NATO STANDARD

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ALLIED JOINT DOCTRINE FOR JOINT TARGETING

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NORTH ATLANTIC TREATY ORGANIZATION

ALLIED JOINT PUBLICATION

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NATO LETTER OF PROMULGATION

9 November 2021

1. The enclosed Allied Joint Publication AJP-3.9, Edition B, version 1, ALLIED JOINT DOCTRINE FOR JOINT TARGETING, which has been approved by the nations in the Military Committee Joint Standardization Board, is promulgated herewith. The agreement of nations to use this publication is recorded in STANAG 2524.

2. AJP-3.9, Edition B, version 1, is effective upon receipt and supersedes AJP-3.9, Edition A, version 1, which shall be destroyed in accordance with the local procedure for the destruction of documents.

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Dimitrios SIGOULAKIS
Major General, GRC (A)
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RECORD OF RESERVATIONS

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

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RECORD OF SPECIFIC RESERVATIONS

[nation]	[detail of reservation]
BEL	(1) BEL has reservations with the way 'The Engagement Continuum' (P. 1-11) is depicted. LOAC still applies even in situations of Self-Defence. Consequently, BEL considers that the blue rectangle 'Law of Armed Conflict' should extend further beyond the red rectangle of Self-Defense (see ATP-3.9.2 'Allied Tactical Doctrine for Land Targeting', P. 1-6.). (2) Belgium will implement this STANAG to the most possible extent, at echelon, within available means and capabilities but has some concerns about some definitions.
DEU	1. DEU understands, as it is described in the AJP-3.9 A preface, that joint targeting incorporates a full spectrum approach using the full range of military capabilities against a range of actors, not only against an adversary, and supports SACEUR's Joint Effects approach. As AJP 3.9 B limits targets to those entities of an adversary, DEU understanding remains with that described in AJP 3.9A that targets are not only derived from adversarial actors, but derived from all actors addressed in NATO Joint Force Commander's plan or order. 2. Referring to AJP-3.9 B page 1-6 under 1.3.11 Dual-use facility/entity: The text as written is not legally correct. With regard to the first note, by definition a dual-use facility/entity is a valid military objective. It is a facility/entity that is civilian in nature, but is being used, or is intended to be used for a military purpose and as a result loses its protection from attack. With regard to the second note, an object that does not have any military purpose or use cannot be dual use and therefore a military objective. The text as written pre-supposes the result and does not logically lead to a proportionality test.
USA	Reservation 1. The United States does not support glossary/lexicon terms and definitions and shortened word forms (abbreviations, acronyms, initialisms) that are neither NATO Agreed, quoted verbatim from NATOTerm, correctly cited IAW AAP-47 Allied Joint Doctrine Development, correctly introduced/revised IAW AAP-77 NATO Terminology Manual, nor have terminology tracking forms submitted. This reservation will be lifted when the relevant terms, definitions, and shortened word forms are corrected (see matrix for any specificity with terms). Reservation 2. Although NATO agreed, the United States does not define a "target" as broadly as NATO and therefore reserves the right to follow US doctrine when participating in NATO coalition joint targeting operations. NATO defines a target as any area, structure, object, person, or group of people against which lethal or non-lethal capability can be employed to create specific psychological or physical effects (including mindsets, thought processes, attitudes and

	behaviours of people). The US defines a target as an entity or object that performs a function for the threat considered for possible engagement or other action. Reservation 3. The United States does not subscribe to the definition of distinction, as drafted in paragraph 1.6.2c, which states, in part: "Indiscriminate engagements are prohibited, and due consideration must be given to the 2016 NATO Policy for the Protection of Civilians (PoC) and to civilians who are taking direct participation in hostilities (DPH)." Civilians who take a direct part in hostilities forfeit protection from being made the object of attack. The law of armed conflict imposes no requirement to distinguish between military objectives and civilians who take a direct part in hostilities. Reservation 4. The United States does not subscribe to the language as drafted in paragraph 1.7a, which states "If there is doubt whether an object normally dedicated to civilian purposes is contributing to military action, the presumption is that it is not." Under customary international law, no legal presumption of civilian status exists for persons or objects. A legal presumption of civilian status in cases of doubt may demand a degree of certainty that would not account for the realities of combat. Reservation 5. The United States does not subscribe to the language as drafted in paragraph 4.5.7, which states, "To engage a NSL entity, sufficient intelligence must indicate that the target is using an NSL entity in such a way that is contrary to its original, protected function (for example, a church used exclusively to store weapons or an empty hospital being used as a TA's command post). In such cases, the original protected function must be no longer active (in the example above, the hospital that the adversary is using as a command post must no longer be used as a hospital – if it still provides medical treatment, the entity retains its protected status, but would be classified as dual use)." Objects are either military objectives or they are not. So-called "dual use" objects retain their protected function but lose their protected status because of their military use. As drafted, a military force could co-locate a military objective with a protected object, and that military objective would be protected from attack so long as the protected object retains its original function. Reservation 6. The United States uses the term "law of war" to describe that part of international law that regulates the resort to armed force; the conduct of hostilities and the protection of war victims in international and non-international armed conflict; belligerent occupation; and the relationships between belligerent, neutral, and non-belligerent States. Sometimes also called the law of armed conflict or international humanitarian law, the law of war is specifically intended to address the circumstances of armed conflict. The legal views of the Department of Defense (DoD) regarding the law of war applicable to the United States can be found in the DoD Law of War Manual available at

	https://dod.defense.gov/Portals/1/Documents/pubs/DoD%20Law%20of%20War%20Manual%20-%20June%202015%20Updated%20Dec%202016.pdf?ver=2016-12-13-172036-190. Reservation 7. The United States does not support content that is not harmonized with capstone and operations keystone AJPs. United States personnel are directed to use national joint doctrine to overcome variances. This reservation will be lifted when relevant frameworks and constructs are corrected [see matrix for specifics (ex. Creation of joint operation areas or domains)]. Reservation 8. The United States recommends NATO's JPTL/PTL processes be modeled on US joint doctrine. In those processes, the draft Joint Prioritized Target List (JIPTL) is typically built within the Joint Air Operation Center's (JAOC) Target Effects Team, approved by the Joint Force Commander, then returned to the AOC to build the Master Air Attack Plan and to determine component task assignments and appropriate airspace clearances. Reservation 9. The United States creates "effects" to support achieving objectives therefore the reservation remains for paragraphs 4.3 until the "effects" mischaracterization is corrected. Reservation 10. The United States does not endorse the requirement for targets to be reviewed by a Gender Advisor (GENAD) prior to target validation. The US will follow joint doctrine which requires intelligence (J2), operations (J3), and legal advisor (LEGAD) review of targets to ensure they meet military objectives and the Law of War (LOW). The US has no similar role or function of a GENAD during target development and validation.
Note: The reservations listed on this page include only those that were recorded at time of promulgation and may not be complete. Refer to the NATO Standardization Document Database for the complete list of existing reservations.	

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Summary of changes

SERIAL	CHANGES
1	More of an emphasis on the employment of all (i.e., the full spectrum of) capabilities available.
2	Principles of joint targeting, including “Lawfulness.”
3	Definitions for: • Advanced target development (ATD); • Basic target development (BTD); • Candidate target list (CATL) • Collateral damage estimation (CDE); • Combat engagement; • Component critical target (CCT); • Critical element; • Dual-use facility/entity; • Engagement • Intermediate target development (ITD); • Joint prioritized target list (JPTL); • Joint target list (JTL); • No-strike list (NSL) • Positive identification (PID); • Prioritized target list (PTL); • Quality control; • Restricted target; • Restricted target list (RTL); • Sensitive target (ST); • Target discovery; • Target element; • Target engagement authority (TEA); • Target selection standards (TSS); • Target set; • Target system component; • Target type; • Target validation; and • Target Validation Board (TVB).

4	Phase 1 of the joint targeting cycle renamed “Commander’s Intent, Objectives and Targeting Guidance” vice “Commander’s Objectives, Targeting Guidance and Intent.”
5	References to NATO organizational changes, including the creation of the NATO Centralized targeting Capacity (CTC).
6	New chapter: “Chapter 2 – Intelligence Support to Targeting.”
7	Removed references to “Target Audience Analysis” (TAA), “High-Value Individual (HVI)” and “Red Card Holder.”
8	Removed references to “vetting”, which is a national responsibility.
9	Content regarding considerations for joint targeting in and through cyberspace.

Documents related to AJP-3.9

High level guidance & policy documents:

AC/237-D(2019)0001 (INV), 5 April 2019	NATO Crisis Response System Manual (NCRSM)
C-M(2009)0048 (INV)	NATO's Comprehensive, Strategic-Level Policy for Preventing the Proliferation of WMD and Defending Against CBRN Threats
Military Committee (MC) 0099-2018	Military Advice on the Implementation of the Adapted NATO Command Structure
MC 0133/5 (INV), 29 July 2019	NATO's Operations Planning
MC 0362/2, 2019	NATO Rules of Engagement
MC 0402	PSYOPS
MC 0411	NATO Military Policy on Civil-Military Cooperation (CIMIC) and Civil-Military Interaction (CMI)
MC 0422	NATO Military Policy for Information Operations
MC 0457/3	NATO Military Policy on Public Affairs
MC 0469	NATO Military Principles and Policies for Environmental Protection (EP)
MC 471/1	NATO Targeting Policy
MC 0560/2	Policy for Military Engineering
MC 0590	NATO CBRN Reach back Concept
MC 0628	NATO Military Policy on Strategic Communications
MC 0635	Weapons of Mass Destruction Disablement Functional Concept
MC 0665	Military Vision and Strategy on Cyberspace as a Domain of Operations
PO(2011)0293, 09 September 2011	NATO Lessons Learned Policy
PO(2016)0407 (INV)	NATO Policy for the Protection of Civilians (2016)
PO(2018)0328-Rev1	Brussels Summit Declaration
PO(2018)0227-As1	Military Committee Concept for the Protection of Civilians
Bi-SCD 040-001	Integrating UNSCR 1325 and Gender Perspective into the NATO Command Structure (2012)

Bi-SCD 080-006	Lessons Learned
Bi-SSCD 086-005, 1 April 2019	Implementing Cultural Property Protection in NATO Operations and Missions

NATO Military Guidelines on the Prevention of and Response to Conflict-Related Sexual and Gender–Based Violence, 2015
NATO/EAPC Policy on Women, Peace and Security, 2018
NATO's Joint Air Power Strategy, 26 February 2018
NATO Geospatial CPP Database (currently being developed by NATO HQ SITCEN)
NATO Urbanization Project 2035: Joint Operations in an Urban Environment Capstone Concept, 2019
The NATO Secretary-General's Annual Report, 2019

AAP-15	NATO Glossary of Abbreviations Used in NATO Documents and Publications
AAP-47	Allied Joint Doctrine Development
AArtyP-5	NATO Fire Support Doctrine
AIntP-03	The NATO Military Intelligence Data Exchange Standard
AIntP-13	Human Network Analysis and Support to Targeting
AIntP-14	Joint Intelligence, Surveillance and Reconnaissance (JISR) Procedures in Support of NATO Operations
AIntP-15	Countering Threat Anonymity: Biometrics in Support of NATO Operations and Intelligence
AIntP-17	Joint Intelligence Preparation of the Operating Environment (JIPOE)
AJP-01	Allied Joint Doctrine
AJP-2	Allied Joint Doctrine for Intelligence, Counter-Intelligence and Security
AJP-2.1	Allied Joint Doctrine for Intelligence Procedures
AJP-2.7	Allied Joint Doctrine for Joint Intelligence, Surveillance and Reconnaissance
AJP-2.9	Allied Joint Doctrine for Open Source Intelligence (OSINT)
AJP-3	Allied Joint Doctrine for the Conduct of Operations
AJP-3.1	Allied Joint Doctrine for Maritime Operations
AJP-3.2	Allied Joint Doctrine for Land Operations
AJP-3.3	Allied Joint Doctrine for Air and Space Operations

AJP-3.4.1	Allied Joint Doctrine for the Military Contribution to Peace Support
AJP-3.4.3	Allied Joint Doctrine for the Military Contribution to Humanitarian Assistance
AJP-3.4.4	Allied Joint Doctrine for Counterinsurgency (COIN)
AJP-3.4.5	Allied Joint Doctrine for the Military Contribution to Stabilization and Reconstruction
AJP-3.5	Allied Joint Doctrine for Special Operations
AJP-3.6	Allied Joint Doctrine for Electronic Warfare
AJP-3.8	Allied Joint Doctrine for Comprehensive CBRN Defence
AJP-3.10	Allied Joint Doctrine for Information Operations
AJP-3.10.1	Allied Joint Doctrine for Psychological Operations
AJP-3.10.2	Allied Joint Doctrine for Operations Security and Deception
AJP-3.12	Allied Joint Doctrine for Military Engineering
AJP-3.19	Allied Joint Doctrine for Civil-Military Cooperation
AJP-3.20	Allied Joint Doctrine for Cyberspace Operations
AJP-3.22	Allied Joint Doctrine for Stability Policing
AJP-5	Allied Joint Doctrine for the Planning of Operations
ASCP-01	NATO Strategic Communications (StratCom) Training Standards
ATP-3.9.2	Allied Tactical Doctrine for Land Targeting
ATP-45	Warning and Reporting and Hazard Prediction of Chemical, Biological, Radiological and Nuclear Incidents (Operators Manual)
ATrainP-2	Training in the Law of Armed Conflict
STANAG 2597	Rules of Engagement Training

Allied Command Operations (ACO) Comprehensive Operations Planning Directive (COPD)

SHAPE Directive 065-018	SHAPE Target Material Production Process
ACO Directive 065-005, 6 November 2018	Intelligence Requirements Management and Collection Management
ACO Directive 065-008, 21 May 2001	Battle Damage Assessment Procedures
SHAPE Directive 080-019, 16 October 2014	SHAPE Target Clearance Board Procedures

ACO Directive 080-070, 26 October 2018	Joint Targeting in the ACO
ACO Directive 80-80, 3 May 2017	Common Operational Picture
ACO Directive 084-002	Infrastructure Assessment
ACO Manual 80-70, 23 July 2010	Tactics, Techniques and Procedures to Prosecute Time-Sensitive Targets

NATO Centralised Targeting Capacity Letter to Nations, 24 February 2020

Tools for Operational Planning Functional Area Service dated 12. February 2016

NATO Special Operations Headquarters Special Operations Component Command Manual

International Humanitarian Law (IHL)/Law of Armed Conflict (LOAC)
1954 Hague Convention for the Protection of Cultural Property in the Event of Armed Conflict
The Safe Schools Declaration, dated May 2015
The Vancouver Principles on Peacekeeping and the Prevention of the Recruitment and Use of Child Soldiers, November 2017
United Nations Security Council Resolution 1325, 31 October 2000
US Joint Publication (JP) 3-60 Joint Targeting, September 2018
US Chairman of the Joint Chiefs of Staff Instruction (CJCSI) 3160.01C No-Strike and the Collateral Damage Estimation Methodology, April 2018
US Chairman of the Joint Chiefs of Staff Instruction (CJCSI) 3162.02 Methodology for Combat Assessment, March 2019
US Chairman of the Joint Chiefs of Staff Instruction (CJCSI) 3370.01C Target Development Standards, August 2018

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Preface

Context

Joint targeting is fundamentally an integration function that requires participation from the strategic and operational levels, all joint force staff elements and component commands, along with various non-military organizations, including non-governmental organizations, international organizations, and non-military governmental organizations, as part of NATO's Comprehensive Approach. Recent and ongoing NATO operations have reinforced the requirement to plan from Baseline Activities and Current Operations (BACO) onward, in order to provide commanders with the widest set of coordinated capabilities to create effects. The review of AJP-3.9(A) should also be seen in the context of the significant improvements to NATO's targeting capability, including the establishment of the Centralised Targeting Capacity (CTC) at RAF Molesworth, UK. The CTC supports SACEUR and provides real-world intelligence support to targeting. The CTC is responsible for production of NATO target material as well as the direction and coordination of Allied Command Operations (ACO) Target Material Production (TMP) and coordination with NATO nations for national targeting support to NATO during BACO, Crisis and Maximum Level of Effort (MLE) operations. The CTC draws on all source intelligence to undertake Target System Analysis (TSA), produce target folders and conduct Battle Damage Assessment (BDA) in support of NATO operations and exercises.

Joint targeting will always be conducted in accordance with international law, the operational setting and extant authorizations manifested in North Atlantic Council (NAC)-approved Rules of Engagement (ROE) and target sets, and by applicable national laws of the Host-Nation and Troop-Contributing Nations. NATO will not unilaterally conduct joint targeting against Allied audiences. A Host-Nation (HN) will provide consent to all NATO targeting activities within the HN. The integration of cognitive effects into NATO Joint Targeting is still in its infancy; SHAPE is leading the scoping and developing of cognitive effects into NATO joint targeting.

Cyber defence is part of NATO's core task of collective defence, and NATO has made clear that a severe cyber-attack could lead to invoke Article 5. As part of the modernised NATO Command Structure, a Cyberspace Operations Centre (CyOC) is now active to make sure NATO is as effective in cyberspace as on land, in the air and at sea. This enables NATO to operate in cyberspace by improving the Alliance's ability to conduct operations and maintaining its freedom of action and decision, in all circumstances. Allies have also agreed to integrate their national cyberspace capabilities into NATO operations. Several Allies have volunteered national cyberspace capabilities to NATO. Allies will retain control of their national cyber capabilities at all times when they are used during NATO missions or operations. As

in all other domains, in cyberspace NATO acts in line with its defensive mandate and international law.[1]

The review of AJP-3.9(A) was initiated by the release of a request for feedback (RFF) questionnaire in February 2018. Allied Command Transformation (ACT) also started initial planning for a 4-day data fusion workshop (DFW) that was hosted by the Doctrine and Training Centre of the Polish Armed Forces in Bydgoszcz, Poland on 19-22 June 2018.The data fusion workshop proposed some changes to the document structure, adding some content in accordance with workshop findings, including a chapter for intelligence support to joint targeting.

Scope

Allied joint publication (AJP)-3.9(B) Allied Joint Doctrine for Joint Targeting describes the roles, responsibilities, processes, and products from political/military strategic guidance and oversight inherent in the joint targeting process, joint targeting at operational-level commands, and targeting at the component command level. The procedures outlined in this document do not apply to close combat, non-conventional means, nor does it limit the exercise of self-defence by the use of necessary and proportional force, including deadly force, as provided by international law, national law and policy, to defend personnel against engagement or imminent engagement. As a result of NATO organizational changes, targeting is the responsibility of the Joint Effects Function, managed by Joint Effects Branch (JTE) at Supreme Headquarters Allied Powers Europe (SHAPE).

Purpose

AJP-3.9(B) is the NATO functional doctrine for joint targeting. This doctrine focuses on, but is not restricted to, the operational level[2]. It reflects the evolution of joint targeting to incorporate a full-spectrum approach; that is, using the entire range of capabilities (including cyberspace and space, which may be under national, and not necessarily military control, but not including non-conventional weapons) against a range of targets.

Application

AJP-3.9(B) is intended as guidance for NATO commanders and their staffs. This publication is applicable to NATO operations during BACO and across the continuum of competition and provides a useful framework for joint targeting conducted by NATO members, partners, and non-NATO nations. The legal classification of an

[1] The NATO Secretary-General's Annual Report, 2019, p. 27.

[2] The Joint Force Commands (JFCs) and Single Service Commands (SSCs).

armed conflict or a situation other than an armed conflict will set clear parameters on the types of targeting available.[3]

Advances in targeting technologies and processes have resulted in increased integration and inclusivity within targeting processes that go well beyond simply attacking targets with physical weapons. For the purposes of this publication, and with the aim of being as holistic as possible, it is understood that joint targeting involves the employment of all means and capabilities available.

Linkages

AJP-3.9(B) is based on MC 471, NATO Targeting Policy. It is directly subordinate to - and should be read together with AJP-01 Allied Joint Doctrine and AJP-3 Allied Joint Doctrine for the Conduct of Operations. Targeting is heavily intelligence dependant - and harmonizes with AJP-2 Allied Joint Doctrine for Intelligence, Counterintelligence and Security, AJP-2.1 Allied Joint Doctrine for Intelligence Procedures, AJP-2.7 Allied Joint Doctrine for Joint ISR and AIntP-24, Intelligence Support to Joint Targeting. There are significant linkages to AJP-3.10 Allied Joint Doctrine for Information Operations, AJP-3.10.1 Allied Joint Doctrine for Psychological Operations, AJP-3.20 Allied Joint Doctrine for Cyberspace Operations, AJP 3.5 Allied Joint Doctrine for Special Operations and AJP-3.6 Allied Joint Doctrine for Electronic Warfare, AJP-05, Allied Joint Doctrine for the Planning of Operations and US Chairman of the Joint Chiefs of Staff Instruction (CJCSI) 3160.01C No-Strike and the Collateral Damage Estimation Methodology and CJCSI) 3162.02 Methodology for Combat Assessment. These linkages are not exhaustive and NATO staff shall determine how their specific roles integrate into the joint targeting cycle (JTC).

[3] Within the context of an armed conflict, the use of the term “target” does not mean that they can be lawfully engaged IAW IHL/LOAC. A legal assessment (military necessity, distinction and proportionality and precautions in attack) has to be conducted prior any engagement. Equally, in situations other than armed conflict, a legal assessment prior to any targeting action has to take place on the basis of the applicable legal framework, including the international law principle of proportionality.

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CHAPTER 1 – FUNDAMENTALS OF JOINT TARGETING

1.1 INTRODUCTION

The contemporary operating environment has demonstrated that NATO forces must be prepared to conduct a wide range of activities, often simultaneously, within a single area or multiple areas of operation, areas which are becoming increasingly urbanized. For instance, the future urban battlespace will be more congested, more cluttered, more contested, more connected, and more constrained (the 5Cs).[4] Therefore, it is critical for NATO to think in this space and remain adaptable and resilient enough to operate in this most challenging physical and human environment, which will challenge the necessity for NATO to respect the principles of distinction and proportionality in the conduct of operations. The threat of or use of actions to deter, compel, or coerce will remain at the heart of military operations. However, military forces may also be used to support humanitarian goals or aid security, stabilization, and reconstruction of a failed or fragile state. Additionally, military forces may be called upon to enforce a United Nations Security Council Resolution (UNSCR) or a NATO decision that may occur within an armed conflict. NATO forces must therefore be able to coordinate and through joint targeting, employ a range of capabilities, against a variety of actors, as part of NATO's contribution to a comprehensive approach, in a variety of environments.

1.2 JOINT TARGETING

Joint targeting results from the need to translate the operational-level campaign plan into tactical actions at all levels in order to support the Commander Joint Task Force's (JTF)[5] plan. Joint targeting involves the process of selecting and prioritising targets (which are classified as being either facility, individual, virtual entity, equipment or organization (FIVE-O) and matching the appropriate response to them, taking account of operational requirements and capabilities, with a view to creating desired effects in accordance with the commander's objectives. It links the tactical actions to strategic end state via operational objectives by engagement of prioritized targets. Targeting at the strategic level will focus on the coordination oversight of the operational and tactical targeting function. It will also manage development and maintenance of targeting capability through the Joint Effects Function by SHAPE Joint Effects Branch (JTE). At the operational level, targeting focuses on determining specific actions to create the desired effects to enable the achievement of the commander's operational objectives. Targeting is a multidisciplinary process, which requires participation from all joint force

[4] For further details, see the NATO Urbanization Project 2035: Joint Operations in an Urban Environment Capstone Concept, dated 2019.

[5] During BACO, the lead element at the operational level is the Joint Force Command (JFC). During operations it become the Joint Task Force (JTF). Throughout this publication, the Commander Joint Task Force will be referred to as Commander JTF.

staff elements and component commands (CCs), along with various non-military organizations.[6] It is flexible enough to be adapted to all operations across the continuum of competition[7]. Joint targeting must be conducted in a manner which ensures compliance with the applicable legal framework, especially International Humanitarian Law/Law of Armed Conflict[8] (IHL/LOAC) principles[9]. It must also be conducted in order to ensure that any risk of civilian casualties or collateral damage[10] is proportionate compared with the expected military advantage to be gained.

