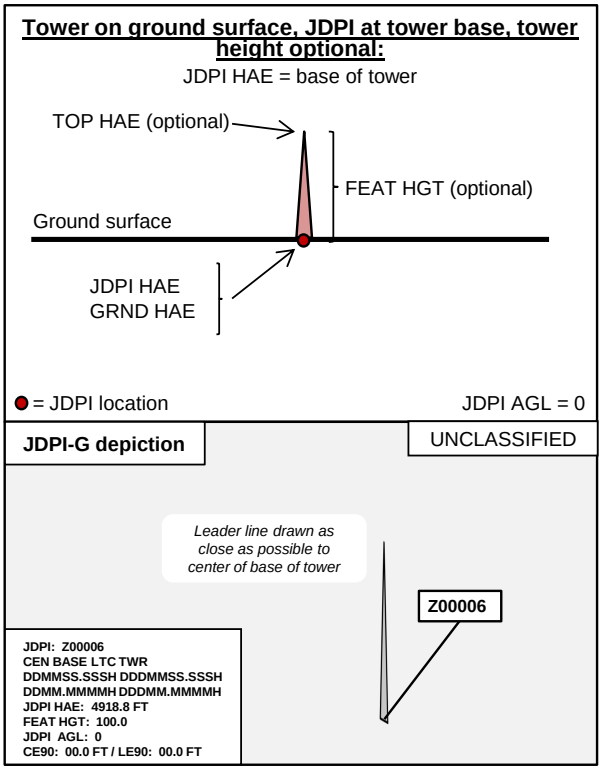


Figure 19. (U) Tower/radar, JDPI on ground

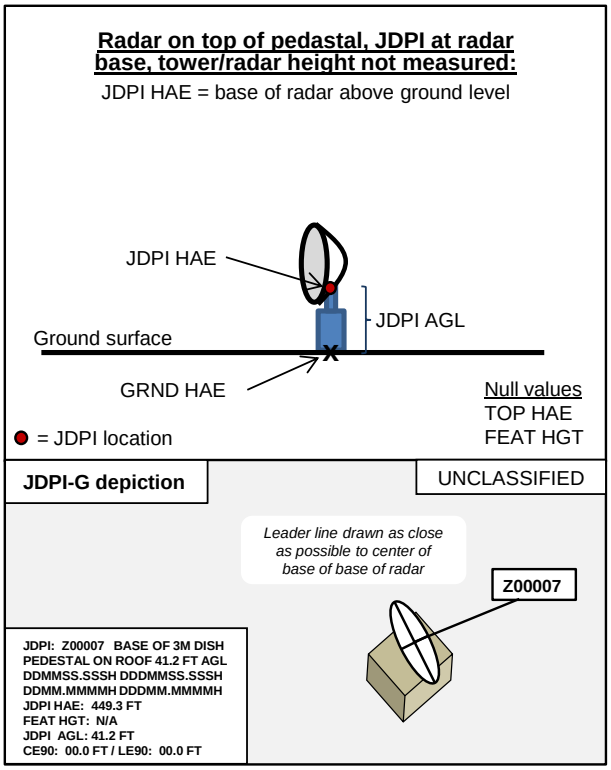


Figure 20. (U) Tower/radar on feature, JDPI on tower/radar base

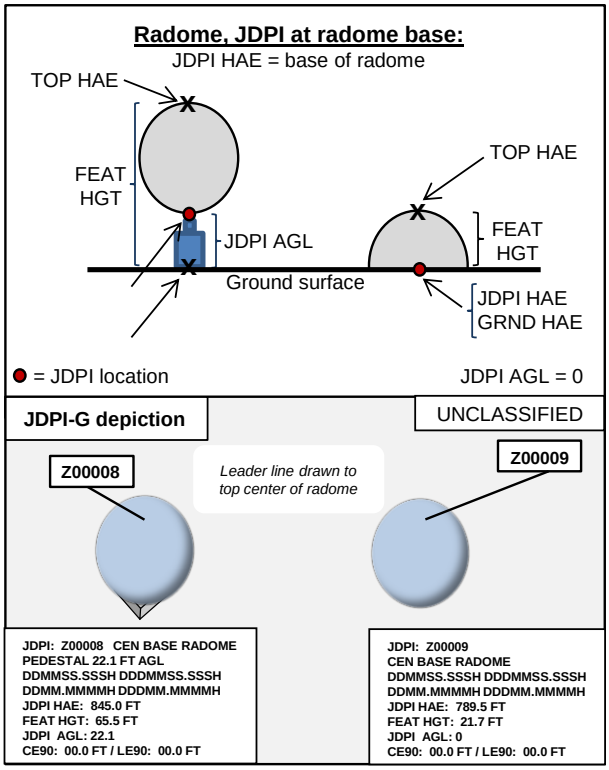


Figure 21. (U) Radome, JDPI on pedestal & JDPI on ground

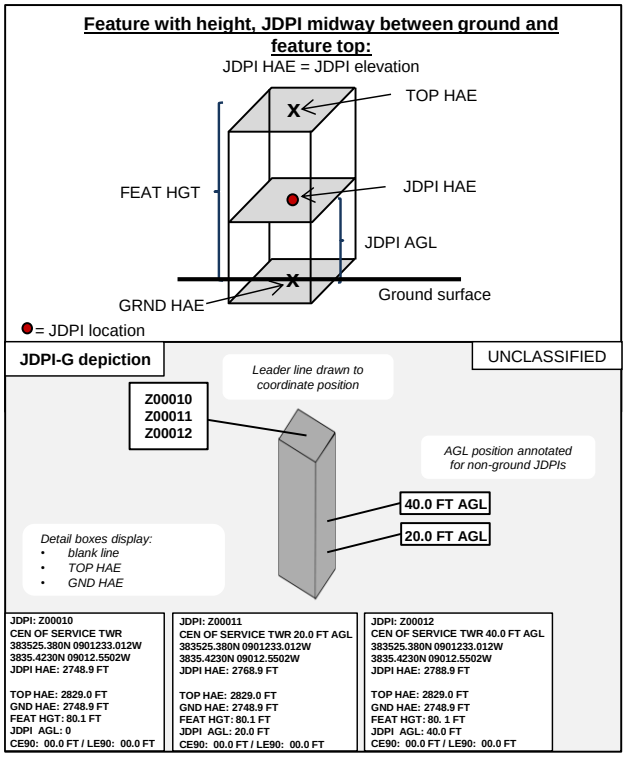


Figure 22. (U) Feature with height, multiple JDPIs within interior

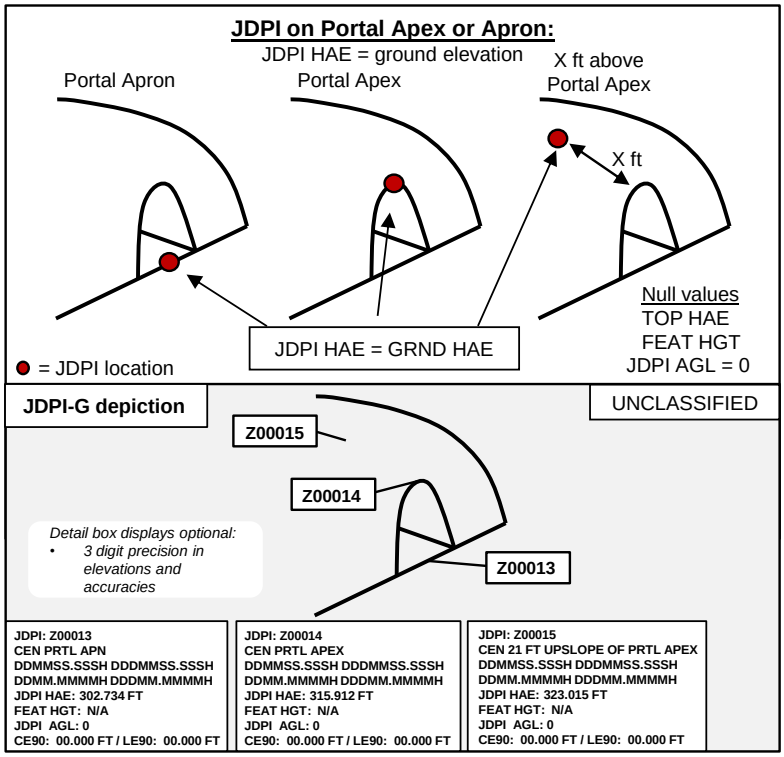


Figure 23. (U) Portal apex or apron, JDPI on ground

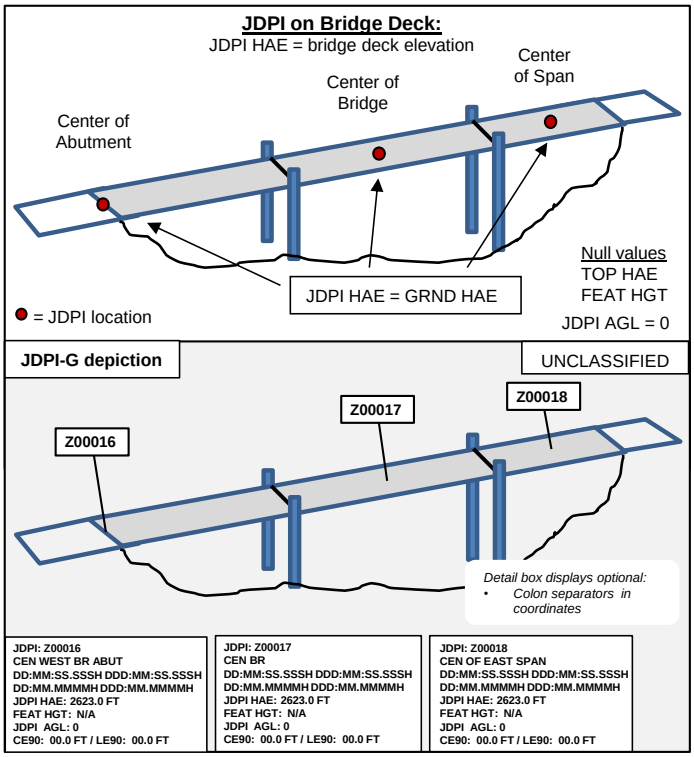


Figure 24. (U) Bridge deck, JDPI on ground

APPENDIX C TO ENCLOSURE G

TARGET GRAPHIC STORAGE AND DISSEMINATION

1. TG Storage and Dissemination.

a. TGs Storage. Producers will store TGs in an electronically searchable and retrievable national database and determine their own backup procedures and protocols.

(1) TG Naming. The standard for naming TGs is by using fields separated by an underscore ("_").

(2) Spaces and special characters (except "_" and "–") are not authorized in TG Names.

(3) Only use annotations as they are annotated in the TG header.

(4) The purpose of the naming convention is to facilitate categorization, sharing and discovery of TGs.

(a) Field 1: BE, EID or CTID equivalent. O-suffix and category code are not needed.

(b) Field 2: Graphic type

1. Abbreviations and acronyms should be used for standard and non-standard graphics alike (e.g., a facility outline graphic would be FO-G).

2. If you are saving a FO-G that has been split, use FO-G_SPLIT_OVERVIEW, FO-G_SPLIT_1_OF_5, etc.

(c) Field 3: ICOD as YYYYMMDD.

