



OPERATIONS SERIES

ADDP 3.14

TARGETING

Australian Defence Doctrine Publication 3.14 is issued for use by the Australian Defence Force and is effective forthwith. This publication supersedes Australian Defence Force Publication 3.14—*Targeting* edition 1 dated 1 March 2006.

A handwritten signature in black ink, appearing to read 'A. G. Houston', with a long horizontal line extending to the right and a shorter diagonal line below it.

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2 February 2009



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FOREWORD

1. Australian Defence Doctrine Publications (ADDP) and Australian Defence Force Publications (ADFP) are authorised joint doctrine for the guidance of ADF operations. ADDP are pitched at the philosophical and high-application level and ADFP at the application and procedural level. Policy is prescriptive as represented by Defence Instructions, and has legal standing. Doctrine is not policy and does not have legal standing; however it provides authoritative and proven guidance, which can be adapted to suit each unique situation.

2. ADDP 3.14—*Targeting*, updates the current edition, first published in 2006. ADDP 3.14 focuses on the operational level of conflict and provides high level doctrinal guidance for commanders and staff. The detailed targeting procedures which are derived from this guidance will be contained in a separate and new publication, ADFP 3.14.2—*Targeting Procedures*.

3. The impetus for revision of ADDP 3.14 came from two sources: validating the current ADDP 3.14 while working with Allies and coalition partners (particularly the United States) during recent operations, and the growing importance of matching targeting efforts to the achievement of desired effects in the battlespace. The latter recognises that targeting is but one way of supporting national military objectives. Broadly, targeting is the process of analysing an adversary's critical vulnerabilities, and matching appropriate responses to achieve desired effects. These responses are broad, encompassing many kinetic and non-kinetic means to achieve lethal and non-lethal effects.

4. National objectives and compliance with international legal obligations fundamentally influence targeting actions from the strategic to the tactical level, As a tactical action can have a disproportionate strategic effect the Chief of the Defence Force requires visibility and control of Australian Defence Force (ADF) targeting process. Commanders should therefore ensure that action in support of operational and tactical objectives does not compromise national interests or legal authority.

5. Targeting should be viewed within the total context of joint operations, to this end, additional recommended reading is:

- ADDP-D—*Foundations of Australian Military Doctrine*, which outlines the strategic military doctrine of the ADF;
- ADDP 06.4—*Law of Armed Conflict*, which promulgates legal guidance to commanders for the planning and conduct of operations;

ADDP 3.14

- ADDP 2.0—*Intelligence*, which describes how the intelligence process support ADF operations including targeting;
 - ADDP 3.0—*Operations*, which describes operational art and campaigning, and details the relationships between the national strategic, military strategic, operational and tactical levels of command for the conduct of a campaign;
 - ADDP 3.1—*Joint Fire Support*, describes the ADF’s approach to joint fires—which is the employment of lethal and non-lethal weapons to achieve the desired effects identified in the targeting process;
 - ADDP 3.7—*Collection Operations*, which outlines the process for between intelligence, surveillance, and reconnaissance operations which are intrinsically linked to the effective conduct of targeting;
 - ADDP 3.13—*Information Operations*, which describes the ADF’s approach to information operations which must be coordinated and harmonised with the targeting activities;
 - ADDP 2.3—*Geospatial Information and Services* which describes the nature of geospatial information and services that are available to support the conduct of operations and who provides these services; and
 - ADFP 5.0.1—*Joint Military Appreciation Process*, which describes the ADF’s operational planning process.
6. The key changes in this edition of ADDP 3.14 are as follows:
- a. The major categories of targeting have been changed from ‘planned’ and ‘immediate’ to ‘deliberate’ and ‘dynamic’ to align ADF targeting doctrine with Allied targeting doctrine.
 - b. Deliberate targeting supports the commander’s shaping the battlespace by prosecuting planned targets, while dynamic targeting supports the management and control of the battlespace by prosecuting targets of opportunity.
 - c. The effects based approach to targeting in the doctrine has been further refined and developed.
 - d. Phase 4 of the joint targeting process has been changed from ‘force application’ to ‘force apportionment’.

ADDP 3.14

- e. Phase 6 of the joint targeting process has been changed from 'combat assessment' to 'assessment'.

AMENDMENTS

Proposals for amendment of ADDP 3.14 may be initiated in either of the following ways:

- By Minute to:

Director Doctrine and Training
Australian Defence Force Warfare Centre
RAAF Base
WILLIAMTOWN NSW 2314

- By directly entering comment into the Joint Doctrine Development Environment (JDDE) found on the Australian Defence Force Warfare Centre (ADFWC) Defence Restricted Network (DRN) website located at <http://defweb.cbr.defence.gov.au/adfwc/>. Select JDDE on the ADFWC homepage and open either the ADDP or ADFP block as required. Open the relevant publication and utilise the 'Add Comment' function at the bottom of the summary page for each publication.

***Note:** The second option is an addition to encourage feedback from the wider ADF, as well as encouraging use of the JDDE in general.*

DOCTRINE PUBLICATION HIERARCHY

The hierarchy of Australian Defence Doctrine Publications (ADDP) and Australian Defence Force Publications (ADFP) and the latest electronic version of all ADDP and ADFP is available on the JDDE found on the ADFWC DRN website located at: <http://defweb.cbr.defence.gov.au/adfwc/>.

This publication is current as at February 2009.

This publication will be periodically reviewed and amended. The latest version of this publication is available on the ADFWC DRN website <http://defweb.cbr.defence.gov.au/adfwc>

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CHAPTER 1

AUSTRALIAN APPROACH TO TARGETING

Executive summary

- The purpose of Australian Defence Force (ADF) targeting is to integrate and synchronise joint fires, the employment of lethal and non-lethal weapons, into joint operations to achieve the joint commander's mission, objectives and desired effects.
- ADF targeting is conducted in accordance with Australia's obligations under international law of armed conflict (LOAC). Targeting aligns with the Australian approach to warfighting through considering the legal aspects of each target and the potential effect of collateral damage.

Introduction

1.1 The purpose of targeting is to integrate and synchronise joint fires, the employment of lethal and non-lethal weapons, into joint operations to achieve the joint commander's mission, objectives and desired effects. Targeting is a process of selecting and prioritising targets and matching the appropriate effect taking account of operational requirements and capabilities. The targeting process selects targets, by evaluation of military objectives and legal implications and then tasks the lethal and/or non-lethal means by which action is taken against those targets to achieve the desired effects.

1.2 In the Australian context, targeting takes account of international and Australian law, national and military strategic objectives, and operational requirements and capabilities. Targeting is a federated collaborative process that occurs at all levels of command. Targeting links intelligence, plans, and the conduct operations as part of the broader planning and evaluation process that enables commanders to continuously update and assess the progress of operations.

Australia's strategic environment

1.3 *Australia's National Security—A Defence Update 2007* highlights that a range of factors combine to create a complex strategic environment for Australia. These factors include the continuing predominance of the United

States of America (US), the security impact of globalisation, the proliferation of weapons of mass destruction and the risks arising from fragile states. Within this complex environment military forces conduct an array of activities. These activities are often conducted in conjunction with other Australian government agencies and departments and other nations.

1.4 Australia is committed to a benign and stable international security environment to foster our own prosperity, interests and security. Australia endorses international law and order. As a democratic nation, Australian society and public opinion also influence the conduct of Australia Forces on the international stage. Accordingly, this commitment to the rule of law extends to the Australian approach to warfighting. The ADF is subject to the rule of law and the direction of the Commonwealth Government. The ADF depends on the support of the Australian people, and the employment of the ADF reflects Australia's values about the primacy of the Commonwealth Government in upholding the law. For further information see Australian Defence Doctrine Publication (ADDP) 3.0—*Operations*.

Approach to operations

1.5 Australia's military strategic approach calls for Defence to strike a comprehensive and balanced response to meet government needs. Operations are conducted based upon a broad and continuous process of; understand, shape, assist, deter, deny and defeat. In addition there are unifying concepts that support the Australia's approach to operations, these are¹:

- **Manoeuvrist approach.** The manoeuvrist approach synchronises military actions to achieve decisive effects that target an adversary's critical vulnerabilities. Targeting supports this approach through generating a range of options to achieve decisive effects.
- **Decision superiority.** Decision superiority is about making faster and better decisions than the adversary. These decisions require information, knowledge and intelligence. Likewise, the targeting process requires this support to achieve the desired effects in the battlespace² in an effective and expeditious manner.

¹ Detailed in ADDP—*Operations*

² The battlespace is made up of four physical domains; maritime, land, air and space, and three non-physical domains; electromagnetic spectrum, information and time.

- **Command and leadership.** Effective command structures, use of command and demonstration of leadership underpins successful operations. The effective use of command and leadership ensures targeting contributes to operations by ensuring that desired effects are realised.
- **Justifiable action.** Justifiable action provides armed forces with the moral component of fighting power, and is a key operational enabler. All operations must be conducted within international law and clearly articulated rules of engagement. Detailed guidance and information on legal support to operations is contained within the executive series of ADF joint doctrine, especially ADDP 06.1—*Rules of Engagement*, and ADDP 06.4—*Law of Armed Conflict*. Justifiable action has also required military forces to use greater precision in their use of weapons systems. Precision is not simply in the weapon system, although the advent of precision guided munitions has great utility for military forces. Precision is in the application of an effect on the target and also the target stakeholders; coalition forces, civilian population, media and general public.

FUNDAMENTALS OF TARGETING

Targeting principles

1.6 The joint targeting cycle is designed to provide the means necessary to support the commander in achieving the mission and end state. The five principles of joint targeting are as follows:

- **Focused.** The focus of the targeting process is on the commander's objectives and the achievement of the end-state.
- **Legitimacy.** All legal obligations, domestic and international are understood and met.
- **Effects based.** Effects based targeting emphasises on identifying the fullest possible range of targeting options to achieve desired effects supporting the commander's objectives.
- **Interdisciplinary.** The integrated efforts of many functional disciplines and capabilities are required.
- **Systematic.** Desired effects through target engagement are created in a systematic manner.

Target defined

1.7 A target is an object of a particular action, for example a geographic area, a complex, an installation, a force, equipment, an individual, a group or a system, planned for capture, exploitation, neutralisation or destruction by military forces. Targets relate to military objectives at all levels; strategic, operational and tactical. The importance of a target is dependant on how it relates to an adversary's critical vulnerabilities and how achieving a desired effect on the target will support achievement of the joint commander's objectives.

Characteristics of targets

1.8 Target characteristics form the basis for target detection, location, identification, and classification for future surveillance, analysis, strike, and assessment. A detailed list of characteristics for each category is in Australian Defence Force Publication (ADFP) 3.14.2—*Targeting Procedures*; however, in general, there are five categories of characteristics for target definition:

- **Physical.** The physical characteristics of a target describe what a target is in terms of features that are discernible to the five senses (see, touch, feel, hear and smell) or through sensor-derived signatures. These may greatly affect the type and number of weapons, the weapon systems, and the methods or tactics employed against the target.
- **Functional.** Functional characteristics describe what the target does, how it does it and how it relates to other parts of its target system. They describe the target's function within the enemy system, how the target or system operates, its level of activity, the status of its functionality, and in some cases, its importance to the enemy. Functional characteristics are often hard to discern, because they most often cannot be directly observed. Reaching plausible conclusions entails careful assessment of known facts and the use of deductive and inductive reasoning.
- **Cognitive.** Cognitive characteristics describe how some targets think, exercise decision and control functions, or otherwise process information. These characteristics can be critical to targeting a system, since nearly every system possesses some central controlling function, and neutralising this may be crucial to bringing about desired changes in behaviour. As with functional characteristics, these can be difficult to discern or deduce.

- **Environmental.** Environmental factors describe the effect of the environment on the target. These factors may also influence the methods used to affect or observe them.
- **Time.** A target’s vulnerability to detection, attack, or other type of engagement may vary with time.

Joint targeting process

1.9 The joint targeting process is a six phase cyclic activity. The phases are; commander’s guidance, target development, capability analysis, force apportionment, execution and assessment. This process is detailed in chapter 4—Joint targeting process.

Targets—Categories and types

1.10 Joint targeting has two categories: deliberate and dynamic. Both follow the joint targeting process and differs only in the execution of Phase 5—execution. These categories align to a commander’s operational planning and execution perspective with deliberate targeting corresponding to the planning of operation activities, while dynamic targeting corresponds to the conduct of operations. Figure 1–1 illustrates the relationship between target types and targeting categories.

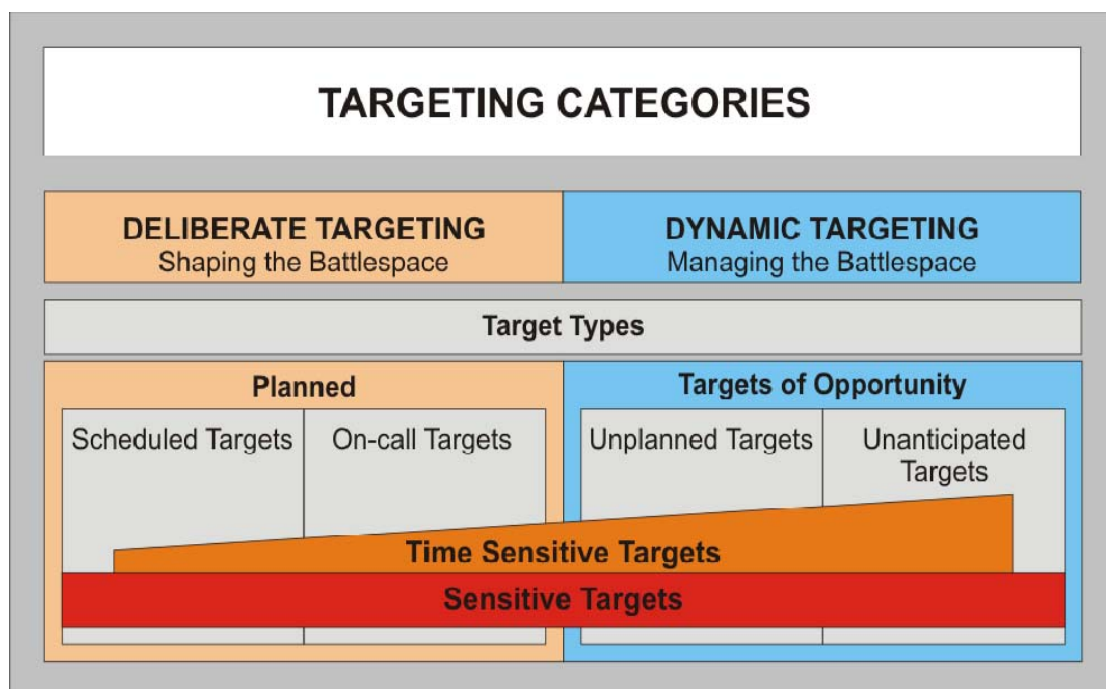


Figure 1–1: Targeting Categories

1.11 Deliberate targeting. Deliberate targeting prosecutes planned targets. These are targets known to exist in an area of operations and can be mapped to decisive points on line(s) of operation. Deliberate targeting focuses on the commander's ability to shape the battlespace. There are two types of deliberate targets; scheduled and on-call:

- **Scheduled targets.** Scheduled targets are prosecuted at a specific time.
- **On-call targets.** On-call targets are those that do not have effects scheduled to be delivered at a specific time, are known to exist in an operational area, and are located in sufficient time to be planned and executed to meet emerging situations specific to the commander's objectives.