1.2.1 JOINT TARGETING AS A HOLISTIC PROCESS

Application of the operational planning process in designing the campaign Operational Approach ensures that both effects and decisive conditions support the achievement of operational and strategic objectives. Some of these effects will be created or enabled by targeting actions. It includes measurement of task performance and how effective the targeting activity has been. Joint targeting is a holistic process that determines what direct and indirect reasonably foreseeable effects from target engagement can be expected. It involves reviewing targets of all types together and determining actions to be taken. The process therefore looks to support a top-down as well as a bottom-up targeting methodology, with close linkages to the plan at all levels that can be evaluated at any stage. The full-spectrum approach provides a coherent range of options and effects that aims to optimize military action by avoiding duplication of effort, effects negating each other and ensures that the right targets are prosecuted in the right order, at the right time by the right capabilities. It recognizes that effects will be created by actions in the physical, virtual, or cognitive dimensions in a synchronized way, and that both lethal and non-lethal[11] engagement can create physical, virtual and cognitive (i.e., psychological/behavioural) effects. Further, the recognition and identification of triggers to measure the behavioural change of targeting activity must be planned for. Regarding either the kind of effects to be created in priority, and/or the

[6] These would include non-governmental organisations, international organizations, and non-military governmental organizations.
[7] See AJP-01, Allied Joint Doctrine, for further detail.
[8] Some nations refer to “international law”, and the “The Law of War.”
[9] Given the national nature of cyberspace capabilities NATO staff may have limited insight into details of target development and execution in cases where offensive cyberspace operations (OCO) are contemplated but must be provided by Nations with minimum information to enable the conduct of a legal review.
[10] Collateral damage methodologies for the effects of cyberspace operations are nascent. However, this must still be considered if the NATO commander has effective operational control over the creation of the cyberspace effect, using best judgement and the information available, along with a legal review adapted to the specific legal framework. The key risk is propagation of effects through logically connected systems, and the scope, scale and impact of effects that are propagated. Collateral damage advice on cyberspace operations must be provided by subject matter experts from within the cyberspace staff with sufficient technical understanding of the capabilities being employed.
[11] Some nations refer to "kinetic" and “non-kinetic" actions.

logical sequence of them, these activities will be alternatively supporting and supported by each other. Joint targeting, when properly executed, is therefore an application of unity of effort and concentration of force, which are core principles of joint and multinational operations.[12]

1.2.2 ACTIONS AND EFFECTS

Joint targeting involves taking actions in one or more of the operational domains[13], using all capabilities available, against a target, in order to create an effect in one or more of the physical, virtual, or cognitive dimensions.[14] These actions taken and the effects subsequently created, can range from lethal to non-lethal. The use of some capabilities that create nonlethal effects requires the same type of special considerations because, while they may reduce the potential for death and physical destruction, their improper or untimely use also may have unintended consequences that are detrimental to creating the desired effects and achieving the joint task force's (JTF's) objectives.[15] Joint Effects includes the management, integration, synchronisation and execution of capabilities in order to create effects against an adversary whose systems have been analysed and assessed.

1.2.3 JOINT TARGETING PRINCIPLES

The principles of joint targeting are:

a. **Command and Control**. For targeting to be effective, authority, through policy and direction, will be provided by the North Atlantic Council (NAC) via Supreme Allied Commander Europe (SACEUR) with control delegated as low as is reasonably possible. Within SHAPE, the JTE is responsible for

[12] See AJP-3 Allied Joint Doctrine for the Conduct of Operations, paragraphs 1.21 a. and b.
[13] The five operational domains are maritime, land, air, cyberspace, and space. Space was added as a result of the 20 November 2019 NATO Foreign Minister's Meeting.
[14] When articulating effects, they must have a location (domain) and type (dimension) as it is impossible for them to occur in isolation of each other. For example, an effect can be created in the physical dimension in the air domain, but an effect cannot be created in only the maritime domain alone because it remains undetermined as to what type of effect is desired or has been created. See AJP-01, Allied Joint Doctrine, for further details of the effects dimensions. For this reason, the aspects related to stability policing, as a related capability to the joint function, should also be considered. The effects of joint targeting can in fact affect the development of the mission if not mitigated through a precise action (reinforcement or replacement of host nation (HN) law enforcement agencies, who do not want or cannot guarantee the security and stability of the area of operations) conducted by stability policing units.
[15] For example, lethal actions, such as bombing, may also have non-lethal effects, such as media/social media reporting affecting the local population. Similarly, non-lethal actions, such as an information operation or PSYOPS can lead to violent riots resulting in people being killed or harmed.

managing joint targeting and joint fires on behalf of Deputy Chief of Staff Strategic Employment (DCOS SEM).[16]

b. **Direction**. Targeting must be prioritized, resourced, and managed through clear direction to ensure effective coordination, production, and execution.

c. **Coherence**. All targeting activities, including intelligence support to targeting, must be aligned with NAC agreed direction and guidance in order to ensure focus and remove duplication of effort.

d. **Lawfulness**. Joint targeting must be compliant with applicable legal framework, especially IHL/LOAC[17] principles of humanity, military, necessity, distinction, proportionality, and precaution.[18] Within the context of an armed conflict, the use of the term "target" does not mean that they can be lawfully engaged in accordance with IHL/LOAC. A legal assessment (military necessity, distinction and proportionality and precautions in attack) has to be conducted prior any engagement. Equally, in situations other than armed conflict, a legal assessment prior to any targeting action has to take place on the basis of the applicable legal framework, including the international law principle of proportionality.

e. **Integration**. For targeting to be effective, all effects capabilities must be centrally coordinated and integrated to ensure a comprehensive, joint effects approach.

f. **Timeliness**. Targeting requires considerable lead-in times to generate detailed analysis and to allow for the provision of advice from specialist advisors. Therefore, preparatory activities to enable targeting during operations, must be a priority activity during Baseline Activities and Current Operations (BACO).

g. **Responsiveness**. NATO targeting must have the requisite mechanisms, processes, and capabilities to conduct an effective response to adversary action.

h. **Assessment**. Assessment, initially derived from Target Systems Analysis (TSA), is critical to measure campaign progress and will reflect all changes to the Joint Intelligence Preparation of the Operating Environment (JIPOE) and/or the operating environment.

[16] For targets to be engaged by cyberspace operations, target engagement authorities will likely not match the authority's capabilities in other domains and may require higher levels of approvals. NATO may also have no engagement authority over any national offensive COs.
[17] Some nations refer to "the applicable legal framework and IHL/LOAC".
[18] "Precaution" is a principle of international humanitarian law.

1.3 KEY TERMS

1.3.1 Advanced target development (ATD)

The step which completes the target characterization process and defines the minimum intelligence necessary to plan for effective target engagement, including any intelligence mission data required for employment of a given capability.
(This term and definition only applies to this publication.)

1.3.2 Basic target development (BTD)

The step following intelligence research, target system analysis, and target discovery and which begins the process of uniquely identifying, locating, describing, functionally characterizing, and subsequently data basing entity-level target details.
Note: The basic target development standards are: Identification, Location, Function, Significance, Description.
(This term and definition only applies to this publication.)

1.3.3 Candidate target list (CATL)

A list of entities submitted by nations, component command or appropriate organizations, that are in target development and have not yet been validated.
Notes:

1. Once entities on the CATL have been validated, they can be included on the Joint Target List or the Restricted Target List and be considered for inclusion on the Target Nomination List.

2. The NATO Centralised Targeting Capacity (CTC) would likely manage the CATL during BACO, but under crisis this would likely fall to the joint task forces (JTFs).

(This term and definition only applies to this publication.)

1.3.4 Collateral damage estimation (CDE)

An approximation of the potential inadvertent casualties, damage, and or/destruction as a result of a military operation.
(This term and definition only applies to this publication.)

1.3.5 Combat engagement

Action against an adversary, in accordance with IHL/LOAC, NAC-approved rules of engagement, outside of self-defence, to accomplish missions and tasks during operations when it is not feasible to conduct either deliberate or dynamic targeting due to the immediacy of the engagement.
(This term and definition only applies to this publication.)

1.3.6 Component critical target (CCT)

A target requiring immediate response as directed by the component commander.
Note: A CCT could be a time-critical target from a component commander's perspective, but which was not approved as a time-sensitive target by the Commander Joint Task Force, and whose destruction is of high priority to achieve tactical objectives and therefore is approved as a component critical target by the respective tactical commander.
(This term and definition only applies to this publication.)

1.3.7 Critical element

A part of a target that is essential in enabling it to perform its primary function, in support of achieving its operational objective.
Note: The identification and understanding of critical elements is vital, as it enables the functional capability of the target.
(This term and definition only applies to this publication.)

1.3.8 Cyberspace

The global domain consisting of all interconnected communication, information technology and other electronic systems, networks, and their data, including those which are separated or independent, which process, store or transmit data.
(NATO Agreed)

1.3.9 Cyberspace operation (CO)

Actions in or through cyberspace intended to preserve own and friendly freedom of action in cyberspace and/or to create effects to achieve military objectives.
(NATO Agreed)

1.3.10 Defensive cyberspace operation (DCO)

Actions in or through cyberspace to preserve own and friendly freedom of action in cyberspace.
(This term is a new term and definition and has been processed for NATO Agreed status via terminology tracking file [TTF 2014-0269].)

1.3.11 Dual-use facility/entity

An object or facility/entity characterised as serving both a military and civilian or non-combatant function, thus presenting duality in their use.
Notes:

1. Dual use facilities/entities may exist in the virtual dimension as well as physical – e.g. Supervisory Control and Data Acquisition (SCADA) control systems for industrial plant and processes.

2. A dual-use facility/entity may, or may not, be a valid military objective. The classification of a dual-use facility/entity as a valid military objective must be determined on the basis of the distinction test. In determining whether an object

that does not have any military purpose or use is a valid military objective, commanders and other decision-makers must make the decision in good faith based on the information available to them at the time in light of the circumstances ruling at the time of a planned engagement. After the dual-use facility/entity has been classified as a valid military objective, its lawful engagement must be further assessed on the basis of the proportionality test.
(This term and definition only applies to this publication.)

1.3.12 Engagement

In the context of rules of engagement, action taken against a target with intent to deter, damage or neutralize it.
(This term and definition only applies to this publication.)

1.3.13 Intermediate target development (ITD)

The process which provides sufficient intelligence data to complete functional characterisation requirements and ensures the entity qualifies as a candidate for validation to the joint target list or the restricted target list.
Note: ITD for military units will be conducted at the commander's discretion. Regardless of the level of target development conducted, it must be able to contribute to target prioritization.
(This term and definition only applies to this publication.)

1.3.14 Joint prioritized target list (JPTL)[19]

A list of targets approved and maintained by the joint force commander, and which represents a formal order to component commands to engage targets.
(This term and definition only applies to this publication.)

1.3.15 Joint target list (JTL)

A list of validated targets not yet approved for inclusion in the joint prioritized target list.
(This term and definition modifies an existing NATO Agreed term and/or definition and has been processed for NATO Agreed status via terminology tracking file [TTF 2011-1389].)

[19] Some nations refer to the Joint Integrated Prioritized Target List (JIPTL).

1.3.16 No-strike list (NSL)

A list of objects or entities characterized as protected from the effects of military operations under international law or policy reasons.
Note: Unless otherwise specified, the NSL is normally owned by the Commander JTF.
(This term and definition only applies to this publication.)

1.3.17 Offensive cyberspace operation (OCO)

Actions in or through cyberspace that create effects to achieve military objectives.
(This term is a new term and definition and has been processed for NATO Agreed status via terminology tracking file [TTF 2014-0270].)

1.3.18 Positive Identification (PID)

A recognition derived from observation and analysis of target characteristics including visual recognition, electronic support systems, non-cooperative target recognition techniques, identification friend or foe systems, or other physics-based identification techniques, or human identity-based biometric data collection devices.
Notes:

1. PID provides the reasonable certainty that a functionally and geospatially defined entity is a valid military objective.

2. PID has 2 components: Function and location.

(This term and definition only applies to this publication.)

1.3.19 Prioritized target list

The list, derived from the joint prioritized target list (JPTL), which allocates prioritized targets to individual component commands (CCs). Each CC will have a separate PTL, however, a CC does not necessarily engage a target nominated by itself. A PTL will normally include targets that have been allocated in support of other CCs during the coordination process.
(This term and definition only applies to this publication.)

1.3.20 Quality control

An intelligence staff-led activity that assesses the accuracy of the supporting targeting intelligence, and which informs the JTF or their designate during target validation.
(This term and definition only applies to this publication.)

1.3.21 Restricted target

A valid target that has specific constraints and/or restraints placed on the actions authorized against it due to operational considerations.
Notes:

1. Possible restrictions include when or how to engage a target or a specific prohibition on engaging the target due to operational, political, and/or environmental, collateral considerations.

2. The restriction must include precisely how target engagement is restricted, the duration of the restriction, who may lift the restriction, etc.

(This term and definition only applies to this publication.)

1.3.22 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.
Note: The restricted target list (RTL) is a joint target list (JTL) subset owned by the JFC and may include some joint prioritized target list (JPTL) targets. Regardless, these restrictions do not change the fact that targets on the RTL are valid military targets.
(This term and definition only applies to this publication.)

1.3.23 Sensitive target (ST)

A target for which planned actions requires NATO strategic-level and/or national-level review and approval.
(This term and definition only applies to this publication.)

1.3.24 Target analysis

An examination of potential targets to determine military importance, priority of attack, and weapons required to obtain a desired level of damage or casualties.
(NATO Agreed)

1.3.25 Target discovery

The process of locating and identifying entities and objects of interest in the operating environment to facilitate target development.
(This term and definition only applies to this publication.)

1.3.26 Target element

An integral specific feature or object of a target that enables its functions. Note: If a specific element contributes to the function of multiple entities, the joint force must conduct due diligence to account for the relationship.
(This term and definition only applies to this publication.)

1.3.27 Target engagement authority (TEA)

The authority granted to a Commander to approve target engagement.
Notes:

1. The Commander delegated target engagement authority may subsequently delegate this authority further, if permitted, and after consideration for the specified target set, the risk level, and/or use of capabilities and/or collateral damage level that will affect any collateral concerns.

2. The OPLAN Annex II – Targeting will include the approved Target Engagement Authorities.

(This term and definition only applies to this publication.)

1.3.28 Target selection standards (TSS)

Criteria applicable to future targets to enable successful detection and engagement. Note: criteria cover accuracy and timeliness, target location error; minimum size; static or moving; and time of acquisition. These criteria are applied in order to determine what degree of accuracy and timeliness is required from detection systems.
(This term and definition only applies to this publication.)

1.3.29Target set

A broad set of interrelated, functionally associated components and linkages that produce a common output or have a shared task or mission. Note: Target sets are approved by the North Atlantic Council.
(This term and definition only applies to this publication.)

1.3.30 Target system component

An entity within a target system that performs or contributes to a similar function to the system overall. Example: A non-state target system component might include the training camps within a terrorist organized armed group target system.
(This term and definition only applies to this publication.)

1.3.31 Target type

A characterization of a target as being under one of five distinctive types: Facility, Individual, Virtual, Equipment, or Organizational (FIVE-O).
(This term and definition only applies to this publication.)

1.3.32 Target validation

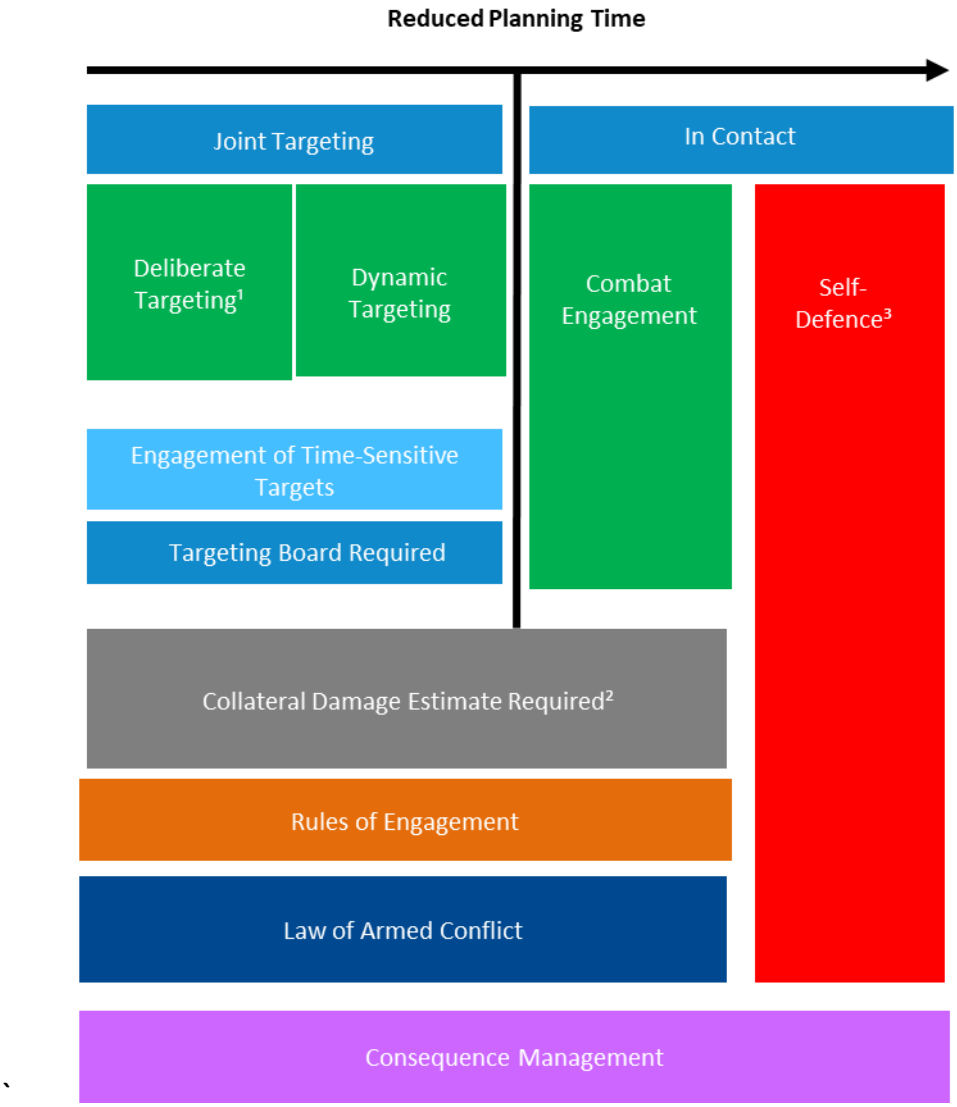
An operations staff-led activity that ensures continued compliance with the Commander JTF's objectives, guidance, intent and desired effects, compliance with relevant international law and rules of engagement and the accuracy and credibility of sources used to develop a target.
Note: Validation is a two-step process: a determination that the target is valid (continued compliance with the JTF's objectives, guidance, intent, desired effects, relevant international law); and once validated, placing the validated target onto a target list.
(This term and definition only applies to this publication.)

1.3.33 Target Validation Board (TVB)

The functional board, chaired by the Commander JTF, supported by operations, intelligence and LEGAD staff, authorized to validate targets to the joint target list or the restricted target list. The Commander JTF may delegate Board Chair responsibility to a staff branch, based on the situation.
Note: the authority to validate targets will be specified in the operation plan (OPLAN) Annex II – Targeting.
(This term and definition only applies to this publication.)

1.4 THE ENGAGEMENT CONTINUUM

Engagements and actions can take place across a wide spectrum. The engagement continuum and related activities are depicted in Figure 1.1:



Notes:
1. Deliberate targeting includes scheduled and on-call targets.
2. Collateral Damage Estimation (CDE) for joint targeting will be as specified in the operation plan (OPLAN) Annex II – Targeting. Combat engagement is not a joint targeting activity that uses the formal CDE process. In a combat engagement, the on-scene commander will conduct a basic, non-written collateral damage estimate (in accordance with CJCSI 3160.01), using their best judgement, adhering to IHL/LOAC principles and taking all feasible precautions to minimize collateral damage, given the situation at the time.
3. In accordance with national laws and policy, using the principles of Necessity and Proportionality. It is generally accepted within NATO that self-defence encompasses the use of necessary and proportional force, including deadly force, to defend against an attack or imminent attack.

Figure 1.1 – The engagement continuum in an armed conflict situation

a. **Deliberate targeting**. Deliberate targeting is conducted against validated targets known to exist and intended to be prosecuted on either a scheduled or on-call basis. Deliberate targeting results in targets being properly subject to quality control, validated and being placed on the joint target list (JTL) or restricted target list (RTL). Deliberate targeting normally supports the JTF's future operations and future plans efforts.

Deliberate targeting also identifies the JFC's Time-Sensitive Targets (TSTs):

(1) Scheduled targets are prosecuted at a specific time; and

(2) On-call targets have actions planned but not for a specific delivery time. The commander expects to locate these targets in sufficient time to execute planned actions. These targets are unique in that actions are planned against them using deliberate targeting, but execution will normally be conducted using dynamic targeting.

b. **Dynamic targeting**. Dynamic targeting engages targets that due to the dynamic changes in operations, present a threat to force or mission, and whose criteria supports the commander's objectives within the current operation period. These targets are prosecuted during the current operations period and can be valid targets on the JTL or RTL, not selected for action during deliberate targeting or targets in development or unanticipated targets. Dynamic targeting normally prosecutes targets known to exist in the area of operations. Dynamic targets have received some target development but were not detected, located, or selected for action in sufficient time to become a deliberate target. Dynamic targeting also applies to unexpected targets that meet criteria specific to operational objectives; on these occasions, resources are required to complete the target development, validation, and prioritisation. Engaging these targets may be possible by redirecting existing assets in accordance with the Commander JTFs intent and targeting guidance. Dynamic targeting is normally employed in current operations planning because the nature and time frame associated with current operations (usually the current 24-hour period) typically requires more immediate responsiveness than is achieved in deliberate targeting.

1.4.1 ENGAGEMENT OF TIME-SENSITIVE TARGETS

A TST may be engaged through the deliberate or dynamic targeting method, dependent on time available. TSTs are prioritized, categorized, coordinated and deconflicted at the operational tactical level. Authority for engagement of TSTs are as directed in the OPLAN Annex II –Targeting. The engagement of TSTs may necessitate that a higher level of risk is accepted to successfully engage the target. At component command (CC) level, TSTs may be closely followed in priority by Component Critical Targets (CCTs). Further detail on engaging TSTs is in Annex A.

1.5 THE JOINT TARGETING CYCLE

The joint targeting cycle (JTC) translates strategic-level direction and guidance and the Commander JTF's direction and guidance at the operational level into tactical level activities that service targeting priorities. Within each CC, tactical-level targeting activities allow CCs to contribute to, and act on, the joint targeting process. The JTC is depicted in Figure 1.2[20]:

[20] Examples of other targeting cycles are described in Ch 5.