(d) Field 4: JDPI ID(s), used for JDPI-G only. JDPI ID(s) can separated by "-" or "_". Sequenced JDPI IDs can be abbreviated with the first JDPI ID and last JDPI ID separated with the word "thru" separating them. (ex. A12340_thru_A12346).

(e) Example file name: 1234AB5678_FO-G_20130101.ntf

b. TG Storage and Dissemination Format. The preferred TG storage and dissemination format is the National Imagery Transmission Format (NITF or .ntf file extension). However, any file formats can be made discoverable and retrievable with sufficient metadata or indexing.

c. Classification, Disclosure and Release Guidance for TGs.

(1) The minimum classification of TGs is confidential with an applicable releasability caveat, when necessary. In addition, the TGs classification is based on the highest classification required to protect the source materials used to produce the TGs.

(a) When providing target graphics for unit training which use unclassified images of U.S. installations or military ranges, the TG may be marked UNCLAS//FOUO or unclassified because the images are not associated with specific military plans, weapon systems or operations.

(b) Ensure proper copyright caveats are included, when required by copyright law (i.e., Google Earth images).

(2) TGs will be classified and marked appropriately for widest dissemination possible. Products and data will carry the approved security control markings based on reference AG and current GEOINT security classification and marking guidance. When a digraph code is warranted for databasing, the MIDB RELEASE_MARK field will be used as the authoritative source for the digraph.

(3) Actions for disclosure must be in accordance with National Disclosure Policy, U.S./Allied participation agreements and DIA/Service agreements pertaining to TGs. The responsible producing organization FDO is the approval authority for the release of TGs.

2. Quality Control Measures for TGs. Quality control is the responsibility of both the TG local producer and the supported RESPROD.

(a) This manual provides the standards for TGs production. Organizations producing TGs are responsible for their own training programs and implementing quality control processes.

APPENDIX D TO ENCLOSURE G

GEOSPATIALLY ENABLED TARGET MATERIALS DATA ATTRIBUTE TABLE EXAMPLE

Attribute	Short Name	Example	Example	Notes
BE Number	benumber	XXXXABXXXX	XXXXABXXXX	MIDB Basic Encyclopedia (BE) number
O-Suffix	osuffix	ABX00	ABX01	MIDB facility name
Target Coordinates	tgt_coor	[MIDB COORDINATE, DMS]	[MIDB COORDINATE, DMS]	MIDB coordinates for installation or facility (as app.)
Target Name	tgt_name	[MIDB NAME]	[MIDB NAME]	MIDB name for installation or facility (as app.)
Cat Code	catcode	00000	XXXXX	MIDB facilty category code
Country Code	country	CC	CC	Two-letter country code
Label	label			Optional field; populate when also making a graphic
Feature Name	feat_nam	[FEATURE NAME]	[FEATURE NAME]	Descriptive name for area/element
Outline Type	out_ty	INSTALLATION	FACILITY	See Enclosure G, 2.b.(9)
NOM/DCR Pending	nom_dcr	No	Yes	Yes or No; use for features where MIDB NOM/DCRs are pending
Notional Outline	notional	No	No	Yes or No; use for areas where exact outline cannot be determined
CE Length (meters)	ce_l			Populate when feature is a critical element
CE Width (meters)	ce_w			Populate when feature is a critical element
CE Height (meters)	ce_h			Populate when feature is a critical element
CE PV CHAR	c_pvchar			Populate when feature is a critical element
Confidence Level	conf_lvl	Confirmed	Confirmed	Confirmed, Probable, Possible
Intelligence Cutoff Date	icod	DD/MM/YY	DD/MM/YY	Date of last intelligence applied to a feature
Analyst	analyst	[ANALYST ID]	[ANALYST ID]	Unique identifier used by producer to determine creating analyst
QC	qc	[QC ID]	[QC ID]	Unique identifier used by producer to determine QC analyst
Classification	class	UNCLASSIFIED	UNCLASSIFIED	Classification of the feature
Releasability	release			Releasability of the feature
SCI Control	control			SCI Controls for the feature
Classified By	class_by			Unique identifier used by producer to determine creating analyst
Classification Derived From	drv_from	Target Materials SCG, 3 March 2015	Target Materials SCG, 3 March 2015	GEOINT SCG Annex, Target Materials, 3 March 2015
Classification Reason	c_reason			
Declassify On	decl_on			
Collection Source	source	[IMAGE ID]	[IMAGE ID]	Image ID for the image from which feature was collected
Collection Method	c_method	Terrain Corrected Mono Collection	Terrain Corrected Mono Collection	Type of imagery from which feature was collected
Date Of Image	doi	DD/MM/YY	DD/MM/YY	Date of image from which feature was collected
Collection Date	c_date	DD/MM/YY	DD/MM/YY	Date the analyst collected the feature
Circular Error	circ_er			Populate when collection source is DPPDB
Linear Error	lin_er			Populate when collection source is DPPDB
Time Over Target	tot	0000Z	0000Z	Time over Target from Image metadata

Figure 25. Geospatially Enabled Target Materials Data Attribute Table Example

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ENCLOSURE H

REFERENCES

"PART I -- REFERENCES" (those used in the text)

a. JP 1, 25 March 2013, "Doctrine for the Armed Forces of the United States"

b. Guidance for Employment of the Force 2015-2017, 3 February 2015

c. CJCSI 3110.01 Series, "2015 Joint Strategic Capabilities Plan (JSCP)"

d. CJCSM 3130.03 Series, "Adaptive Planning and Execution (APEX) Planning Formats and Guidance"

e. CJCSM 3314.01 Series, "Intelligence Planning"

f. Defense Intelligence Analysis Program, 24 August 2011, "(U) Management Guidance"

g. JP 2-01, 5 January 2012, "Joint and National Intelligence Support to Military Operations"

h. National System for Geospatial-Intelligence Instruction (NSGI) 3103, 6 November 2013, "Geospatial-Intelligence Targeting Support Program"

