Chapter 12
TARGET MATERIALS

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12.1. Overview. Target materials are "graphic, textual, tabular, digital, video or other physical and quantitative presentations" of target intelligence. These products locate, identify, and describe potential targets with enough accuracy to support operations against designated targets by one or more weapon

systems. Target materials are also suitable for training, planning, and evaluating such operations. Three will be discussed here: Air Target Materials (ATM), Tactical Target Materials (TTM), and targeting tools.

12.2. Air Target Materials (ATM) Program (ATMP). The ATMP includes products in the form of target graphics and supporting documents required for visual and radar bombing training and operations, at both high and low altitudes. The National Imagery and Mapping Agency (NIMA) manages the ATMP. All active foreign and domestic ATM products held in inventory can be found in the NIMA Catalog, Part 4, "Target Material Products." Current ATM products include:

12.2.1. Air Target Charts (ATC). These are the standard medium scale (1: 200,000) air target charts produced for areas of Korea, the Former Soviet Union, PRC, Europe, Turkey, and Southeast Asia, as well as for selected training areas in the US. Series 200 ATCs are geographically integrated charts having a sheet pattern delimited by a five- by- five (25 sheets) subdivision of the areas identified within the World Aeronautical Chart (WAC). These charts provide the cartographic, intelligence, and radar return information needed to plan, train, brief, and execute either visual or radar bombing operations at any altitude. The reverse of each sheet includes textual data describing installations depicted in the area. The graphic or textual representations on the chart include the Radar Significant Analysis Code (RSAC), Radar Significant Power Lines (RSPL), Precise Radar Significant Location (PRSL) points, Radar Fix Points (RFP), special areas and geographic coordinate information. (NOTE: PRSL infor-mation is not shown on Series 200 ATCs produced after 1 October 1978.) ATCs are being phased out; phase out date is projected for the year 2000.

12.2.2. Series 1501 Joint Operations Graphic-- Radar (JOG- R). This standard medium scale (1: 250,000) chart is produced for target areas where contingency operations might occur, but are not covered by ATCs. They provide RSAC, RSPL, and PRSL information and are used to support com-bined and joint tactical operations; pre- flight and operational planning; training, pilotage, or opera-tional functions; and intelligence work.

12.2.3. Consolidated Air Target Materials Notices/ Target Materials Bulletin, Vol umes I and II. Semiannual publications that provide information affecting the operational use of the Air Target Materials. Volume I contains changes and special notices in textual form. Volume II contains change notices in graphic form (correction overlays). These two volumes are classified.

12.3. Target Materials (TM) Program (TMP). TMs are graphics providing a representation of the installation including identification, location, and textual description. The program itself was established to provide DoD users from national to unit level a common basis for communication. Its objectives are to produce and maintain tactical materials so that operational forces may deploy from one theater to another without having to adjust to new targeting procedures; to minimize duplication of effort; and to economize on production resources. For additional information on allied participation, security classifications and markings, and production specifications, refer to DIAM 57- 24, U. S./ Allied Target Materials. 93

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12.3.1. JCS/ J2T has the worldwide management responsibility for policy on TM matters such as pro-gram indoctrination; the development of new or modified materials; technical and analytical proce-dures; changes in production specifications; and standardization. In crisis situations, J2T also functions as a central clearinghouse to assign command approved TM production priorities and requirements to provide the supported commander with appropriate TMs in a timely manner while eliminating duplication of effort.

12.3.2. TM production is provided by designated Service and Command JIC/ JACs, and by selected Allied production centers. TM production responsibilities are assigned to centers already responsible to the tasking command for general intelligence production; however, special support agreements are necessary to ensure TM production for commands without a subordinate production capability.

12.3.3. TM Products. 12.3.3.1. Automated Tactical Target Graphic (ATTG). First produced in 1971, these graphics were a total installation data base recognized as a desirable method of recording target data. ATTGs have been replaced by the Basic Target Graphic, but some are still available, particularly in areas of the world with lower production priorities. The ATTG is normally a two- section doc-ument, with one page containing the annotated target photograph and the second section contain-ing the textual description of the installation. The information is stored on a computer punch card called an aperture card. The card program was designed to provide an imagery data base to oper-ational units, with source material for initial contingency planning and operations. It is easily stored and can be rapidly sorted and used commonly by commands throughout the world.