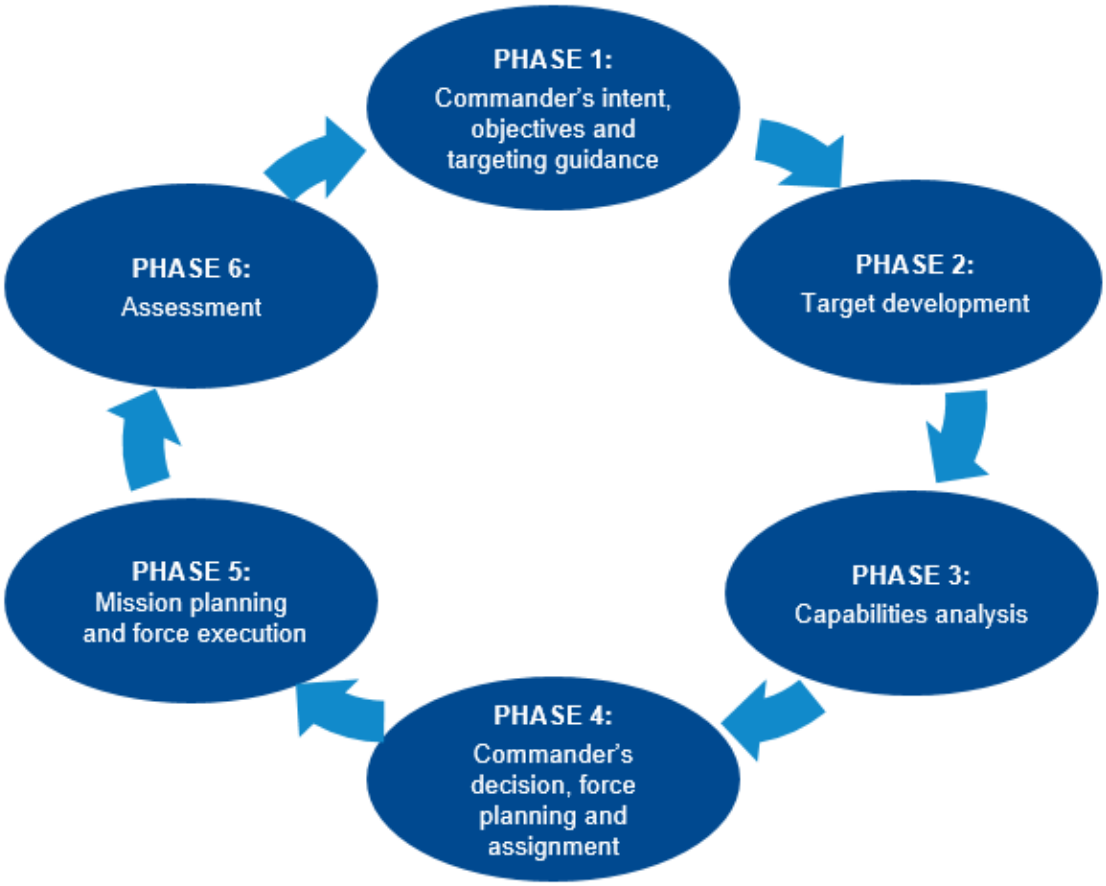


Figure 1.2 – The joint targeting cycle

1.5.1 THE PHASES OF THE JOINT TARGETING CYCLE

The JTC consists of six phases. This cycle focuses targeting options on the JTF's objectives for operations, while reducing the likelihood of undesired effects. The JTC is inextricably linked to the joint intelligence, surveillance, and reconnaissance (JISR)[21] process and feeds the planning process. Detail on how these processes interact is given in Chapter 2. During BACO, while planning for a new operation, the JTF HQ will contribute during the development of SACEUR's Strategic Assessment with its own JIPOE and will submit on order SACEUR's operational planning with development and submission of proposed target sets, TSTs, approved TAs and Rules of Engagement (ROEs). Commander JTFs will ensure their joint targeting process will be in accordance with the OPLAN Annex II – Targeting. The six phases are:

[21] For details, see AJP-2, Allied Joint Doctrine for Intelligence, Counter-Intelligence and Security and AJP-2.7 Allied Joint Doctrine for Joint Intelligence Surveillance and Reconnaissance.

a. **Phase 1: Commander's intent, objectives and targeting guidance.** The targeting process is conducted within political and strategic direction, guidance, and constraints. This is issued from the strategic level to the operational level through a strategic planning directive and strategic-level operation plan (OPLAN)[22], including the strategic communications directive and framework. At the operational level, the joint operations planning group translates this into the JTF operational-level operation plan (OPLAN). Phase 1 takes the Commander JTF's intent, objectives and targeting guidance and identifies appropriate NAC-approved target sets against which specific effects can be created, each logically and directly related to the overall desired end state. The Commander JTFs joint targeting outcomes must be observable, measurable, and achievable. The Commander JTF must clearly identify what objectives to achieve, under what circumstances and within which parameters, including appropriate MOPs and MOEs. This is an iterative process between the JTF and its subordinate CCs enabling each to develop their own objectives, tasks and supporting target nominations. Sensitive targets (STs) and assessment criteria may be first identified during this phase, as well as guidance provided regarding entities to be part of the NSL.[23] Any delegation of validation authority can be stated in this phase. The output of Phase 1 is the OPLAN Annex II – Targeting, and any subsequent joint coordination orders (JCOs).

b. **Phase 2: Target development.** Target development identifies valid targets that can have actions taken against them for possible engagement to achieve the JTF's objectives, and whether such actions would be lawful[24]. It examines threats with a systems approach, from TSA to the individual target elements utilizing the targeting taxonomy, which hierarchically orders the adversary, its capabilities, and the targets that enable the capabilities into a clarifying framework (See Figure 1.3). JIPOE helps target developers prioritize an adversary's target systems based on how much each contributes to the threat's ability to conduct operations. Effective target development is based on target system analysis (TSA), and human network analysis along with consultation between targeteers and legal advisors (LEGADs) in order to

[22] See AJP-5 and Allied Command Operations Comprehensive Operations Planning Directive (COPD) for further details on the NATO operational planning process.
[23] The NSL may evolve during the operation. Engagement of NSL entities may violate IHL/LOAC, agreements, conventions, NAC policies or rules of engagement, depending on the reason for listing them on the NSL.
[24] For target to be engaged with cyberspace operations, target development will be distributed, as weaponeers for capabilities employed in or through cyberspace may not be deployed forward.

ensure the selection of lawful targets, and Gender advisor (GENAD)[25] to provide a gender analysis. This intelligence produced for the targeting process is target intelligence, which portrays and locates the components of target and indicates its vulnerability and relative importance. TSA evaluates a threat system as it operates in the environment and provides a capability to the adversary. The product provides relationships in between the entities that make up the system to expose vulnerabilities that can be used to deny the adversary said capability. Target validation, inherent in Phase 2, seeks to ensure compliance with the commander's objectives, guidance, intent, desired effects and the applicable legal framework for the mission, especially IHL/LOAC[26]. It further ensures continued CO targeting conducted for an operation is synchronized and deconflicted with other targeting activities through the relevant processes. Target validation takes place at the Target Validation Board (TVB). Targets validated at this event will enable further planning, developing targeting strategies, and command target nomination lists, but will not include ATD until a declaration of crisis. The key outputs of Phase 2, led by the operations staff, is targets being validated to the JTL, RTL, or being placed on the No-Strike List (NSL).

[25] As the Office of Primary Responsibility regarding UNSCR 1325 and related Resolutions on Women, Peace and Security, the GENAD provides advice on its implementation, and the integration of gender perspective including, but not limited to, operations/missions, crisis/conflict analysis, concepts, doctrine, procedures and education and training. The GENAD reports to the Commander and the GENAD office is organisationally placed within the Staff Advisory Group. See NATO Bi-SCD 040-001 Integrating UNSCR 1325 and Gender Perspective into the NATO Command Structure (2012) for further detail, including gender analysis.

[26] For example, the J9 staff input on specific entities would not be placed on a target list.

Note: 1. Electronic Target Folders focus on the target but will identify the target system component and target system that it is part of.

Legend:	
FIVE-O	Facility, Individual, Virtual, Equipment-Organization
JIPOE	Joint Intelligence Preparation of the Operational Environment
TSA	Target System Analysis

Figure 1.3 - Target development relationships

c. **Phase 3: Capabilities analysis**. Phase 3 analyses JTL/RTL nominated targets from Phase 2 and recommends to the Commander JTF the synchronized combination of the most appropriate lawful actions that could be taken to create the desired effects. This includes advice on whether the joint force has the capability to lawfully engage the target and, if so, how to mitigate any undesired effects identified in Phase 2. Advanced target development (ATD) will ensure applicable collateral effects analysis using applicable tools and/or methods to identify and mitigate any potential undesirable or unlawful effects while still achieving the desired end state. ATD will also develop weaponeering (and other disciplines) solutions. The information

activities coordination board (IACB) through information operations has the responsibility to analyse proposed target nomination enquiring the opportunity to engage sensitive target or propose different options to avoid undesired effects and adversary propaganda against NATO. Strategic Communications (StratCom) has the role to advise on the consistency and coherence between the message sent by joint targeting activities and approved messages within the StratCom framework. The key outputs of Phase 3 are TNL a draft JPTL.

d. **Phase 4: Commander's decision, force planning and assignment**. This phase integrates the outputs of capabilities analysis with any further operational and legal considerations. Nominated targets are prioritized based on the Commander JTF's intent, objectives and targeting guidance to maximise effective use of joint force capabilities while minimizing the likelihood of unintended and potentially undesired effects. The Commander JTF then issues final approval for prioritized targets. The JPTL informs the allocation of required intelligence and engagement capabilities, dependent on the maturity and detail of the particular target folder. Options regarding selection of specific weaponeering solutions, including for information activities and CO[27], will be briefed to the commander if required. This is particularly the case when collateral damage or effects cannot be mitigated, while all feasible[28] precautions will be made to minimize the likelihood of unintended and potentially undesired effects, thereby allowing the commander to approve or cancel the engagement. The key outputs of Phase 4 are an approved JPTL and PTLs.

e. **Phase 5: Mission planning and force execution**. This phase is the critical step in transitioning targeting to tactical operations, at the conclusion of this phase, the stage is set for detailed mission planning to engage targets. JTF and CC staffs perform command and control (C2) functions, monitor the execution of the approved targeting plan, which is the output of the previous phases, and direct changes as required. Key to success is a flexible approach allowing resources to be reassigned if priorities change. The output of Phase 5 is applicable CC orders to execute the JPTL and respective CC PTLs (e.g. an air tasking order in the case of the

[27] The Cyberspace Operations Centre (CyOC) acting as Theatre Component for Cyberspace (TCC) will lead on this coordination.

[28] The word 'feasible' in this context means what is practicable, or practically possible, considering all the circumstances at the time using all the information reasonably available. Some nations refer to "feasible precautions", vice "all feasible precautions."

joint force air component (JFAC)) as well as complementary JISR tasks if required.

f. **Phase 6: Assessment**. Assessment measures the extent to which the desired effects, regardless of the actions taken, have been created and recommends the extent to which further actions are required. It encompasses a physical, functional and system assessment. Assessment also contributes to wider operational and campaign assessment. At the operational level, campaign and operational assessment are conducted by the JTF HQ operations assessment element in cooperation with JTF headquarters (HQ) J-codes and CCs and focuses on operational level objectives of both Allied and adversary forces. It uses MOEs that support operational mission accomplishment. Operational-level assessment efforts concentrate on operational effects, decisive conditions, operational objectives, and progress toward the military end state. It looks beyond current operations, to the operational end state. It answers the questions: 'Is the JTF achieving its objectives?' and 'Is the adversary more likely than the JTF to succeed in meeting its objectives first?' Assessment will include a civilian casualty tracking mechanism and should consider using gender and age disaggregated data tied to mission parameters with a view to inform future operations and further minimizing civilian casualties. Assessment of human and material damages should integrate a gender perspective while regarding the different effects on women, men, boys and girls. Assessment of the effects of information activities may take longer to manifest themselves than the physical effects from a lethal attack. Applying information activities and CO against a target may result in change within that target that could affect attitude or behaviour. A change of attitude is unlikely to be measurable until reflected in the target's behaviour and so the MOE should focus on behaviour and collection mechanisms tasked accordingly. J9 and PSYOPs staffs can provide input regarding the effects on external actors such as international organisations (IOs) or non-governmental organisations (NGOs) as well as the local population including the national government and society that may be affected by joint targeting[29]. In support of assessment processes and engagement of targets with information and actions in cyberspace, a collateral effects estimate may be utilized. The details of such an estimate will be as directed in the operational targeting directive. At the

[29] See AJP-3.10(A) Allied Joint Doctrine for Information Operations, AJP-3.10.1(B) Allied Joint Doctrine for Psychological Operations, and AJP-3.20 (A) Allied Joint Doctrine for Cyberspace Operations for further information on the assessment of information activities.

tactical level, assessment uses MOPs and MOEs to evaluate task accomplishment and seeks to answer the question: 'Are the JTFs doing the right things to meet the commander's intent and operational objectives within the current phase?' The results of the assessment feed the Commander JTF's decision cycle either through a joint coordination board (JCB) or another decision-making board. Accurate determination if an MOE has been satisfied is very difficult to achieve at the tactical level and is better considered an operational level function. At the tactical level MOE indicators could be used, which would then feed into a broader MOE assessment over the longer term and at a higher level. The outputs of Phase 6 are:

(1) An assessment of the extent to which the JTCs desired effects have been created in the achievement of the operational objectives[30];

(2) An assessment of the requirement to conduct consequence management for any undesired effects created. Any targeting activity, particularly those near third parties, such as non-state actors or media, could result in undesired effects, triggering unfavourable perception of friendly actions by any actors, be they friendly, neutral or adversary. This may fuel hostile propaganda, and/or disinformation, which NATO must be prepared to rebut, if necessary. These undesired effects could be mitigated through information activities, planning for which must be developed before Phase 5, and which execution must be decided as part of the targeting assessment. Mitigation plans are aimed at:

- Assessing the impact of main events or incidents on the creation of each phase's planned effects;

[30] This will include Battle Damage Assessment (BDA), which is primarily an intelligence function, and which US CJCSI 3162.02, *Methodology for Combat Assessment*, defines as, 'The estimate of damage composed of physical and functional damage assessment, as well as target system assessment, resulting from the application of lethal or nonlethal military force.'; Munitions Effects Assessment (MEA), which is primarily an operations staff responsibility, supported by intelligence staff, and which involves an 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, fuzing, and/or weapon delivery parameters to increase force effectiveness (See US CJCSI 3162.02 for further details); and Collateral Damage Assessment, in which certified CDE analysts determine and document the actual collateral damage resulting from targeting operations. Collateral Damage Assessment is primarily an intelligence function with support from operations staff.

- Proposing corrective effects, individuals, groups and parties[31] to be targeted, and supporting information activities; and
- Requesting upper-level guidance, assets or activities.

(3) Re-engagement recommendations to the Commander JTF. Re-engagement recommendations are derived from the above assessments that provides the commander systematic advice on re-engagement of targets and further target selection to create desired effects. Re-engagement recommendations help drive the next iteration of the JTC and should be produced in a timely manner. The collateral damage and collateral effects must be assessed again during this (part of the) phase. Re-engagement recommendations transform the assessments already made into a recommendation on whether desired effects have been created or whether further efforts or a different approach are required. The development of re-engagement recommendations is a combined operations and intelligence function; and

(4) Recommendations to the Commander JTF to remove targets from the JPTL. These recommendations are derived from the assessment that the desired effect on a specific target has been created, rendering further engagement unnecessary.

1.5.2 TARGETING STAFF

The JTC is normally managed by a targeting staff that includes at a minimum, representatives from the J2, J3, and LEGAD, with others included as required.[32] To ensure a full spectrum and cross domain approach to joint targeting, the targeting staff plans, coordinates, synchronizes and assesses all aspects of joint targeting, including cross-domain actions[33] and joint fires planning and coordination on behalf of the JTF. The targeting staff's key functions and tasks include:

- supporting the development of theatre-wide joint targeting guidance and priorities in conjunction with CC planners and specialist advisors as part of the joint operations planning group (JOPG);
- ensuring a legal assessment of the targets and desired effects;

[31] See AJP-01, *Allied Joint Doctrine* for further details of individuals, groups and parties in the operating environment.
[32] These include, but are not limited to: J4, J5, J9, Joint Fires, Political Advisor (POLAD), Strategic Communications (StratCom) Advisor, Cultural Advisor (CULAD), Gender Advisor (GENAD), Military Engineering (MILENG), Military Public Affairs (MilPA), PSYOPS, and Info Ops.
[33] Cross-domain actions are actions between one domain to another (e.g., the employment of land-based systems against maritime targets).

- ensure an assessment of the higher order effects which may be created;
- coordinating and de-conflicting target nominations at the JTF level and higher;
- coordinating component target nominations to the JTL and the JPTL;
- prioritising and forwarding the JPTL to the Joint Targeting Coordination Board (JTCB) for review and approval and then manages the approved JPTL;
- managing the RTL and NSL;
- developing the roles, functions, and agenda of the JTCB for JTF approval;
- organising a team to address intermediate targeting efforts to bridge the gap between current and future operations;
- recommending JISR collection requirements to assist target development;
- monitoring TST and component-critical target (CCT) operations for the J3;
- recommending procedures for engaging TSTs and CCTs;
- recommending high pay-off targets (HPTs) to the Joint Operational Planning Group (JOPG);
- coordinating with joint fires;
- developing collateral damage prevention procedures based on commanders' guidance and higher-level directives;
- assessing possible impacts of targeting-related actions on the physical operating environment (especially infrastructure) and its consequences for own forces, populations, and the environment; and
- ensuring LEGAD input into the joint targeting process;
- conducting assessments of joint fires and targeting in coordination with higher headquarters (HQ) and CCs.

1.6 LEGAL CONSIDERATIONS

NATO operations are governed by the policies approved by the North Atlantic Council. The use of force or provocative actions in NATO Operations are controlled by NATO ROE, IHL/LOAC as applicable, and the domestic law of the participating nations.[34] The legal classification of an armed conflict or a situation other than an armed conflict will set clear parameters on the types of targeting activities that can be conducted. Moreover, the identification of an entity as a potential target does not enable commanders to draw any conclusion with regards to the means that may be

[34] Through a United Nations (UN) mandate, Status of Forces Agreement (SOFA), or other special agreements, the NATO-led force may enjoy certain immunities related to its duties. Notwithstanding this, its members must respect the laws and customs of the HN and must be seen to be doing so. See AJP-3.0, Allied Joint Doctrine for the Conduct of Operations for further detail.

lawfully directed at it, if any. This imposes restraints and constraints on targeting decisions and actions. While targeting direction and guidance may be more restrictive than that permitted by IHL/LOAC for policy and other reasons, it may never be more permissive. Commanders must receive training in IHL/LOAC, as appropriate, and receive support from a legal advisor. To ensure NATO documents comply with NATO ROE, IHL/LOAC, and NATO policy, it is imperative that formal records are kept of the decision-making process and any advice given during that process, especially during Phases 2 and 4. The wide utility of information activities alongside traditional lethal actions demands closer adherence to NATO policies that ensure the protection of civilians and the avoidance of collateral damage. In particular, the lawfulness of information activity against a target does not mean that physical action would be lawful against the same target. Furthermore, actions intended to have an influence on a particular target may affect third parties not involved in the crisis and those outside the joint operations area, resulting in collateral effects.

1.6.1 ROLE OF THE LEGAL ADVISOR

LEGADs should be involved in the targeting process from the beginning. Commanders are responsible for targeting. LEGADs support commanders and the targeting process by reviewing targets as subject matter experts in IHL/LOAC and their knowledge of the permissions and restrictions placed on the Commander's authority to use force, including applicable domestic law. They specifically ensure that targeting efforts are aligned with the legal framework and that IHL/LOAC principles are integrated along the whole process from target discovery through validation and engagement. LEGADs can be expected to make specific requests for intelligence and assessments, in order to perform their advisory role for the commander.

1.6.2 INTERNATIONAL HUMANITARIAN LAW/LAW OF ARMED CONFLICT (IHL/LOAC) PRINCIPLES

Operations may occur within a complex legal framework regulating the use of force that may, in turn, restrain and constrain the employment of effects. Each nation interprets and characterises the situation and the applicable legal framework (i.e. relevant international law, IHL/LOAC, human rights law, United Nations Security Council resolutions [UNSCRs], its own domestic law and, in some circumstances, host-nation law) when making targeting decisions. Any individual has the right to exercise self-defence in accordance with national laws and policy using the principles of Necessity and Proportionality. It is generally accepted within NATO that self-defence encompasses the use of necessary and proportional force, including deadly force, to

defend against an attack or imminent attack. The IHL/LOAC principles[35] to be integrated into the joint targeting process are[36]:

a. **Humanity**. The principle of humanity states that protected persons shall in all circumstances be treated humanely. Inhumane treatment of protected persons is a (war) crime. Military personnel may not use methods or means of warfare that are calculated or expected to cause superfluous injury or unnecessary suffering. Where IHL/LOAC does not provide specific rules, the principle of humanity applies as a general standard of behaviour in armed conflict. Furthermore, this principle is the basis for IHL/LOAC provisions regarding the standard of treatment of protected persons and the specific prohibition against the infliction of superfluous injury or unnecessary suffering.

b. **Military Necessity**. States may only use force not otherwise prohibited by IHL/LOAC that is necessary for the partial or complete submission of the enemy. Military necessity is not an overriding principle allowing breaches of IHL/LOAC rules. It does not justify violations of IHL/LOAC;

c. **Distinction**. Distinction requires distinguishing between combatants and civilians; objects that are military objectives and civilian objects. Attacks may be directed only at military objectives. Attacks must not be directed at civilians or civilian objects. Indiscriminate engagements are prohibited, and due consideration must be given to the 2016 NATO Policy for the Protection of Civilians (PoC)[37] and to civilians who are taking direct participation in hostilities (DPH).[38]

d. **Proportionality**. Civilian losses expected from military action (collateral damage) must not be excessive in relation to the concrete and direct military advantage anticipated. All feasible precautions must be taken in the choice of means and methods of creating an effect, with a view to avoiding, or at least minimising, incidental loss of civilian life, injury to

[35] See ATrainP-2, *Training in the Law of Armed Conflict*, Ed (B), Version 1, 2019 for further detail.
[36] Some nations have an additional moral/ethical principle**,** "Honour", which demands a certain amount of fairness in offense (sic) and defense (sic) and a certain mutual respect between opposing military forces.
[37] The key principles of this policy are: 1. NATO's approach to the protection of civilians is based on legal, moral and political imperatives; 2. NATO's approach to PoC is consistent with applicable legal frameworks; 3. NATO's fulfilment of its responsibilities under this policy is subject to the legal basis for the specific NATO operation, mission or activity, and to the specific Council-approved mandate, without prejudice to force protection and collective defence obligations; and 4. NATO recognizes that all feasible precautions must be taken to avoid, minimize and mitigate harm to civilians. When planning and implementing such measures, NATO should consider those groups most vulnerable to violence within the local context.
[38] The Geneva Conventions do not define DPH, therefore the notion of DPH must be interpreted in good faith and on a case-by-case basis. Decisions must be based on information available at the time. The concept of direct participation in hostilities is interpreted differently by NATO member states.

civilians and damage to civilian objects. An engagement should be cancelled or suspended if it becomes apparent that the objective is not a military one, or if excessive collateral damage is expected; and

1.7 OTHER CONSIDERATIONS

a. **Determining lawful military targets.** Certain entities will almost always be military targets; examples include combatant members of enemy armed forces (unless they are *hors de combat*), fighter aircraft, submarines, and ammunition depots. Other entities, referred to as dual use, may be more difficult to identify as valid military targets. Dual-use entities can be used by both civilian and military, provide services to civilians and the military. Examples of dual-use entities may include airports, electrical systems or network infrastructure. Before engagement, these entities must be carefully analysed, based on the current situation and information, to determine if they are lawful military objects. If there is doubt whether an object normally dedicated to civilian purposes is contributing to military action, the presumption is that it is not. Dual-use objects raise far more proportionality concerns than exclusively military objects with particular reference to long-lasting detrimental impact on the civilian population.

b. **Responsibility and accountability.** Individual responsibility and accountability to comply with the IHL/LOAC rests at all levels, including governmental level. Those carrying out the engagement shall apply the targeting guidance received, approved ROE and IHL/LOAC, relying on the facts available to them and those that they should reasonably have obtained. All feasible precautions must be taken in the choice of means and methods of engagement, and an engagement should be cancelled or suspended if it becomes apparent that the objective is not a military one[39], or that estimated collateral damage would be excessive, in the circumstances ruling at the time.

c. **Positive identification (PID).** All targets must be distinguished as lawful military objectives prior to their engagement and commanders should do everything feasible to verify that the target is a valid military objective.

d. **Joint targeting in and through cyberspace**. In cyberspace, computers, networks, and infrastructure may be engaged if they qualify as military objectives. Cyberspace infrastructure is largely globally interconnected; however, geographic boundaries do apply in the context of jurisdiction, with national responsibilities.[40] Some targets in cyberspace may be dual-

[39] Additional Protocol I to the Geneva Conventions, article 57.2.a and 57.2.b.
[40] See AJP-3.20, Allied Joint Doctrine for Cyberspace Operations.

use entities. There are unique considerations regarding CO. These include:

(1) attribution, as nations considering the employment of OCO may wish to avoid being identified as the initiator of such an engagement;

(2) operations security (OPSEC), in terms of friendly capabilities that may be revealed as a result of engagements in or through cyberspace by friendly forces;

(3) re-engineering. That is, the code that is deployed as part of an engagement may be forensically discovered and re-engineered by the adversary, who may in turn use it against friendly forces or non-combatants or publicize the capability for use by others;

(4) legal and policy risks, given the lack of mature cyberspace legal and policy frameworks. In many cases, these may be perceived risks based on individual nations' publicly declared policy positions on OCO; and

(5) certain types of COs can take significant time to plan, develop, authorise and execute.

(6) The Law of Neutrality. It will be for individual states to interpret and apply the law of neutrality in delivery of CO in support of Alliance operations and missions.[41]

e. **Sites of religious and cultural significance and specially protected objects**. Particular care must also be taken when considering sites of religious or cultural significance and specially protected objects.[42] Such objects may only be targeted if having become military objectives. In the case of cultural property, the areas immediately surrounding it, and appliances in use for its protection should be safeguarded and respected. In general, acts of hostility may not be directed against cultural property except when military necessity imperatively requires such acts. All feasible precautions must be taken in the choice and methods of effect with a view to avoiding, or at least minimising, incidental damage to cultural, religious and specially protected objects.

[41] See AJP-3.20, Allied Joint Doctrine for Cyberspace Operations.
[42] The 1954 Hague Convention for the Protection of Cultural Property in the Event of Armed Conflict is the example of measures in place for such objects. See also NATO Bi-Strategic Command Directive 086-005 Implementing Cultural Property Protection in NATO Operations and Missions, dated 01 April 2019.

f. **Military Engineering (MILENG) Considerations**. MILENG staff provide advice whenever the physical operating environment is about to be affected in any way by whatever effects may be created[43].

g. **Strategic Communications (StratCom) Considerations.** As a range of capabilities and activities both physical and informational, can affect the information environment, all targeting activities must be coherent with the NATO StratCom framework and mission narrative. Target sets are approved by the NAC during the planning process. A full spectrum approach to joint targeting ensures inclusion of StratCom, military public affairs (MilPA), and integrating information operations where appropriate and permitted[44] in order to ensure that operational and tactical level activities are in consonance with strategic level StratCom efforts.[45]

h. **Gender Considerations**. This integration of a Gender perspective contributes to the orchestration of fighting power, as an integral part of both a behaviour centric approach and a comprehensive approach. Therefore, close cooperation between GENAD, LEGAD, targeteers and intelligence is necessary. A gender lens should always be applied in the cognitive, virtual, and physical dimension of the framework in which NATO operates recognising it has an impact across the human, physical and information environments;

i. **Collateral Damage Considerations.** Even within approved collateral damage levels, the Commander JTF must decide if any expected collateral damage would be excessive or not, in relation to the military advantage offered by engagement of each target and must take all feasible precautions to avoid it. Further considerations related to collateral damage include:

- **Collateral damage estimation (CDE).** NATO does not have a separate CDE methodology and uses current US CDE methodology (CJCSI 3160.01C), or as directed by the operational targeting directive. Even though target development started during Phase 2, technical weapons data is critical during Phase 3 of the JTC. Typically, this information resides only with member states who employ said weapons and technical weapons details and computer models may not be available to all NATO member states. However, if a NATO member's personnel are involved in Phase 3 of the JTC they may require access to such data to accurately determine weapon effects for CDE. SHAPE JTE will advance the

[43] See MC 0560 Policy for Military Engineering, and AJP-3.12(B) Allied Joint Doctrine for Military Engineering.
[44] NATO policy and national laws of some NATO members states may not permit the inclusion of such capabilities within the joint targeting cycle.
[45] See AJP-10, Allied Joint Doctrine for Strategic Communications (StratCom), for further details.

requirement for appropriate weaponeering tools within NATO in order to enhance NATO´s targeting capability. The CDE methodology is an instrument to assist with the legal consideration of proportionality but does not relieve the commander of their obligations under the principle of proportionality. It is intended to aid and not replace the judgement of the commander who has been delegated TEA.