1.12 Dynamic targeting. Dynamic targeting enables the commander to manage the battlespace by prosecuting targets of opportunity and quickly implementing changes to planned targets and/or objectives. Targets of opportunity are targets identified too late, or not selected for action in time, to be included in deliberate targeting. The prosecution of targets of opportunity must still support operational objectives. There are two types of targets of opportunity; unplanned and unanticipated:

- **Unplanned targets.** Unplanned targets are those known to exist in the operational environment.
- **Unanticipated targets.** Unanticipated targets are unknown or not expected to exist in the operational environment.

1.13 Time sensitive targets. Time sensitive targets (TST) require immediate response because the commander has identified they either pose, or will soon pose, a danger to friendly forces or operational objectives, or they are highly lucrative, fleeting targets of opportunity. A TST may be either a deliberate or dynamic target, and it may also be fixed or mobile in nature.

1.14 Sensitive targets. A target may be identified as a sensitive target when the commander has estimated that the physical damage and collateral effects on civilian and/or non-combatant persons, property, and environments, occurring incidental to military operations, exceed established national-level notification thresholds. Sensitive targets do not need to be collateral damage related. They may also include those targets that exceed national-level rules of engagement (ROE) thresholds, or where the commander determines the effects from striking the target may have adverse political ramifications. In essence, sensitive targets require national level approval.

1.15 Other target types. Other target types include the following:

- **Emerging targets.** Emerging targets are those targets that may eventually be classified as a dynamic target or a TST, but about which not enough information currently exists to classify them as such.
- **High pay-off target.** A high pay-off target is one whose loss to the enemy will significantly contribute to the success of the friendly course of action. High pay-off targets are those targets that must be acquired and successfully attacked for the success of the friendly commander's mission.
- **High value target.** A high value target is one the enemy commander requires for the successful completion of the mission. The loss of high-value targets would be expected to seriously degrade important enemy functions throughout the friendly commander's area of interest.

1.16 A target nature matrix is in annex A.

EFFECTS

1.17 An effects based approach to targeting improves the ability of the ADF to affect an adversary's behaviour and/or capabilities to more effectively achieve the national strategic end-state. This approach focuses on planning and delivering the end-state rather than organising activities, and considers the whole battlespace, it ensures that individuals at all levels are provided with a graduated understanding of the context in which they are operating and an awareness of the consequences of all actions be they own force, adversary, other stakeholders, other agencies or environmental factors.

1.18 Targeting is a process that supports the planning and conduct of operations by identifying the desired effects to be achieved within the battlespace that support the mission, objectives and end-state (see figure 1–2). The process of effects based targeting places emphasis on linking planning and operations activities to identify the fullest possible range of targeting options available to the commander. The ability to develop a wide range of targeting options depends on a detailed understanding of the adversary, targeting stakeholders, and desired own force operational capabilities and objectives. This requires access to relevant, timely, and accurate information and intelligence (see ADDP 3.7—*Collection Operations* and ADDP 2.0—*Intelligence* for more details).

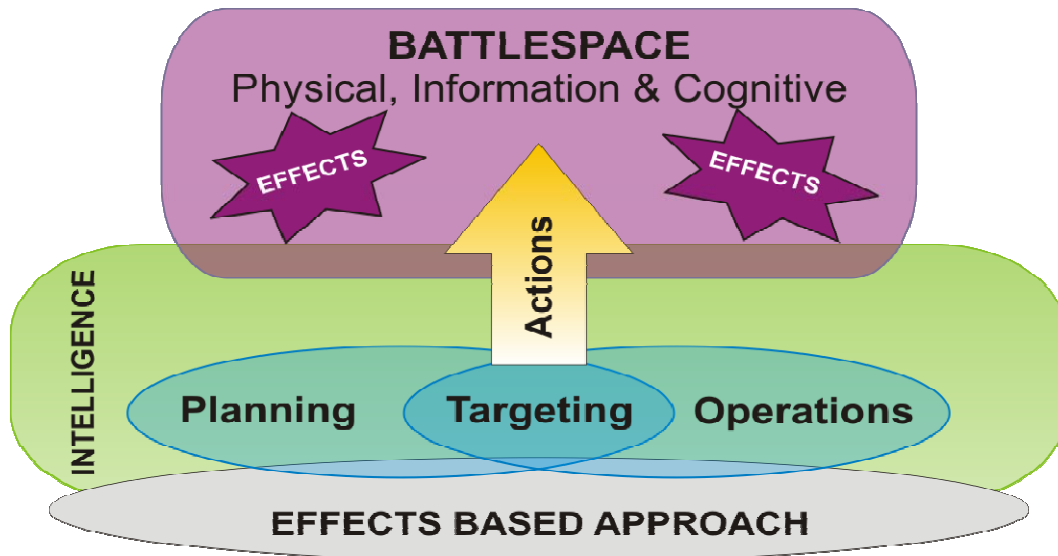


Figure 1-2: Targeting Model

Targeting effects

1.19 An 'effect' is the physical or behavioural state of a system that results from an action, a set of actions, or another effect. Effects can occur in both the physical and non-physical domains of the battlespace and can be achieved by both lethal and non-lethal means. Effects can be categorised as follows:

- **Desired.** A desired effect or set of desired effects contributes to the conditions necessary to achieve an objective or end-state. Desired effects are what we want to achieve.
- **Undesired.** An undesired effect can inhibit the achievement of an objective or end-state. An undesired effect may be realised by either action by the adversary or by the unintended consequences of our actions. Undesired effects may be either positive or negative.

Figure 1-3 provides examples of desired and undesired effects.

SAMPLE DESIRED & UNDESIRED EFFECTS	
DESIRED EFFECTS	UNDESIRED EFFECTS
<p>Diplomatic</p> <ul style="list-style-type: none"> ● Improve world standing/balance of power ● Weaken adversary's status/power in world/region <p>Informational</p> <ul style="list-style-type: none"> ● Generate favourable press ● Enable information superiority <p>Military</p> <ul style="list-style-type: none"> ● Degrade adversary's capability and/or will ● Take advantage of adversary's weakness ● Enable our course of action (COA) ● Hinder adversary's COA <p>Economic</p> <ul style="list-style-type: none"> ● Undermine adversary's capability to sustain operation 	<p>Diplomatic</p> <ul style="list-style-type: none"> ● Law of armed conflict, treaties, agreements ● Domestic/international elections <p>Collateral damage</p> <p>Informational</p> <ul style="list-style-type: none"> ● Intelligence loss outweighs target value ● Generate bad press <p>Military</p> <ul style="list-style-type: none"> ● Preserve for follow-on forces foreign materials exploitation <p>Chemical/biological/radiation hazard</p> <p>Economic</p> <ul style="list-style-type: none"> ● Cost of rebuilding ● Adverse impact on Australia

Figure 1–3: Sample desired and undesired effects

1.20 A desired or undesired effect can be created directly or indirectly.

- **Direct.** Direct effects are the immediate, first order consequence of a military action (weapons employment results, etc.), unaltered by intervening events or mechanisms. They are usually immediate and easily recognisable.
- **Indirect.** Indirect effects are the delayed or displaced second, third and higher order consequences of action, created through intermediate events or mechanisms. These outcomes may be physical or behavioural in nature. Indirect effects may be difficult to recognise, due to subtle changes in system behaviour that may make them difficult to observe. An indirect effect is a delayed or displaced consequence associated with the action that caused the direct effect. Indirect effects are often less observable or recognisable but may be desired. Therefore, any element (military or non-military) within the

battlespace can affect and be affected by another's actions across all levels of conflict. To be better prepared to exploit opportunity and mitigate risk, military planners should be aware that actions can have intended or unintended consequences.

1.21 Understanding how the target interacts within its system and other systems is critical for commanders and targeting staff to ensure the appropriate effect is generated within the battlespace. Thus, understanding the characteristics of both direct and indirect effects enables the effective planning of targeting to support operations. Targeting effects can be cumulative, cascading and/or collateral:

- **Cumulative.** The cumulative result of a number of direct effects is greater than the sum of their immediate consequences. The compound effect may be felt throughout the battlespace and at different times.
- **Cascading.** Indirect effects can ripple through a targeted system, often impacting other systems, through common and critical nodes. The cascading of indirect effects, as the name implies, usually flows from higher to lower levels. As an example, destruction of a headquarters element may result in the loss of command and control (C2) and cohesion of subordinate units.
- **Collateral.** Effects can create unintended consequences, potentially in the form of injury or damage to persons or objects unrelated to the objectives. Planned first order effects will invariably generate subsequent effects that were unintended or unanticipated. It is important to distinguish between collateral damage and collateral effects. A collateral effect is not damage to a target or any directly associated collateral damage to the immediate area, rather they are any effect(s) achieved beyond those for which the action was undertaken. Collateral effects may be either positive or negative. Sound planning considers the risks of unintended second and third-order consequences which are unintended. Collateral effects should be a major, deliberate consideration in planning, executing, and assessing military actions on any scale.

HISTORICAL EXAMPLE—UNDESIRE EFFECT—AMIRAYAH SHELTER

The shelter was an air-raid location in the Amiriyah neighbourhood of Baghdad, Iraq. Civilians used the shelter during the Iran-Iraq War and the Gulf War. The United States Air Force destroyed the shelter using two laser-guided munitions on 13 February 1991 during the Gulf War, killing over 400 civilians. According to United States (US) Government sources, the attack was based on signals and human intelligence reports indicating the bunker was a military command site. The attack on the shelter became a public relations disaster for the US Government as the follow on effects rippled beyond the destruction of the shelter. Some of these effects included substantial media and public criticism of the decision to bomb the shelter and the conduct of unrestricted warfare.

APPROACH TO TARGETING

1.22 The Australian approach to warfighting influences the approach to targeting, which imposes boundaries upon targeting decisions and actions. Essentially, for policy and other reasons, targeting may be more restrictive than that permitted by international law, but never more permissive. Legal advisors play a key role in reviewing the targeting process and outcomes to facilitate compliance with legal principles.

Collateral damage

1.23 An outcome of this approach is the consideration of collateral damage. All reasonably feasible precautions in the choice of means and methods of attack are taken with a view to avoiding, and in any event to minimising, expected incidental loss of civilian life, injury to civilians and damage to civilian objects. This consideration remains valid whether the attack means or effect is lethal or non-lethal. Non-lethal weapons are explicitly designed and employed to incapacitate personnel, material or capabilities, while minimising fatalities and undesired damage to property and environment. A non-lethal effect is not intended to cause physical damage to personnel, material or capabilities but may still have a cognitive or functional effect. Therefore, collateral damage must try and account for incidental damage and unintended consequences.

1.24 For example, an estimate of collateral effects is required before any non-lethal attack is approved. However, this process relies on less measurable parameters such as the effects of computer network operations or electronic attack on own force and non-combatant electronic systems. Approval to proceed with a non-lethal attack following the collateral

assessment is progressed through the various levels of command in accordance with established criteria. A collateral damage estimate methodology is detailed in chapter 4.

Information operations relationship

1.25 Information operations (IO) and targeting require synchronisation and deconfliction to ensure the desired effect is delivered in a timely and accurate way within the battlespace. IO is the coordination of information effects to influence the decision making and actions of a target audience and to protect and enhance our decision making and actions in support of national interests. Prioritisation of IO effects occurs as part of the normal targeting process, as does the deconfliction and synchronisation of mission capabilities.

1.26 Operations are usually highly visible activities that attract much political and media interest. Public affairs are a related element of IO that, as part of a whole of government approach, provides support to operations through informing the public regarding the progress and actions of the ADF and Australian Government. See ADDP 3.13—*Information Operations* for more information on this relationship.

Planning relationship

1.27 The joint targeting process, particularly for deliberate targeting, aligns with the operational planning process and ensures the focus remains on achieving mission objectives and the end-state. This process matches the joint military appreciation process and also the ends, ways and means approach to warfare outlined in ADDP 3.0—*Operations*. Essentially, the joint targeting process aims to employ the most appropriate capabilities to increase the likelihood of success while mitigating the risk of undesirable effects.

1.28 While the targeting and planning activities are aligned they remain independent processes. However, they should always be integrated, though not necessarily synchronised. Sometimes the planning and targeting process will correlate but not automatically and not always.

Joint fire support relationship

1.29 Joint fire support is the measures taken to support a commander in pursuing a mission and assist air, land, maritime, and special operations forces to move, manoeuvre, and control territory, populations, airspace, and key waters. Joint fire support includes naval surface fire support, fire support

from any ground-based weapons system other than small arms, electronic attack and offensive air support.

1.30 The provision of joint fire support is based on the linkage between the commander's objectives, planning processes and targeting. The targeting process, matches effects to targets. Joint fire support provides many of these effects, characterised by the concentration of force, flexibility and responsiveness. Joint fire support and the targeting process, especially dynamic targeting, are harmonised to complement the commander's overall operational intent. For further information on the linkages between joint fire support and targeting see ADDP 3.1—*Joint Fire Support*.