i. CJCSI 3505.01 Series, "Target Coordinate Mensuration Certification and Program Accreditation"

j. JP 2-01.3, 21 May 2014, "Joint Intelligence Preparation of the Operational Environment"

k. JP 3-0, 11 August 2011, "Joint Operations"

l. JP 5-0, 11 August 2011, "Joint Operation Planning"

m. General Defense Intelligence Program (GDIP) Directive No. 006, 31 October 2005, "Defense Intelligence Analysis Program"

n. OUSDI Memorandum, 31 October 2007, "Management and Oversight of the Defense Intelligence Analytic Community"

o. JP 3-60, 31 January 2013, “Joint Targeting”

p. Defense Intelligence Agency, “Battle Damage Assessment (BDA) Reference Handbook), DI-2820-2-03, March 2003 (updated on 3 January 2006)

q. CJCSM 3162.01 Series, “Joint Methodology for Battle Damage Assessment”

r. NGA, 1 May 2014, “NGA Rules for Installation and Facility Analysis, Non-Contiguous Areas and Duplicative Basic Encyclopedia Number”

s. JP 2-0, 22 October 2013, “Joint Intelligence”

t. Office of the Director of National Intelligence, Intelligence Community Directive (ICD) 206, 22 January 2015, “Sourcing Requirements for Disseminated Analytic Products”

u. CJCSI 5221.01 Series, “Delegation of Authority to Commanders of Combatant Commands to Disclose Classified Military Information to Foreign Governments and International Organizations”

v. Intelligence Community Classification and Control Markings Implementation Manual, 7 May 2010

w. National Disclosure Policy (NDP-1), 2 October 2000, “National Policy and Procedures for the Disclosure of Classified Military Information to Foreign Governments and International Organizations”

x. National Geospatial-Intelligence Agency (NGA), NSGM FA 1702, August 2011, Manual, 7 May 2010

y. NGA, 3 Mar 2015, “National Geospatial-Intelligence Agency (NGA), Target Materials Security Classification Guide (SCG)”

z. Special Security Office, Controlled Access Program Coordination Office (CAPCO) <http://intelshare.intelink.sgov.gov/sites/ssc/capco/default.aspx> Joint Staff J-7, Joint Doctrine, Education and Training Electronic Information System (JDEIS), 1 Feb 2009, <https://jdeis.js.smil.mil/jdeis/> (SIPRNET - accessed: 19 Aug 2010)

aa. CJCSI 3160.01 Series, “No-Strike and the Collateral Damage Estimation Methodology”

ab. Defense Intelligence Agency, DIA-13-1401-322, 26 February 2014, “Structures Identification Codes”

ac. Defense Intelligence Agency MIDB-2000-700-013D, 1 July 2002, "Physical Characteristics Engineering Guidance Valid Values & Map, Version 2.0, Revision D"

ad. Defense Intelligence Agency DIA-13-1506-006, 9 June 2015, "Critical Elements Guide"

ae. Modernized Integrated Data Base (MIDB) reference publication, 11 March 2013, "Standard Coding Systems Functional Classification Handbook"

af. JDPI Identifier Prefix Assignments (www.centcom.ic.gov/targets/policy_regs_sops/regs/mensurat/prefix.htm)

ag. Intelligence Community Authorized Classification and Control Markings Register and Manual, Version 6.0, 30 December 2014

ah. JP 1-02, 8 November 2010 (Amended through 15 June 2015), "Department of Defense Dictionary of Military and Associated Terms"

"PART II -- RELATED" (those that are supplemental or related)

JP 3-12, 5 February 2013, "Cyberspace Operations (on SIPRNET only)"

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GLOSSARY

PART I -- ABBREVIATIONS AND ACRONYMS

*Note: The below acronyms represent only those acronyms used in the instruction that are not included in JP1-02, The Department of Defense Dictionary of Military and Associated Terms.

3D Three-dimensional

AKA	Also Known As
A Record	Active MIDB Record
ADMA/TCG	Assistant Director for Military Affairs Targeting and Technical Coordination Group
ANAL	Analyst Remark
AP	Adaptive Planning
AUTH	Author Information
BDPPL	BadPeople (used in an example)
CAC	Collaborating Analytic Center
CATCODE	Category Code
CCON	Collateral Damage Considerations
CDE-G	Collateral Damage Estimation Graphic
CEFF	Collateral Effects
CE-G	Critical Elements Graphics (CE-G)
CER	Collateral Effects Radius
CF	Collocated Facility
CF-g	Collocated Facility Graphic
CHA	Collateral Hazard Area
CI	Counter Intelligence
CIP	Common Intelligence Picture
COLISEUM	Community On-line Intelligence System for End-users and Managers
CR	Change Request
CRC	Communications Relay Center, Control and Relay Center (both used in examples)
CTE	Critical Target Element
CTID	Counterterrorism Identification Number
DCR	Data Change Request
DEFF	Desired Effects

EID	Entity Identifier
E-Space	Electronic-Space
EXPS	Expectation Statement
FAC	Facility
FB-G	Facility Breakout Graphic
FEAT	Feature
FIVE-O	Facility, Individual, Virtual, Equipment, Organization
FO	Facility Outline
FO-G	Facility Outline Graphic
FSIG	Facility Significance
FUNC	Functional Characterization
GAPS	Intelligence Gaps
GDPPL	GoodPeople (used in an example)
GETM	Geospatially Enabled Target Materials
GND	Ground
HAE	Height Above Ellipsoid
HGT	Height
ICD	Intelligence Community Directive
IFCD	Installations and Facilities Characterization and Delineation
I Record	Inactive MIDB Record
IGL	Intelligence Gain/Loss
IO-G	Installation Outline Graphic
ITM	Interactive Target Material
ITO	Integrated Tasking order
JDPI-G	Joint Desired Point of Impact Graphic
JECB	Joint Effects Coordination Board
JPL	Naming convention in MIDB for “JIPTL”
JTCG/ME	Joint Technical Coordinating Group for Munitions Effectiveness
JTDB	Joint Targeting Database
JUST	Justification
JWS	Joint Munitions Effectiveness Manual Weaponeering System
LE	Linear Error
LOW	Law of War
M	Meter/Minute
MAC	Media Access Control
MIG	Multi-Image Geopositioning
MTC	Military Targeting Committee