- **CDE for effects in the physical dimension.** CDE is a tool to assist the commander in approximating possible effects in the physical dimension. The US CDE methodology used by NATO recognises levels of collateral damage as estimated by certified CDE analysts. They consider target parameters, such as location and proximity to non-military entities and then mitigate risks by working with a certified CDE analyst to model the potential variables, such as the type of weapon system and the method, or time, of engagement. Certain targets such as chemical, biological, radiological, and nuclear (CBRN) weapons and devices or industrial facilities have the potential to create hazards affecting nearby friendly forces as well as the population and for creating lasting environmental damage. Commanders will be faced with significant manoeuvre obstacles and a proliferation threat of the unsecured and damaged materials. These targets may require specialised knowledge and tools to determine CDE beyond those available to JTF CDE analysts. Especially targeting CBRN weapons, devices and facilities require the support of the HQ CBRN defence staff. Coordination with NATO member states and/or the Joint JCBRND COE which possess the knowledge and tools to perform this specialised CDE modelling is required in such cases. The Joint CBRN COE through NATO CBRN reachback and modelling and simulation capabilities is the authorised entity providing technical and scientific information and analysis of CBRN effects.
- **CDE for effects in the virtual and cognitive dimensions.** Employing a range of capabilities in engagements can result in effects in the virtual and cognitive dimensions, some of which may be undesirable. A deeper understanding of the human environment is achieved by means of a gender analysis. It enables a better definition of desired and undesired effects in these dimensions. This helps reduce the level of risk. Nevertheless, the risk estimate for effects in these two dimensions may not achieve the same level of prediction as the physical one. Although there is currently no agreed methodology for a collateral effects estimation (CEE), commanders and their staffs should manage the risk by making efforts to

understand the human environment[46] through TSA and in compliance with the NATO Policy for the Protection of Civilians. The employment of nations' sovereign capabilities may be used to help clarify this risk.

- **Delegated authority for collateral damage.** The NAC will authorise the permitted level of collateral damage for each NATO-led operation. SACEUR will pass this to the JTF through the targeting guidance, although SACEUR may retain some authority at their level. The JTF is then able to authorise targets within this delegated authority, including delegating lower levels of authority to CCs, if authorised. If a target exceeds the authority of the JTF commander, then it must be elevated to the appropriate TEA as stipulated in the targeting directive. Notwithstanding the above, all feasible precautions in engaging targets must be taken, with a view to minimizing–or avoiding– collateral damage.
- **National considerations for collateral damage.** Individual member states will often authorise specific levels of delegated authority of collateral damage for an operation in accordance with their legal interpretation and policy constraints. This will be passed to the national approval authority in SHAPE or the JTF HQ, who receives support from national legal, policy and targeting advisors who can render targeting decisions on their nation's behalf in accordance with national caveats and approval processes. The national approval authority refers any targets that fall outside their delegated authority back to their nation for clearance.

[46] The NAC-approved PoC concept describes all aspects of the broader human environment. The human environment focuses on how all humans interact with their environment, especially with each other. Therefore, it includes non-civil aspects of the environment, such as the military irregular armed groups.

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CHAPTER 2 – INTELLIGENCE SUPPORT TO JOINT TARGETING

2.1 GENERAL

At all levels, joint targeting will be a command-led, plans-based, operations-driven and coordinated and intelligence-enabled activity. As such intelligence support to joint targeting is a critical activity in providing the analysis and assessment in order to conduct adversary understanding. Targeting-Intelligence staff support joint targeting by leading on target analysis and by providing a detailed picture of the threat's capabilities, structure, organisation, intentions, objectives, and vulnerabilities. This intelligence is used to allocate relative importance to target sets, targets or target elements, in support of operational decisions and the target prioritisation process. Intelligence is directed at an adversary, threat, or hostile actor.

2.1.1 JOINT INTELLIGENCE PREPARATION OF THE OPERATING ENVIRONMENT

JIPOE combined with target system analysis (TSA) identifies high-value targets (HVTs), high pay-off targets (HPTs), time-sensitive targets (TSTs), and target sets (to include sex and age disaggregated data, (SAAD), where appropriate). Ideally before but also during operations, Intelligence staff, in collaboration with other targeting staff, will further refine potential target sets and approved audiences as part of a TSA. This intelligence is used to allocate relative importance to targets, in support of operational decisions and the target prioritisation process. These products also assist the joint coordination and synchronisation staff element to identify targeting strategies during planning.

2.1.2 JOINT TARGETING PLANNING DURING BASELINE ACTIVITIES AND CURRENT OPERATIONS

Baseline Activities and Current Operations (BACO) joint targeting planning is intelligence-focused, and the Supreme Headquarters Allied Powers Europe (SHAPE) Strategic Targeting Board (STB) retains the ability to initiate, re-prioritize, re-focus or cease ongoing target development efforts by NATO structures. NATO headquarters and designated target development centres are authorised to produce and hold target material, in line with Deputy Chief of Staff Strategic Employment (DCOS SEM) direction and guidance.

2.1.3 NATO AND NATO-MEMBER INTELLIGENCE SUPPORT TO TARGETING

Intelligence support to the joint targeting cycle (JTC) depends on integral NATO intelligence units such as the NATO Intelligence Fusion Centre (NIFC), the Centralised Targeting Capacity (CTC), the Joint Force Command (JFC) J2s, and the component commands (A2, G2, N2, J2) intelligence staffs. The CTC will be the hub of NATO intelligence support to targeting. The unit will be under the Operational Command (OPCOM) Supreme Allied Commander Europe (SACEUR) and under the Operational Control (OPCON) Assistant Chief of Staff ACOS J2 during both peacetime and crisis/conflict. Any CTC member assigned by ACOS J2 to support other areas of Allied Command Operations (ACO) (e.g., Joint Force Commands/Single Service Commands (JFC/SSCs)) in crisis/conflict would become OPCON or direct liaison authorized (DIRLAUTH) to that commander and remain OPCOM SACEUR for the duration of their deployment. The Alliance also draws upon member state's intelligence capabilities. Requests for target intelligence, are made through appropriate command channels using the intelligence requirements management and collection management (IRM&CM) process.

2.1.4 NATO-MEMBER OR PARTNER INTELLIGENCE CONTRIBUTIONS

NATO member or partner intelligence contributions are not limited to target intelligence itself. Members or partners may conduct entity target development, contribute to target systems analysis, produce target material or provide battle damage assessment (BDA). Other specialised national capabilities could contribute on a case-by-case basis, such as, Chemical, Biological, Radiological and Nuclear (CBRN) analysis or hardened target analysis.

2.2 INTELLIGENCE STAFF – TARGETING ROLES AND RESPONSIBILITIES

During operations, intelligence staffs are responsible to the commander for the timely and efficient development of targets in support of the commander's objectives. As a result, the Intelligence staff conducts two main functions: target development coordination via the target development working group (TDWG) and target list management (TLM) up to the point that targets are validated to the joint target list (JTL) or the restricted target list (RTL). Advances in global communication technology has enabled federated target development, and intelligence staffs may be called on to manage a global, federated, target development organisation. The TDWG provides the forum for the Intelligence staff and other targeting staff to assign areas of target development, confirm or update target development priorities and tasks, relay future target development requirements and coordinate overall target material production. The TDWG also allows target development cells to identify their development progress, specialist analytic requirements and share intelligence gained on targets outside their area of operations.

2.3 TARGET INTELLIGENCE PRODUCTION

At its core, target intelligence production relies on a searchable and accessible integrated database as well as access to intelligence collection capabilities. The database should contain all identified entities within the AOR, some of which could be considered to be potential targets or no-strike list (NSL) entities within a NATO area of intelligence interest. This provides the basis for target systems analysis (TSA) and entity level target development during Phase 2 of the JTC. Target intelligence documents, including target material, are produced in a logical sequence that aligns with the three stages of target development: basic, intermediate, and advanced. As part of the target material production (TMP) process nations may, using their own resources, provide various specialised intelligence products (e.g. geomatics products) in support of the targeting process. All target intelligence is stored in electronic target folders (ETF) on a database accessible by the NATO Joint Targeting System (N-JTS) targeting management software.

2.3.1 BASIC TARGET DEVELOPMENT (BTD)

BTD begins the process of uniquely identifying, locating, describing, functionally characterizing, and subsequently databasing entity-level target details. The basic target development standards are: Identification, Location, Function, Significance, and Description. Entity-level target development can occur very quickly for obvious military objectives, such as, a threat to a logistics node. The greater the complexity of a target, its elements or proximity to civilian structures and critical infrastructure, the greater the requirement for time and intelligence collection resources.

2.3.2 TARGET ANALYSIS

To meet the Commander JTFs operational objectives, target behaviour must be changed/influenced in a manner that supports those objectives. Targets are categorised based on their type: facility, individual, virtual, equipment, or organization (FIVE-O) and the function they perform. The start point for target analysis is joint intelligence preparation of the operating environment (JIPOE). The JIPOE provides Intelligence staff with a baseline for developing an understanding of target systems and/or intended audiences, as well as their relationship to existing entities and networks. Therefore, a full understanding of the information environment and cultural mores the outcome of a gender analysis concerning gender norms, gender roles and gender relations needs to be taken into consideration will enable decision makers' understanding of operational impacts during this process.

2.3.3 TARGET SYSTEMS ANALYSIS (TSA) CELL

In coordination with the SHAPE CTC, the joint task force (JTF) should consider establishing a TSA cell, under CTC responsibility, to deliver fused, all-source, intelligence analysis. Such a cell normally consists of a core all-source analytic team

augmented by specialist advisors who coordinate and produce updated TSAs. The Intelligence staff should, at a minimum, coordinate TSA production on behalf of the JTF by leveraging NATO and national reach-back capabilities not necessarily co-located with the JTF. A reach-back planning group can then establish a TSA community of interest to engage subject matter expertise from across the Alliance, both military and civilian, best suited to addressing the mechanism of any given target system.

2.3.4 QUALITY CONTROL

Quality control is an intelligence-led activity. It is a part of target development that assesses the accuracy of the supporting target intelligence. Quality control is a risk management process that informs the JTF or their designate during target validation. It provides a wider intelligence community consensus on the function associated with a target and its elements and also draws upon specialists who may be able to provide additional target intelligence. The Intelligence staff will coordinate quality control of target intelligence at least one command level above the JTF. NATO nations may also conduct their own quality control process prior to nominating targets to the Commander JTF.

2.3.5 INTERMEDIATE TARGET DEVELOPMENT (ITD)

ITD is the second stage of target development. Analysts fully characterise the entity, assessing possible threat system impact once the entity is affected and steps an adversary might take to mitigate loss of the target during hostilities. When ITD and quality control standards are met, as specified in the operation plan (OPLAN) Annex II – Targeting, the entity is placed on a candidate target list (CATL) for validation.

2.3.6 TARGET VALIDATION

Target validation ensures nominated entities support the Commander JTF's objectives, guidance, intent and desired effects, compliance with relevant international law and ROE and the accuracy and credibility of sources used to develop a target. This process is a part of target development and involves validating entities from the CATL, and which have been through quality control and are ready for validation are in target development. Once validated they as targets, these entities can be included on the Joint Target List or the RTL and be considered for inclusion on the Target Nomination List. The Intelligence staff's role during target validation is to support the Target Validation Authority's (TVA) Commander JTF's decision making by providing an overview of target intelligence including the accuracy and credibility of intelligence sources used to develop a target. Target validation authorities are delegated in relevant operation plans/operation orders (OPLAN/OPORDs).

2.3.7 ADVANCED TARGET DEVELOPMENT (ATD)

ATD is a critical task supporting the JTF and the components. The provision of specialised ATD products, such as, target coordinate mensuration (TCM) in support of weaponeering and collateral damage estimation (CDE) is one area where NATO members can provide a critical enabling capability to a JTF, coordinated as necessary by CTC. It is noted that NATO lacks some of the target automation tools and systems necessary during the ATD process, and therefore, relies on national capabilities for CDE, TCM and weaponeering.[47]

2.3.8 TARGET NOMINATION

Once potential targets are validated, they are nominated for approval via the Joint Targeting Coordination Board (JTCB). Nominated targets are prioritized based on the JFC's objectives, guidance and intent to maximize effective use of joint force capabilities while minimizing the likelihood of unintended and potentially undesired effects. Validated targets are placed on either the JTL or the RTL and once prioritized, approved to the Joint Prioritized Target List (JPTL). Intelligence staff use the JPTL to coordinate target intelligence collection requirements in support of combat assessment.

2.3.9 SECURITY AND ACCOUNTABILITY

Regardless of storage or dissemination methods, all target intelligence and target material products are to be correctly classified and caveated from the outset. Distribution to NATO users through targeting software and databases is provided on a strict need-to-know basis and is only to be handled by those personnel with the appropriate clearances.

2.4 INTELLIGENCE ACTIVITIES BY PHASE OF THE JOINT TARGETING CYCLE

Intelligence support to the JTC is provided not only by Intelligence staff, but by other elements of the intelligence community. Contributions by all-source intelligence analysts, imagery analysts, human or signals intelligence specialists, among others, contribute to the provision of intelligence support to targeting. Throughout the joint targeting process, intelligence staffs will identify and coordinate collection and exploitation requirements, manage the targeting database and manage target lists. The key intelligence activities by JTC phase are depicted in Figure 2.1:

[47] ATD graphics will differ based on the type of target (FIVE-O) being assessed. Weaponeering assessment will be completed for approval of a target to a JPTL, it may be conducted again by the tactical unit during the mission planning process to match requirements to available resources.

Joint Targeting Cycle Phase	Intelligence Support Activities
Phase 1: Commander's intent, objectives and targeting guidance	Identify vulnerabilities, provide indicators and warnings, initiate joint intelligence preparation of the operational environment (JIPOE) analysis, develop Measures of Performance (MoP) and Measures of Effectiveness (MoE).
Phase 2: Target development	Conduct target analysis to identify, describe and characterize entities that when engaged by specific means will create the Commander's desired effects. Update all target development products on a continuous basis.
Phase 3: Capabilities analysis	Determine the functional characterization of the target, identify risk factors and likely effects and damage to protected objects and functions.
Phase 4: Commander's decision, force planning and assignment	Continue to support the planning and decision-making process. Support the prioritization of joint prioritized target list (JPTL) targets for joint intelligence, surveillance and reconnaissance (JISR) collection and completing the target validation process.
Phase 5: Mission planning and force execution	Review target intelligence for currency and accuracy and support post-engagement assessment.
Phase 6: Assessment	Conduct and coordinate BDA activities and support operational and campaign assessments.

Figure 2.1: Key intelligence support activities by phase of the joint targeting cycle

CHAPTER 3 – JOINT TARGETING AT THE STRATEGIC LEVEL

3.1 POLITICAL DIRECTION

The North Atlantic Council (NAC) provides the Military Committee (MC) with the overarching military objectives, desired end state and guidance for an operation, including any constraints and restraints that it wishes to impose. The NAC should provide the Supreme Allied Commander Europe (SACEUR) with clear objectives and comprehensive guidance defining the rules of engagement (ROE) and unambiguously define restrictions and other limitations that are to be imposed on the operation (or that other nations participating in a NATO coalition effort, or whose sovereign territories may be involved, may impose). It must address the employment of all capabilities which create physical, virtual, and cognitive effects.

3.2 MILITARY STRATEGIC DIRECTION

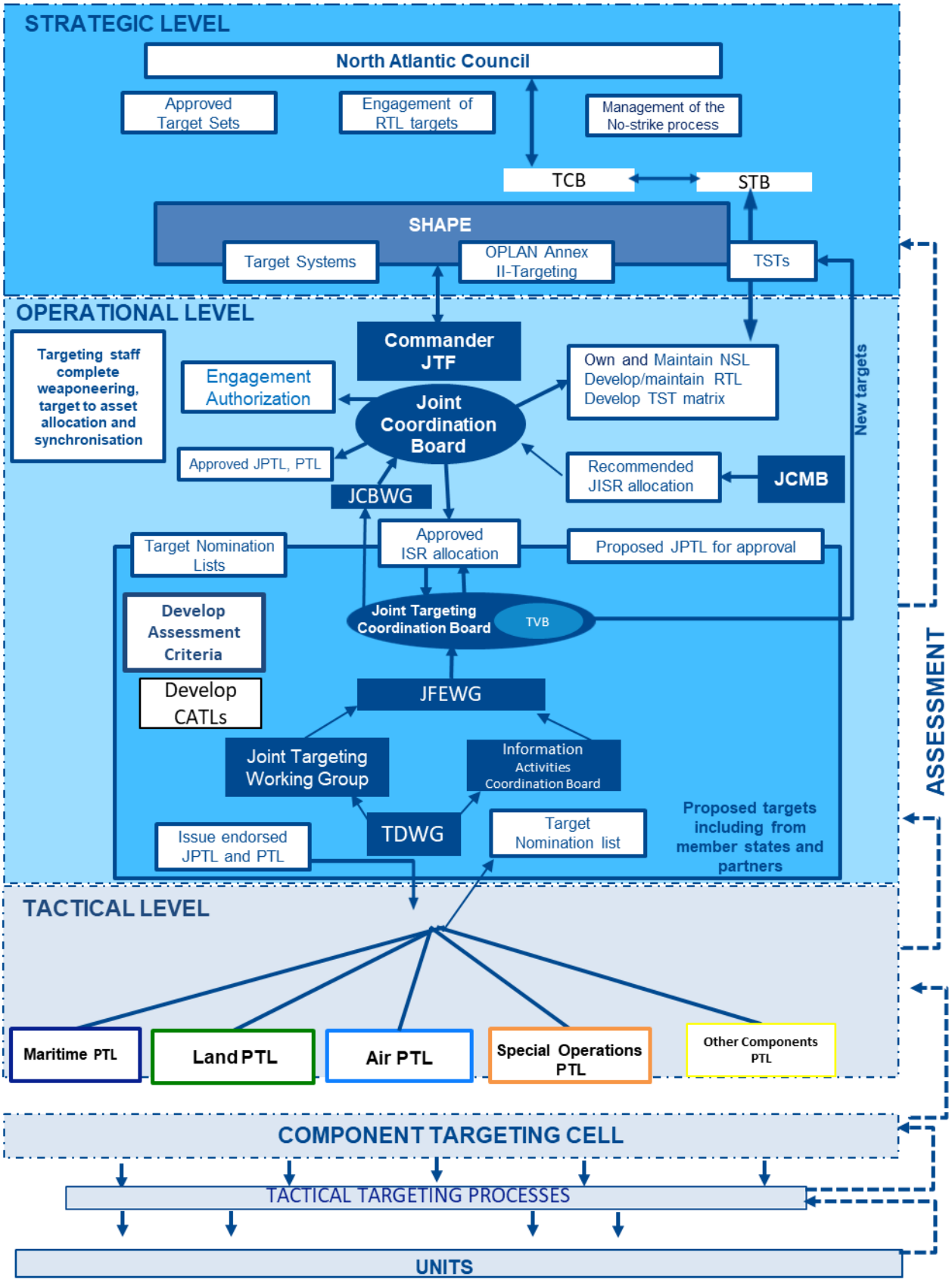
The NAC, assisted by the MC, translates political guidance into strategic military direction to SACEUR. Supreme Headquarters Allied Powers Europe (SHAPE) then develops a military strategic-level operation plan (OPLAN) outlining the mission, command, and financial arrangements, as well as the C2 responsibilities. Following NAC approval, this OPLAN is provided to the operational-level commander to develop and implement NAC-approved rules of engagement (ROE). SACEUR will provide targeting direction and guidance to the operational level, translating the political intent and the military mission into clear military objectives; the targeting process is directly linked to these objectives. Political goals and objectives will be translated into detailed military guidance, including any additional considerations that will apply. Thereafter, SHAPE monitors the operational-level planning and execution of the operation. The targeting directive/annex to the OPLAN is the focal point of all targeting matters for that specific operation. Targeting staff shall use a full-spectrum approach when drafting targeting guidance to ensure all relevant capabilities are considered. SHAPE Joint Effects Branch (JTE) should liaise with NATO member states regarding national capabilities to determine their availability in support of NATO operations.

3.2.1 NATO TARGETING OVERSIGHT

SHAPE DCOS Strategic Employment (DCOS SEM) is responsible for ensuring SACEUR's Targeting Enterprise is maintained and advises SACEUR on targeting issues that jeopardise NATOs targeting efforts. Management of joint effects within NATO is a SHAPE JTE responsibility on behalf of DCOS SEM. SHAPE JTE is constantly working in close coordination with the SHAPE Director of Communications, so that any targeting activity is implementing the StratCom framework and supporting StratCom Implementation Guidance (SIG). SHAPE JTE will also be responsive to SHAPE targeting at the NATO political and operational level. Where nominated targets exceed the joint task force's (JTF's) authority to engage, or the JTF requests to engage targets on the restricted target list (RTL) or remove an entity from the no-strike list (NSL), or requests to engage target outside the approved target sets, SHAPE will convene a Strategic Targeting Board (STB). The STB will be responsible for approving

all target nominations for a Target Clearance Board (TCB). Targets can be approved at the STB[48] or returned to nominating unit for rework. The TCB will present target nominations to SACEUR for approval. The organization and conduct of the various board and working groups under the authority of the joint force commander can be modified by the joint force commander, as they see fit, based on the situation. Figure 3.1 depicts the strategic to tactical integration of various targeting bodies and products with the JTC:

[48] In line with strategic guidance such as the North Atlantic Council (NAC) Initiating Directive (NID), a Strategic Planning Directive, Annex II – Targeting to an operation plan, or a Strategic Coordination Order.


STRATEGIC LEVEL
North Atlantic Council
Approved Target Sets
Engagement of RTL targets
Management of the No-strike process
TCB
STB
SHAPE
Target Systems
OPLAN Annex II-Targeting
TSTs
OPERATIONAL LEVEL
Targeting staff complete weaponeering, target to asset allocation and synchronisation
Commander JTF
Engagement Authorization
Joint Coordination Board
Own and Maintain NSL
Develop/maintain RTL
Develop TST matrix
New targets
Approved JPTL, PTL
Recommended JISR allocation
JCMB
JCBWG
Target Nomination Lists
Approved ISR allocation
Proposed JPTL for approval
Develop Assessment Criteria
Joint Targeting Coordination Board
TVB
Develop CATLs
JFEWG
Joint Targeting Working Group
Information Activities Coordination Board
TDWG
Target Nomination list
Issue endorsed JPTL and PTL
Proposed targets including from member states and partners
ASSESSMENT
TACTICAL LEVEL
Maritime PTL
Land PTL
Air PTL
Special Operations PTL
Other Components PTL
COMPONENT TARGETING CELL
TACTICAL TARGETING PROCESSES
UNITS

Legend:

CATL	Candidate Target List
JCB	Joint Coordination Board
JCBWG	Joint Coordination Board Working Group
JCMB	Joint Collection Management Board
JFEWG	Joint Effects and Effects Working Group
JISR	Joint Intelligence, Surveillance and Reconnaissance
JPTL	Joint Prioritized Target List
JTF	Joint Task Force
NSL	No-Strike List
OPLAN	Operation Plan
PTL	Prioritized Target List
RTL	Restricted Target List
SHAPE	Supreme Headquarters Allied Powers Europe
STB	Strategic Targeting Board
TCB	Target Clearance Board
TDWG	Target Development Working Group
TST	Time-Sensitive Target

Figure 3.1 – Strategic to tactical interaction with the joint targeting cycle

3.2.2 APPROVAL OF TARGET SETS

In conjunction with the JTF and as part of the operations planning process, SACEUR selects tentative target sets in accordance with NAC guidance. SHAPE JTE will be responsible for drafting target sets, in close coordination with the JTF, and will escalate to SACEUR for endorsement. SACEUR also defines, as far as possible, time-sensitive targets (TSTs) and sensitive targets (STs), those targets for which planned actions require NATO Strategic and/or national-level review and approval if that nation-state asset is going to be used for engagement. Proposed target sets are then forwarded to the MC for endorsement and subsequently to the NAC for approval.[49] The NAC will pass approved target sets through the MC to SACEUR with any additional guidance or caveats. Additional guidance may include further NAC criteria for engagement, which may require NAC approval. Target sets not originally approved but deemed necessary for the operation will have a subsequent request for approval staffed through the chain of command to the NAC. Targeting staff will analyse the Commander JTF's objectives, targeting guidance and intent and incorporate the NAC-approved target sets to create specific effects, each logically and directly related to the overall desired end state.