Intelligence relationship

1.31 Intelligence is a critical enabler to the targeting process. Intelligence may be sourced from a variety of sources, and accurate intelligence underscores the ability of targeting to achieve the desired effect within the battlespace. The greater the need to quantify the desired effects the greater the need for detailed intelligence. The collection, production, and dissemination of intelligence require prioritisation to support the planning and targeting processes as capabilities are rarely sufficient to satisfy every demand for intelligence. Target intelligence, such as target systems analysis and target materials, developed in peacetime provide a crucial baseline to support operational commanders. During periods of increasing tension, more focussed commander's guidance is provided to direct intelligence support to targeting. For further information refer to ADDP 2.0—*Intelligence*.

Evaluation

1.32 The evaluation of effects realised is essential in the targeting and operational process. Measures of effectiveness (MOE) enable commanders to identify the impact of a targeting action in relation to the overall mission. MOE are tools used to measure results achieved in the overall mission and execution of assigned tasks. If the desired effect is not achieved, the target may need to be re-attacked using the same response, or another response selected to achieve the same, or an alternate, effect. MOE are a prerequisite for assessment, which takes place at all levels of command.

Measures of effectiveness

Tools used to measure results achieved in the overall mission and execution of assigned tasks. Measures of effectiveness are a prerequisite to the performance of combat assessment.

A criterion used to assess changes in system behaviour, capability, or operational environment that is tied to measuring the attainment of an end-state, achievement of an objective, or creation of an effect.

Measures of performance

A criterion used to assess friendly actions that are tied to measuring task accomplishment.

1.33 Measures of performance (MOP) are identified to assess how well our forces are conducting the targeting effort. MOP enable commanders to determine performance of own forces and ensure that adequate resources are being allocated to the targeting effort.

Undesired effects

1.34 Commanders minimise the undesired effects of targeting through the best use of available resources, while accounting for the need to minimise fatalities and undesired damage to property. An undesired effect may adversely impact upon public support for an operation as shown through the Kosovo embassy bombing.

HISTORICAL EXAMPLE—KOSOVO EMBASSY BOMBING

On May 7, 1999 in *Operation Allied Force*, North Atlantic Treaty Organisation (NATO) bombs hit the Chinese Embassy in Kosovo outraging the Chinese public. NATO stated the strike occurred because of an outdated map provided by the US Central Intelligence Agency (CIA). The bombing sparked outrage among the public in China and provoked demonstrations outside the United States embassy in Beijing and US consulates in other Chinese cities.

According to the CIA, the headquarters of the Yugoslav Federal Directorate for Supply and Procurement (FDSP) - (Yugoimport SDPR) was the intended target but the process to locate the target was severely flawed. The technique to locate the coordinates of the FDSP headquarters from the street address should not have been used for aerial targeting because the method only provides an approximate location. The true location of the FDSP headquarters was about 300 meters away from calculated coordinates (the Chinese embassy). This flaw in the address location process went undetected. A secondary process to determine whether any diplomatic or other facilities off-limits to targeting were nearby was also flawed. Multiple databases within the Intelligence Community and the Department of Defense all reflected the Embassy in its pre-1996 location in Belgrade. If the databases had accurately located the Chinese Embassy, the misidentification of the FDSP building would have been recognised and corrected. Three days before the bombing, an intelligence officer realised the FDSP building was a block away from the identified location but this information failed to stop the bombing because of miscommunication.

Annex:

A. Target Nature Matrix

ADDP 3.14

TARGET NATURE MATRIX

Target Type	Meets Commander's Objectives	In the Joint Force Area of Operations	Target Planning Mechanism	Actions Pre-planned	Target List Management	Can it be a TST ¹ ?	Effects Required at specific time	Target Development	Collateral Damage Estimation (CDE)
Scheduled	Yes	Mandatory	Deliberate	Yes	On JTL ² , not NSL ³	Yes	Yes	Yes; Methodical	Yes
On Call	Yes	Mandatory	Deliberate	Yes	On JTL, not on NSL	Yes	Yes	Yes; Methodical but has time aspect	Yes; final CDE call is time critical
Unplanned	Yes	Mandatory	Dynamic	No	Placed on JTL; Checked against NSL	Yes	Identified immediately before execution	Yes; Reactive; Often time critical	Time critical CDE process
Unanticipated	Yes	Mandatory	Dynamic	No	Placed on JTL; checked against NSL	Yes	Identified immediately before execution	Yes; Reactive; Often time critical	Time critical CDE process

1. TST = time sensitive target

2. JTL = joint target list

3. NSL = no-strike list

CHAPTER 2

RESPONSIBILITIES

Executive Summary

- The Australian Defence Force (ADF) uses a flexible responsive targeting process to achieve national interests.
- Australia uses a whole of Government approach to targeting to ensure all relevant agencies are involved and informed of actions that affect their activities.
- Defence plays a key role in providing specialist targeting advice and information into the whole of Government approach.

Government responsibility

2.1 For deliberate planning, a whole of Government approach is achieved by ensuring that the Department of Prime Minister and Cabinet (PM&C), the Department of Foreign Affairs and Trade (DFAT), and Attorney General's (A-G) Department are consulted on Defence's targeting policies, capabilities and processes, and are presented at appropriate strategic targeting committees. For immediate planning or operations, whole of Government coordination will be sought by embedding key strategic targeting processes within the National Crisis Management Machinery, and through Defence engagement of PM&C, DFAT and A-G Department. Figure 2–1 illustrates the roles and functions for targeting from the Australian Government to the tactical level.

Other Government agencies

2.2 Other government agencies (OGA) may provide intelligence and operational support to joint targeting. As targeting is, at times, a multi-agency activity, coordination and de-confliction will be required with OGA depending on the nature of the desired targeting effect.

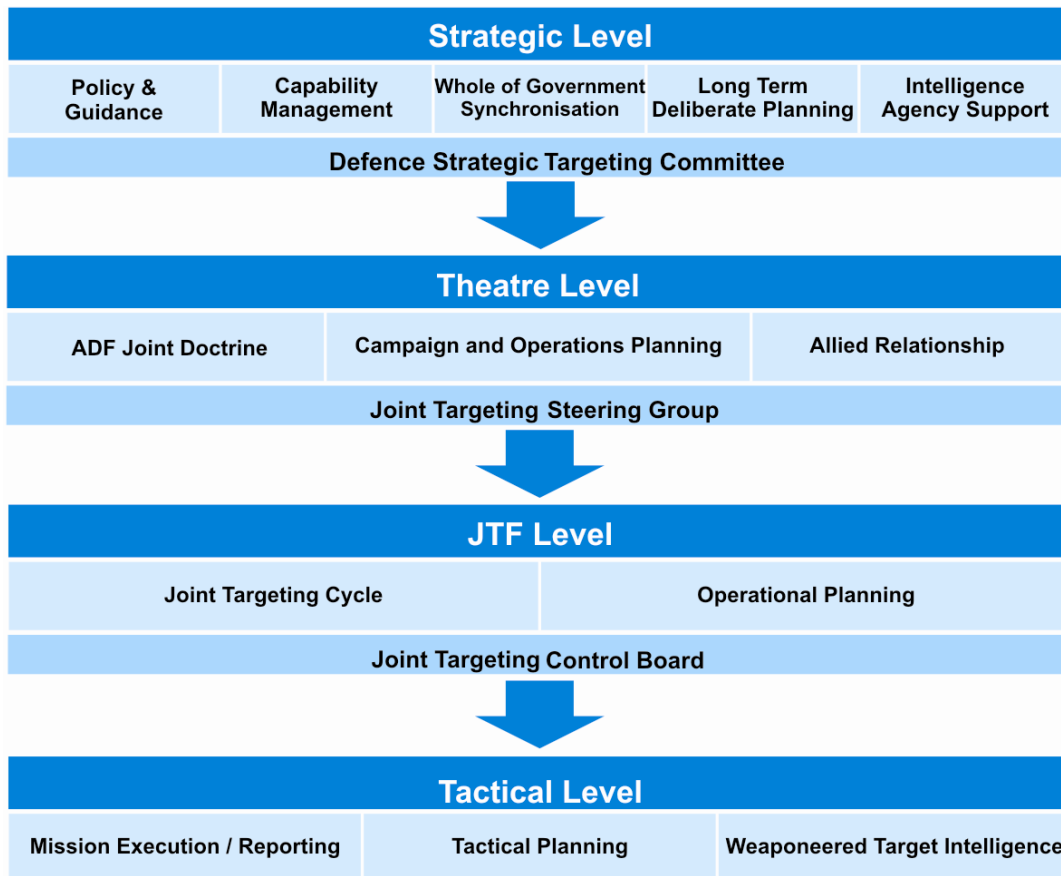


Figure 2–1: Targeting Roles and Functions

Defence

2.3 Targeting requires inputs from a wide variety of functions and agencies within Defence. Each agency or functional group bring certain skills and experience to the targeting process. Key Defence contributors include, but are not limited to, military strategic agencies, strategic intelligence agencies, Service Chiefs, and designated national commanders. The Vice Chief of the Defence Force (VCDF), Chief of Joint Operations (CJOPS), Deputy Secretary Intelligence, Security and International Policy (DEPSEC IS&IP), and Deputy Secretary Strategy, Coordination and Governance (DEPSEC SCG) and Service Chiefs are responsible for coordinating Defence inputs within their respective area of responsibility.

Defence Strategic Targeting Committee

2.4 The Defence Strategic Targeting Committee (DSTC) is the primary mechanism for coordinating whole-of-Government and Defence inputs for strategic targeting. The Chief of the Defence Force (CDF) may convene the DSTC to inform ADF targeting policy and consequence management issues

arising from targeting activities. The DSTC is chaired by VCDF and membership is drawn from key stakeholders within Defence and other government departments.

RESPONSIBILITIES

Chief of the Defence Force

2.5 The CDF is responsible for Defence targeting policy which is articulated in the Defence Strategic Targeting Policy (DSTP)¹. The DSTP provides the strategic level guidance on how the ADF is to conduct targeting and it identifies specific tasks responsibilities.

2.6 To support the conduct of operations, the CDF provides two principal orders to define authorised targeting planning and activities; rules of engagement (ROE) and the targeting directive (TD). Further information on ROE in relation to targeting is contained in chapter 3—*Legal considerations for targeting*. The CDF TD provides direction for the conduct of Defence targeting activities in support of an operation, while allowing maximum operational flexibility and autonomy consistent with national policy. The TD, which may be standing, or issued for specific exercises/operations, specifies:

- approved, restricted and no-strike categories of target categories;
- the collateral damage estimation methodology to be used;
- levels of risk authorised for use by designated commanders;
- targeting command, control and oversight arrangements and the responsibilities of supporting agencies; and
- national policies on legal issues affecting targeting.

Vice Chief of the Defence Force

2.7 As the Chair of the DSTC, the VCDF is responsible for coordinating whole of Government and Defence inputs to strategic targeting. VCDF is the manager of joint capability including targeting. Further details on the responsibilities of the VCDF are provided in the DSTP.

¹ The DSTP is a classified publication

Deputy Secretary Strategy, Coordination and Governance

2.8 The DEPSEC SCG is responsible for setting the strategic level guidance and priorities for targeting. DEPSEC SCG is the sponsor of the DSTP. Further details on the responsibilities of the DEPSEC SCG are provided in the DSTP.

Deputy Secretary Intelligence, Security and International Policy

2.9 The DEPSEC IS&IP is responsible for the coordination and oversight of intelligence and security support to the strategic and operational targeting process. DEPSEC IS&IP is responsible for the prioritising, production and maintenance of baseline target system analysis and the development of target materials. Further details on the responsibilities of the DEPSEC IS&IP are provided in the DSTP.

Chief of Joint Operations

2.10 CJOPS commands Headquarters Joint Operations Command (HQJOC) in order to plan, control and conduct campaigns, operations, joint exercises, and other activities on behalf of CDF. CJOPS is responsible for all aspects of targeting at the operational level, including strategy, planning, execution, and assessment. CJOPS is supported by HQJOC staff and the joint targeting steering group (JTSG).

Deliberate and dynamic targeting planning

2.11 Strategic deliberate targeting planning processes are aligned with broader Defence strategic planning, and are the responsibility of DEPSEC SCG. At the strategic level, DEPSEC SCG identifies intelligence support requirements for targeting to DEPSEC IS&IP for integration into the Defence intelligence production effort. At the operational level the deliberate planning process guides the development of measures of effectiveness for targeting activities and the development of national target lists, identifying approved, restricted and no-strike target categories, based on national objectives, legal obligations and Government guidance.

2.12 DEPSEC SCG is also responsible for informing Defence capability development processes. This requires DEPSEC SCG to provide a coordinated statement of Defence targeting requirements and the provision of specialist Defence targeting advice. This is critical in identifying supporting requirements for planned new weapons systems, and intelligence, surveillance and reconnaissance systems.

2.13 During immediate planning and the conduct of operations, targeting advice to CDF will be provided by VCDF and CJOPS, supported by Head Military Strategic Commitments and HQJOC respectively, and assisted by the DSTC. CDF may seek guidance from the Minister for Defence on specific targeting matters.

2.14 Joint targeting steering group. The JTSG has a military focus that bridges the gap between the joint task force (JTF) level, where targeting oversight is provided by a joint targeting coordination board (JTCB), and the strategic consequence management focus of the DSTC. The JTSG assists CJOPS in developing targeting guidance and reconciling competing requests for assets within the theatre. If CJOPS has multiple JTF operating across the theatre requiring targeting support or resources, the JTSG can assist in deciding how limited assets and resources will be deployed. The JTSG should have appropriate Service and functional component, national agency, multinational and joint staff representatives to make recommendations regarding strategic and/or operational issues.

Commander Joint Task Force

2.15 The Commander JTF (Comd JTF) is responsible for all aspects of joint targeting within a defined joint force area of operations, including strategy, planning, execution, and assessment. This responsibility includes establishing military objectives and command relationships, integration, coordination, and deconfliction. The Comd JTF primary targeting responsibility is to determine, approve and assign the objectives, effects, and tasks that subordinate commanders will achieve through application of air, land, maritime, space, and special operations forces capabilities. See Australian Defence Force Publication (ADFP) 3.14.2—*Targeting Procedures* for more information on JTF targeting responsibilities.