NCO	Nearest Collateral Object	
NLRP	Non-Lethal Reference Point	
NOM/DCR	Nomination/Data Change Request	
NPW	National Production Workshop	
OAA	Operations, Activities, and Actions	
OBP	Object Based Production	
ORG	Operator, Producer, User or Other Type of Comments	organizational
OV-G	Orientation View Graphic	
PPM	Precision Point Mensuration	
PRMx	Production Requirement Matrix	
PVA-G	Physical Vulnerability Assessment-Graphic	
PWR	Electric Power	
REL	Releasable	
RP-G	Reverse Plot Graphic	
RSTR	Strike Restriction	
SMP	Secure Marking Program	
SRC	Sources	
TAO	Target Area Outline	
TG	Target Graphic	
TGT	Target Description	
TL	Target List	
TMO	Target Mensuration Only	
TMP	Target Material Production	
TMS	Target Management System	
TSIG	Target Significance	
US	United States	
USB	Universal Serial Bus (used in example)	
USVA	U.S. Validation	
USVT	U.S. Vetting	
VULR	Vulnerability	
WCC	Weakest Collateral Concern	
WGS	World Geodetic System	
WMD	Weapons of Mass Destruction	

(U) PART II – TERMS AND DEFINITIONS

(U) Unless otherwise stated, the terms and definitions contained in this glossary are for the purposes of this instruction only.

(U) **Adversary**. A party acknowledged as potentially hostile to a friendly party and against which the use of force may be envisaged. (JP 1-02. SOURCE: JP 3-0)

(U) **Aimpoint**. 1. A point associated with a target and assigned for a specific weapon impact. May be defined descriptively (i.e., vent in center of roof), by grid reference, or geolocation. More specific classifications of aimpoint include desired point of impact, joint desired point of impact, and desired mean point of impact. 2. A prominent radar-significant feature, for example a tip of land or bridge, used to assist an aircrew in navigating and delivering their weapons (usually in bad weather and/or at night). (JP 1-02. SOURCE: JP 3-60) 3. In non-lethal fires, non-lethal reference points (NLRP) are locations designated for weapon effect. NLRPs are always associated to a target entity or element, but may or may not correspond to a physical location.

(U) **All-Source Intelligence**. 1. Intelligence products and/or organizations and activities that incorporate all sources of information, most frequently including human intelligence, imagery intelligence, measurement and signature intelligence, signals intelligence, and open source data, in the production of finished intelligence. 2. In intelligence collection, a phrase that indicates that in the satisfaction of intelligence requirements, all collection, processing, exploitation, and reporting systems and resources are identified for possible use and those most capable are tasked. See also intelligence. (JP 1-02. SOURCE: JP 2-0)

(U) **Associated Target**. These targets are not elements of another target but have links or relations to another unique target, and are part of the same or a linked system. A target can be associated to any number of other targets depending on its individual nature.

(U) **Basic Encyclopedia**. A compilation of identified installations and physical areas of potential significance as objectives for attack. (JP 1-02)

(U) **Basic Encyclopedia Number (BE)**. 10 character alpha/numeric code unique to an installation for incorporation within various national and tactical systems. (MIDB)

(U) **Battle Damage Assessment**. The estimate of damage resulting from the application of lethal or non-lethal military force. Battle damage assessment is

composed of physical damage assessment, functional damage assessment, and target system assessment. Also called BDA. (JP 1-02)

(U) **Category Code**. The data Element that classifies the function and purpose of an installation or a facility. (MIDB)

(U) **Center of Gravity**. The source of power that provides moral or physical strength, freedom of action, or will to act. Also called COG (JP 1-02).

(U) **Collateral Concern**. A collateral object located within the final CHA after all mitigation techniques have been exhausted. (CJCSI 3160.01)

(U) **Collateral Damage**. Unintentional or incidental injury or damage to person or objects that would not be lawful military targets in the circumstances ruling at the time. Such damage is not unlawful so long as it is not excessive in light of the overall military advantage anticipated from the attack. (JP 1-02. SOURCE: JP 3-60)

(U) **Collateral Damage Consideration**. The identification of environmental or population density concerns in the area surrounding the target entity, the known presence of entities considered civilian or noncombatant in nature and not lawful military targets under the Law of War, and second and third order effects on infrastructure and other non-physical entities.

(U) **Collateral Damage Assessment**. An analytical judgment derived by determining the amount and effects of collateral damage post target engagement. (CJCSI 3160.01A)

(U) **Collateral Damage Estimation/Casualty Estimation High**. Within the appropriate level, either a CDE/CE concern exists or the calculated level of concern exceeds a specified level of risk to civilian and/or noncombatant personnel, facilities and/or environment around the target. Also called CDE/CE high. (CJCSI 3160.01)

(U) **Collateral Damage Estimation/Casualty Estimation Low**. Within the appropriate level, either no CDE/CE concern exists or the calculated level of concern is below a specified level of risk to civilian and/or noncombatant personnel, facilities and/or environment around the target. Also called CDE/CE low. (CJCSI 3160.01)

(U) **Collateral Object**. Civilian and noncombatant buildings, structures, vehicles, and material that do not support the activities and/or functions of the enemy's military or fighting capability. (CJCSI 3160.01)