[49] See Annex B for examples of target sets.

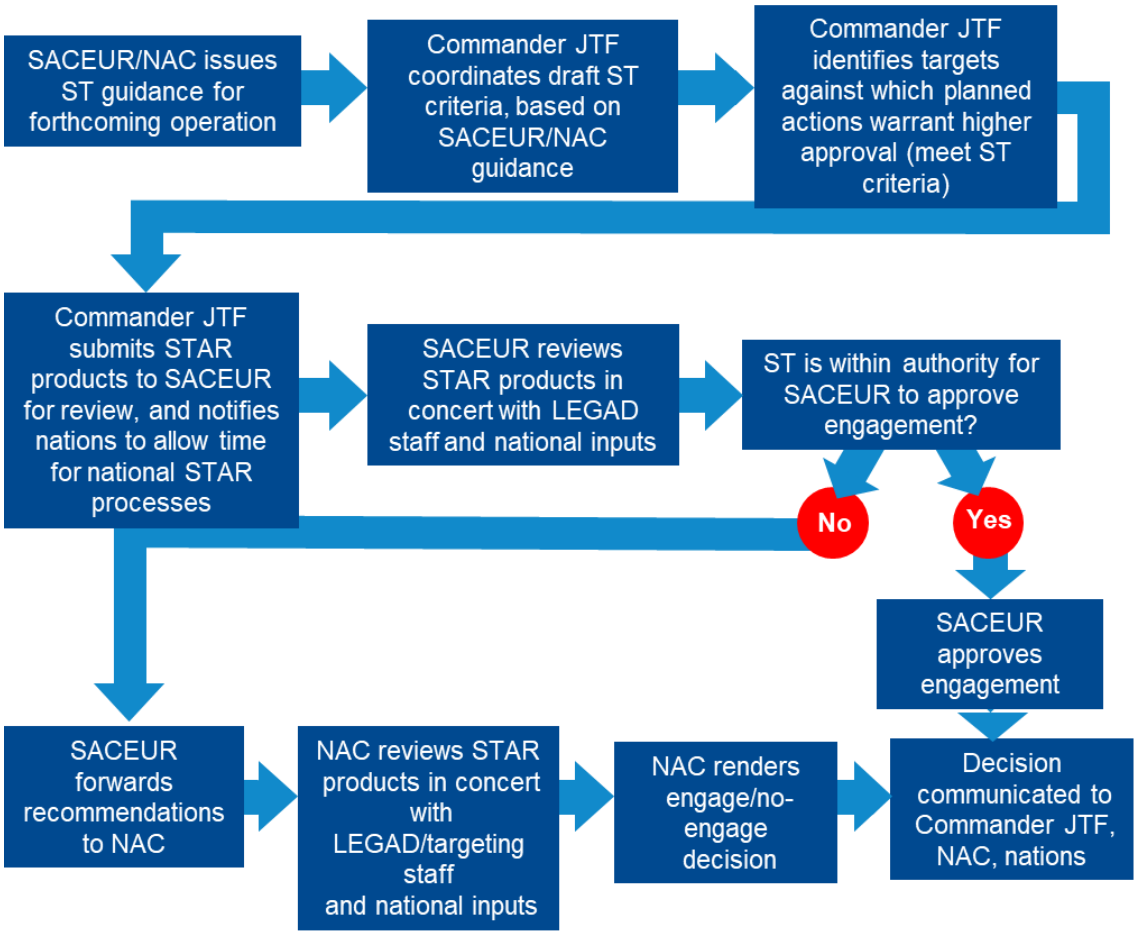
3.2.3 NATO APPROVAL AND SENSITIVE TARGETS

The NAC Initiating Directive (NID) may also direct SACEUR to identify STs and strategic TAs, against which planned, actions[50] may require NAC review under a ST approval and review (STAR) process. (See Figure 3.2). These targets are normally identified during Phase 1 or Phase 2 of the joint targeting cycle (JTC) and placed on the RTL if validated. Such targets will typically exceed the JTF's delegated target engagement authority (TEA) and therefore, must be elevated via SHAPE JTE to SACEUR or the NAC for review and an engagement/no-engagement decision (See Figure 3.2). SACEUR will conduct a TCB to give engagement approval, reject the target or target set or elevate it further to the NAC for a decision. Only the authority that placed the restriction can remove it and give engagement authorization, should they have the authority to do so based on target engagement authority limits.

3.3 NATIONAL APPROVALS AND SENSITIVE TARGETS

Nations may initiate their own STAR processes for any targets that they deem sensitive, even if the NAC/SACEUR has not identified them as NATO STs. The existence and extent of such national STs should be made known to NATO, and the Centralized Targeting Capacity (CTC) and the NATO Intelligence Fusion Centre (NIFC, via CTC) well in advance, so that any time required for national-level ST review processes can be considered in the overall JTC. In such cases where SHAPE or the JTF identifies STs or target sets, either during the planning phase or once operations have commenced, time must be allowed for details of STs to be passed to respective NATO or partner national authorities to conduct separate, national STAR processes. SHAPE CTC will inform SHAPE JTE of expected timeline if thew respective NATO or partner national authorities can support. Approval authorities should be specified in the OPLAN Annex II – Targeting.

[50] This would not include targets to be engaged via CO, which would be under national control. Cyberspace operations which are reasonably likely to result in loss of life, significant responsive actions against the state(s) initiating such attacks, can lead to significant damage to property, or serious adverse national foreign policy consequences, which are inherently sensitive.



Legend:

JTF	Joint Task Force
LEGAD	Legal advisor
NAC	North Atlantic Council
SACEUR	Supreme Allied Commander Europe
ST	Sensitive target
STAR	Sensitive target approval and review

Figure 3.2 – NATO STAR process

- ❑ Mission objectives and targeting guidance.
- ❑ Target information.
- ❑ Target graphic.
- ❑ Target fundamental characterization.
- ❑ Target significance and expectation if successfully engaged.
- ❑ Target source summary and confidence level statement.
- ❑ Intelligence community vetting and assessment.
- ❑ Proposed action to be taken against the target.
- ❑ Collateral effects if target is engaged.
- ❑ Mitigation techniques employed to reduce collateral effects.
- ❑ Proportionality assessment of mitigated collateral effects (excessive / non-excessive)
- ❑ Reasons why alternate actions and methods to achieve effects are not recommended.
- ❑ Strategic risk assessment.
- ❑ Recommendation for approval to engage the target.

Figure 3.3 – STAR product checklist

3.4 MILITARY STRATEGIC TARGETING RESPONSIBILITIES

3.4.1 SACEUR'S TARGETING RESPONSIBILITIES TO THE NAC THROUGH THE MC

SHAPE will:

- in close coordination with the JTF, develop a list of target sets and categories, and /or including TAs, where targeting actions may be used to achieve the military strategic objectives outlined by the NAC;
- ensure target sets submitted to the NAC for approval are in accordance with the examples at Annex B or are defined if specific to the operation;
- staff a casualty estimate, as required; and
- in close coordination with the JTF, submit unanticipated targets that fall outside NAC-approved target sets for approval prior to authorizing any actions.

3.4.2 TARGETING IN OPLANs

The OPLAN Annex II –Targeting will form part of the strategic OPLAN and should be the focal point of all targeting matters for that specific operation. It will include:

- identification of lead planning division responsible for target validation (normally Plans or Operations depending on operational timelines involved);
- responsibility for target material production (TMP);

- delegation of TEA[51];
- available capabilities;
- target sets and categories;
- positive identification (PID) criteria;
- ST, NSL and RTL target criteria;
- pre-approved TST matrix;
- CDE methodology[52];
- notification threshold for casualty estimate[53];
- criteria for ST identification;
- archiving requirements; and
- measures of effectiveness (MOEs) and measures of performance (MOPs) for operational assessment.

3.5 NATIONAL INPUTS

3.5.1 NATIONAL INPUTS TO THE NATO TARGETING PROCESS

National target guidance will always remain a sovereign right and should be established before the onset of a crisis. Nations will always reserve the right to issue national targeting guidance in respect of specific operations. Nations contributing capabilities for the engagement of targets will provide refined guidance and national caveats for their employment as early as possible during the planning phase of an operation. This guidance should cover any national requirement for approving targets allocated for engagement by that nation's assets, including both the level of that approval and the method required to achieve it. At the operational level and below, this national approval authority, can invoke national caveats and veto their respective nation's participation in specific targeting-related activities and operations. National guidance should be communicated to NATO by the appropriate national representative at the political (NAC), military strategic (SHAPE), and operational (JTF) levels before the onset of, and during, any operation.

[51] Prior to close air support (CAS) target engagement, supported commanders may delegate TEA which allows clearance for weapons release to Joint Terminal Attack Controllers/Forward Air Controllers (Airborne)/ (JTACs/FAC(A)s) for specific engagements. The authority and responsibility for the expenditure of any ordnance on the battlefield rests with the supported commander.
[52] For casualty estimates details must be include population density tables to use, software versions, etc.
[53] Some nations refer to a "casualty threshold" that they must remain within, sometimes referred to as a "Non-Combatant Casualty Cut-Off Value (NCV)."

3.5.2 NATIONAL INTELLIGENCE AND TARGET MATERIAL

NATO relies on member states to provide intelligence input and target material to enable an effective targeting process. Coordination of intelligence support from nations is made via SHAPE Centralised Targeting Capacity (CTC), who are authorized to engage directly with national intelligence and targeting organisations. Providing such support early in the operations planning process enhances NATO's ability to adopt a comprehensive approach. See Chapter 2 – Intelligence Support to Targeting, for more information.

3.5.3 NATIONAL REPRESENTATION IN THE NATO TARGETING PROCESS

The targeting process will be facilitated by each nation nominating a national targeting expert to SHAPE and JTFs during the planning phase. This ensures that national guidance and caveats are clearly understood and considered. National representatives should be given access to any proposed or agreed targeting study or list (NATO and national) at the level to which they are assigned.

3.5.4 NATO PARTNERS REPRESENTATION IN THE NATO TARGETING PROCESS

NATO partners will likely become part of a NATO coalition during crisis or conflict. Target material is routinely 'NATO SECRET'. SHAPE JTE will be responsible for investigating partner access. Prior to targeting, there may be several requirements needed from partners for them to be included in the targeting process:

- a list of Critical National Infrastructure (CNI)[54], if Host Nation (HN);
- a list of No-strike entities if Host Nation (HN);
- points of contact to ensure timely communication;
- national representative to JTF and SHAPE holding the necessary approval for quick engagement/approval decision, if required;
- national targeting database, if required;
- direction on maximum allotted casualty estimate level per engagement on NATO partner territory; and
- to establish a targeting process to feed and approve targets within their borders to the JTF, as per the NAC approved target sets, if the operational context requires it.

[54] CNI includes infrastructure (assets, facilities, systems and networks) identified by the that are integral to the continued delivery and integrity of the essential services upon which the nation relies, and the destruction or compromise of which would lead to severe military, economic, political or social consequences to the nation. See AD 084-002 Infrastructure Assessment 17 October 2019 for further details.

3.6 JOINT TARGETING IN OPERATIONAL PLANNING

3.6.1 TARGET MATERIAL

In support of NATO operations, nations may provide NATO forces and headquarters with a range of target material including TSA, and imagery. These materials include, and allow for, the development of target folders. Nations should ensure that their national targeting systems are compatible with NATO Joint Targeting System in order for them to effectively contribute to the joint targeting process. During Baseline Activities and Current Operations (BACO) SACEUR, through the NATO Strategic Targeting Board (STB) provides target material production requirements on specific regions or countries with a high impact and interest to NATO. Target material may be developed via a centralised or federated approach, under CTCs lead. NATO BACO target development activity is limited to the preparation of target material for potential crisis/conflict as directed by the STB. This preparation includes, Target Systems Analysis (TSA), Basic Target Development (BTD), Intermediate Target Development (ITD) and Advanced Target Development (ATD).

3.6.2 SPECIFIC TARGET INTELLIGENCE

SHAPE CTC will maintain a dedicated target intelligence database that will include all relevant target intelligence gathered during peacetime target development activities, and submissions from subordinate HQs. This database will provide an intelligence foundation to inform JTF planning and establish target development and engagement priorities. NATO member states are encouraged to contribute intelligence to the target intelligence database. Requests for other target intelligence are made through appropriate command channels using the IRM&CM process.

3.7 POST-CAMPAIGN AND OPERATIONS ACTIVITIES

During an operation's transition phase, the joint targeting process continues up to the strategic level. Information is collected to enable:

- SHAPE evaluation and archiving of the full extent of target physical and functional damage;
- the JTF, in close coordination with SHAPE, to determine the effectiveness of employed delivery systems and munitions.[55];
- critically analysing and improving the assessment analysis and reporting process;
- continued assessment and measurement of effectiveness;

[55] This may include providing information on the location of unexploded ordnance and adherence to signatory states obligations under the 2003 Protocol on Explosive Remnants of War (2003 CCW Protocol (V) on Explosive Remnants of War).

- operations analysis and lessons identified (including gender analysis);
- enable stability operations and post-conflict reconstruction activities; and
- an effective NATO response to any post-operation allegations that NATO commanders or NATO forces acted improperly.

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CHAPTER 4 – JOINT TARGETING AT THE OPERATIONAL LEVEL

4.1 GENERAL

This chapter describes the joint targeting process at the operational level and the requirement to integrate and synchronize all resources and activities, ensuring a comprehensive, full spectrum, cross domain approach to joint targeting.

4.2 STRATEGIC INPUT TO THE OPERATIONAL-LEVEL TARGETING PROCESS

4.2.1 SHAPE TARGETING INPUT

SHAPE provides the JTF with the following targeting-related products and guidance:

- a StratCom framework that includes a strategic narrative and the StratCom Implementation Guidance (SIG) that sets out the implications of the StratCom direction and guidance for SHAPE JTE. The framework will assist targeting staffs in the development of an integrated targeting plan that employs all capabilities in a complementary fashion against North Atlantic Council (NAC) approved target sets;
- a strategic operation plan (OPLAN), including Annex II– Targeting, that clearly defines objectives, intent and guidelines for the military operation together with those target sets and audiences, including approved time-sensitive targets (TSTs) that the joint tasks force (JTF) is authorised to engage;
- national caveats, as they impact the joint targeting cycle (JTC);
- a no-strike list (NSL) and criteria for amendments to the NSL;
- information resulting from agreements with non-NATO organizations;
- a restricted target list (RTL) and criteria for amendments to the RTL;
- guidelines on the circumstances and processes required for the JTF to seek extensions to, or clarification of, the ROE including the process for review and approval of sensitive targets;
- from Baseline Activities Current Operations (BACO) onward, the SHAPE Centralised Targeting Capacity (CTC) will provide an integrated and shared database, the NATO Integrated Database (IDB) mainly derived from the US Modernized Integrated Database (MIDB), which is available in the NATO Joint Targeting System (N-JTS) and which is interoperable with NATO and national targeting management tools. CTC prioritizes target systems analysis (TSA) demands and coordinates TSA efforts. CTC may deploy an operational liaison response team to assist JTF target cells during the transition between BACO to operations;

- in close coordination with the with SHAPE Communications Division and CTC, direct the development of current TSAs, including target material for the area of operations provided by the nations or from NATO organisations. SHAPE CTC will ensure that TSAs and information environment analysis, including target material for the area of operations provided by the nations or from NATO organisations will be available to the JTF;
- information about emerging targets, audiences, or actors for inclusion in the appropriate databases;
- SHAPE Joint Effects Branch (JTE) will provide assistance and advice as required, to ensure that subordinate formations/units have appropriate, suitable functional area services with the necessary communications capacity, to support the targeting process;
- led by CTC, a communication channel to the nations regarding distribution and exchange of target material production;
- SHAPE JTE will provide a standardized collateral damage estimate methodology;
- SHAPE JTE will be responsible for holding a Strategic Targeting Board (STB) and Targeting Clearance Board (TCB) to approve targeting related decisions that lay above the authority of the Commander JTF; and
- SHAPE JTE will provide a casualty estimate number for NAC approval.

4.3 COMMANDER JTF'S JOINT TARGETING RESPONSIBILITIES

The Commander JTF, on receipt of direction and guidance from Supreme Allied Commander Europe (SACEUR), will:

- conduct a joint estimate to form the basis for subsequent targeting direction and guidance;
- direct the joint targeting process including designating staff (J2, J3, J5, J9, LEGAD, etc.) authorities, responsibilities, and accountabilities, who will manage the deliberate and dynamic targeting process on the JTF's behalf;
- submit target set proposals to SACEUR for NAC approval. This action may occur several times during the operation as target sets not originally identified but deemed necessary for the operation require approval from the NAC;
- implement the NAC pre-approved time-sensitive target (TST) matrix and submit additional TST nominations to the NAC for review and approval, if required;
- implement ROE provided by SACEUR;
- ensure compliance with the applicable legal framework, especially IHL/LOAC, and Rules of Engagement (ROE);

- confirm that targets meet legal and policy requirement and account for any caveats expressed by national representatives;
- ensure conformity with the NATO Protection of Civilians (PoC) concept;
- advise SHAPE in determining the appropriate levels of target engagement authority (TEA) and, if authorized, delegate this authority to subordinate commanders[56];
- from the NATO IDB made available by CTC and in accordance with SHAPE guidance, develop and validate the different target lists (joint target list (JTL), NSL, RTL, and joint prioritized target list (JPTL));
- approve the joint prioritized target list (JPTL);
- allocate targets and provide clear direction and guidance on targeting issues to subordinate commanders about target priorities, using all available capabilities, restrictions, guidance on relative levels of effort and sequencing, and any specific guidance on the format and content of electronic target folders (ETF)s;
- direct the establishment of targeting focused working groups and boards such as the Joint Targeting Coordination Board (JTCB) and the Information Activities Coordination Board (IACB);
- take account of advice, recommendations and caveats expressed by senior national representatives including national capability restrictions or caveats related to collateral damage thresholds;
- ensure that a standardized collateral damage estimation methodology is used;
- elevate JPTL additions when engagement approval exceeds the Commander JTFs authorities[57];
- identify targeting assessment requirements for chemical, biological, radiological, and nuclear (CBRN) assessment.[58] These include the primary and secondary hazards from toxic substances such as industrial chemicals, and the effects of their intended or unintended release;
- assess the total risk of a selected action, to promote better consequence management and the impact of second and third order effects, including CDE and adversary propaganda;
- request the development of information environment analysis and TSA in close coordination with SHAPE CTC and SHAPE Communications Division;

[56] The Commander JTF may caveat this in terms of the degree to which this will impact changes to JPTL approval.
[57] This may necessitate such targets being subject to the STAR process described in Chapter 3.
[58] Such assessments may need to be tasked to member states.

- ensure that all requests for target material and intelligence received from subordinate component commands (CCs) are prioritized for processing;
- maintain database integrity;
- ensure that the combat assessment cell evaluates the effectiveness of the targeting effort and in relation to the operational objectives; and
- ensure that, in consultation with JTE, formations (and units, where necessary) have access to the appropriate tools and communication and information systems (CIS) capacity to support the joint targeting cycle (JTC).[59]

4.4 JOINT TARGETING SYNCHRONISATION DURING OPERATIONS

The relationship of various targeting bodies (and where certain fora overlap between phases, such as the JTCB between phases 1 and 6) to the overall targeting process is depicted in Figure 4.1:

[59] The acquisition of these tools is to be done by the respective HQ's/component commands' nation responsible for the CIS and is to be addressed to the NATO Communications and Information Agency (NCIA).

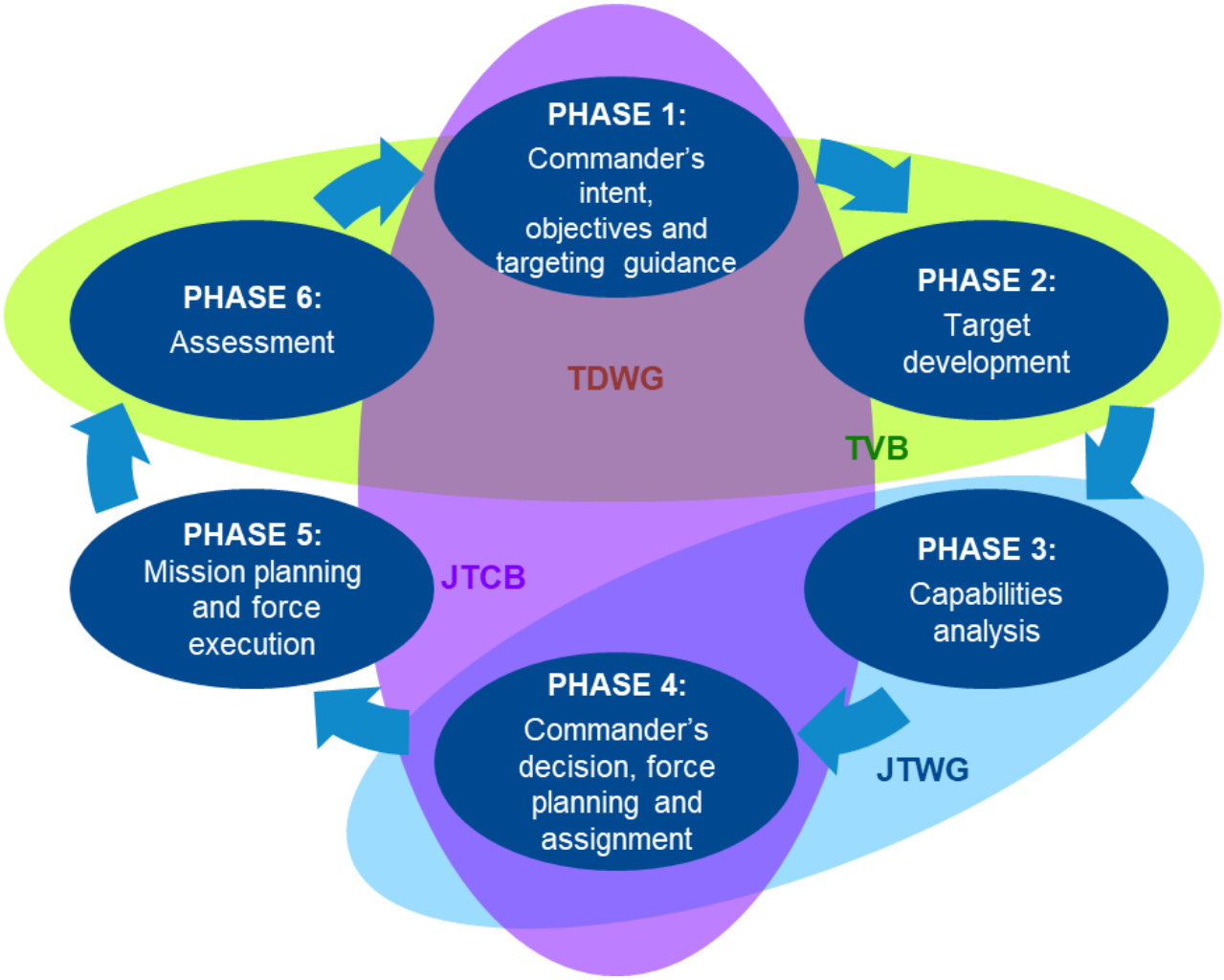


Figure 4.1 – Joint targeting bodies and the joint targeting cycle

4.4.1 JOINT COORDINATION BOARD

The Joint Coordination Board (JCB) is the mechanism for the JTF to exercise authority over the joint force. The JCB assigns execution responsibilities, prioritizes, de-conflicts and synchronizes all aspects of CC activities. It ensures that all aspects of full spectrum targeting efforts are coordinated and focused on the commander's intent. In particular, it focuses on:

- authorising the output of the JTCB;
- allocating available JISR assets to the appropriate CC for tasking as recommended by the Joint Collection Management Board (JCMB); and
- integrating specialist capabilities that, in some cases, may be delivered at the national level. Such capabilities may not be purely military but may also include those capabilities as would be employed as part of a national comprehensive approach, wherein all capabilities resident in a government and supporting organizations are utilised.

4.4.1.1 SUPPORT TO THE JCB

The JCB is supported by a JCB Working Group (JCBWG), which takes the outputs of the JTCB and prepares them for decisions to be taken by the JCB.

4.4.2 JOINT TARGETING COORDINATION BOARD

The Commander JTF will establish a Joint Targeting Coordination Board (JTCB) comprising representatives from the joint task force headquarters (JTF HQ), all CCs of the joint force and, as required, national liaison representatives. Figure 4.2 depicts an illustrative composition of the JTCB. The Chair of the JTCB (normally the Commander JTF or a designee) gathers inputs from the targeting community, authorised effects subject matter experts, and the IACB, to provide the optimum approach for creating the desired effects in support of operational objectives.