Joint targeting coordination board

2.16 Typically, Comd JTF organises JTCB as a forum to provide broad oversight of overall strategy and component schemes of manoeuvre; and to conduct planning, coordination, and deconfliction associated with joint targeting. The Comd JTF is responsible for defining the role and responsibility of the JTCB. The typical composition of the JTCB includes the COMD JTF or delegated representative, key headquarters staff (for example J2, J3, J5, legal and specialist staff) and component representation. For example, this board may be widened to include consideration of effects within the battlespace. In this regard, the forum may be referred to as the joint effects coordination board. Further information on the JTCB is contained within ADFP 3.14.2—*Targeting Procedures*.

CHAPTER 3

LEGAL CONSIDERATIONS FOR TARGETING

Executive Summary

- The Australian Defence Force (ADF) complies with the international law of armed conflict (LOAC) during all armed conflicts.
- The Geneva Conventions state that legal advisers must be available to advise military commanders on the application of LOAC.
- Commanders with responsibility for targeting decisions have an obligation at all times to comply with authorised orders.

Introduction

3.1 Legal considerations will directly affect all phases of the joint targeting process. Commanders and staff involved in the planning and execution of targeting activities must understand and apply the principles of law relating to targeting, and in particular LOAC. They must also be aware of their personal legal responsibilities in relation to targeting decisions. This chapter outlines the key legal principles applicable to targeting during armed conflict. It discusses how those principles will be incorporated into the planning and execution of ADF targeting (including through the means of rules of engagement (ROE) and the Chief of Defence Force's (CDF) targeting directive (TD), and discusses the role of legal advisers in the targeting process.

3.2 This chapter complements the discussion of targeting and other LOAC principles contained in Australian Defence Doctrine Publication (ADDP) 06.4—*Law of Armed Conflict*. Additionally, full coverage of the ADF's policy on ROE can be found in ADDP 06.1—*Rules of Engagement*.

LAW OF ARMED CONFLICT CONSIDERATIONS

Overview

3.3 The LOAC rules relating to targeting are predicated on four fundamental principles: military necessity, the prohibition upon causing unnecessary suffering, proportionality, and distinction. In the context of targeting, these principles have largely been incorporated in treaty law, most

notably, but not exclusively, by Additional Protocol I to the Geneva Convention of 1949 (Additional Protocol I). This chapter concentrates on the key provisions of Additional Protocol I that impact upon the planning and execution of joint targeting operations, but also refers to certain other international agreements, particularly those concerning specific weapons.

Scope of ‘military advantage’

3.4 The ‘military advantage’ offered is measured by its effects on the whole military operation or campaign and the attack should not be viewed in isolation. In addition, the term ‘military advantage’ includes the security of friendly forces.

Objects as ‘military objectives’

3.5 Basic Test. In the case of objects, Article 52 of Additional Protocol I provides that an object is a ‘military objective’ if:

- the object by its nature, location, purpose or use makes an effective contribution to military action; and
- the object’s total or partial destruction, capture or neutralisation, in the circumstances ruling at the time, offers a definite military advantage.

Indiscriminate attacks

3.6 Article 51 of Additional Protocol I states that ‘indiscriminate attacks’ are prohibited. Indiscriminate attacks are defined as:

- those which are not directed at a specific military objective,
- those which employ a method or means of combat which cannot be directed at a specific military objective, and
- those which employ a method or means of combat the effects of which cannot be limited as required by Additional Protocol I.

3.7 Certain types of attacks are considered indiscriminate, including treating (for the purposes of targeting) as a single military objective a number of clearly separated and distinct military objectives located in a city, town, village or other area containing a similar concentration of civilians or civilian objects. Article 51 also provides that attacks that do not comply with the principle of proportionality are also considered indiscriminate attacks.

Proportionality

3.8 The principle of proportionality prohibits attacks ‘which may be expected to cause incidental civilian casualties, damage to civilian objects or a combination thereof which would be excessive in relation to the concrete and direct military advantage anticipated’. This principle requires the commander to weigh the military value arising from the success of the targeting operation against the harmful effects to protected persons and objects. While the determination of proportionality is ultimately a matter for the commander, wherever possible this decision should be made with the benefit of advice obtained from the commander’s legal adviser.

3.9 Australia’s understanding of the term ‘concrete and direct military advantage anticipated’ (used in both articles) means a bona fide expectation that the attack will make a relevant and proportional contribution to the objective of the military attack involved. In addition, the military advantage referred to is measured by its effects on the whole military operation or campaign and not only from isolated or particular parts of an attack, and the term ‘military advantage’ involves a variety of considerations including the security of friendly forces. Australia’s interpretation of both these specific terms is contained in Australia’s Declarations of Understanding to the Additional Protocol.

Collateral effects not of themselves unlawful

3.10 The principle of proportionality (as with the principle of ‘military necessity’) involves an implied concession that collateral casualties and damage may in certain circumstances be justified. That is, just because collateral casualties or damage may occur, or are even expected from an attack on a military objective, does not necessarily make that attack unlawful, provided those collateral effects are proportional to the military advantage. However, even if an attack is judged to comply with the principle of proportionality, this does not excuse a commander and their staff from failing to take all ‘feasible precautions’ to minimise the collateral effects.

3.11 Importantly, the term minimising is not the same as being required to reduce the collateral effects to zero. In this context, Australia’s Declarations of Understanding to the Additional Protocols indicates that Australia understands that the phrase in Article 52 of the Additional Protocol 1 the ‘Attacks shall be limited strictly to military objectives’ is not intended to, nor does it deal with the collateral effects resulting from an attack directed against a military objective.

Other provisions of Additional Protocol I

3.12 Other key provisions in Additional Protocol I impacting upon targeting include the following:

- **Reprisals.** Attacks on the civilian populations, individual civilians or civilian objects by way of reprisal are prohibited. Reprisals consist of otherwise illegal acts, which under the circumstances may be justified as a last resort to compel or prevent an adversary from behaving illegally and, more particularly, cease its prior violation. The purposive nature of reprisals means that the term 'reprisal' is not strictly interchangeable with the term 'retaliation'.
- **Terror attacks.** Acts or threats of violence with the primary purpose being to spread terror among the civilian population are prohibited.
- **Obligation to separate military objectives from civilian objects and civilians.** Parties to a conflict are obliged to remove the civilian population from the vicinity of military objectives, avoid locating military objectives within or near densely populated areas, and take the other necessary precautions to protect the civilian population, individual civilians and civilian objects under their control against the dangers resulting from military operations.
- **Breaches of obligations by a party.** A party is still required to apply the protections in Additional Protocol I (including the precautions required by Article 57), notwithstanding that the enemy attempts to shield military objectives from attacks or to shield, favour or impede military operations, by the presence or movement of civilians.

Weapons

3.13 Weapon selection is based on a number of criteria including mission profile, desired effect, threat and legal considerations. More detail on specific weapons is included in ADDP 06.4—*Law of Armed Conflict*.

3.14 Precision-guided munitions. No principle of LOAC requires the use of precision guided munitions (PGM) in all circumstances. A PGM may be required for a particular attack in order to fulfil a party's legal obligations in relation to proportionality or for some other specific reason related to the nature of that target (including the location of protected objects and persons).

3.15 Anti-personnel landmines. Australia is a party to the Convention on the Prohibition of the Use, Stockpiling, Production and Transfer of Anti-

Personnel Mines and their Transfer (the Ottawa Treaty). Consequently, the ADF will not use anti-personnel landmines (APL), nor assist, induce or encourage the use of APL. The impact of the Ottawa Treaty on ADF operations is discussed in more detail in ADDP 06.4—*Law of Armed Conflict*.

3.16 Anti-vehicle/armour landmines. The prohibitions within the Ottawa Treaty do not apply to anti-vehicle or anti-armour mines (even if they are equipped with anti-handling devices). However, Protocol II to the 1980 Conventional Weapons Convention and the 1996 Amended Protocol II will impact upon the employment of these types of mines. There are also specific provisions applicable to 'remotely-delivered land mines'.

3.17 Cluster munitions. Cluster munitions that cause unacceptable civilian harm are the subject of a new international convention, the Convention on Cluster Munitions. Australia has signed the Convention on Cluster Munitions, however the convention is not yet in force and is still to be ratified by Australia. From ratification, the use of cluster munitions that cause unacceptable civilian harm will become unlawful. Australia has taken steps to ensure that interoperability continues with coalition States that will not be a party to this convention, such as the United States of America. There is every likelihood that interoperability will be assured, which would permit, but in certain instances may limit the degree of, participation by Australian military forces in the planning, decision-making and execution of missions that involve the use of cluster munitions. Essentially, if the use of cluster munitions has not been expressly requested and is not within the exclusive control of Australian military personnel, then adherence to intent of the convention would be arguably met. Additional guidance and/or directives will be developed and provided in similar terms as described under the heading of 'Anti-personnel landmines' (paragraph 3.15).

3.18 Incendiary weapons. Protocol III to the 1980 Convention on Conventional Weapons (Australia is a party) prohibits certain uses of incendiary weapons. This includes making any military objectives located in a concentration of civilians the object of attack by aerial delivered incendiary weapons. Incendiary weapons including napalm are prohibited. However, weapons that have an incidental incendiary effect, in addition to other effects (such as blast, penetration or fragmentation effects), are permitted as are target-marking flares and white phosphorous rockets or flares.

3.19 Depleted uranium weapons. The use of weapons containing depleted uranium is permitted.

3.20 Riot control agents. The 1993 Chemical Weapons Convention (Australia is a party) prohibits the use of riot control agents (RCA) as a 'method of warfare'. RCA includes tear gas and other gases that which have

debilitating, but not permanent effects. RCA may be used by military forces to deal with riots in prisoner of war camps or to quell civil disturbances. However, legal advice should be sought on occasions when their use by the ADF is considered.

3.21 Blinding lasers. Protocol IV of the 1980 Conventional Weapons Convention (Australia is a party) prohibits the use of blinding lasers. Targeting lasers used for the delivery of PGM are permitted.

3.22 Explosive remnants of war. Protocol V of the 1980 Conventional Weapons Convention identifies the need for post-conflict remedial measures of a generic nature in order to minimise the risks and effects of explosive remnants of war. Contributing nations have agreed to:

- clearance, removal or destruction of explosive remnants of war;
- recording, retaining and transmission of information;
- other precautions for the protection of the civilian population, individual civilians and civilian objects from the risks and effects of explosive remnants of war;
- provisions for the protection of humanitarian missions and organisations from the effects of explosive remnants of war;
- assistance with respect to existing explosive remnants of war; and
- cooperation and assistance; and generic preventative measures.

3.23 Other effects. Other weapons or 'effects producing' systems may also be regulated by legally binding conventions (for example the use of the radio frequency spectrum for jamming). Each system used to produce the desired effect should be evaluated in this respect.

Basis for decision-making

3.24 Military commanders and others responsible for planning, deciding upon, or executing attacks, must base their assessment of the information from all sources which is available to them at the relevant time. Australia affirmed this position in its Declaration of Understandings to the Additional Protocols to the Geneva Convention (specifically in relation to Articles 51-58 inclusive).

Australian Declarations

3.25 The full text of Australia's Declarations of Understanding to the Additional Protocols to the Geneva Convention is included at annex A to this chapter.

APPLICATION OF LAW OF ARMED CONFLICT TO THE AUSTRALIAN DEFENCE FORCE TARGETING PROCESS

Overview

3.26 The ADF has developed specific processes that incorporate the appropriate legal consideration and application of LOAC within the planning and execution of targeting operations. This includes, but is not limited to:

- development of a logical framework that can be applied to all targeting (the 'six-step process') see Australian Defence Force Publication (ADFP) 3.14.2—*Targeting Procedures*;
- legal input to the ROE and the TD (if issued);
- preparation of legal target appreciations;
- legal input to other subordinate operational instructions and aide memoirs; and
- legal briefings on all of the above (discussed in the section 'role of ADF legal advisers').

Legal input to the rules of engagement

3.27 ADF policy on ROE is contained in ADDP 06.1—*Rules of Engagement*. The policy limits that are applicable to targeting activities may be contained within the ROE issued by the CDF and promulgated in turn by subordinate commanders. It should be noted that any limits imposed by authorised ROE are enforceable orders. The ROE issued for an operation must be at least as restrictive as the applicable law. It is a matter of policy, expressed in the ROE, whether ADF elements are authorised to use force to full extent permitted by law, or are subject to further constraints. Such additional constraints may be the result of political, diplomatic and operational/military considerations.

3.28 While the legal constraints on targeting operations will exist irrespective of the contents of the ROE, it has been common practice to

reference the key legal principles applicable to the particular operations in the ROE (or at least as one of its annexes). It is also likely that where significant targeting activities are envisaged, a separate directive may be issued, which will complement the ROE.

Legal input to the targeting directive

3.29 CDF may choose to issue a specific TD providing additional direction and procedures on targeting-specific issues. The TD complements the ROE. The need for a TD or inclusion of relevant data within ROE will depend upon the size and complexity of the operation.

3.30 Topics that might be covered in a TD include command and control arrangements, targeting specific operations law issues, the approval processes for targeting, the collateral damage estimation methodology or methodologies, approved, no-strike and restricted targets, and the reporting and other roles of different agencies. Where required, the TD may also deal with coalition issues. Nothing contained in the issued TD will affect the rights of self-defence (as detailed in the ROE).

3.31 In the context of any target approval authorities contained in the TD, it is important to note that the legitimacy of a target or method of targeting under LOAC is a separate issue to the policy question of who is authorised to approve the targeting of a particular military objective. However, the TD itself may contain specific determinations as to whether particular objects or personnel are considered to be military objectives. This may be critical where the exact composition of an opposing armed force may not be obvious, or where the military function of an organisation or element requires detailed analysis.

Legal target appreciation

3.32 For deliberate targeting, a legal target appreciation (LTA) is produced to assist planners in identifying the legal issues applicable to a specific target under consideration for attack. The LTA is likely to be produced by a legal officer located at the operational level in conjunction with the target selection process. The LTA will cover compliance with LOAC, the ROE and TD (if issued). To develop LTA for individual targets, the legal officer uses the target intelligence and other available specialist advice. A sample LTA proforma is included ADFP 3.14.2—*Targeting Procedures*.

ROLE OF AUSTRALIAN DEFENCE FORCE LEGAL ADVISERS

3.33 Requirements for legal advisers. Article 82 of Additional Protocol I requires that legal advisers be available to advise military commanders on

the application of LOAC. Consequently, legal officers will be involved at appropriate stages of the targeting process to assist commanders and their staff to execute their mission in accordance with the law. Legal review of targeting decisions and processes is required. The role of legal officers in a particular operation will be influenced by the type of targeting involved and the level within the command chain at which legal advice is being provided.