12.3.3.2. Basic Target Graphic (BTG). The BTG is the basic general purpose imagery- based product used to delineate and describe the elements of a target/ installation to support a wide range of target related functions. It provides a photographic database divided into two sections: the graphic page, which shows the target facility; and the text page, which provides detailed informa-tion on the target. This information is all- source, derived from imagery analysis, general intelli-gence data, and MC& G data. The content of a BTG is determined by EEIs developed for the functional category code of the target to which the BTG belongs.

12.3.3.2.1. BTGs can consist of several graphic pages to provide more detailed visual refer-ences for TM users. An orientation graphic provides small- scale imagery to aid in orientation and relative location of the target. A target or detail graphic is used primarily for positive tar-get identification and clearly shows all components of the target. Unannotated graphics are added to the BTG at the producer's discretion to provide a clear view of the target graphic. An overall map view depicting the target location (on a JOG or topographic map) may be included in lieu of broad area coverage. Supplemental data and graphic sheets associated with the BTG include the Enhanced Target Graphic, Seasonal Target Graphic, Hard Target Graphic, and the Positional Data Graphic.

12.3.3.3. Training Target Graphic (TTG). The TTG is produced on CONUS and European ranges for use in military training and in exercises. They are frequently unclassified and so can be used for illustrative purposes. The format mirrors that of the BTG. The 480 IG produces TTGs.

12.3.3.4. Operational Target Graphic (OTG) . An OTG is a low volume, high detail target graphic, built to help locate hard to find and complex targets. The OTG must provide six manda-tory images to include 15, 5- 8, 1, and <1 NM overviews, as well as individual closeups of each functional and radar/ infrared overview. 94

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12.3.3.5. Quick Response Graphic (QRG). When target graphics are required during emer-gency or crisis situations, it may be necessary to modify the production standards to provide a QRG. Modifications are made by the responsible combatant command commander, who autho-rizes production of QRGs that use only selected EEIs in the annotations and textual description, or that eliminate all EEIs except basic identification of target components. QRGs will be identified by codes that differ from those used with BTGs. See DIAM 57- 24 for more information.

12.3.3.6. Future Products . To meet rigorous targeting requirements of new weapon systems, a new TM, the Joint Digital Target Material (JDTM), is currently under development. It will pro-vide a general reference describing an individual installation or facility's location, function, sig-nificance, critical elements, and other pertinent targeting information. The JDTM concept calls for a product consisting of text, imagery and geospatial overlays in varied formats (e. g., raster, vector), allowing a user to select and manipulate only those elements required. The JDTM will be an integrated relational set of standard formatted data pulled from varied data bases, such as MIDB and NIMA's Global Geospatial Information & Services (GGI& S), packaged in a standard-ized manner, and validated by a target material producer. The JDTM with its geocoded layered approach provides a means to significantly improve intelligence support to the targeting and mis-sion planning process. Current technology supports the concept and

accepted standards allow for interoperability with automated theater battle management systems.

12.4. Targeting Tools. There are three basic types of targeting tools. The first provides target intelli-gence on installations or facilities and contains preliminary information necessary to select potential tar-gets. The second concerns such weaponeering tools as physical vulnerability (PV), target values, weaponeering methodology, and battle damage assessment (BDA). The data contained in these tools pro-vide targeting personnel, weaponeers, analysts, mission planners, and decision makers with a common base of information necessary to perform the targeting function. The third provides target planning infor-mation for unit mission planning including appropriate OPlan/ Conplans and directives dealing with pol-icy and procedures. The most important targeting tools are described below:

12.4.1. Modernized Integrated Database (MIDB) . The MIDB is the key to the DoD targeting pro-gram. It is a standardized intelligence data system designed to provide for data exchange between intelligence and operational consumers from the national to tactical levels. The database contains a baseline source of intelligence on installations, military forces, population concentrations, C2 struc-tures, significant events, and equipment. A targeting extension to the MIDB is being developed which will extract selected data fields from the database to support targeting. Of note, because of production costs, data on areas of less interest to the US intelligence community can be limited.

12.4.2. Basic Encyclopedia (BE) . This compendium of installation intelligence taken from the MIDB is the most inclusive of all installation lists. It describes every identified installation with an active function or of valid interest to intelligence agencies, particularly to the operational and planning staffs of the Unified commands. The BE contains basic data on the identification, location, and func-tion of each installation. It may be used to select potential fixed targets for employment of ground, sea, or air weapons, or to identify installations (such as public utilities and hospitals) to be withheld from attack. The BE lists installations in five geographic areas: Eurasia; Western Europe; Latin America and the Atlantic; Middle East and Africa, and Southeast Asia and the Western Pacific.