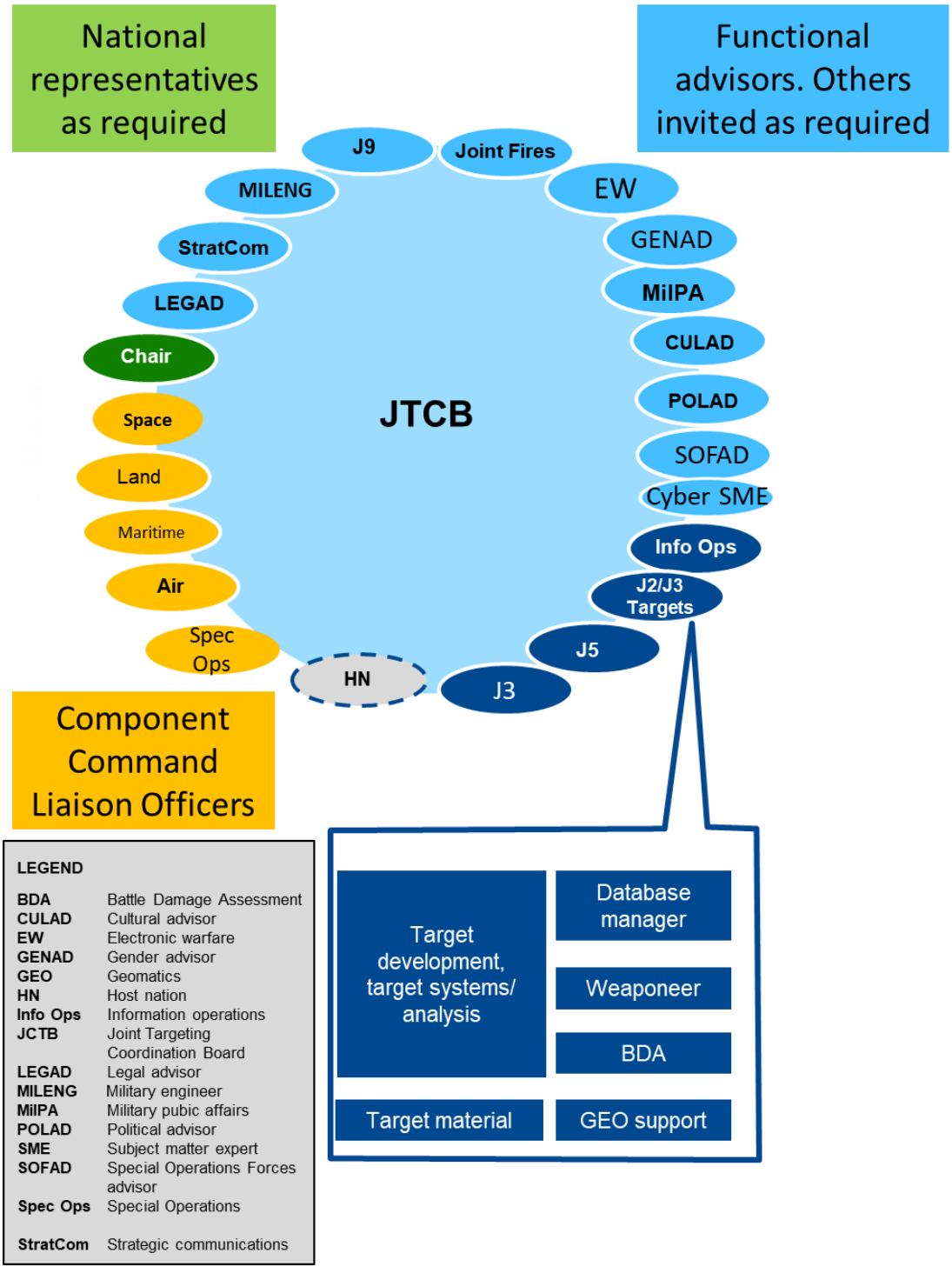


Figure 4.2 – Illustrative composition of the Joint Targeting Coordination Board

4.4.2.1 ROLE OF THE JTCB

The Commander JTF defines the role of the JTCB. Typically, the JTCB reviews the output of the JTWG, via the Joint Fires and Effects Working Group (JFEWG). When possible, the JTCB may include a representative from the host nation (HN), or at the very least, ensure that their views are considered, and that the HN can express its consent, or non-consent as required, throughout the targeting process. The operational Targeting Directive should provide direction on the necessity of HN participation for certain targets. During operations, the JTCB will also maintain the RTL and the NSL. The JTCB is the primary agency for joint targeting efforts. It will:

a. prepare target lists for JCB review and, if necessary, Commander JTF approval;

b. validate changes in the targeting database;

c. issue direction and guidance to coordinate target material production, as developed through the targeting process;

d. update targeting guidance in accordance with direction received from the JCB;

e. validate targets, and for which a Target Validation Board (TVB) may be established within the JTCB;

f. approve the draft JPTL, if delegated to do so; and

g. coordinate intelligence staff inputs to draft JPTL targets to ensure intelligence gain/loss estimates are accounted for.

4.4.2.2 JOINT FIRES AND EFFECTS WORKING GROUP

The JTCB is supported by the Joint Fires and Effects Working Group (JFEWG). The JFEWG is responsible for taking the output of the JTWG, IACB and any other targeting working groups and ensure optimal effect capability selection and coordination in order to achieve the commander's objectives. Targeting staff will commence initial coordination of effect integration and synchronisation. The JFEWG represents the final stage of target development prior to target approval at the JTCB.

4.4.3 JOINT TARGETING WORKING GROUP

A Joint Targeting Working Group (JTWG) may be established to prepare and staff targeting products before presentation to the JTCB, via the JFEWG. It is normally supported by a staff who manage the joint targeting system, sourcing up-to-date intelligence products (including BDA), producing targeting products and acting as custodians of target folders.

4.4.4 INFORMATION ACTIVITIES COORDINATION BOARD

The Information Activities Coordination Board (IACB) is the forum for implementing information operations (Info Ops) collective coordination and advice. By targeting the same high pay-off targets (HPTs) as other capabilities are doing, Info Ops targets enemy/adversary decision making, thus enabling friendly operations in support of the Commander's objectives. Chaired by Chief, Information Operations (Info Ops), under direction from the Strategic Communications (StratCom) Director, and on behalf of the Commander JTF, it ensures that information activities are coherent and synchronized with other actions, including cyberspace operations (CO) potentially affecting the information environment. Within the scope of its assigned functions, the IACB will provide initial coordination of target nominations related to information and information systems to facilitate subsequent integration at the JFEWG and harmonised at the JTCB. It also provides advice on possible effects in the information environment created by other military actions. It further provides a forum for coordination, de-confliction and monitoring of Info Ops plans and activities.

4.4.5 TARGET DEVELOPMENT WORKING GROUP

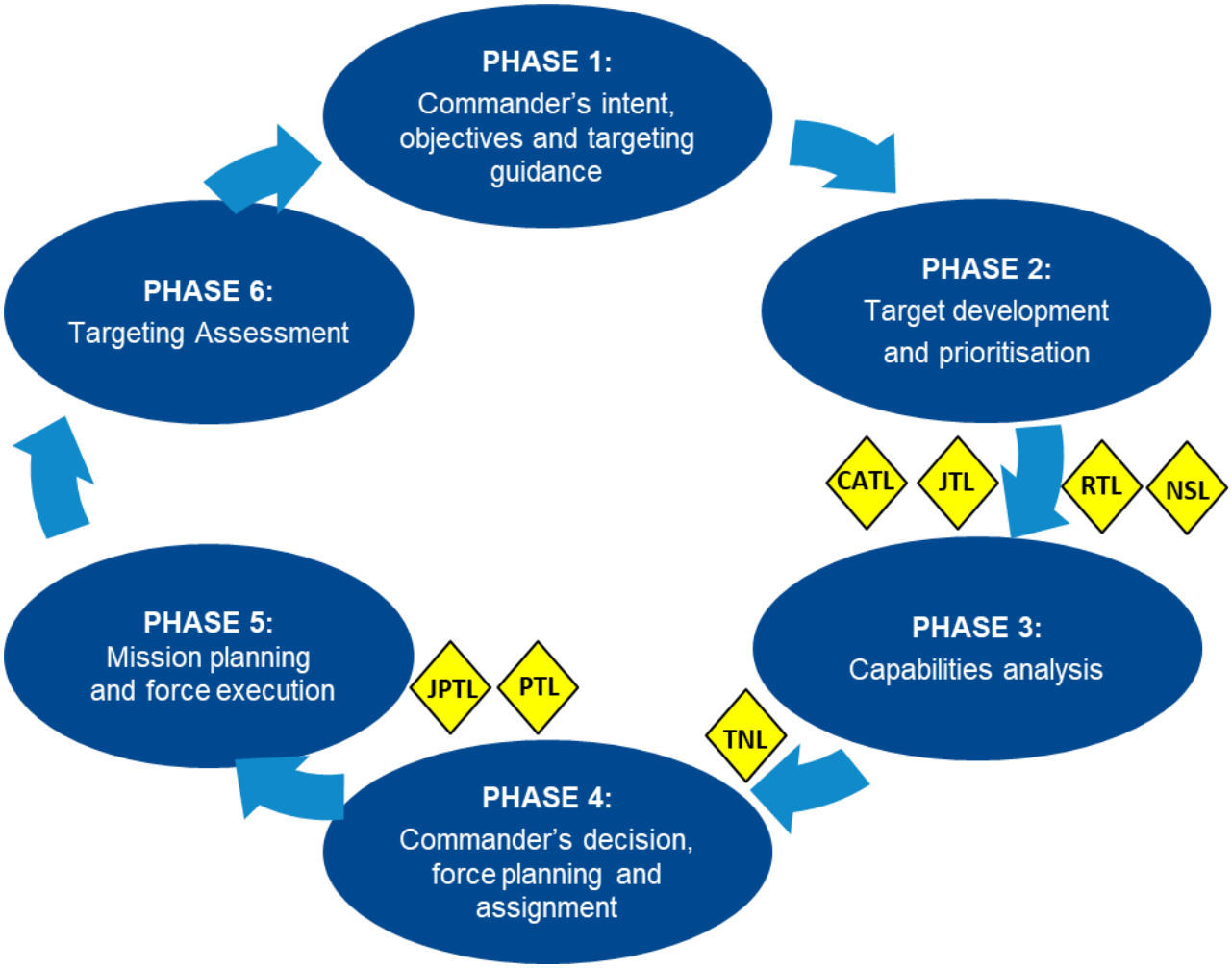
The Target Development Working Group (TDWG) will validate the targets developed enough to go through the JTWG. It assists in the coordination and deconfliction of target development activities.

4.4.6 JOINT COLLECTION MANAGEMENT BOARD

The Joint Collection Management Board (JCMB) contributes to the targeting process by allocating joint intelligence, surveillance, and reconnaissance (JISR) capabilities throughout the Joint Targeting Cycle (JTC).

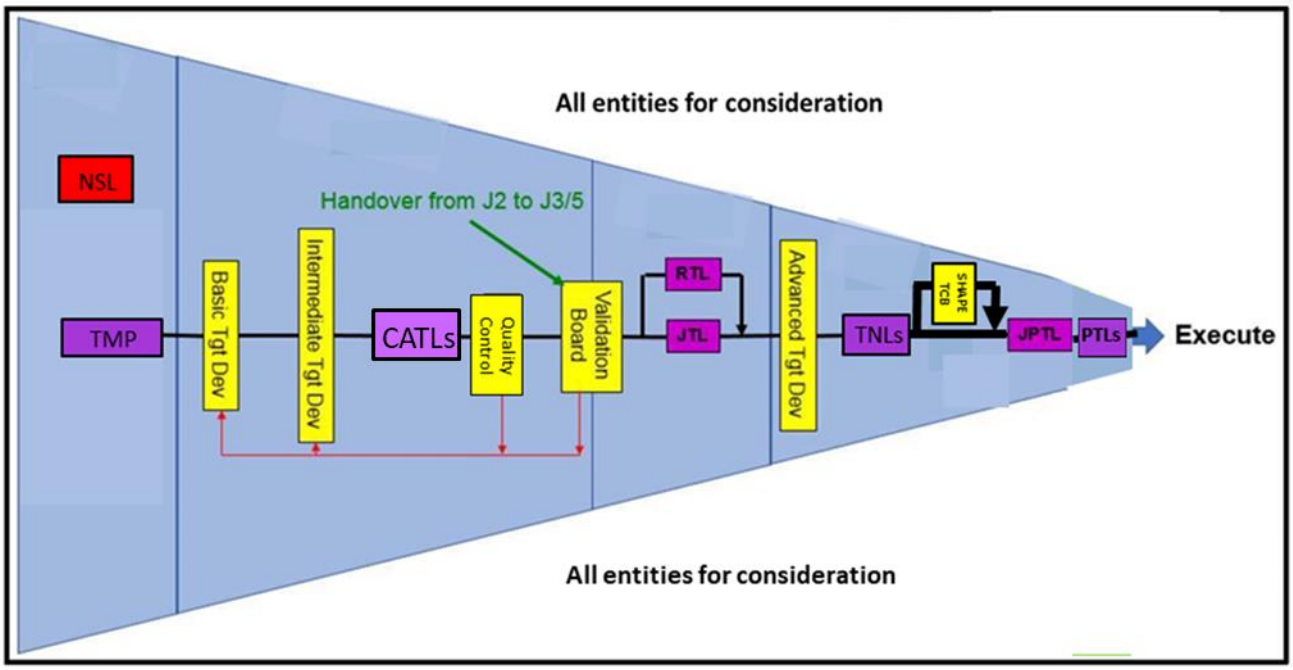
4.5 TARGET LISTS AND DATABASES

Target lists document part or all of the vetted target intelligence and operational targeting data for selected and validated entity level targets. Target lists are the most efficient mechanism to organize, prioritize, schedule, deconflict, and execute military operations against multiple entity-level targets. Further, target lists are the primary means by which joint forces coordinate and achieve the commander’s desired effects against targets associated with a directed planning effort. Target List Management (TLM) begins when an entity is nominated to become a candidate target and ends with the creation and maintenance of a prioritized target list. The relationship of various targeting products to the JTC is depicted in Figure 4.3. The relationship of various target lists to one another is depicted in Figure 4.4:



Legend:	
CATL	Candidate Target List
JPTL	Joint Prioritized Target List
JTL	Joint Target List
NSL	No-Strike List
PTL	Prioritized Target List
RTL	Restricted Target List
TNL	Target Nomination List

Figure 4.3 – Target lists and the joint targeting cycle



Legend:	
CATL	Candidate Target List
JPTL	Joint Prioritized Target List
JTL	Joint Target List
NSL	No-Strike List
PTL	Prioritized Target List
RTL	Restricted Target List
SHAPE	Supreme Headquarters Allied Powers Europe
TCB	Target Clearance Board
TMP	Target Material Production
TNL	Target Nomination List

Figure 4.4 – Target lists and their relationships

4.5.1 NATO INTEGRATED DATABASE

The NATO integrated database (IDB), maintained by SHAPE, is created with contributions from NATO members, and other support organizations as required, to support NATO operations. The IDB contains all entities within the NATO area of intelligence interest, some of which could be considered to be potential targets or NSL entities. SHAPE will request nations to provide their information to the IDB. This provides the basis for Phase 2, Target Development, of the JTC. The IDB is kept under constant review to ensure currency and accuracy.

4.5.2 TARGET FOLDERS

Target folders are populated by all-source intelligence, containing the details for each individual target. All related information should be included in the folder and they are retained as operational records. Each target must have an electronic target folder

(ETF). The NATO Joint Targeting System (N-JTS) provides the capability for all nations and organizations engaged in the joint targeting to manage ETF and to store all relevant information. The N-JTS is used to manage the TNL, NSL, JTL, RTL, JPTL and PTL.

4.5.3 CANDIDATE TARGET LIST

The Candidate Target List (CATL) is a list of entities submitted by nations, component command or appropriate organizations, that are in target development and have not yet been validated. Once entities on the CATL have been validated, they can be included on the Joint Target List or the Restricted Target List and be considered for inclusion on the Target Nomination List. The NATO Centralised Targeting Capacity (CTC) would likely manage the CATL during Baseline Activity and Current Operations (BACO), but under crisis this would likely fall to the joint task forces (JTFs).

4.5.4 TARGET NOMINATION LIST

The Target Nomination List (TNL) contains targets prioritized in accordance with the guidance provided by the nation, CC or appropriate organization. It is forwarded to the JTCB for consideration. The target nomination list contains targets being nominated for the JPTL. Although nations, CCs and appropriate organizations will have developed target folders for eventual inclusion on the TNL, these may not be ready for validation. This may be because the nation, CC or appropriate organization does not have the JISR assets to develop fully the target and seeks assistance from the targeting staff or other federated target development units/organisations to do so.

4.5.5 JOINT PRIORITIZED TARGET LIST

The JPTL is derived from the CCs nominations developed in conjunction with their proposed operations to support the JTF's objectives and guidance integrated into a single list. The JPTL focuses targeting efforts for a designated time period (e.g., air tasking order (ATO) period) or any other time period as designated by the Commander.

4.5.6 PRIORITIZED TARGET LIST

The Prioritized Target List (PTL), derived from the JPTL, allocates prioritized targets to individual CCs. Each CC will have a separate PTL, however, a CC does not necessarily engage a target nominated by itself. A PTL will normally include targets that have been allocated in support of other CCs during the coordination process.

4.5.7 NO-STRIKE LIST

The no-strike management process is owned by SHAPE. The No-Strike List (NSL) includes entities that are designated by the NAC as protected, due to international law or policy reasons. The OPLAN will specify how nominations are made to the NSL, including by nations, and how amendments are made to the NSL, including any delegated authorities for making amendments. NSL entities must not be engaged unless their protection is forfeited and, consequently, may become targets subject to lawful engagement. To engage a NSL entity, sufficient intelligence must indicate that

the target is using a NSL entity in a way that is contrary to its original, protected function (for example, a church being used exclusively to store weapons or an empty hospital being used as a TA's command post). In such cases, the original protected function must no longer be active (in the example above, the hospital that the adversary is using as a command post must no longer be used as a hospital – if it still provides medical treatment, the entity retains its protected status, but would be classified as dual-use).Entities on the NSL that lose their protected status and become subject to lawful engagement are likely to remain sensitive. Entities that were placed on the NSL by the NAC or SACEUR must have their removal from this list approved prior to engagement as directed by SACEUR[60]. Entities on the NSL are initially drawn from the IDB. The NSL is disseminated by the N-JTS. Unless otherwise specified, the NSL is normally owned by the Commander JTF. Nothing prevents the lawful engagement of NSL entities in self-defence, provided the specific IHL/LOAC provisions are respected.

[60] This is, for example, the case for schools. Most NATO member states endorsed the Safe Schools Declaration and acknowledged that attacks on education and threats of attacks on education can cause consequences and long-lasting harm to individuals and societies. The Safe Schools Declaration is an inter-governmental political commitment that was opened for endorsement by countries at an international conference held in Oslo, Norway, on 28-29 May 2015.The Declaration provides countries the opportunity to express political support for the protection of students, teachers, and schools during times of armed conflict; the importance of the continuation of education during armed conflict; and the implementation of the Guidelines for Protecting Schools and Universities from Military Use during Armed Conflict.

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CHAPTER 5 – JOINT TARGETING AT THE TACTICAL LEVEL

5.1 GENERAL

At the tactical level, outputs from the joint targeting cycle (JTC) are translated into actions conducted by component commands (CCs). CCs also contribute to the JTC by nominating their own targets (e.g., component critical targets (CCTs)) specific to their own environment and mission within the Commander Joint Task Force's (JTF's) intent. Such targets could be outside their own area of operations.

Within the priorities set by the JTF, CCs will allocate priorities, designate actions and specify timings. CC collection capabilities will assist the JTF during target development and assessment phases of the JTC.

5.1.1 COMPONENT COMMANDER RESPONSIBILITIES

CCs will:

- convene their own targeting and information activities working groups/boards as required to enable joint targeting;
- direct the intelligence support to targeting and target development;
- develop target nomination lists (TNLs) and priorities in accordance with the mission assigned by the JTF;
- provide representatives to the Joint Coordination Board (JCB), Joint Targeting Coordination Board (JTCB) and Information Activities Coordination Board (IACB) as directed by the JTF;
- contribute to the development of targets on the joint target list (JTL) and their prioritisation onto the joint prioritized target list (JPTL);
- contribute to the approval process through the membership of the JTCB;
- ensure compliance with the applicable legal framework, especially International Humanitarian Law/Law of Armed Conflict (IHL/LOAC), and Rules of Engagement (ROE);
- confirm that targets meet legal and policy requirement and account for any caveats expressed by national representatives;
- ensure conformity with the NATO Protection of Civilians (PoC) concept;
- allocate integral assets to prosecute those targets assigned on the prioritized target list (PTL);
- establish a time-sensitive target (TST) coordination element to engage TSTs as detailed in Annex A;
- ensure that all targets passed to subordinate formations for engagement have been validated and approved, noting that this does not relieve lower

echelon commanders of their responsibilities under international law, especially IHL/LOAC and ROE;

- provide input into the assessment phase, consolidating appropriate battle damage assessments (BDAs) from effects in the physical, cognitive and virtual dimensions, and weapon effectiveness assessments (i.e. mission reports, cockpit video and post-meeting reports), passing assessment information to the JTF's target support cell and combat assessment information to the campaign assessment section for fusion with other information sources; and
- make re-engagement recommendations.

5.2 JOINT TARGETING PROCESSES AT COMPONENT COMMAND LEVEL

CCs and their staffs may use different engagement processes within the JTC managed by the JTF. These processes are:

a. Find, fix, track, target, engage, exploit, assess (F2T2E2A). F2T2E2A is also the process used when conducting dynamic targeting.

b. Decide, detect, deliver, assess (D3A).

c. Find, fix, finish, exploit, analyse, disseminate (F3EAD).

5.3 FIND, FIX, TRACK, TARGET, ENGAGE, EXPLOIT, ASSESS

CCs may wish to adopt and/or adapt the F2T2E2A process as their targeting methodology to support their tactical actions as depicted in Figure 5-1:

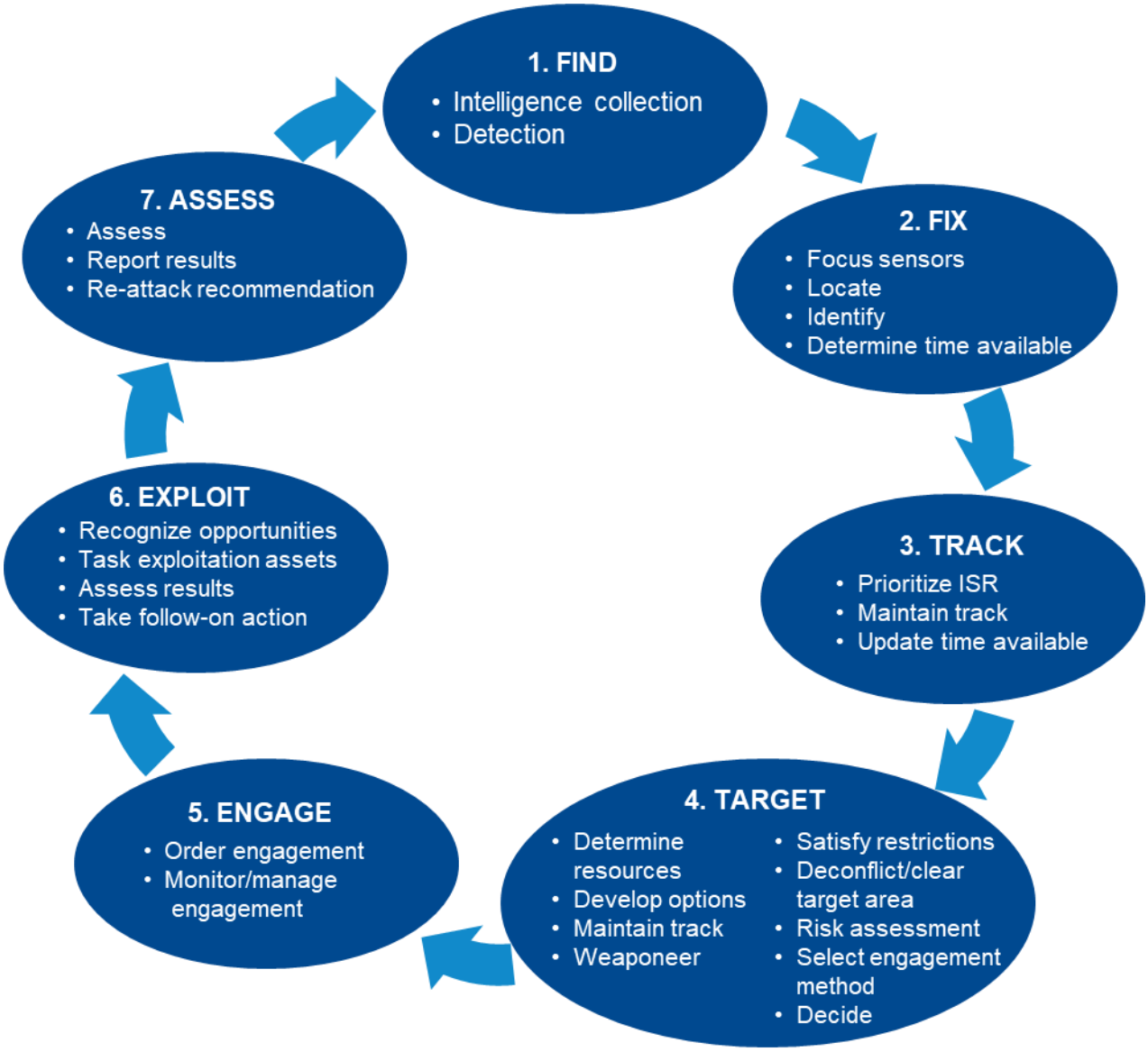


Figure 5.1 – The Find, Fix, Track, Target, Engage, Exploit, Assess cycle

5.3.1 FIND

This step is informed by both current combat information, the joint intelligence preparation of the operating environment (JIPOE) and Target Systems Analysis (TSA). Once detected, potential targets trigger actions to determine whether or not the particular entity warrants further attention or deviation from the existing plan (as is the case for TSTs) and, if so, to move on to the next step. In the case of TSTs, the output of the find step is a TST nomination for further refinement.