3.34 Deliberate targeting and dynamic targeting. As discussed, for deliberate targeting, legal officers provide an LTA for the target, advising whether or not the target is a legitimate target under LOAC and whether or not the proposed method and means of attack on the target are in accordance with LOAC. The LTA will also address the limitations and guidance from the ROE and the TD (if issued). In the case of dynamic targeting, the legal advice provided depends upon the type of dynamic targeting involved. In essence, legal officers provide whatever legal advice is practicable in the circumstances. For time sensitive targeting that is not pre-planned, legal officers should still provide abridged legal analysis and advice on a specific target, as well as the method and means of attack for that target. This may include the provision of legal advice to relevant commanders during the execution of the mission. In other cases, such as air interdiction, prior to the mission, legal officers provide advice and briefings on the legal considerations and processes that must be applied by those executing such attacks. However, the legal officer's advice does not include specific targets that are actually engaged.

3.35 Role of legal officers at command levels. As a guide only, legal officers at the strategic, operational and tactical levels would expect to be tasked as follows:

- **Strategic level.** Legal officers will be concerned with developing national positions on specific questions of law, and providing input into CDF's ROE and any TD. Considerable interdepartmental liaison, particularly with the Attorney General's Department, can be expected. Legal officers can expect to brief senior leadership on LOAC, and the legal aspects of the ROE and any TD.
- **Operational level.** Legal officers will be involved in the completion of LTA for fixed targets, as well as the transition of strategic documents into instructions to be applied at the operational and tactical levels. Legal officers will brief commanders and planning staff on LOAC, and at least the legal aspects of the ROE and any TD. Legal officers will be involved in the completion of an abridged LTA process for time sensitive targets where the planning steps of the LOAC six step process is carried out at the operational level. During coalition operations, legal officers at the operational level are likely to liaise

closely with coalition legal advisers, with a view to ensuring that any differences in obligations and/or interpretations of the law, or any policy differences (especially in ROE), are appropriately considered.

- **Tactical level.** Legal officers will be involved in the transition of operational-level instructions into tactical instructions (particularly in relation to dynamic targeting). They will provide input to aide memoirs (such as 'knee-pad' cards for aircrew) that contain guidance and direction on the application of law and policy (also with particular emphasis on dynamic targeting). Legal officers will brief commanders and personnel who execute the missions on LOAC, and at least the legal aspects of the ROE and any TD.

3.36 As a common task, legal officers at all levels can expect to be involved in the ongoing review of the ROE and any TD, and the staffing of amendment requests and authorisations.

OTHER ISSUES

Coalition considerations

3.37 Issues. When engaged in targeting operations within a coalition, commanders and staff from each contributing nation must consider the differences in legal obligations, the differences in the interpretation of shared obligations and the different policy positions, which exist between coalition partners.

3.38 Differing legal obligations. The United States (US), unlike most of its allies, has not ratified Additional Protocol I. The US believes that certain provisions of Additional Protocol I do not reflect customary international law. However, the US does accept that many of the provisions of Additional Protocol I, including most of the provisions relevant to targeting, do codify customary international law. The US is also not a party to the Ottawa Treaty which prohibits APL, whereas Australia and most of the US allies are parties. This can affect coalition targeting operations particularly where US forces, operating alongside the ADF, are equipped with APL. In all cases, legal advice should be sought on the effect that differing legal obligations may have on coalition targeting operations.

3.39 Different interpretations. Differing interpretations of shared legal obligations are potentially as important as differing legal obligations. Coalition partners, applying the same law, may reach different conclusions as to whether a target is a military objective or whether an attack satisfies the principle of proportionality.

3.40 Policy differences. A further complication is where there is no difference in legal obligations or interpretation, but a policy difference exists between coalition partners. Such policy differences, possibly reflected in their respective ROE (or in other policy documents such as a TD in the ADF context), may mean that a coalition partner will refrain from attacking a military objective, notwithstanding that they accept that the target is lawful. Additionally, differences in the levels at which internal targeting approvals are set by individual coalition partners may also become important. While one coalition partner may be able to quickly approve targeting at a relatively low level, another coalition partner may require a significant lead-time to allow the completion of their internal approval process (which may include government-level approval).

3.41 Management of coalition issues. Successful management of coalition legal issues and policy constraints requires:

- early and ongoing liaison to identify the differences;
- resolution of those differences where possible; and
- where resolution is impossible, ensuring that:
 - the differences are not overstated, and
 - that action is taken to ensure that the differences are properly factored into the planning and execution of coalition operations.

3.42 The development of relationships between coalition legal advisers is an important aspect of this process. Additionally, subject to national security considerations, the sharing of relevant national directions and orders, such as relevant parts of the TD, can greatly reduce the chance of misunderstandings between coalition partners.

Relationship between legal advice and intelligence

3.43 For LOAC purposes, commanders and staff are entitled to base their decisions on the information available to them from all sources at the relevant time. It follows that commanders and their staff will be expected to draw on the available information and, to this end; the application of LOAC principles to targeting operations requires ongoing intelligence support. Intelligence drives many LOAC decisions, including the assessment of whether or not a proposed target is a military objective, the estimation of the collateral damage effects expected from an attack, as well as the military

advantage to be derived from an attack. The importance of the relationship between the intelligence and legal process (and between individual intelligence and legal officers) cannot be underestimated. Moreover, legal officers can be expected to make specific requests for intelligence data and assessments so as to perform their role and to inform their commander's decisions.

Targeting, law of armed conflict and public affairs

3.44 ADF spokespersons on targeting issues must possess a working knowledge of the relevant legal principles and terminology. Other problems may arise if the nature of protection afforded to protected persons and objects is overstated, either because the possibility of collateral effects are underplayed, or the prospect that the enemy will misuse a protected facility (and thereby lose its protected status) is ignored.

3.45 Differences between coalition partners in relation to legal obligations, legal interpretations and policy constraints can be expected to be of public and media interest. It is important not to mischaracterise a difference between coalition partners as being based on disparate legal obligations, if that difference actually relates to a question of interpretation or a matter of policy and vice versa.

Consequence management

3.46 If targeting operations result in unintended and unexpected consequences, such as more collateral casualties than anticipated or following attack it is discovered that the target was not a military objective, demonstrable compliance with LOAC principles and processes, both generally and in relation to the specific targeting activity, will be very important. This includes any formal investigation of the incident and any potential adverse action against individuals, as well as any public statements that may be required.

3.47 In particular, the availability of documentary evidence that the precautions required by LOAC were undertaken will be essential. This documentary evidence may include the LTA prepared for the target, as well as any instructions and briefings used by those planning and executing the attack. While such documents will not rectify the physical damage caused, they may prevent a tragic accident being mischaracterised as a war crime either by the media, or more seriously, as a finding by a board of inquiry, tribunal or court. It should also be said, however, that compliance with the principles and processes outlined in this chapter should be expected to make such incidents less likely in the first place.

Annex:

A. Australia's Declarations of Understanding to the Additional Protocols

AUSTRALIA'S DECLARATIONS OF UNDERSTANDING TO THE ADDITIONAL PROTOCOLS

1. In depositing its instrument of ratification for Protocol 1, Australia hereby makes declarations of understanding in relation to Articles 5, 44 and 51 to 58 inclusive of the said Protocol.

2. It is Australia's understanding that in relation to Article 5, with regard to the issue whether, and in what measure, Protecting Powers may have to exercise any functions within the combat zone (such as may be implied by provisions in Parts II and IV of the Protocol), the role of the Protecting Power will be of a like character to that specified in the First and Second Conventions and Part II of the Fourth Convention, which apply mainly to the battlefield and its immediate surroundings.

3. It is the understanding of Australia that in relation to Article 44, the situation described in the second sentence of paragraph 3 can exist only in occupied territory or in armed conflicts covered by paragraph 4 of Article 1. Australia will interpret the word 'deployment' in paragraph 3(b) of the Article as meaning any movement towards a place from which an attack is to be launched. It will interpret the words 'visible to the adversary' in the same paragraph as including visible with the aid of binoculars, or by infra-red or image intensification devices.

4. In relation to Articles 51 to 58 inclusive it is the understanding of Australia that military commanders and others responsible for planning, deciding upon, or executing attacks, necessarily have to reach their decisions on the basis of their assessment of the information from all sources, which is available to them at the relevant time.

5. In relation to paragraph 5(b) of Article 51 and to paragraph 2(a)(iii) of Article 57, it is the understanding of Australia that references to the 'military advantage' are intended to mean the advantage anticipated from the military attack considered as a whole and not only from isolated or particular parts of that attack and that the term 'military advantage' involves a variety of considerations including the security of the attacking force. It is the further understanding of Australia that the term 'concrete and direct military advantage anticipated', used in Articles 51 and 57, mean a bonafide expectation that the attack will make a relevant and proportional contribution to the objective of the military attack involved.

6. It is the understanding of Australia that the first sentence of paragraph 2 of Article 52 is not intended to, nor does it deal with the question of

ADDP 3.14

incidental or collateral damage resulting from an attack directed against a military objective.

CHAPTER 4

JOINT TARGETING PROCESS

Executive Summary

- Planning for joint targeting involves two strongly inter-related and complementary effects based activities: the joint military appreciation process (JMAP) and the Australian Defence Force (ADF) joint targeting process.
- The six steps of the joint targeting process are: commander's guidance, target development, capabilities analysis, force apportionment, execution, and assessment.

“The general who wins a battle makes many calculations in his temple before the battle is fought. The general who loses a battle makes but a few calculations beforehand. Thus many calculations lead to victory and few calculations to defeat. It is by attention to this point that I can foresee who is likely to win or lose.”

Sun Tzu, The Art of War (c. 500 BC)

Introduction

4.1 The joint targeting process is an iterative one that provides a framework to describe the steps to be satisfied for successful targeting on operations. This process is not time-dependent and phases may occur concurrently. The purpose of joint targeting is to integrate and synchronise fires into joint operations. When conducted in multinational operations it may involve participation from other agencies, governments, and organisations. An effective, disciplined joint targeting process minimises undesired effects, potential for collateral damage, and reduces inefficient actions during military operations.

4.2 The joint targeting process integrates military capabilities to create desired effects in support of the joint commander's mission and endstate. The joint targeting process aims to ensure that:

- targeting effort is aligned with national objectives and the commander's intent;
- legal obligation;
- a range of effects are generated across the battlespace which target an adversary's critical vulnerabilities;
- targets are valid;
- targeting is coordinated, integrated and deconflicted with other operational activities; and
- targeting-related intelligence requirements are identified and tasking of collection assets is managed according to the commander's priorities.

Integration into joint planning

4.3 The integration and synchronisation of planning, execution and assessment is a key to the success of joint targeting.

4.4 Planning. Joint targeting is integral to the joint planning process and begins with the joint military appreciation process (JMAP). Joint targeting planning and the JMAP are inter-related and complementary activities. Both apply the same ends, ways and means approach to generate desired effects. Although closely aligned, the two processes have different steps or phases that do not necessarily occur in the same order, or at the same time.

4.5 Execution. The targeting process continues throughout the conduct of an operation, this includes all aspects of the targeting process. Moreover, the targeting process needs to be dynamic and adjust to changes in operational circumstance dictate.

4.6 Assessment. Assessment is a continuous process, throughout operational execution, to measure progress and performance of activities leading to mission accomplishment. The joint commander continually adjust operations based on assessment outcomes to ensure that objectives are met and the end state achieved.

Deliberate and dynamic targeting

4.7 The joint targeting process supports the prosecution of both deliberate and dynamic targets. Deliberate targeting focuses on the commander's

ability to shape the battlespace by prosecuting planned targets known to exist in an area of operations. Dynamic targeting enables the commander to manage the battlespace by prosecuting targets of opportunity—those targets identified too late, or not selected for action in time, to be included in deliberate targeting. All phases of the joint targeting process supports deliberate targeting, however, dynamic targeting is exclusive to phase five of the process. Dynamic targeting is further detailed in chapter 5—Dynamic targeting.

JOINT TARGETING PROCESS

4.8 The joint targeting process (see Figure 4–1) is a continuous one in which the steps may occur concurrently. The process establishes a framework that outlines the steps that must be satisfied to successfully conduct joint targeting. The deliberate and dynamic nature of the joint targeting process supports all aspects of the JMAP (future plans, future operations, and current operations) ensuring that the targeting process adaptively supports achievement of the commander’s objectives as opportunities arise and plans change.

4.9 The joint targeting process is a six phase cyclic activity. The phases are:

- commander’s guidance—mission, objectives, intent and desired effects;
- target development—intelligence direction, analysis, validation and target list management;
- capabilities analysis—best available means to affect targets or target sets;
- force apportionment—assigning forces, weapons and/or other capabilities to targets
- execution—applying the force to realise objectives and desired effects; and
- assessment—effects assessment, battle damage assessment (BDA), weapons effectiveness assessment (WEA), collateral assessment and re-attack recommendations.