12.4.3. Geographic Installation Intelligence Production Specifications (GIIPS). Established by DIA to provide comprehensive documentation of all product specifications for various MIDB pro- 95

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grams. GIIPS has replaced the Target Data Inventory (TDI) handbook and Contingency Planning Facilities List (CPFL) production documentation. This handbook contains specific guidance and pro-cedures for use in analysis, production, and processing of target intelligence by DIA, the combatant commands, Services, and other organizations responsible for maintaining the DoD installation intelli-gence data base.

12.4.4. Target Intelligence Handbook (TIHB) . This handbook contains specific guidance and procedures for use in analysis, production, and processing of target intelligence by DIA, the Unified and Specified commands, Services, and other organizations responsible for maintaining the DoD installation intelligence database. The TIHB includes information on BE numbering and naming pro-cedures, security classification guidance, coordinates, abbreviations, target intelligence programs, products, and geographic areas of coverage. It is published as required to facilitate the production, maintenance, and use of the BE, GIIPS, and related target intelligence documentation programs.

12.4.5. Standard Coding System Functional Classification Handbook . This handbook contains guidance and procedures on the use of functional category codes, which classify installations by func-tion through the use of standard intelligence codes that indicate the products, capability, or activity associated with the installation. The classification system consists of a five- digit numeric character code. The handbook is published as required and is intended for use with the BE, GIIPS, and related targeting documents.

12.4.6. Point Reference Guide Book (PRGB) . This document provides guidance for selecting ref-erence points needed to derive geographic coordinates. Such reference points locate critical func-tional elements

of installations in the various target categories. Each photograph or sketch depicts a sample installation, annotates the reference point at the recommended location, and explains briefly how to locate the reference point.

12.4.7. Physical Vulnerability (PV) Handbook-- Nuclear Weapons . This handbook is the recog-nized DoD reference on the use of nuclear weapons. It is intended for use by operational planners, tar-geting personnel, and physical vulnerability analysts who are concerned with the delivery of nuclear weapons and the prediction of their effects.

12.4.8. Definition of Nuclear Damage . This document contains nuclear damage definitions, dam-age criteria, and recuperation time estimates for each major TDI category or subcategory.

12.4.9. Physical Vulnerability (PV) Data Sheets . This document provides complete physical vul-nerability information for installations contained in the GIIPS whose vulnerability cannot be accu-rately coded using the existing vulnerability number (VN) system. The vulnerability information is presented as adjusted vulnerability numbers for use with specific yields of nuclear weapons and in the form of mathematical equations which can be readily adapted to computer use.

12.4.10. Target Value System (TVS) Manual . This manual describes the target value system used by STRATCOM/ J5 to determine the relative importance of enemy installations.

12.4.11. Joint Munitions Effectiveness Manuals (JMEM) and Joint Technical Coordinating Group for Munitions Effectiveness (JTCG/ ME) Publications. These publications deal with US systems and munitions and are the recognized DoD references on nonnuclear weapons and their effec-tiveness, selection, and requirements. They provide the basic data required for conventional weap-oneering, including step- by- step instructions on the computations necessary. The large sections on target vulnerability and delivery accuracy are the most widely used. 96

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12.4.12. BDA Assessment Handbooks . These handbooks are the recognized DoD references on the assessment of battle damage, either by nuclear or conventional weapons.

12.4.13. Operations Plans Appendices . Plans which task units to support specific operations nor-mally contain an installation target list. This list allows a unit to obtain the target materials needed for mission planning and aircrew study of specific targets.

12.4.14. Operational Support Plan Graphics . These are DIA produced documents that provide detailed information on CINC tasked OPLAN targets. Data is obtained through Special Access Required programs.

12.4.15. Air Force Guide No. 2, USAF Standard Aircraft Missile Characteristics. Volume I, or the Green Book, and Volume II, or the Brown Book, give the characteristics and performance of aero-space systems, propulsion systems, and training equipment. Data on the systems are published ini-tially during the validation phase and updated periodically throughout the life cycle of the system.

12.4.16. Numerical Index and Requirement Table for Fighter Aircraft Technical Orders, Gen-eral Aircraft Technical Orders, and Bomber Aircraft Technical Orders. These publications pro-vide specific technical information for detailed comparison of systems.