5.3.2 FIX

Focused sensors allow target coordinate mensuration (TCM)[61] certified staff to identify and geolocate the target (typically via cross-cueing and intelligence fusion), conduct/confirm target coordinate mensuration for coordinate-seeking weapons and conduct an initial risk assessment. The time available for target engagement to create desired effects is also determined.

5.3.3 TRACK

Tracking is a continuous process to monitor a target until its successful engagement and engagement assessment. JISR capabilities are assigned and prioritized to track a target to maintain positive identification (PID), information on pattern of life (PoL for civilians and/or non-combatants), and pattern of activity (PoA for adversaries and enemies) and to ensure compliance with the IHL/LOAC and applicable ROE.

5.3.4 TARGET

Restrictions, including collateral damage estimation restrictions, ROE, and de-confliction, are satisfied at this time. Engagement capabilities are aligned with the desired effect, the risk assessment is completed and the final determination on force packaging is made. The target step includes final approval for engagement with the tasking of the selected engagement system.

5.3.5 ENGAGE

During this step, the target and its engagement are monitored to maintain awareness of the situation surrounding the engagement to ensure a successful engagement and identify any opportunities for rapid exploitation.

5.3.6 EXPLOIT

The engagement of any target can present immediate or longer-term opportunities for exploitation. During the planning phase, targeting and planning staffs should identify these opportunities and develop branch plans that can be executed if the appropriate conditions arise.

5.3.7 ASSESS

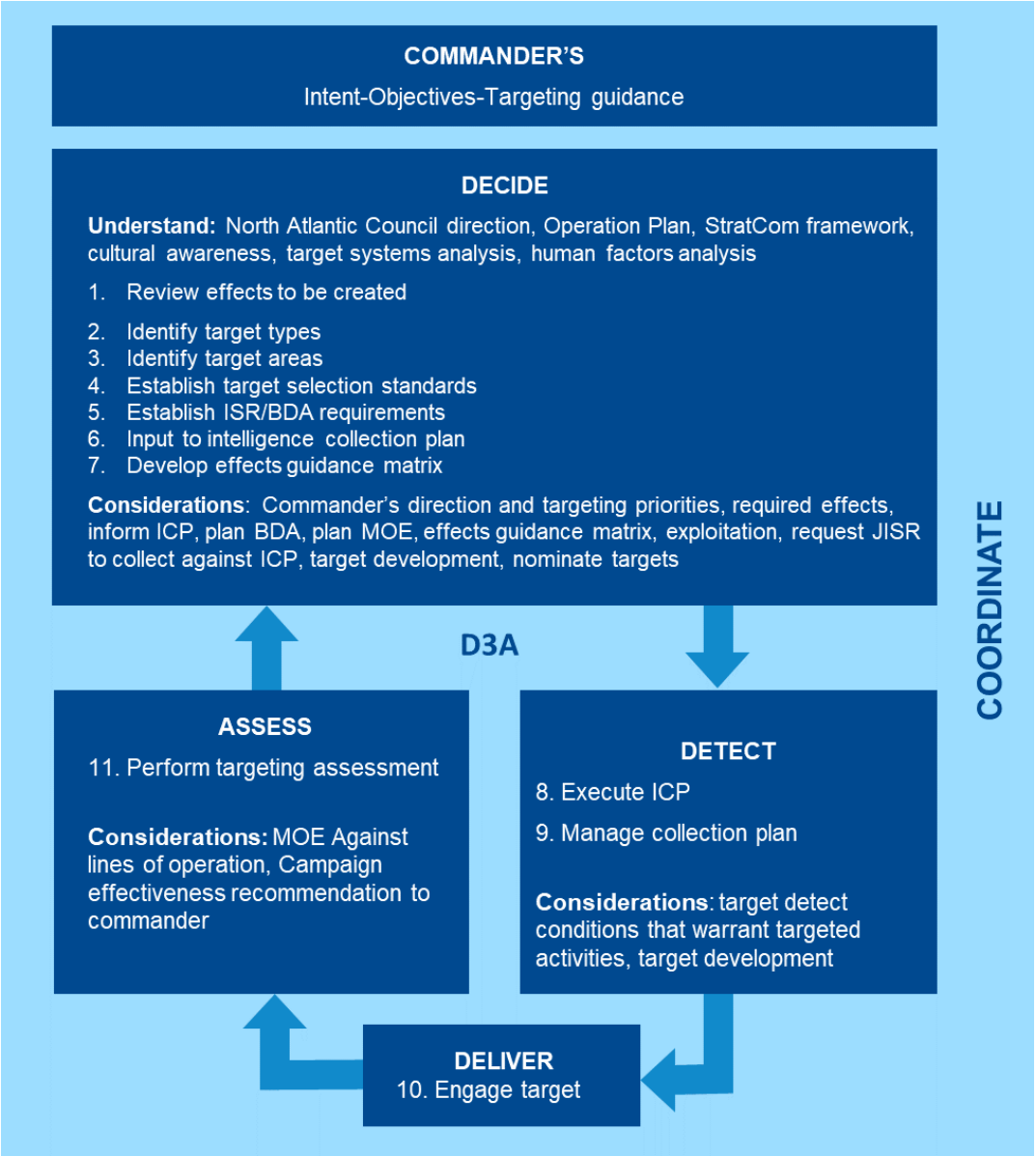
During the assessment phase, information about the results of the engagement is analysed to determine whether the desired effects have been created. The output of this step is assessment of mission success to support a possible re-engagement

[61] NATO does not currently possess the capability to conduct TCM and relies of support from NATO member states.

decision (that could involve using a completely different capability or generate an appropriate response to collateral damage). In the case of a TST, high-value target (HVT) or high pay-off target (HPT), a rapid, initial assessment is vital if an opportunity to re-engage is to be exploited.

5.4 DECIDE, DETECT, DELIVER, ASSESS

D3A is a simplification of the standard targeting process and can be used as an alternative process to the targeting cycle at the tactical level. Throughout, the process is dependent on the clear direction and guidance of the JTF to the CC and is particularly suitable where CCs have been given responsibility for an area of operation and a degree of autonomy to conduct operations. The D3A process is depicted in Figure 5.2:



Legend:	
BDA	Battle Damage Assessment
D3A	Decide, Detect, Deliver, Assess
ICP	Intelligence Collection Plan
JISR	Joint Intelligence, Surveillance and Reconnaissance
MoE	Measure of Effectiveness

Figure 5.2 – The Decide, Detect, Deliver, Assess cycle

5.4.1 DECIDE

The 'Decide' phase is the initial and most involved part of the process, although much of the work may have been done in earlier phases of the JTC. This phase is integrated with the CC operations planning process and intelligence collection planning[62]. The decide phase will take the direction and guidance provided by the JTF to the CC, who then translates this into desired operational conditions and how they expect to achieve them, using this to identify target types and target areas, and the accuracy required so that they can be positively identified based on available technical systems. This will provide input into their intelligence collection plan (ICP) including requests for joint intelligence, surveillance and reconnaissance (JISR) capabilities, to develop an understanding of the target sets available to them. At the same time, the staff will consider what MOEs will be used, including BDA criteria. The outputs from the decide phase will include target nominations, including those from the IACB to be presented to the JTCB, and a variety of other products such as high pay-off target lists (HPTLs) and target selection standards (TSS). The CC nominates targets when they have identified them as high pay-off targets but lacks the capacity and/or capability to collect intelligence or to act against them.

5.4.2 DETECT

Understanding what has been developed during the decide phase will guide when and where to look for a target, and the ICP will guide the employment of JISR assets to detect the presence of targets in any named area of interest or detect the conditions that make it appropriate for target engagement. Once located, a target must be positively identified against the target selection standards derived during the decide phase. Once positively identified, and depending on the target's priority, JISR assets will continue to track the target to ensure it is not lost and to develop and maintain a current, precise target location. On conclusion of this phase and before starting the 'Deliver' phase, all legal and other requirements, including collateral damage constraints, must be met.

5.4.3 DELIVER

During the 'Deliver' phase, the primary activity is applying the planned capability to create the desired effect against a particular target. The aim of this phase is to ensure that the appropriate capability is applied against the target as efficiently as possible. Applying lethal capabilities designed to create effects in the physical dimension against threat target sets may be relatively straightforward in comparison with applying non-

[62] Intelligence requirements management and collection management (IRM&CM) processes.

lethal capabilities which could create effects in the physical, virtual and cognitive dimensions against both adversaries and other actors.

5.4.4 ASSESS

During this phase, staff will seek to identify the effectiveness of the actions applied against particular targets. This will determine any requirement for a follow-up engagement, including consequence management. Continuous assessment helps the JTF and CCs determine if they are “doing the right things” (measures of effectiveness) to achieve its objectives, not just “doing things right” (measures of performance).

5.5 FIND, FIX, FINISH, EXPLOIT, ANALYSE AND DISSEMINATE

F3EAD is most commonly used by NATO’s special operations forces (SOF).[63] SOF are commanded through a special operations component command (SOCC), which contributes to the JTC in terms of target nomination and development alongside other CCs. F3EAD may be especially useful when targeting human networks and when coordinating activity against dynamic and emerging targets, where target engagement authority is sought after a target has been detected but before it can be acted against. Although F3EAD is optimized to create a lethal effect against a dynamic or time-sensitive target, it has utility across the spectrum of conflict. The F3EAD process is depicted in Figure 5.3:

[63] See AJP-3.5 Allied Joint Doctrine for Special Operations for further detail on SOF targeting processes.

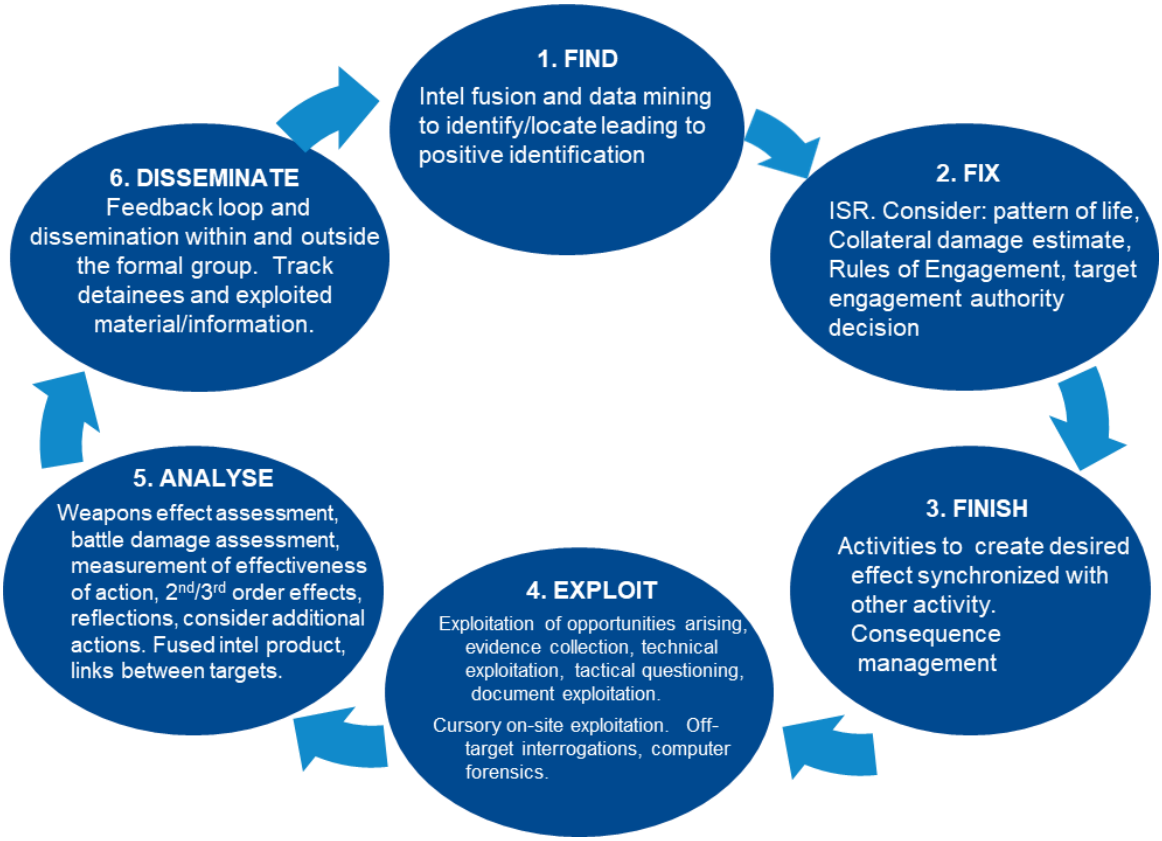


Figure 5.3 – The Find, Fix, Finish, Exploit, Analyse, Disseminate cycle

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ANNEX A – ENGAGING TIME-SENSITIVE TARGETS

A.1 GENERAL

Time-sensitive targets (TSTs) usually warrant immediate target engagement and will normally be critically important to the adversary/enemy – who will make every attempt to conceal their location. Most TST engagements involve assets from a variety of CCs operating together to detect and engage the target and assess the results. Consequently, TST are prioritized, categorised, coordinated, de-conflicted and directed for engagement at the joint task force (JTF) level. Their immediacy means they are typically dealt with through pre-planned "on-call" targeting or dynamic targeting.

A.2 SUCCESSFUL TST ENGAGEMENT

Successful TST engagement includes:

- clear, detailed North Atlantic Council (NAC) and Supreme Allied Commander Europe (SACEUR) guidance, including pre-approved target sets;
- a TST matrix (See Figure A.1) containing specific direction and guidance regarding TST including target engagement authority (TEA) and authorised collateral damage levels from the JTF;
- effective JISR and communications providing near-real-time capability to support TST operations;
- a capability to share relevant, timely information about targets, surrounding threats, and collateral damage assessments (CDA, where the information must be presented in a format that facilitates rapid decision-making);
- updated information and a common operational picture shared between CCs;
- command and control (C2) procedures, together with systems and Functional Area Service for Dynamic and Time-sensitive Targeting (FAST) in place allowing for the decentralised execution of TST, while providing simultaneous synchronisation and de-confliction throughout the entire joint operations area;
- timely access to a legal advisor (LEGAD) and a political advisor (POLAD); and
- clear and detailed procedures to obtain approval to engage TST as they are detected.

A.3 STRUCTURE TO PROSECUTE TIME-SENSITIVE TARGETS

Overall responsibility for command, control, and coordination of TST remains with the JTF. There are several options for the structure of C2 systems to support TST engagements.

A.3.1 TST COORDINATION ELEMENT

Coordination of TST is always retained at the JTF level. A TST coordination element (TCE) is established in the joint operations centre (JOC) to provide oversight for the TST process. The TCE within the JOC will supervise and coordinate ongoing operations while adjudicating or arbitrating CC targeting issues in accordance with JTF direction and guidance, rules of engagement (ROE), International Humanitarian Law/Law of Armed Conflict (IHL/LOAC). The TCE is the single point of contact at the JTF level for any TST-related component activities or questions.

A.3.2 TST CELL

A TST cell, responsible for TST execution under the guidance of the TCE, is established at both the joint force and CC level. TST cells will include, as a minimum, fires, intelligence and targeting experts. The JTF may also maintain a deployable JTF TST cell, that may remain co-located with the JTF HQ or deploy to a designated CC, as the nucleus of a larger TST cell embedded in that CC's current operations cell.

A.3.3 LEAD COMPONENT COMMAND

A CC may be designated as the TST lead if it has the best information or situational awareness to engage TST. While air forces are well suited to TST engagement, making combined air operations centres (CAOCs) the usual choice to coordinate their engagement by, the JTF may wish to allocate the lead to a different CC or retain it at JTF HQ. The JTF will normally embed their deployable TST team within a lead CC's current operations section; the TCE remains at the JTF level.

A.4 OTHER CONSIDERATIONS

A.4.1 ACCELERATED DECISION MAKING

Successful TST engagement requires mechanisms to accelerate the decision-making process. This is achieved through appropriate C2 mechanisms, alongside well-understood and well-rehearsed procedures coupled with prior planning and coordination. Planning should include producing a TST matrix and engagement criteria as specified in the targeting directive.

A.4.2 IDENTIFYING TST

Joint Intelligence Preparation of the Operating Environment (JIPOE) identifies the probable locations or operating areas where TST may emerge. If confidence in the intelligence picture is high, and subject to the nature of the TST, CCs may elect to position or posture JISR and strike assets to reduce response times when TST are

identified. During mission planning and execution, intelligence closely monitors target status to provide real-time support to execution.

A.4.3 RISK MANAGEMENT

Within the accelerated decision-making process, staff should conduct risk management, balanced with the guidance in the TST matrix to manage:

- the level of risk to the force (including friendly fire, using risk estimate distances, and diverting resources from other assigned tasks);
- the risk to operational success (including any impact on freedom of action and impact on the operation's information strategy); and
- collateral damage risk.

A.5 ROLES AND RESPONSIBILITIES

A.5.1 JTF GUIDANCE

The JTF designates TST, stating exactly what constitutes one, and provides guidance on targeting priorities. Only TST within target sets approved by the NAC will be prosecuted. However, during ongoing operations new potential TST may emerge; those that fall outside these categories will be forwarded by the JTF, through SACEUR, for NAC approval before being considered for designation as a TST. The JTF guidance must clearly define the TST coordination procedures between the CCs, applicable ROE, any restrictions (including collateral damage considerations) and reporting conditions. The guidance will include several factors.

A.5.1.1 TST PRIORITIES

Following planning, including input from the CCs, the JTF identifies and prioritizes TST. Priorities must be allocated to establish precedence when tasking assets away from other targets. The JTF will limit the number of TST categories, or else these priorities may become meaningless.

A.5.1.2 TARGET ENGAGEMENT AUTHORITY (TEA) LEVELS

Political and other considerations may require the JTF to retain target engagement authority. Wherever possible, target engagement authority should be delegated to the lowest practical level. Delegation allows CCs the flexibility to execute targets within assigned collateral damage levels and ROE. To maintain the ability to command, control and coordinate TST operations, this activity is normally carried out at the CC level. The JTF, when assigning engagement authority, must balance strategic impact, CC's areas of operation and assigned functional missions, with the requirement to strike rapidly against TST.

A.5.1.3 NATIONAL TARGET ENGAGEMENT AUTHORITY

Notwithstanding whom the NATO TEA holders are, there may be a distinction between the NATO TEA holders and national approval authority holders, who approve their nation's participation in certain joint targeting activities and the employment of certain national capabilities against certain targets. During planning and execution, the JTF/CC and their staff must be aware of any national caveats, additional restrictions or considerations depending on the situation that could affect assigning resources for target engagement. National caveats are reported through appropriate national representatives.

A.5.1.4 POSITIVE IDENTIFICATION

The JTF establishes minimum requirements for PID prior to TST engagement. The type of TST or its location (such as in an urban area) will affect the JTF's or CC's decision making. This may require data from multiple sensors/sources to achieve the confidence level required for the JTF/CC to authorise target engagement.

A.5.1.5 COLLATERAL DAMAGE

The JTF ensures that collateral damage estimate (CDE) is conducted in accordance with the parameters of NATO CDE methodology as specified in the OPLAN Annex II - Targeting. CCs develop procedures to ensure compliance with JTF's collateral damage direction.

A.5.1.6 COMMAND AND CONTROL AND COORDINATION REQUIREMENTS

The JTF establishes specific C2 guidance for TST engagement, including mechanisms for coordination, de-confliction, integration, and synchronisation amongst CCs. A well-practised, well-executed C2 process is essential for successful TST engagement.

A.5.1.7 DESIRED EFFECTS

The desired effects are given in the TST matrix and express the required action and the intended effect.

A.5.1.8 ACCEPTABLE RISK

JTF's guidance should stipulate the degree of acceptable risk (including that posed by collateral damage) when engaging specific TST. The acceptable risk will be addressed in the TST matrix, as well as assessed in the TEA brief. Specific TST may be such a threat to the force or to mission accomplishment that the JTF is willing to accept a higher level of risk and engage the target immediately upon detection, provided the engagement is carried out in respect of IHL/LOAC provisions. The risk associated with TST involves a possible trade-off between diverting ISR and engagement assets from their planned mission to a TST. Risks must be balanced against a target's window of vulnerability.

A.6 COMMAND RESPONSIBILITIES

The following are the general responsibilities in a joint force regarding TST.

A.6.1 THE COMMANDER JTF

- analyses and recommends TST categories for NAC approval;
- designates and prioritizes TST;
- approves the TST matrix developed by the Joint Targeting Coordination Board (JTCB). See Figure A.2 for a sample TST matrix;
- issues TST directions and guidance, and delegation of engagement authority for TST to CCs; and
- establishes a JTF TST cell and a TCE as required.

A.6.2 JTF OPERATIONS STAFF

- develops targets/target sets designated as TST by the JTF;
- assesses the effectiveness of collection plans regarding TST priorities and recommends appropriate adjustments;
- coordinates JIPOE effort with other directorates and branches;
- supports the TEA briefing;
- promulgates and executes the JTF's guidance for TST operations;
- establishes a TST coordination element and JTF TST cell;
- initiates NAC approval for new TSTs submitted by CCs, headquarters or non-NATO entities;
- ensures TST coordination element and JTF TST cell is correctly resourced, trained and equipped; and
- provides requirements to J6 Communications and Information Systems (CIS) Branch for C2 architecture and collaborative tools.

A.6.3 JTF TST CELL/COORDINATION ELEMENT

- drafts TST guidance and priorities for Commander JTF's approval and incorporation into the joint coordination order;
- ensures compliance with approved JTF guidance;
- if applicable, coordinates TST operations with organisations outside NATO's command authority;

  facilitates timely approval for the engagement of targets requiring Commander JTF or higher authority;
- arbitrates conflicting TST requirements between CCs; and

- provides TST expertise to the JTF.

A.6.4 COMPONENT COMMANDS

If a TST is detected within a CC's area of operations, the CCs plan and execute TST operations as tasked by the JTF. If approved for engagement by the appropriate target engagement authority, the CC may independently prosecute the TST with organic capabilities or request support from another CC. Any CC TST cell may offer other solutions/assets via the collaborative network and coordinate with the JTF TCE cell. The CC remains responsible for engagement de-confliction within their area of operations. The TST coordination element monitors all potential TST engagements, arbitrates and coordinates issues that may arise in cross-CC area of operations actions. CCs, or their designated representatives, will:

- establish a TST cell to coordinate with the JTF's TCE;
- review all TST against JTF direction, guidance, and constraints to determine the TEA;
- report processing of JTF-designated TST;
- coordinate with the JTF TST coordination element for TST requiring coordination between two or more CCs or requiring JTF action in accordance with JTF direction and guidance; and
- provide assessments from TST engagements.

JTF Priority	Target Set	Target Type	Desired Effect[1]	TEA	ROE	Risk to FF[2]	Auth CDE	PID	Remarks	C2 Coord By
1/I	ADF	High-threat SAM	KK/KC	CC	231	High	4	J2, J3 input	If SAM poses or soon will pose, a threat to ATO execution, engage with any available asset.	TCE/TST Cell
2/I	MSL	Loaded NODONG TEL	KK/KC	Commander JTF	231	High	5	J2, J3 input	If TEL is within range of NATO fielded forces or key infrastructure, engage immediately with any available asset.	TCE/TST Cell
3/I	MSL	Loaded SCUD TEL	KK/JJ	Commander JTF	231	High	5	J2, J3 input	If TEL is within range of NATO fielded forces or key infrastructure, engage immediately with any available asset.	TCE/TST Cell
4/A	PLS	Threat national leadership	KK/JJ	SACEUR	183,255	High	5	J2 input	Limit actor's control capability or capture actor.	TCE/TST Cell
5/A	MLS	Threat national leadership	KK*/KC/JJ	CC	168, 183,255	Med	4	J2 input	Kill or limit actor's control capability or capture actor.	TCE/TST Cell

1. As laid down in ACO Directive (AD) 080-070, Joint Targeting in the ACO, 26 October 2018.
2. These could relate to possible situations and the level of authority that holds the risk. For example, high risk could involve friendly fire, casualties caused by the threat or the diversion of assets from another mission. Such a level of risk may be held at the JTF level. A medium risk could be a possible negative impact on the JTF's information activities and could be held at CC level.