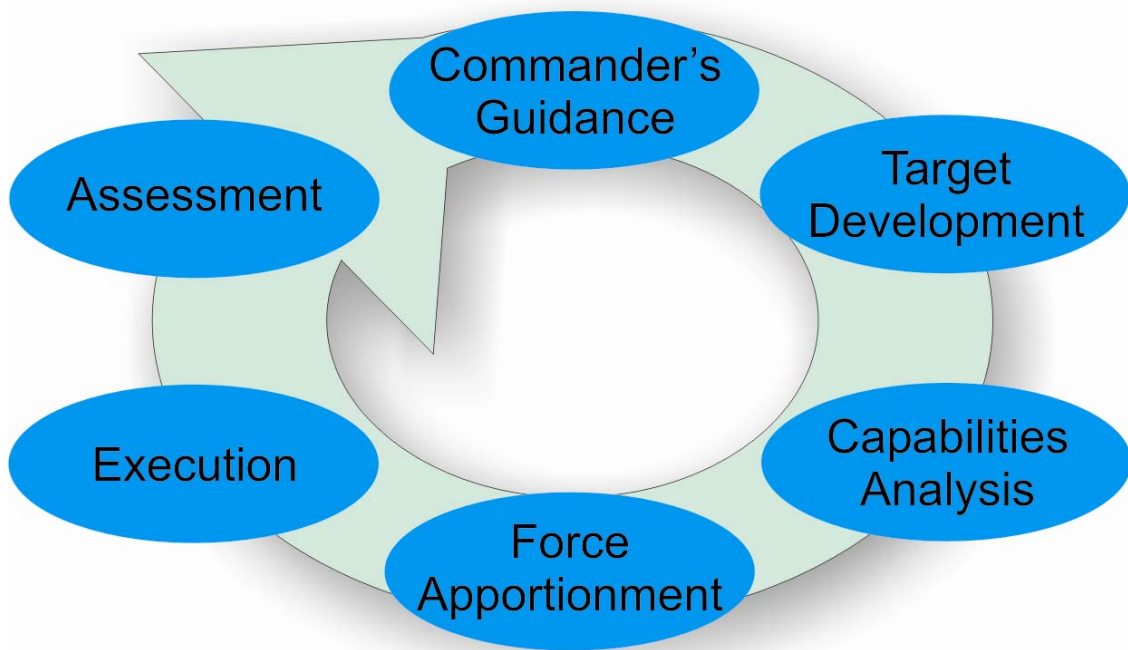


Figure 4–1: The joint targeting process

Phase 1—Commander's guidance

4.10 Commander's guidance drives the targeting process by providing the overall perspective to subordinate commanders charged with task execution, and it specifically identifies conditions and parameters for particular objectives. Guidance is continually refined and adjusted to fulfil the mission. Most importantly, anticipated effects should support to the commander's mission and objectives.

4.11 Commander's guidance at the strategic level comprises the following:

- **National strategic guidance.** National strategic guidance may be provided by government throughout the targeting process, influencing all steps. In addition, the strategic level may retain final responsibility for target approval and type of effects.
- **National military principles.** National military principles provide the intellectual and moral framework within which military operations are conducted. They codify historical lessons as to preferred methods of employment of military force, and international conventions limiting force application. Technical, scientific, ethical and legal developments may tend to emphasise some principles while obscuring others. Primary guidance is provided by law of armed conflict (LOAC).

- **Military strategic guidance.** National strategic guidance is translated into military strategic guidance, which is provided as command guidance to a commander joint task force (Comd JTF). The Chief of the Defence Force (CDF) advised by the Vice Chief of the Defence Force (VCDF) is responsible for targeting guidance. The Defence Strategic Targeting Committee provides strategic level targeting guidance, while the Joint Targeting Steering Group (JTSG) assists the Chief of Joint Operations (CJOPS) in managing military resources. Strategic targeting guidance is promulgated in the CDF targeting directive (TD) to commanders at all levels, who in turn develop their own guidance to component and/or subordinate commanders.

4.12 At the operational level commander's guidance is the understanding of the overall mission and endstate and the Comd JTF's intent, objectives and desired effects. Operational objectives¹ are the basis of deriving the desired effects and the scope of target development that is presented to the commander for approval. Measures of effectiveness (MOE) and measures of performance (MOP) need to be identified and/or developed in this phase of the targeting process. In the planning for operations this broad guidance is developed during the mission analysis phase of the JMAP and/or derived for strategic level guidance.

4.13 The commander's guidance and intent drives the subsequent phases of the targeting process.

Phase 2—Target development

4.14 Target development entails the systematic examination of potential target systems (their components, individual targets, and target elements) to determine the necessary type and duration of action that must be exerted on each target to create the required effect(s) consistent with the commander's objectives. Figure 4–2 outlines the relationship between the targeting development process and the different levels of command. Target development comprises the following steps:

- **Intelligence direction.** Target development begins with intelligence requirements. Targeting staff must work closely with collection managers to ensure that target development, pre-strike and post-strike requirements, and any changes that occur throughout the targeting process are integrated into the collection plan.

¹ Operational objectives link the military strategic end state and objectives with tactical action.

- **Target system analysis.** Target system analysis (TSA) is an all source analytical process that analyses systems, networks, components and their elements with a view to identifying the best target to effect a specific commander's requirement. TSA forms the basis of target identification and is at the very centre of intelligence support to targeting at the operational level. TSA aids and simplifies target selection, is crucial to BDA, helps prioritise target materials (TM) production and identifies intelligence gaps. TSA identifies the relative importance of individual target system components, elements and nodes. TSA examines:
 - specific target system functions;
 - target systems' dependencies on, and linkages to, other target systems; and
 - the impact of exploitation of particular target elements on the overall system as well as on other target systems which are functionally related through those target elements.

Further information on TSA is in Australian Defence Force Publication (ADFP) 3.14.2—*Targeting Procedures*.

- **Target intelligence production.** Following identification of key targets matching the adversary's critical vulnerabilities standardised TM are produced to support commanders and combat units. The physical and functional characteristics of individual targets are determined and recorded to inform later weaponeering and operational planning processes.
- **Target validation.** Target validation determines whether a target is a lawful target under LOAC and promulgated rules of engagement (ROE) and whether a target type is restricted by the CDF TD. This step also confirms whether a target remains a key element of the target system based on the results of one or more engagements.
- **Target list development.** The output of target development is the production of the various target lists. It is imperative that procedures be in place to manage target lists to ensure these products are responsive and verifiable.

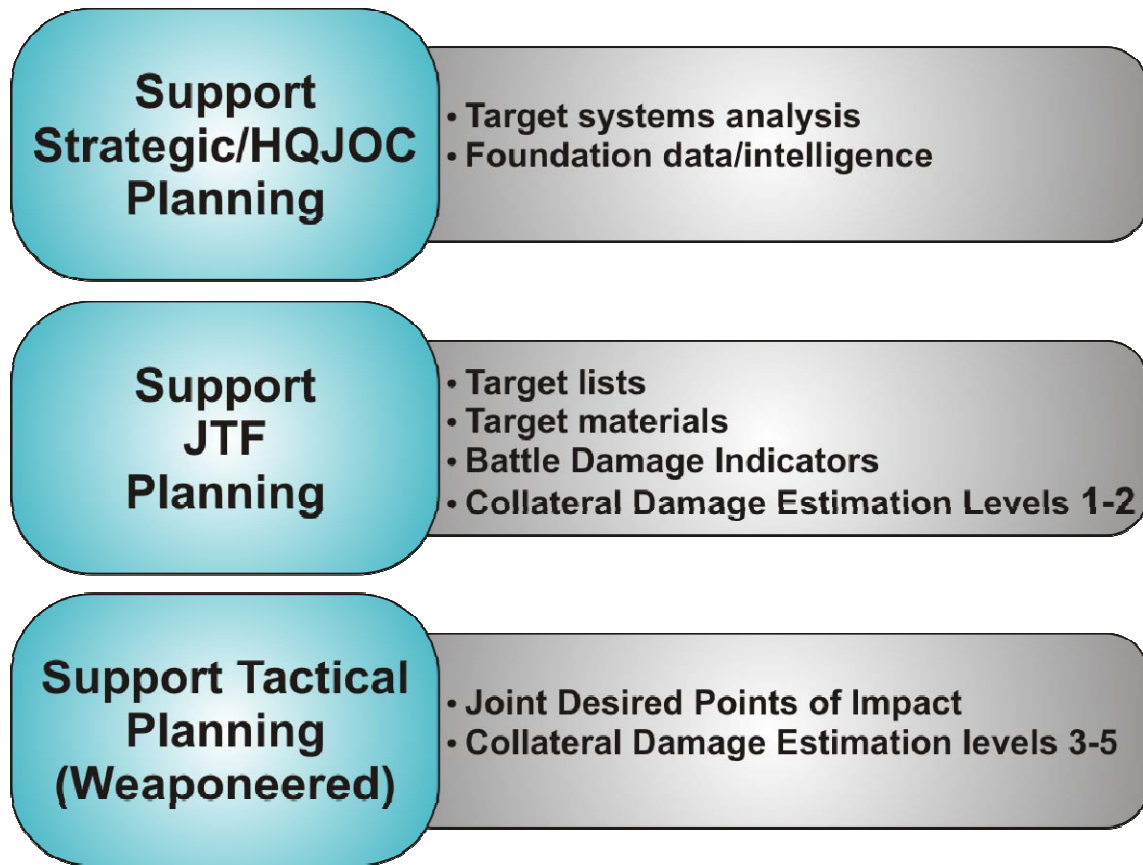


Figure 4–2: Target Development Linkages

4.15 **Target lists.** The principle target lists are as follows:

- **Master target list.** The MTL is a comprehensive target list of all potential targets that exist within the joint force area of operations for a designated campaign or operation. The MTL consists of the following subordinate target lists:
 - **Joint target list.** The joint target list (JTL) is a consolidated list of selected targets considered to have military significance, upon which there are no restrictions placed. These targets can be attacked.
 - **Restricted target list.** The restricted target list is a list of nominated targets upon which a restriction is placed precluding attack. The joint commander’s approval is required to remove the restriction before these targets can be attacked.
 - **No-strike list.** The no-strike list (NSL) is a list of objects or entities characterised as protected from the effects of military

operations under international law and/or rules of engagement. Targets on the NSL cannot be attacked.

- **Joint prioritised target list.** The joint prioritised target list (JPTL) is a prioritised list of deliberate targets, drawn from the JTL, in order of importance to the successful completion of the mission, developed to support a course(s) of action identified during the JMAP.
- **Joint integrated prioritised target list.** The joint integrated prioritised target list (JIPTL) is a prioritised list of targets (drawn from JTL or JPTL) approved and maintained by the joint force commander. The JIPTL lists deliberate targets and priorities, nominated by the component commanders and other agencies, that support the Comd JTF's objectives and guidance.
- **Target nomination list.** The target nomination list is a list of prioritise targets nominated for inclusion on the JIPTL.

Target lists are further detailed in ADFP 3.14.2—*Targeting Procedures*.

4.16 Collateral damage estimation methodology. A formal collateral damage estimation (CDE) is undertaken for every target as part of both this target development phase and the subsequent capabilities analysis phase. This is because much of the CDE process can only be undertaken when the desired weapon and its effects are analysed. Targeting and operations staff uses the CDF TD and intelligence products to identify protected facilities that are not to be targeted. The ADF CDE methodology is a five level classification process that provides the commander with empirically derived collateral damage estimation and mitigation tools designed to support command decision-making and weigh military necessity against collateral damage risk. The CDE methodology simplifies joint munitions effectiveness manuals (JMEM) empirical data into an understandable form, enabling rapid, accurate, and consistently repeatable assessments of collateral damage at all levels of command. Some considerations in development of CDE include the following:

- For infrastructure targets, the assessment will consider the size, shape and construction of protected facilities, weapon type, size and accuracy, and blast and fragmentation radii. Flight paths for air delivered weapons, both lethal and non-lethal, should avoid protected or heavily populated areas due to the possibility of airborne malfunction.
- In component strike planning procedures, a collateral damage methodology has been developed to ensure that protected targets are

identified and an assessment is made on their vulnerability using JMEM methodology.

- In offensive perception management planning, analysis of audiences and types of media will facilitate decision making on collateral effects.
- CDE continues through to the execution phase of the targeting process.

ADFP 3.14.2—*Targeting Procedures* contains further information on CDE methodology.

Phase 3—Capabilities analysis

4.17 The purpose of capabilities analysis is to maximise the efficiency of forces through application of sufficient force to create the desired effects while minimising collateral damage, duplication of effort and wasted resources. This phase of the joint targeting process involves evaluating available capabilities against desired effects to determine the appropriate options available to the commander. Commanders also consider risks to the force and collateral concerns in evaluating available capabilities. Capabilities analysis may also inform the Comd JTF choice of course of action and other decision making processes.

4.18 Once appropriate options are developed, analysis focuses on evaluating specific capabilities against identified target vulnerabilities to estimate likely effects. This process builds upon the analysis conducted in target development, to characterise the physical, functional, and behavioural vulnerability of the target as well as to confirm a connection to the Comd JTF's objectives and guidance.

4.19 The weaponeering of effects and the determination of CDE against identified targets are key aspects of this phase. Targets with associated collateral damage concerns expected to exceed Comd JTF or operational commanders thresholds are referred for review and approval using the sensitive target and review process.

4.20 Sensitive targets are targets where the commander has estimated the physical damage and collateral effects on civilian or non-combatant persons, property, and environments (occurring incidental to military operations) exceed established national level notification thresholds. Sensitive targets may also include those targets that exceed national-level ROE thresholds, or where the commander determines the effects from striking the target may have adverse political ramifications. This process provides guidance to

operational level commanders on designating sensitive targets and nominating them for national level review.

Phase 4—Force apportionment

4.21 The force apportionment phase fuses capabilities analysis with available forces, sensors, and weapons systems. Apportionment is, in the general sense, the distribution for planning of limited attack resources among competing requirements.

4.22 The process of matching prioritised targets with the available forces or systems and supporting intelligence, surveillance and reconnaissance assets lies at the heart of force apportionment. Thus, force apportionment links planning to the conduct of operations. Once the Comd JTF approves the JIPTL, either entirely or in part, tasking orders are prepared and released to the executing force elements (see Phase 5).

4.23 During any current operation, the joint targeting process also documents the linkage between objectives and guidance. This documentation traces the analytical reasoning that supported the selection of nominated targets and the details of the capability effectiveness estimates. This links operations planners and targeting specialists with the information flow critical to reducing the likelihood of confusion between what was expected at the joint task force (JTF) level and what was actually achieved during execution. Ultimately, the exchange of information at this phase and the reconciliation of a common operating picture are critical elements in the assessment phase of the joint targeting process where outcomes are analysed and future actions are determined.

4.24 The essential actions that take place during this phase are to:

- identify available friendly forces and any operational constraints;
- assign forces with appropriate weapons or other capabilities to targets and missions to achieve desired effects;
- recommend force apportionment for approval; and
- issue orders as the link to Phase 5.

Phase 5—Execution

4.25 Upon receipt of tasking orders, detailed mission planning is undertaken for the execution of operations in support of both deliberate and

dynamic targeting. The joint targeting process supports this planning by providing tactical-level planners with direct access to detailed information on the targets, supported by the nominating component’s analytical reasoning that linked the target with the desired effect (Phase 2).

4.26 Combat is inherently dynamic, and the battlespace may change dramatically as the adversary responds and deviates from friendly force assumptions. However, the joint targeting process is also flexible and can adapt to these changes, allowing commanders to maintain the initiative. Dynamic targeting may be required during execution and therefore, high quality targeting, operational and situational awareness data is required in order to assess appropriate responses and possible collateral damage. Dynamic targeting is detailed in Chapter 5.