(U) **Combat Assessment**. The determination of the overall effectiveness of force employment during military operations that is composed of three major components: (a) battle damage assessment; (b) munitions effectiveness assessment; and (c) reattack recommendation. (JP 1-02. SOURCE: JP 3-60)

(U) **Combatant Command**. A unified or specified command with a broad continuing mission under a single commander established and so designated by the President, through the Secretary of Defense and with the advice and assistance of the Chairman of the Joint Chiefs of Staff. See also specified command; unified command. (JP 1-02. SOURCE: JP 1)

(U) **Combatant Command (command authority)**. Nontransferable command authority, which cannot be delegated, of a Combatant Commander to perform those functions of command over assigned forces involving organizing and employing commands and forces; assigning tasks; designating objectives; giving authoritative direction over all aspects of military operations, joint training, and logistics necessary to accomplish the missions assigned to the command. Also called COCOM. (JP 1-02. SOURCE: JP 1)

(U) **Counterterrorism Identification Number (CTID)**. A ten-character alpha/numeric code unique to a person, organization, or thing that is being targeted or tracked in the DoD campaign against terrorism. (MIDB)

(U) **Critical Element (CE)**. 1. An element of an entity or object that enables it to perform its primary function. 2. An element of a target, which if effectively engaged, will serve to support the achievement of an operational objective and/or mission task. (Derived from JP 3-60 and Critical Elements of Selected Generic Installations)

(U) **Cyberspace**. A global domain within the information environment consisting of the interdependent network of information technology infrastructures, including the Internet, telecommunications networks, computer systems, and embedded processors and controllers. (JP 1-02. SOURCE: CJCS CM-0363-08)

(U) **Cyberspace Operations**. The employment of cyberspace capabilities where the primary purpose is to achieve objectives in or through cyberspace. (JP 1-02. SOURCE: JP 3-0)

(U) **Defense Intelligence Analysis Program**. Establishes the policies, procedures, responsibilities, and levels of analytic effort required for Defense Intelligence to provide timely, objective, and cogent military intelligent to warfighters, defense planners and defense and national security policy makers. Also called DIAP. (DIAP). (CJCSM 3314.01)

(U) **Deliberate Targeting**. Normally supports the joint force's future plans effort, which is overseen by the plans directorate of a joint staff (J-5). The timing of focus for this effort varies according to the level of command, type of operation, JFC's desires, and other factors. (Normally, the future operations directorate focuses on 24 hours out to 72 hours. This is a critical linkage during targeting execution.) Typically the emphasis of the future plans effort is on planning the next phase of operations (sequels to the current operation). In a campaign, this could be planning the next major operation. (JP 3-60)

(U) **Dual-use**. Targets characterized as having both a military and civilian purpose/function (Source: CJCSI 3160.01A)

(U) **Dynamic Threat Assessment**. An intelligence assessment developed by the Defense Intelligence Agency that details the threat, capabilities, and intentions of adversaries in each of the priority plans in the Contingency Planning Guidance. Also called DTA. (JP 1-02. SOURCE: JP 2-0)

(U) **Electronic Target Folder**. The ETF is a Web-based product designed to house/display targeting data, rather than a traditional stand-alone, hardcopy product. Once fully mature, the ETF will be a series of links to metadata tagged, dynamic target materials, that are stored and maintained in central repositories. Also called ETF. (Derived from JP 3-60)

(U) **End State**. The set of required conditions that defines achievement of the commander's objectives. (JP 1-02. SOURCE: JP 3-0)

(U) **Entity**. An entity is something that exists, either physically or virtually, as a distinct and independent thing. Within the context of targeting, entity level is used to describe facilities, organizations, persons, equipment, or virtual (non-tangible) things. An example of an entity might be a surface-to-air missile site, a terrorist financier, or a computer Web Site.

(U) **Entity Identifier**. EID is a unique alphanumeric character set assigned to an entity for the purposes of unique identification. All entity-level target development is tied to an EID. (MIDB)

(U) **Equipment**. In logistics, all nonexpendable items needed to outfit or equip an individual or organization. See also component; supplies. (JP 1-02. SOURCE: JP 4-0)

(U) **Facility**. A real property entity consisting of one or more of the following: a building, a structure, a utility system, pavement, and underlying land. (JP 1-02. SOURCE: JP 3-34)

(U) **Functional Manager of Analysis**. The Deputy Director for Analysis (DI) is dual-hatted as the Functional Manager for Analysis (FM/A) for the Defense Intelligence Analysis Program (DIAP). In this capacity the DI is responsible for overseeing defense intelligence all-source analysis in DIA, the Service intelligence centers, and the Combatant Command intelligence centers, whether these activities are funded in the National Intelligence Program or Military Intelligence Program. The FM/A does not manage the daily activities of these organizations; rather, is responsible for defining and prioritizing analysis requirements, assigning organizational responsibilities, and ensuring overall satisfaction of customer needs. The FM/A also leads the defense intelligence analytic community by implementing analytic training and tradecraft standards, documenting and prioritizing analytic information technology functional requirements, and speaking for the community in a variety of forums. FM/A responsibilities are executed through the Community Enterprise Operations Staff. (FMA Mission statement)

(U) **Information Operations**. The integrated employment, during military operations, of information-related capabilities in concert with other lines of operation to influence, disrupt, corrupt, or usurp the decision-making of adversaries and potential adversaries while protecting our own. Also called IO. See also electronic warfare; military deception; military information support operations; operations security. (JP 3-13. SOURCE: SecDef Memo 12401-10)

(U) **Installation and Facility Characterization and Delineation (IFCD)**. A category of GEOINT target analysis, is entity-level facility analysis in support of basic and intermediate target development. IFCD includes reconciling GEOINT with the Modernized Integrated Database (MIDB) to determine the geospatial, physical, and functional characteristics of installations, facilities, functional areas, critical elements, and identification of potential collateral damage concerns.