Legend:

A	**As soon as possible without affecting Priority JPTL targets**
ADF	**Air defence forces**
ATO	**Air Tasking Order**
C2	**Command and Control**
CC	**Component command**
CDE	**Collateral Damage Estimate**
FF	**Friendly forces**
I	**Immediate – takes priority over all planned targets**
JJ	**Detention**
JPTL	**Joint prioritized target List**
JTF	**Joint Task Force**
KC	**Kill capabilities**
KK	**Kill destroy**
KK*	**Only if detention not possible**
MLS	**Military leadership**
MSL	**Missiles**
PP	**Prevent use**
PID	**Positive identification**
PLS	**Political leadership**
ROE	**Rules of Engagement**
SAM	**Surface to air missile**
TCE/TST Cell	**TST Coordination Element/Time-sensitive target cell**
TEA	**Target engagement authority**
TEL	**Transporter erector launcher**
TGT	**Target**
TST	**Time-sensitive target**

Figure A.1 – Example of a time-sensitive target matrix

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ANNEX B – EXAMPLES OF NATO TARGET SETS

B.1 GENERAL

Supreme Allied Commander Europe (SACEUR), in coordination with the Commander joint task force (JTF), will select target sets based on specific North Atlantic Council (NAC) direction and (if available) national guidance. Target sets are delineated by type and do not differentiate between military and civilian facilities. Civilian facilities may only be targeted if they have lost their protected status as civilian objects and are deemed valid military objects in accordance with International Humanitarian Law/Law of Armed Conflict (IHL/LOAC).

B.2 TARGET SETS

Figure B.1 depicts some illustrative examples of NATO target sets for a state actor.

Abbreviated Title	NATO Target Set
ADF	Air defence forces
AFA	Air forces and airfields
AME	Adversary media
C4I	Command, control, communication, computers, and intelligence
CYB	Cyberspace capabilities
ELS	Economic leadership
GEP	General Public
GFF	Ground forces and facilities
IND	Industry
LOC	Transportation/lines of communication
MCF	Militant, criminal forces
MED	Friendly or Neutral Media
MLS	Military leadership
MSL	Missiles
MSS	Military supply and storage
NFP	Naval forces and ports
PLS	Political leadership
POL	Petroleum industry
PWR	Electric power
RDF	Rules of engagement defined forces, groups, individuals
RLS	Religious leadership
SCT	Special category
SPF	Space forces
WMD	Weapons of mass destruction

Figure B.1 – Illustrative examples of NATO target sets for a state actor

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PART I – ACRONYMS AND ABBREVIATIONS

AAP	Allied administrative publication
AArtyP	Allied artillery publication
ACO	Allied Command Operations
ACOS	Assistant Chief of Staff
ACT	Allied Command Transformation
AIntP	Allied intelligence publication
AJP	Allied joint publication
ATD	advanced target development
ATO	air tasking order
ATP	Allied tactical publication
ATrainP	Allied training publication
BACO	baseline activities and current operations
BDA	battle damage assessment
BTD	basic target development
C2	command and control
CAS	close air support
CATL	candidate target list
CBRN	chemical, biological, radiological, and nuclear
CC	component command
CCT	component critical target
CDA	collateral damage assessment
CDE	collateral damage estimation
CEE	collateral effects estimation
CIS	communications and information system
CJCSI	(US) Chairman of the Joint Chiefs of Staff Instruction
CNI	critical national infrastructure
CO	cyberspace operation
COE	Centre of Excellence
CoG	centre of gravity
COM JFC	Commander Joint Force Command
CTC	centralised targeting capacity
CyOC	Cyberspace Operations Centre
D3A	decide, detect, deliver, assess
DCO	defensive cyberspace operation

DCOS SEM	Deputy Chief of Staff Strategic Employment
DFW	data fusion workshop
DIRLAUTH	direct liaison authorized
DPH	direct participation in hostilities
ETF	electronic target folder
EW	electronic warfare
FAC(A)	forward air controller (airborne)
FAST	Functional Area Service for Dynamic and Time-sensitive Targeting
FIVE-O	facility, individual, virtual, equipment, and organisation
F2T2E2A	find, fix, track, target, engage, exploit, assess
F3EAD	find, fix, finish, exploit, analyse, disseminate
GENAD	gender advisor
GEOINT	geospatial intelligence
HPT	high pay-off target
HQ	headquarters
HUMINT	human intelligence
HVT	high-value target
IACB	Information Activities Coordination Board
IAWG	Influence Activities Working Group
I&W	Indications and warning
IC	Intelligence Community
ICP	intelligence collection plan
IDB	integrated database
IHL	International Humanitarian Law
Info Ops	Information Operations
IRM&CM	intelligence requirements management and collection management
ITD	intermediate target development
JCB	joint coordination board
JCBRN COE	joint chemical, biological, radiological, and nuclear COE
JCBWG	joint coordination board working group
JCMB	joint collection management board
JCO	joint coordination order
JFAC	joint force air component
JFC	joint force command
JFEWG	Joint Fires and Effects Working Group
JIPOE	joint intelligence preparation of the operating environment

JISR	joint intelligence, surveillance and reconnaissance
JOC	joint operations centre
JOPG	joint operational planning group
JPTL	joint prioritized target list
JTAC	joint terminal attack controller
JTC	joint targeting cycle
JTCB	Joint Targeting Coordination Board
JTE	(SHAPE) Joint Effects Branch
JTF	joint task force
JTL	joint target list
JTWG	Joint Targeting Working Group
LEGAD	legal advisor
LOAC	law of armed conflict
MASINT	measurement and signals intelligence
MC	Military Committee
MEA	munitions effects assessment
MIDB	modernised integrated database
MILENG	military engineering
MilPA	military public affairs
MLE	maximum level of effort
MOE	measure of effectiveness
MOP	measure of performance
MPI	mean point of impact
NAC	North Atlantic Council
NATO	North Atlantic Treaty Organisation
NCIA	NATO Communications and Information Agency
NCS-A	NATO Command Structure Adaptation
NCV	Non-Combatant casualty Cut-Off Value
NGO	non-governmental organization
NID	NAC Initiating Directive
NIFC	NATO Intelligence Fusion Centre
N-JTS	NATO-Joint Targeting System
NLLP	NATO Lessons Learned Portal
NSL	no-strike list
OCO	offensive cyberspace operation
OPCOM	operational command
OPCON	operational control
OPLAN	operation plan

OPSEC	operations security
PID	positive identification
PoA	pattern of activity (of the adversary/enemy)
PoC	Protection of Civilians
PoL	pattern of life (of a civilian and/or non-combatant)
POLAD	political advisor
PSYOPS	psychological operations
RFF	request for feedback
ROE	rules of engagement
RR	re-engagement recommendation
RTL	restricted target list
SAAD	sex and age disaggregated data
SACEUR	Supreme Allied Commander Europe
SAG	Staff Advisory Group
SCADA	Supervisory Control and Data Acquisition
SHAPE	Supreme Headquarters Allied Powers Europe
SIG	StratCom Implementation Guidance
SIGINT	signals intelligence
SME	subject matter expert
SOFA	Status of Forces Agreement
SSC	Single Service Command
ST	Sensitive Target
STAR	Sensitive Target Approval and Review
StratCom	strategic communications
TCB	target clearance board
TCC	Theatre Component for Cyberspace
TCE	Time-sensitive target coordination element
TCM	target coordinate mensuration
TD	targeting directive
TDWG	target development working group
TEA	target engagement authority
TLM	target list management
TMP	target material production
TNL	target nomination list
TSA	target systems analysis
TSAT	target systems analysis team
TSS	target selection standards

TST	time-sensitive target
TTF	terminology tracking file
TVA	target value analysis
TVB	target validation board
UN	United Nations
UNSCR	United Nations Security Council Resolution

PART II – TERMS AND DEFINITIONS

advanced target development
The step which completes the target characterization process and defines the minimum intelligence necessary to plan for effective target engagement, including any intelligence mission data required for employment of a given capability.
(This term and definition only applies to this publication.)

area of operations
An area within a joint operations area defined by the joint force commander for conducting tactical level operations.
(NATO Agreed)

assessment
The process of estimating the capabilities and performance of organisations, individuals, materiel, or systems.
Note: In the context of military forces, the hierarchical relationship in logical sequence is: assessment, analysis, evaluation, validation and certification.
(NATO Agreed)

basic target development
The step following intelligence research, target system analysis, and target discovery and which begins the process of uniquely identifying, locating, describing, functionally characterizing, and subsequently data basing entity-level target details.
Note: The basic target development standards are: Identification, Location, Function, Significance, Description.
(This term and definition only applies to this publication.)

battle damage assessment
The assessment of effects resulting from the application of military action, either lethal or non-lethal, against a military objective.
(NATO Agreed)

battlespace
The environment, factors and conditions that must be understood to apply combat power, protect a force or complete a mission successfully.
Note: It includes the land, maritime, air and space environments; the enemy and friendly forces present therein; facilities; terrestrial and space weather; health hazards; terrain; the electromagnetic spectrum; and the information environment in the joint operations area and other areas of interest.
(NATO Agreed)

campaign
A set of military operations planned and conducted to achieve a strategic objective.
(NATO Agreed)

candidate target list
A list of entities submitted by nations, component command or appropriate organizations, that are in target development and have not yet been validated.
Notes:
1. Once entities on the CATL have been validated, they can be included on the Joint Target List or the Restricted Target List and be considered for inclusion on the Target Nomination List.
2. The NATO Centralised Targeting Capacity (CTC) would likely manage the CATL during Baseline Activity and Current Operations (BACO), but under crisis this would likely fall to the joint task forces (JTFs).

(This term and definition only applies to this publication.)

collateral damage
Inadvertent casualties, damage and/or destruction caused by military operations.
(NATO Agreed)

collateral damage estimation
An approximation of the potential inadvertent casualties, damage, and or/destruction as a result of a military operation.
(This term and definition only applies to this publication.)

collection
The gathering and exploitation of data and information by specialists and agencies and the delivery of the results obtained to the appropriate processing unit for use in the production of intelligence.
(This term and its definition are being processed for NATO Agreed status. Ongoing TTF 2011-1237.)

combat engagement
Action against an adversary, in accordance with IHL/LOAC, NAC-approved rules of engagement, outside of self-defence, to accomplish missions and tasks during operations when it is not feasible to conduct either deliberate or dynamic targeting due to the immediacy of the engagement.
(This term and definition only applies to this publication.)

communication and information systems
Collective term for communication systems and information systems.
(NATO Agreed)

component critical target
A target requiring immediate response as directed by the component commander.
Note: A CCT could be a time-critical target from a component commander's perspective, but which was not approved as a time-sensitive target by the Commander Joint Task Force, and whose destruction is of high priority to achieve tactical objectives and therefore is approved as a component critical target by the respective tactical commander.
(This term and definition only applies to this publication.)

conduct of operations
The art of directing, coordinating, controlling, and adjusting the actions of forces to achieve specific objectives.
(NATO Agreed)

control
The authority exercised by a commander over part of the activities of subordinate organisations, or other organisations not normally under his command that encompasses the responsibility for implementing orders or directives.
(NATO Agreed)

course of action
In the estimate process, an option that will accomplish or contribute to the accomplishment of a mission or task, and from which a detailed plan is developed.
(NATO Agreed)

critical element
A part of a target that is essential in enabling it to perform its primary function, in support of achieving its operational objective.
Note: The identification and understanding of critical elements is vital, as it enables the functional capability of the target.
(This term and definition only applies to this publication.)

cyberspace
The global domain consisting of all interconnected communication, information technology and other electronic systems, networks, and their data, including those which are separated or independent, which process, store or transmit data.
(NATO Agreed)

cyberspace operation
Actions in or through cyberspace intended to preserve own and friendly freedom of action in cyberspace and/or to create effects to achieve military objectives.
(NATO Agreed)

cyber security
The application of security measures for the protection of communication, information, and other electronic systems, as well as the information that is stored, processed or transmitted in these systems with respect to confidentiality, integrity, availability, authentication and non-repudiation.
(NATO Agreed)

defensive cyberspace operation
Actions in or through cyberspace to preserve own and friendly freedom of action in cyberspace.
(This term is a new term and definition and has been processed for NATO Agreed status via terminology tracking file [TTF 2014-0269].)

dual-use facility/entity
An object or facility/entity characterised as serving both a military and civilian or non-combatant function, thus presenting duality in their use.
Notes:
1. Dual use facilities/entities may exist in the virtual dimension as well as physical – e.g., Supervisory Control and Data Acquisition (SCADA) control systems for industrial plant and processes.
2. A dual-use facility/entity may, or may not, be a valid military objective. The classification of a dual-use facility/entity as a valid military objective must be determined on the basis of the distinction test. In determining whether an object that does not have any military purpose or use is a valid military objective, commanders and other decision-makers must make the decision in good faith based on the information available to them at the time in light of the circumstances ruling at the time of a planned engagement. After the dual-use facility/entity has been classified as a valid military objective, its lawful engagement must be further assessed on the basis of the proportionality test.

(This term and definition only applies to this publication.)

end state
The political-strategic statement of conditions that defines an acceptable concluding situation to be attained at the end of a strategic engagement.
(NATO Agreed)

engagement
In the context of rules of engagement, action taken against a target with intent to deter, damage or neutralize it.
(This term and definition only applies to this publication.)

fires
The use of weapon systems to create a specific lethal or nonlethal effect on a target.
(NATO Agreed)

gender analysis
The systematic gathering and examination of information on gender differences and on social relations between men and women in order to identify and understand inequities based on gender.
(NATO Agreed)

gender perspective
The consideration of gender-based differences between women and men as reflected in their social roles and interactions, in the distribution of power and the access to resources.
(NATO Agreed)

geospatial intelligence
Intelligence derived from the combination of layered geospatial information, including imagery, with other intelligence data to describe, assess and visually depict geographically referenced activities and features on the earth.
(NATO Agreed)

high pay-off target
A high-value target, the successful influencing of which will offer disproportionate advantage to friendly forces.
Note: High pay-off targets are determined by the value they offer to friendly forces rather than other actors.
(NATO Agreed)

high-value target
A target identified as critical to an actor or organisation for achieving its goal.
(NATO Agreed)

human intelligence
Intelligence derived from information collected by human operators and primarily provided by human sources.
(NATO Agreed)

human network analysis and support to targeting
An intelligence process intended to provide understanding of the organizational dynamics of human networks and to recommend individuals or nodes within those networks for interdiction, action, or pressure.
(NATO Agreed)

information activities
Actions designed to affect information or information systems.
Note: Information activities can be performed by any actor and include protection measures.
(NATO Agreed)

information environment
An environment comprised of the information itself; the individuals, organisations and systems that receive, process, and convey the information; and the cognitive, virtual and physical space in which this occurs.
(NATO Agreed)

information operations
A staff function to analyze, plan, assess and integrate information activities to create desired effects on the will, understanding and capability of adversaries, potential adversaries and audiences in support of mission objectives.
(derived from: MCC 422/6)

intelligence
The product resulting from the directed collection and processing of information regarding the environment and the capabilities and intentions of actors, to identify threats and offer opportunities for exploitation by decision-makers.
Note: The term is also applied to the activity which results in the product and to the organizations engaged in such activity.
(NATO Agreed)

intermediate target development
The process which provides sufficient intelligence data to complete functional characterisation requirements and ensures the entity qualifies as a candidate for validation to the joint target list or the restricted target list.
Note: ITD for military units will be conducted at the commander's discretion. Regardless of the level of target development conducted, it must be able to contribute to target prioritization.
(This term and definition only applies to this publication.)

joint
Adjective used to describe activities, operations, organisations in which elements of at least two services participate.
(NATO Agreed)

joint fires
Fires applied during the employment of forces from two or more components, in coordinated action toward a common objective.
(NATO Agreed)

joint intelligence, surveillance and reconnaissance
An integrated intelligence and operations set of capabilities, which synchronises and integrates the planning and operations of all collection capabilities with the processing, exploitation, and dissemination of the resulting information in direct support of the planning, preparation, and execution of operations.

joint operations area
A temporary area within a theatre of operations defined by the Supreme Allied Commander Europe, in which a designated joint force commander plans and executes a specific mission at the operational level.
(NATO Agreed)

joint prioritized target list
A list of targets approved and maintained by the joint force commander, and which represents a formal order to component commands to engage targets.
(This term and definition only applies to this publication.)

joint target list
A list of validated targets not yet approved for inclusion in the joint prioritized target list.
(This term and definition modifies an existing NATO Agreed term and/or definition and has been processed for NATO Agreed status via terminology tracking file TTF 2011-1389.)

mean point of impact
The point whose coordinates are the arithmetic means of the coordinates of the separate points of impact/burst of a finite number of projectiles fired or released at the same aiming point under a given set of conditions.
(NATO Agreed)

measurement and signature intelligence (MASINT)
Intelligence derived from the scientific and technical analysis of data obtained from sensing instruments for the purpose of identifying any distinctive features associated with the source, emitter or sender, to facilitate the latter's measurement and identification.
(NATO Agreed).

measure of effectiveness
A criterion used to assess changes in system behaviour, capability, or operating environment, tied to measuring the attainment of an end state, achievement of an objective, or creation of an effect.
(NATO Agreed)

measure of performance
A criterion to assess friendly actions that is tied to measuring task accomplishment.
(NATO Agreed)

mission
A clear, concise statement of the task of the command and its purpose.
(NATO Agreed).

multinational
Adjective used to describe activities, operations, and organisations in which elements of more than one nation participate.
(NATO Agreed)

named area of interest
A geographical area where information is gathered to satisfy specific intelligence requirements. (NATO Agreed)

no-strike list
A list of objects or entities characterized as protected from the effects of military operations under international law or policy reasons.
Note: Unless otherwise specified, the NSL is normally owned by the Commander JTF.
(This term and definition only applies to this publication.)

offensive cyberspace operation
Actions in or through cyberspace that create effects to achieve military objectives.
(This term has been processed for NATO Agreed status via terminology tracking file TTF 2014-0270.)

objective
A clearly defined and attainable goal for a military operation, for example seizing a terrain feature, neutralizing an adversary's force or capability or achieving some other desired outcome that is essential to a commander's plan and towards which the operation is directed.
(NATO Agreed)

operation
A sequence of coordinated actions with a defined purpose.
Notes:
1. NATO operations are military.
2. NATO operations contribute to a wider approach, including non-military actions.

(NATO Agreed)

operation plan
A plan for a single or series of connected operations to be carried out simultaneously or in succession.
Notes:
1. It is the form of directive employed by higher authority to permit subordinate commanders to prepare supporting plans and orders.
2. The designation 'plan' is usually used instead of 'order' in preparing for operations well in advance. 3. An operation plan may be put into effect at a prescribed time, or on signal, and then becomes the operation order.

(NATO Agreed)

operational command
The authority granted to a commander to assign missions or tasks to subordinate commanders, to deploy units, to reassign forces, and to retain or delegate operational and/or tactical control as the commander deems necessary.
Notes: it does not include responsibility for administration.
(NATO Agreed)

operational control
The authority delegated to a commander to direct forces assigned so that the commander may accomplish specific missions or tasks which are usually limited by function, time, or location; to deploy units concerned, and to retain or assign tactical control of those units. It does not include authority to assign separate employment of components of the units concerned. Neither does it, of itself, include administrative or logistic control.
(NATO Agreed)

operations security
The process which gives a military operation or exercise appropriate security, using passive or active means, to deny the enemy knowledge of the dispositions, capabilities, and intentions of friendly forces.
(NATO Agreed)

positive identification
A recognition derived from observation and analysis of target characteristics including visual recognition, electronic support systems, non-cooperative target recognition techniques, identification friend or foe systems, or other physics-based identification techniques, or human identity-based biometric data collection devices.
Notes:
1. PID provides the reasonable certainty that a functionally and geospatially defined entity is a valid military objective.
2. PID has 2 components: Function and location.

(This term and definition only applies to this publication.)

prioritized target list
The list, derived from the JPTL, which allocates prioritized targets to individual component commands (CCs). Each CC will have a separate PTL, however, a CC does not necessarily engage a target nominated by itself. A PTL will normally include targets that have been allocated in support of other CCs during the coordination process.
(This term and definition only applies to this publication.)

quality control
An intelligence staff-led activity that assesses the accuracy of the supporting targeting intelligence, and which informs the JTF or their designate during target validation.
(This term and definition only applies to this publication.)

restricted target
A valid target that has specific constraints and/or restraints placed on the actions authorized against it due to operational considerations.
Notes:
1. Possible restrictions include when or how to engage a target or a specific prohibition on engaging the target due to operational, political, and/or environmental, collateral considerations.
2. The restriction must include precisely how target engagement is restricted, the duration of the restriction, who may lift the restriction, etc.

(This term and definition only applies to this publication.)

restricted target list
A list of restricted targets nominated by elements of the joint force and approved by the joint force commander or directed by higher authorities.
Note: The restricted target list (RTL) is a joint target list (JTL) subset owned by the JFC and may include some joint prioritized target list (JPTL) targets. Regardless, these restrictions do not change the fact that targets on the RTL are valid military targets.
(This term and definition only applies to this publication.)

rules of engagement
Directives to military forces, including individuals, that define the circumstances, conditions, degree, and manner in which force, or actions which night be construed as provocative, may be applied.
(NATO Agreed)

sensitive target
A target for which planned actions requires NATO strategic-level and/or national-level review and approval.
(This term and definition only applies to this publication.)

signals intelligence
Intelligence derived from electromagnetic signals or emissions.
Note: The main subcategories of signals intelligence are communications intelligence and electronic intelligence.
(NATO Agreed)

support
The action of a force, or portion thereof, which aids, protects, complements, or sustains any other force.
(NATO Agreed)

strategic communications
In the NATO military context, the integration of communication capabilities and information staff function with other military activities, in order to understand and shape the information environment, in support of NATO strategic aims and objectives.
(NATO Agreed)

target
An area, structure, object, person, or group of people against which lethal or non-lethal capability can be employed to create specific psychological or physical effects.
Notes: The term 'person' also covers their mindset, thought processes, attitudes and behaviours.
(NATO agreed)

target analysis
An examination of potential targets to determine military importance, priority of attack, and weapons required to obtain a desired level of damage or casualties.
(NATO Agreed)

target discovery
The process of locating and identifying entities and objects of interest in the operating environment to facilitate target development.
(This term and definition only applies to this publication.)

target element
An integral specific feature or object of a target that enables its functions.
Note: If a specific element contributes to the function of multiple entities, the joint force must conduct due diligence to account for the relationship.
(This term and definition only applies to this publication.)

target engagement authority
The authority granted to a Commander to approve target engagement.
Notes:

1. The Commander delegated target engagement authority may subsequently delegate this authority further, if permitted, and after consideration for the specified target set, the risk level, and/or use of capabilities and/or collateral damage level that will affect any collateral concerns.
2. The OPLAN Annex II – Targeting will include the approved Target Engagement Authorities.

(This term and definition only applies to this publication.)

target selection standards
Criteria applicable to future targets to enable successful detection and engagement.
Note: criteria cover accuracy and timeliness, target location error; minimum size; static or moving; and time of acquisition. These criteria are applied in order to determine what degree of accuracy and timeliness is required from detection systems.
(This term and definition only applies to this publication.)

target set
A broad set of interrelated, functionally associated components and linkages that produce a common output or have a shared task or mission.
Note: Target sets are approved by the North Atlantic Council.
(This term and definition only applies to this publication.)

target system
All the targets situated in a particular geographic area and functionally related.
(NATO Agreed.)

target system component
An entity within a target system that performs or contributes to a similar function to the system overall.
Example: A non-state target system component might include the training camps within a terrorist organized armed group target system.
(This term and definition only applies to this publication.)

target type
A characterization of a target as being under one of five distinctive types: Facility, Individual, Virtual, Equipment, or Organizational (FIVE-O).
(This term and definition only applies to this publication.)

target validation
An operations staff-led activity that ensures continued compliance with the Commander JTF's objectives, guidance, intent and desired effects, compliance with relevant international law and rules of engagement and the accuracy and credibility of sources used to develop a target.
Note: Validation is a two-step process: a determination that the target is valid (continued compliance with the JTF's objectives, guidance, intent, desired effects, relevant international law); and once validated, placing the validated target onto a target list.
(This term and definition only applies to this publication.)

target validation board
The functional board, chaired by the Commander JTF, supported by operations, intelligence and LEGAD staff, authorized to validate targets to the joint target list or the restricted target list. The Commander JTF may delegated Board Chair responsibility to a staff branch, based on the situation.
Note: the authority to validate targets will be specified in the operation plan (OPLAN) Annex II – Targeting
(This term and definition only applies to this publication.)

time-sensitive target
Those targets requiring immediate response because they pose (or will soon pose) a danger to friendly forces or are highly lucrative, fleeting targets of opportunity whose destruction is of high priority to achieve campaign objectives. The time available does not allow for the standard targeting timeline to be followed.
(NATO Agreed)

AJP-3.9(B)(1)