Phase 6—Assessment

4.27 Assessment occurs at all levels and across the range of military operations, even those that do not include combat. As a general rule, the level to which a specific mission, task, or action is directed should be the level at which such activity is assessed. To do this the Comd JTF and supporting staff should consider assessment ways, means, and measures during planning, preparation, and execution. This properly focuses assessment and collection at each phase, reduces redundancy, and enhances the efficiency of the overall assessment process. The assessment phase both completes and begins the cyclic joint targeting process.

4.28 Assessment is used to measure the progress of the JTF towards mission accomplishment. As shown in figure 4–3 assessment includes effects assessment, combat assessment (CA) and collateral assessment. Commanders establish appropriate MOE to assist in the conduct of assessment.

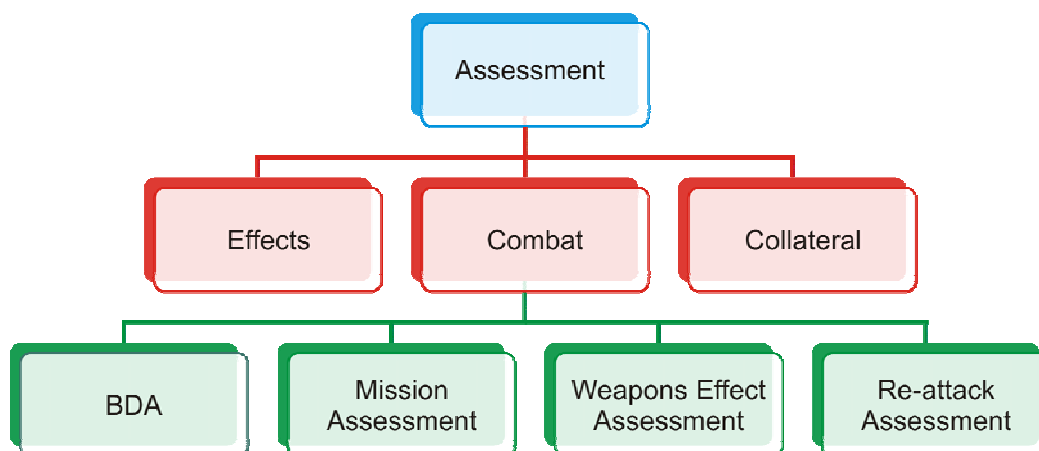


Figure 4–3: Assessment

4.29 Effects. Commanders and their staffs determine relevant assessment actions and measures during planning. They consider assessment measures as early as mission analysis, and include assessment measures and related guidance in commander and staff estimates. Commanders continuously assess the operational environment and the progress of operations, and compare the outcomes to their initial vision and intent. Commanders adjust operations based on their assessment to ensure objectives are met and the military end state is achieved. The assessment process is continuous and directly tied to the commander's decisions throughout planning, preparation, and execution of operations. At the operational and/or strategic level effects assessment is a campaign assessment which is incorporated into strategy and guidance development.

4.30 Combat assessment. CA focuses on determining the results of weapons engagement using both lethal and non-lethal capabilities. CA determines progress and validation of how targeting activities are progressing and provide inputs into MOE and MOP; it also recommends further targeting priorities in line with the assessed results. CA comprises four aspects as follows:

- **Battle damage assessment.** BDA is the process that compares the actual target effect with the desired effect. BDA is conducted in three phases; physical damage assessment, functional damage assessment and target system assessment. BDA is further detailed in ADFP 3.14.2—*Battle damage assessment*.
- **Weapons effectiveness assessment.** WEA is the assessment of how capabilities (lethal and non-lethal) performed and the method by which they were applied.
- **Mission assessment.** Mission assessment is an evaluation of the effectiveness of all preceding steps in the targeting process in the light of overall command guidance.
- **Re-attack recommendations.** Future target nominations and re-attack recommendations merge the picture of what was done (BDA) with how it was done (WEA) and compares the result with predetermined MOE.

4.31 Engaging targets identified on a target list does not, of itself, represent the total effectiveness of operations. CA seeks to ascertain whether required effects are being achieved. All components, commands and sources contribute to and rely on CA. At the JTF level, the outcomes of the assessment phase will influence the commander's future mission guidance and force allocation.

4.32 Collateral assessment. Collateral assessment is the understanding the actual collateral damage caused by the use of lethal and non-lethal weapons and it is necessary to fully understand the consequences of own action. Collateral assessment measures actual collateral damage against the assessed pre-attack CDE, to determine what undesired effect occurred that may require consequence management.

4.33 The assessment phase makes use of inputs from intelligence and operations staffs, and may recommend improvements in areas such as force application planning, or revise the current situation assessment. These recommendations can affect future operations or modify a commander's objectives. There are five fundamental questions to be asked in this phase:

- Were operations against targets conducted as planned?
- Were the effects of these operations as anticipated?
- If operations were not conducted as planned, or the effects of these operations were not as anticipated, what can be done to address operational deficiencies?
- Was the CDE correct and accurate?
- What collateral damage or undesired effects achieved that may require consequence management?

4.34 Post-conflict, there is a continuing requirement for BDA information, intelligence, and WEA, as follows:

- **Operational data.** Collection of operational or mission-specific data includes all executed mission type orders, including executed air tasking orders, all mission reports, and copies of aircraft cockpit video or weapon system video as a minimum.
- **Intelligence.** Information collected includes national and tactical intelligence gathered during operations, as well as continued post conflict damage assessment and analysis of reconstruction for revising TSA and TM.
- **Weapon effect analysis.** Optimal analysis of weapons effects is achieved by deploying WEA exploitation teams (engineers, tacticians, and intelligence analysts) to conduct on-site analysis. The goal of these 'ground truth' operations is to correlate the level of damage

described by BDA collection assets, and the actual physical and functional damage inflicted.

CHAPTER 5

DYNAMIC TARGETING

Executive Summary

- Dynamic targeting is targeting that prosecutes targets identified too late, or not selected for action in time to be included in deliberate targeting.
- Dynamic targeting supports the management of the battlespace.
- Dynamic targeting is conducted during phase five of the joint targeting process and consists of six steps: find, fix, track, target, engage and assess, referred to as F2T2EA.

When the strike of a hawk breaks the body of its prey, it is because of timing. Thus the momentum of one skilled in war is overwhelming and his attack prompt.

Sun Tzu, The Art of War (c. 500 BC)

Introduction

5.1 Dynamic targeting prosecutes targets of opportunity, which are targets identified too late, or not selected for action in time, to be included in deliberate targeting. Dynamic targeting supports the management of the battlespace by quickly implementing changes to planned targets and/or operational objectives to meet the commander's intent. These targets must be prosecuted on a compressed timeline compared to those that are prosecuted using deliberate targeting. Dynamic targeting remains a methodical process irrespective of the time available for the conduct of dynamic targeting. There are two types of targets of opportunity unplanned and unanticipated:

- **Unplanned targets.** Unplanned targets are those known to exist in the operational environment.
- **Unanticipated targets.** Unanticipated targets are unknown or not expected to exist in the operational environment.

5.2 Dynamic targeting is conducted almost exclusively in Phase 5 of the joint targeting process. However, planning conducted during Phase 1 to four of the joint targeting process can and does support dynamic targeting. Although priorities may vary, the primary focus of dynamic targeting is prosecution of the following:

- Targets scheduled to be engaged attack plans in execution, but which have changed status in some way (such as changes to fire support coordination measures (FSCM)).
- Commander joint task force (Comd JTF) designated and prioritised time sensitive targets (TST). The Comd JTF is ultimately responsible for TST prosecution and relies upon the component commanders for conducting TST operations (see Chapter 6—Time sensitive targeting).
- Component high priority targets that are not Comd JTF approved TST, but are considered crucial for success to friendly component commanders' missions because of their fleeting nature and threat to friendly forces.
- Other emerging targets, including high pay-off targets and high value targets, identified during execution that friendly commanders deem worthy of targeting.
- Dynamic targeting supports joint fires, the force on force encounters that require immediate engagement to achieve desired effects.

5.3 Successful dynamic targeting requires a great deal of prior planning and coordination from relevant staff(s) and respective components to be conducted effectively. Additionally, sufficient attack resources must be available to support dynamic targeting during the execution phase. Some of the more common methods for creating this capability are to:

- preplan target reference methods and FSCM (for example joint fires area);
- pre-position available on-call intelligence, surveillance and reconnaissance (ISR) assets and attack resources to rapidly respond to emerging targets;
- determine the most probable areas where targets will emerge during execution using the joint intelligence preparation of the battlespace (JIPB).

- coordinate and synchronise dynamic targeting operations by streamlining and developing procedures for rapid handover of the mission tasking to another force element for mission execution if the primary force element cannot attack a target.

THE PROCESS



Figure 5–1: Dynamic Targeting Steps

5.4 The dynamic targeting process consists of six steps:

- find,
- fix,
- track,
- target,
- engage, and
- assess.

The dynamic targeting process shown in figure 5-1 is referred to as F2T2EA.

Find

5.5 The find step involves ISR detection of an emerging target, some aspect of which suggests that it fits within one of the dynamic targeting types; unplanned or unanticipated. The find step requires clearly designated guidance from commanders, especially concerning target priorities, and the focused ISR collection plan based on JIPB for specific named area(s) of interest and/or target area(s) of interest. Some of the emerging targets detected as part of the collection operations will meet the defined criteria to be further developed as a valid target. The time sensitivity and importance of a target may be initially undetermined. Emerging targets usually require further ISR and analysis to develop and confirm their status. This further analysis will result in one of four determinations which shape follow-on actions. These follow on actions range from continuing with the dynamic targeting process to discarding the emerging target. Further information is provided within Australian Defence Force Publication (ADFP) 3.14.2—*Targeting Procedures*.

5.6 A good collection plan is active and focused. The deployment of collection assets should be undertaken with a clear understanding of what information/data will be collected. Collection should be anticipatory, involving confirming anticipated results, not just blind detection. The result of the find step is a probable target nominated for further investigation and development in the fix step. Refer to Australian Defence Doctrine Publication 3.7—*Collection Operations* for more information on collection activities.

Fix

5.7 In the fix step an emerging target is positively identified as worthy of engagement and its position and other relevant data is determined with sufficient fidelity to permit engagement. This step begins after the detection of the emerging target, with sensors focused on confirming the identity and precise location of the emerging target. This may require implementing a sensor network or diverting ISR assets. An estimation of the target's window of vulnerability frames the timeliness required for prosecution and may affect the prioritisation of assets and risk assessment.

5.8 The find and fix steps may be completed near-simultaneously, without the need for additional ISR input if the system that detects the target can also engage it. This action may also result in the subsequent target and engage phases being completed without a lengthy coordination and approval process. Battle management systems can often fix target locations precisely enough to permit engagement without the need for further ISR collection. Growth in sensor technology also permits non-traditional sources of ISR to supplement the find, fix, and track phases, integrating data from platforms

other than those traditionally dedicated to intelligence collection. This helps to build a common operating picture that commanders can use to expedite the F2T2EA process.

Track

5.9 In the track step a confirmed target's position and track, if appropriate, is maintained, and in subsequent iterations of the cycle the desired effect to be desired effects to be achieved on the target are confirmed. Sensors may be coordinated to maintain situational awareness or track continuity on targets. Windows of vulnerability should be identified. This step requires relative reprioritisation of ISR assets, just as the fix step may, in order to maintain situational awareness.

5.10 If track continuity is lost, it will probably be necessary to return to the fix step, or possibly the find step. The track step results in track continuity and maintenance of identification on the target, maintained by appropriate sensors or sensor combinations, and updates on the target's window of vulnerability (if required).

5.11 The process may also be run partially 'in reverse' in cases where an emerging target is detected, validated and engaged and recorded sensor data is available. In these cases the recorded sensor data can be analysed to track the target back to its point of origin, such as a base camp, and thus potentially identifying a wider threat or additional emerging targets for subsequent analysis and/or attack.

Target

5.12 The target step is the decision-making process that uses available information to produce a particular engagement recommendation for approval by an appropriate tactical commander. The target step also resolves any restrictions and deconfliction issues are resolved and implemented as appropriate in this step. Guidance on the conditions under which prosecution can occur and the effects required is used in the assessment.

Engage

5.13 In this step, engagement of a target identified as hostile is ordered and transmitted to the relevant operator of the selected engagement system. The engagement orders are sent to, and received, and understood by the force element undertaking the engagement. The engagement is monitored and managed by the engaging force element/component. The desired result of this step is successful action against the target.

Assess

5.14 The assess step of the dynamic targeting process is the linkage from phase five to phase six of the joint targeting process. In this step engagement outcomes and effects are measured against actions and desired effects on the target. ISR assets collect information about the engagement according to the collection plan (as modified during dynamic targeting) and attempt to determine whether desired effects and objectives were achieved. In cases of the most fleeting targets, quick assessment may be required in order to make expeditious attack recommendations. See chapter 4 and ADFP 3.14.2—*Targeting Procedures* for more information on assessment.

CONSIDERATIONS

Engagement authority

5.15 The authority to engage are delegated to the command and control (C2) agency that has the best information or situational awareness to execute the mission and direct communications to the operators and crews of the weapon systems involved.

5.16 Placing the appropriate level of situational awareness at subordinate C2 agencies can streamline the C2 cycle and allow timely engagement during dynamic targeting. Decentralised C2 agencies are able to exchange sensor, status, and target information. They may do this with a fidelity that permits them to operate as a single, integrated C2 entity in order to effectively perform decentralised, coordinated execution of dynamic and time-sensitive targeting.

Risk assessment

5.17 The level of acceptable risk awareness is critical to successful targeting during planning and execution. Compression of the decision cycle increases risk due to insufficient time for the more detailed coordination and deconfliction that takes place during deliberate targeting. Commanders must assess risk early, determine what constitutes acceptable risk, and communicate their intent. Certain targets may be determined to be such a threat to the force or mission accomplishment that a higher level of risk is accepted in order to attack the target immediately upon detection. Issues for consideration in the risk assessment include:

- risk to friendly forces (fratricide), risk to non-combatants, and collateral damage potential;

- law of armed conflict and rules of engagement compliance;
- increased risk to attacking forces due to accelerated planning and coordination;
- redundant attacks and wasting limited resources;
- non-optimal weapon selection and employment; and
- opportunity cost of diverting assets from their planned missions.