(U) **Intelligence Federation**. A formal agreement in which a Combatant Command joint intelligence center receives preplanned intelligence support from other joint intelligence centers, Service intelligence organizations, reserve organizations, and national agencies during crisis or contingency operations. (JP 1-02. SOURCE: JP 2-01)

(U) **Intelligence Gain Loss Assessment (IGL)**. An evaluation of the quantity and quality of intelligence data lost if desired effects are created on a target.

(U) **Information-Related Capability**. A tool, technique, or activity employed within a dimension of the information environment that can be used to create effects and operationally desirable conditions. Also called IRC. (JP 3-13)

(U) **Intelligence Requirement**. Any subject, general or specific, upon which there is a need for the collection of information, or the production of intelligence. 2. A requirement for intelligence to fill a gap in the command's knowledge or understanding of the operational environment or threat forces. See also intelligence; priority intelligence requirement. (JP 1-02. SOURCE: JP 2-0)

(U) **Interactive Target Material (ITM)**. A virtual product created on demand using authoritative databases as the source for the annotations displayed within a Web browser environment. Imagery and/or charts are used as a backdrop for the annotations. (NGA)

(U) **Joint Desired Point of Impact**. A unique, alphanumeric coded aimpoint identified by a three dimensional (latitude, longitude, elevation) mensurated point. It represents a weapon or capability desired point of impact or penetration and is used as the standard for identifying aimpoints. Also called a JDPI. See also aimpoint; desired point of impact; desired mean point of impact. (JP 1-02. SOURCE: JP 3-60)

(U) **Joint Force**. A general term applied to a force composed of significant elements, assigned, or attached, of two or more military departments operating under a single joint force commander. See also joint force commander. (JP 1-02. SOURCE: JP 3-0)

(U) **Joint Force Commander**. A general term applied to a Combatant Command, subunified commander, or joint task force commander authorized to exercise Combatant Command (command authority) or operational control over a joint force. Also called JFC. (JP 1-02. SOURCE: JP 1)

(U) **Joint Intelligence Preparation of the Operational Environment**. The analytical process used by joint intelligence organizations to produce intelligence estimates and other intelligence products in support of the joint force commander's decision-making process. It is a continuous process that includes defining the operational environment; describing the impact of the operational environment; evaluating the adversary; and determining adversary courses of action. Also called JIPOE. (JP 1-02. SOURCE: JP 2-01.3)

(U) **Law of War**. That part of international law that regulates the conduct of armed hostilities. Also called the law of armed conflict. See also rules of engagement. (JP 1-02)

(U) **Modernized Integrated Database**. The national level repository for the general military intelligence available to the entire DoD Intelligence Information System community and, through Global Command and Control System integrated imagery and intelligence, to tactical units. This data is maintained and updated by the Defense Intelligence Agency (DIA). Commands and Services are delegated responsibility to maintain their portion of the database. A database comprised of information on facilities of military significance, military forces, and related equipment. Also called MIDB. (JP 1-02)

(U) **Munitions Effectiveness Assessment**. Conducted concurrently and interactively with battle damage assessment, the assessment of the military force applied in terms of the weapon system and munitions effectiveness to determine and recommend any required changes to the methodology, tactics, weapon system, munitions, fusing, and/or weapon delivery parameters to increase force effectiveness. Munitions effectiveness assessment is primarily the responsibility of operations with required inputs and coordination from the Intelligence Community. Also called MEA. (JP 1-02)

(U) **Nomination/Data Change Request (NOM/DCR)**. The NOM/DCR request is a procedure whereby the Combatant Commands and others in the Intelligence Community can provide recommended changes to the Modernized Integrated Database (MIDB). The NOM/DCR system is the formal mechanism to add or change data in the MIDB. It will not be used in lieu of formal correspondence to recommend changes of a policy nature. (MIDB)

(U) **Object Based Production (OBP)**. The concept that all intelligence information which describes or relates to something that physically exists in the real world should be assembled and made centrally available as an “object” accessible to all collectors, producers, and consumers. The Consolidated Intelligence Guidance for FY15-19, signed 8 Aug 2013 by the ODNI and USD(I), directs the Intelligence Community (IC) to adopt OBP as a core intelligence business process. The IC Information Technology Enterprise (IC ITE) provides the foundational architecture that underpins and empowers the community's transformation to OBP. The cross-agency QUELLFIRE program, with NSA as the executive agent, is building the OBP technical capability and governance structures necessary to convert the community to object-based production. This conversion to OBP is achieved by organizing information through OBP, enabling community integration within IC ITE, and then realizing the effects. (NGA)

(U) **O-Suffix**. The O-suffix is a five-character alpha/numeric system used to identify a facility, or demographic area, within an installation. The Installation Basic Encyclopedia (BE) Number, in conjunction with the O-suffix, uniquely identifies the facility within the Modernized Integrated Database (MIDB). The

Installation BE Number and O-suffix are also used in conjunction with a Category Code to classify the function or purpose of the facility. (MIDB)

(U) **Reattack Recommendation**. An assessment, derived from the results of battle damage assessment and munitions effectiveness assessment, providing the commander systematic advice on reattack of targets and further target selection to achieve objectives. The reattack recommendation considers objective achievement, target, and aimpoint selection, attack timing, tactics, and weapon system and munitions selection. The reattack recommendation is a combined operations and intelligence function. (JP 1-02. SOURCE: JP 3-60)

(U) **Recuperation**. Measurement of the time and cost required for a system to regain its functional capability after being disrupted. (JP 3-60)