12.4.17. Flight Information Publications (FLIP). A series of publications presenting textual and graphic data required to plan and conduct IFR flight. The three basic categories of FLIPs are plan-ning, enroute, and terminal.

12.4.18. Nonnuclear Consumables Annual Analysis (NCAA). This document serves as the basis for air munitions War Reserve Material planning and programming for five fiscal years.

12.5. Target Materials Users Group/ Target Materials Producers Group (TMUG/ TMPG) Confer-ences. JCS/ J2T convenes semiannual TMUG/ TMPG conferences to examine recommendations for improving the target intelligence and target materials program and to review associated procedures. Con-ferees discuss and evaluate recommendations for changes in the scope, format, content, production proce-dures, and specifications for a number of programs and associated documentation, such as the BE, the BTG, and several DIA manuals, handbooks, lists, and programs. The 497 IG/ INOT, Targeting Division, is the Air Force voting representative to this forum. 97

  
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"U.S. and NATO Military Planning on Mission of V Corps/U.S. Army During Crises and in Wartime"

"U.S. and NATO Military Planning on Mission of V Corps/U.S. Army During Crises and in Wartime," 16 December 1982 (Excerpt)

Through reliable intelligence we received knowledge of U.S. and NATO planning during crises and in wartime for the V Corps/U.S. Army stationed in the FRG. It considers the secret operations plan (OPLAN) 33001 (GDP: General Defense Plan) for the V Corps/U.S. Army. Worked out by the Staff of the U.S. Army Europe, and approved by the U.S. Department of the Army, it has been incorporated into NATO planning after consultations. This OPLAN is the basis of action for the V Corps to lead the defense within NATO'S Central Army Group (CENTAG). It consists of two parts, the so-called basic plan (OPLAN) and the attachments. Besides general information on intentions, goals and operational structure to defend CENTAG, the OPLAN has detailed instructions for the V Corps and its related combat and support troops, as well as general orders for cooperation and joint actions. 18 attachments with altogether 33 appendixes refer to the operational structure of the corps, boundaries of corps and divisions areas for defense operations, guiding principles to conduct the operation and ensure implementation of orders. Also they include the guidelines for the use of nuclear weapons and chemical agents. In addition, there are appendixes on plans for outside reinforcements to the V Corps/U.S. Army.

OPLAN 33001 (GDP) came into force on January 1, 1981. For U.S. forces it has the security classification SECRET, and within NATO it is NATO SECRET.

This OPLAN is an important document of real NATO war planning. It allows drawing extensive conclusions on the perspective of NATO leaders regarding the character of an initial phase in a potential war, on the strategy of "Flexible Response", and on the principles of "Forward Defense" and defense operations in the European theater of war.

The plan is based on the assumption of a war starting unfavorably to NATO. According to this plan, Joint Forces of the Warsaw Pact begin a war after short preparation with conventional attacks. NATO has only 48 hours of advance alert to occupy defense lines, dig in and fortify them. None, or just parts, of the planned outside reinforcements are available.

CENTAG consists of V Corps/U.S. Army, VII Corps/U.S. Army, II and III Army Corps/FRG, and the II. French Army Corps, provided there is a respective decision by the French government. CENTAG conducts its defense with the intention to destroy attacking forces of the Warsaw Pact already near the border areas, to maintain the integrity of NATO territory resp. restore it, to maintain a cohesive defense in conjunction with Northern Army Group (NORTHAG), and to prevent a breakthrough towards the Rhine.

Remarkable is NATO's intention to include the 12th Tank Division/FRG in the first line of defense within VII Corps/U.S. Army. This confirms existing information and conclusions drawn from exercises that in times of crises the 12th Tank Division will be released from the III Army Corps/FRG and integrated into VII Corps/U.S. Army.

Concerning the assessment of Warsaw Pact Forces there exists NATO's constantly updated "enemy assessment." It will be added separately to the OPLAN, supposedly on orders by NATO. Assessments about intentions and potential of Warsaw Pact Joint Forces, however, are evident in the appendixes. According to them, NATO expects in the defense area of V Corps/U.S. Army about six to eight Warsaw Pact divisions in the first wave and additional three to four divisions during the second wave. Main attacks are expected in directions Eisenach-Bad Hersfeld-Alsfeld and Eisenach-Huenfeld-Schlitz.

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German by Bernd Schäfer, published in original language at http://www.isn.ethz.ch/php/documents/collection_17/docs/HVA25_118-129.pdf.]

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