(U) **Responsible Analytic Center (RAC)**. The Intelligence organization that has responsibility for providing integrated all-source analysis, or application of analysis, to produce an intelligence product to answer a specific Combatant Command Intelligence Task List (ITL) task or subtask. (CJCSM 3314.01)

(U) **Responsible Producer Code**. A two-letter code used in the Modernized Integrated Database (MIDB) which controls write permissions to specific data sets and used in the generation of unique numbers such as Basic Encyclopedia (BE) Numbers and Unit IDs. They are also in routing of new record nominations (NOM) and Data Change Requests (DCRs) for validation/review. (MIDB)

(U) **Responsible Producer**. The organization responsible for particular views in the Modernized Integrated Database (MIDB). This is determined by the functional production area, country, and category code. (MIDB)

(U) **Rules of engagement**. Directives issued by competent military authority that delineate the circumstances and limitations under which United States forces will initiate and/or continue combat engagement with other forces encountered. Also called ROE. (JP 1-02, CJCSI 3121.01B)

(U) **Source Materials**. Imagery and collateral intelligence documents, all-source intelligence reports, databases, etc., which depict, identify, locate, and describe the physical characteristics of an installation or facility.

(U) **Supported Commander**. 1. The commander having primary responsibility for all aspects of a task assigned by the Joint Strategic Capabilities Plan or other joint operation planning authority. 2. In the context of joint operation planning, the commander who prepares operation plans or operation orders in response to requirements of the Chairman of the Joint Chiefs of Staff. 3. In

the context of a support command relationship, the commander who receives assistance from another commander's force or capabilities, and who is responsible for ensuring that the supporting commander understands the assistance required. (JP 1-02. SOURCE: JP 3-0)

(U) **Supporting Commander**. 1. A commander who provides augmentation forces or other support to a supported commander or who develops a supporting plan. 2. In the context of a support command relationship, the commander who aids, protects, complements, or sustains another commander's force, and who is responsible for providing the assistance required by the supported commander. (JP 1-02. SOURCE: JP 3-0)

(U) **Targeteer**. An individual who has completed formal targeting training in an established Service or joint school and participates in the joint targeting cycle in their current duties. (JP 3-60)

(U) **Targeting**. The process of selecting and prioritizing targets and matching the appropriate response to them, considering operational requirements and capabilities. See also joint targeting coordination board; target. (JP 1-02. SOURCE: 3-0)

(U) **Target**. 1. An entity or object that performs a function for the adversary considered for possible engagement or action. 2. In intelligence usage, a country, area, installation, agency, or person against which intelligence operations are directed. 3. An area designated and numbered for future firing. 4. In gunfire support usage, an impact burst that hits the target. (SOURCE: JP 3-60, Approved for inclusion in JP 1-02)

(U) **Target Complex**. A geographically integrated series of target concentrations. (JP 1-02. SOURCE: JP 3-60)

(U) **Target Development**. The systematic examination of potential target systems -- and their components, individual targets, and even elements of targets -- to determine the necessary type and duration of the action that must be exerted on each target to create an effect that is consistent with the commander's specific objectives. (JP 1-02. SOURCE: JP 3-60)

(U) **Target Elements**. Those specific features or objects that enable the target to function. (This term and its definition are derived from JP 3-60.)

(U) **Target Folder**. A folder, hard copy or electronic, containing target intelligence and related materials prepared for planning and executing action against specific target. (JP 1-02. SOURCE: JP 3-60)

(U) **Target Intelligence**. Intelligence that portrays and locates the components of a target or target complex and indicates its vulnerability and relative importance. (JP 1-02. SOURCE: JP 3-60)

(U) **Target Management System**. A Web-based application that can capture, store, manage, and distribute installation and facility related points, lines, and polygons that have been derived by mensuration certified analysts for the Target Materials Producer process. It provides an avenue for data population in the Modernized Integrated Database (MIDB). Published data is available in a variety of formats that include delimited and 2 and 3D shapefiles with a guest interface.

(U) **Target Materials**. Graphic, textual, tabular, digital, video or other presentations of target intelligence, primarily designed to support operations against designated targets by one or more weapon(s) systems. Target materials are suitable for training, planning, executing, and evaluating military operations. (JP 1-02. SOURCE: JP 2-0)

(U) **Target System**. 1. All the targets situated in a particular geographic area and functionally related. 2. A group of targets that are so related that their destruction will produce some particular effect desired by the attacker. (JP 1-02. SOURCE: JP 3-60)

(U) **Target System Analysis**. An all-source examination of potential target systems to determine relevance to stated objectives, military importance, and priority of attack. It is an open-ended analytic process produced through the intelligence production process using national and theater validated requirements as a foundation. (JP 3-60. SOURCE: JP 3-60)

(U) **Validation**. 1. A process associated with the collection and production of intelligence that confirms that an intelligence collection or production requirement is sufficiently important to justify the dedication of intelligence resources, does not duplicate an existing requirement, and has not been previously satisfied. 2. A part of target development that ensures all vetted targets meet the objectives and criteria outlined in the commander's guidance and ensures compliance with the law of armed conflict and rules of engagement. (JP 1-02) 3. In computer modeling and simulation, the process of determining the degree to which a model or simulation is an accurate representation of the real world from the perspective of the intended uses of the model or simulation. (JP 3-35) 4. Execution procedure whereby all the information records in a time-phased force and deployment data are confirmed error free and accurately reflect the current status, attributes, and availability of units and requirements. (JP 3-35)

(U) **Vetting**. A part of target development that assesses the accuracy of the supporting intelligence to targeting. (JP 1-02. SOURCE: JP 3-60)

(U) **Weaponeering.** The process of determining the quantity of a specific type of lethal or non-lethal weapons required to achieve a specific level of damage to a given target, considering target vulnerability, weapons characteristics and effects, and delivery parameters. (JP 1-02. SOURCE: JP 3-60)

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