5.18 These considerations are balanced against the danger of not attacking the target in time and thus risking mission failure, harm to friendly forces, or losing the opportunity to strike the target. More commonly, the risk associated with dynamic targeting involves the trade-off of diverting ISR and strike assets from already scheduled missions to emerging targets. This is done when commander's priority dictates. Planning options such as reserving on-call assets can mitigate much of this opportunity cost.

Combat identification

5.19 For prospective targets, there are essentially three levels of combat identification that are relevant to carrying out actions against dynamic and time sensitive targets. At the first level, the track or entity is identified as friendly, foe, or neutral. At the next level, the prospective target's type of platform is identified. This will aid in determining the nature of tactical action required against it and will assist in prioritising the target. Finally, a third level entails determining the prospective target's intent (such as by its track relative to friendly forces) when possible. This will further aid in establishing the prospective target's priority, and may sometimes entail reclassifying a target as a TST based on its potential threat to friendly forces.

Adjustment to change

5.20 These adjustments to change include:

- responding to changes in friendly operations,
- weather,
- re-targeting, and responding to TST (see Chapter 6).

CHAPTER 6

TIME SENSITIVE TARGETING

Executive Summary

- Time sensitive targets (TST) are high priority targets designated by the joint commander that warrant immediate response, either because of their threat to friendly forces, or because of their highly lucrative but fleeting nature.
- TST may be either a deliberate or dynamic target. However, owing to their time sensitivity they are usually prosecuted as dynamic targets.

Introduction

6.1 A TST is a joint force commander designated target requiring immediate response because it is a highly lucrative, fleeting target of opportunity or it poses (or will soon pose) a danger to friendly forces. TST are also designated as such by the commander joint task force (Comd JTF) because their engagement is of a high enough priority to warrant immediate action and the possibly re-tasking of forces, in order to support campaign or operational objectives. A large proportion of TST involve cross-boundary issues and multi-component or joint force assets to prosecute them. TST are prioritised, categorised, coordinated, de-conflicted, and directed for engagement by the JTF. Some examples of potential TST could include:

- mobile rocket launchers;
- mobile high threat surface-to-air missile systems;
- mobile command and control (C2) vehicles and facilities;
- vessels or aircraft that pose a significant threat and demand an immediate action (for example about to lay a mine field);
- deployed theatre ballistic missile systems;
- weapons of mass destruction and their supporting systems; and

- fixed targets (e.g. a previously untargeted bridge that is about to be crossed by an enemy armoured counterattack force rapidly becomes time-sensitive).

6.2 A TST may be either a deliberate or a dynamic target. If the TST is a deliberate target it can be either on-call or scheduled and if it is a dynamic target it can be either unplanned or unanticipated (See Chapter 1 for target categories).

TIME SENSITIVE TARGETING CYCLE

6.3 The joint targeting process establishes the mechanism, via which all targets are identified, developed, analysed and (where appropriate) engaged, this includes TST. However, due to time sensitivity associated with TST, they are usually prosecuted using the dynamic targeting process (F2T2EA) (refer to chapter 5 or Australian Defence Force Publication 3.14.2—*Targeting Procedures*). The dynamic targeting steps as they relate to TST are as follows:

- **Find.** Potential TST, when detected, trigger actions to determine whether or not the particular target warrants further attention or deviation from the existing plan. This leads to initiation of the dynamic targeting process. The output of the find step is a TST nomination for further refinement.
- **Fix.** Sensors identify and geo-locate a TST and allow an initial risk assessment. The output of the fix step is an approved geo-located TST in accordance with Comd JTF guidance.
- **Track.** During the track step, sensors are prioritised and the track of the TST is maintained. Tracking is a continuation from the fix step until the successful prosecution of the target and its assessment.
- **Target.** During the target step, a risk assessment is conducted before final approval and tasking is released to engage the target.
- **Engagement.** During the engagement phase, the TST engagement is ordered and transmitted to the selected engagement system. The engagement is monitored, and the output is the actual target engagement.
- **Assessment.** The assessment of TST is the same process as for any other deliberate or dynamic target. The only specific require for the assessment of a TST is that it may need to be conducted in a more

timely manner and that intelligence, surveillance and reconnaissance (ISR) assets may need to be re-tasked to collect required data. The output of the assess step is confirmation of mission success or a re-attack decision.

COMMAND AND CONTROL

6.4 Specific command guidance for designation and prioritisation of TST is required for the joint targeting process. Authorised TST may be included in the Chief of Defence Force's targeting directive. The Comd JTF will designate TST. However, and some TST maybe recommended by subordinate commanders and other agencies may also put forward TST recommendations via the joint targeting coordination board for acceptance by the Comd JTF.

6.5 The Comd JTF guidance should clearly define the TST coordination procedures between the components, applicable rules of engagement (ROE), any restrictions including collateral damage considerations and reporting conditions. Elements that should be included in the Comd JTF guidance are:

- **Time sensitive targeting priorities.** The Comd JTF, in coordination with the components, identifies and prioritises TST. The highest priority are allocated to those targets that require immediate engagement. Priorities are allocated to establish precedence when tasking assets away from pre-planned targets.
- **Engagement approval authority.** When assigning TST engagement approval authority the Comd JTF balances strategic impact, component commander's area of operations and assigned functional missions, with the requirement to rapidly engage a TST. Ideally, execution approval authority is delegated to the lowest level possible while maintaining the ability to command, control and coordinate the TST prosecution; this is normally at the component level. However, political, collateral damage concerns and other considerations may require national level approval, with corresponding time delays.
- **Acceptable risk.** Comd JTF's guidance stipulates the degree of acceptable risk when engaging specific TST.

CONSIDERATIONS

Intelligence

6.6 Synchronisation between intelligence and targeting requirements is necessary to optimise the ability of forces to effectively locate, engage and assess the TST. During execution planning, intelligence closely monitors target status in order to update final planning before execution.

Risk assessment

6.7 Risk assessment assists in deciding whether or not to engage a TST. A specific TST may be of a sufficiently high threat to the force or to mission accomplishment that the Comd JTF is willing to accept a higher level of risk and collateral damage and attack the target immediately upon its detection. The risk associated with TST involves the possible diverting of ISR and/or attack assets from planned missions to a TST, thereby risking a disruption to planned missions and activities.

6.8 Comd JTF must rapidly balance the time required for coordination against the danger of not engaging the target in time. Often this means accepting a risk of redundant attacks against the same target, and/or possible attacks with non-optimum weapons. The best response for each TST often depends on the level of conflict, clarity of the desired outcome, and ROE.

Engagement capabilities and limitations

6.9 Determination of the most appropriate TST asset begins during the target step and continues through to engage step. Time permitting each component provides recommendations highlighting the benefits and limitations of their available weapon systems based upon the current situation. The Comd JTF also provides guidance to components to allow them the flexibility to make the proper decision regarding rapid selection of most appropriate engagement capability. Each of the different weapon systems has associated benefits and limitations regarding effectiveness against different target types, responsiveness, range, accuracy, vulnerability to an adversarial threat, and associated risks of employment.

**HISTORICAL EXAMPLE—ROYAL AUSTRALIAN AIR FORCE
OFFENSIVE AIR SUPPORT DURING THE WAR IN IRAQ, 2003**

A good example of TST, in conjunction with the flexible use of assets, occurred during Operation FALCONER with the multi-role Royal Australian Air Force (RAAF) F/A-18 Hornet. On 20 March 2003 a Hornet on an air defence mission, escorting high-value aircraft, was asked to quickly switch roles and strike a ground target. Air planning staff determined the priority of the task and analysed the potential for collateral damage. After confirming that the proposed strike was consistent with the laws of armed conflict and the ROE, the deployed Australian Air Task Group Commander approved the attack. Minutes later, the first bomb dropped by an RAAF aircraft in conflict since the Vietnam War was released. The whole process took less than 30 minutes. An initial battle damage assessment was provided to Australian headquarters just 10 minutes after the target had been engaged. RAAF Hornets were re-tasked in a similar manner on a number of occasions.

CHAPTER 7

COALITION TARGETING OPERATIONS

Executive Summary

- Coalition operations pose additional significant challenges to those inherent in the conduct of unilateral military operations.
- With the increased visibility of adverse targeting outcomes in modern warfare, targeting decisions have the potential to severely impact the cohesion of a coalition.
- The proposed prosecution of a target may be deemed by a coalition participant to be inconsistent with their national interests or their international legal obligations. Nations should therefore be able to abstain from participating in the prosecution of such targets.
- To the greatest extent possible, Australian targeting information should be prepared, analysed and released to coalition partners.
- Recent operations have highlighted the importance of compatible targeting doctrine and processes to facilitate interoperability with coalition partners and allies.

Australia's military history could be viewed as a history of coalition operations. It is likely that we will participate in coalition operations in the future, and that we may be called upon to lead such coalitions."

General Peter Cosgrove AC, MC

Introduction

7.1 The multinational dimension to coalition operations poses significant challenges over and above those inherent in the conduct of unilateral military operations. At the strategic level, there is the need to reach agreement on the composition and force structure of the coalition, as well as on a shared end-state for operations, and to maintain the cohesion of the coalition. At the operational and tactical levels, there is the need to establish interoperability

between participants with differing levels of military capability and potentially operating under differing rules of engagement (ROE) and strategic targeting guidance.

Combined: An operation conducted by forces of two or more allies, acting together for the accomplishment of a single mission.

Coalition: An operation conducted by forces of two or more nations, which are not all allies, acting together for the accomplishment of a single mission.

Multinational: An adjective describing activities, operations and agencies, in which elements of more than one nation participate.

7.2 When operating in a coalition, the Australian Government retains national command of Australian forces. Strategic targeting guidance must be agreed by the Australian Government in any arrangement for operational or tactical control of Australian Defence Force (ADF) elements by another country. Visibility of coalition targeting planning is critical at the strategic level, and results of targeting operations involving ADF assets must be reported quickly and accurately to the strategic level to enable the Chief of the Defence Force (CDF) to inform Government, and to assist when necessary in consequence management.

Targeting in a coalition

7.3 Coalition targeting is ideally a seamless, distributed enterprise operating with shared doctrine, information systems and intelligence, and pooled lethal and non-lethal effect capabilities. This ideal is more achievable in a coalition composed of Allied nations than in a broader coalition of willing nations. In these circumstances significant issues may include a lack of agreed doctrine, disparate sensitivities to collateral damage and civilian casualties, and a lack of releasability of certain information to some participants.

7.4 Targeting information is prepared, analysed and disseminated on coalition information systems as far as possible. The appropriate classification level for the sharing of target-related intelligence material involves a trade-off. This trade-off encompasses the desire to involve as many coalition participants as possible in the targeting effort and the willingness of participant nations to trust coalition-supplied intelligence which has been suitably sanitised. The participation of some nations may also be diminished or precluded by the lack of releasability of such material to them.

7.5 The increased visibility of adverse targeting outcomes has the potential to severely affect coalition cohesion. Establishment of national representation in targeting advisory and decision-making at all levels of a coalition is therefore highly desirable.

7.6 The proposed prosecution of a target may be deemed by a coalition participant to be inconsistent with the aims of the coalition, their national interests, or their international legal obligations. Provision should therefore be made to allow nations to abstain from participating in the prosecution of such targets in the event that they are unable to sway the coalition consensus. A nation may choose to abstain from all activities that contribute to such prosecutions, including target development and combat assessment, in addition to execution. The CDF targeting directive (TD) provides the ADF with clear guidance on its legal obligations regarding such abstentions.

7.7 The ability to match coalition effects capabilities to intended targets relies on a thorough knowledge of the characteristics of each capability. Targeting staff must understand the full range of lethal and non-lethal means, and associated coalition capabilities to achieve these effects. Specific matching of lethal and non-lethal means to targets is necessary only after the targeting staff have decided on the effect to be achieved. The targeting staff must understand the characteristics of a weapon and its delivery mechanism in order to correctly assess the potential collateral damage and civilian casualties. The composition of targeting teams incorporated into appropriate coalition headquarters should be carefully considered to ensure the availability of participants familiar with, and to overcome limitations on releasability of these characteristics.

7.8 There is a need for national collection agencies to support targeting through the development of social models and psychological profiles of key government and military leaders. These in turn rely on data sets such as imagery and military geospatial information libraries, in depth country expertise and social studies, as well as databases relating to weapons characteristics, adversary installations and orders of battle. In addition to problems arising from the lack of releasability of information, the releasability of targeting application software and information gained through coalition members' respective national agencies may be an important constraint on the design of the targeting enterprise in coalitions which are broader than Australia's traditional coalition partners.

HISTORICAL EXAMPLE—AUSTRALIAN DEFENCE FORCE INFLUENCE ON COALITION TARGETING DURING THE WAR IN IRAQ, 2003

A significant task of the Australian National Commander in Operation FALCONER was to ensure that deployed maritime, air and special operations elements of the ADF, when under operational control of United States (US) commanders, were provided with guidance and protection allowing them to stay within Australian ROE while still remaining militarily effective. To this end the Australian National Headquarters included specialist targeting and legal officers to advise on operational targeting issues as well as provide advice on law of armed conflict (LOAC), ROE and the CDF TD.

Australian officers were embedded in the coalition targeting process, and were therefore able to discuss plans and tasking before final decisions were made, avoiding the 'red card' approach of refusals and vetoes. As working team members, their influence was extensive and this resulted not only in very harmonious relations, but also the extension of Australia's more conservative targeting approach into overall tactical, operational and strategic thinking.

A contributing approach is always more effective than a negative one. This helps produce effective targeting, by generating solutions which produce the desired effects and meet national requirements, provides a precedent for the future handling of these issues in coalition operations.

As US Force Commander General Tommy Franks said, *"the targeting approach of the total coalition was more conservative than it might have been largely because of the attitude the ADF took"*.

7.9 Management of intelligence, surveillance and reconnaissance (ISR) assets in support of coalition targeting reflects the priorities of the coalition commander. Whilst this is necessary to ensure optimal use of coalition ISR assets, it may disproportionately affect the ability of some participants to perform target development or combat assessment of targets or detection, identification and tracking of time sensitive targets. Participant nations may therefore choose to reserve some national assets for tasking by the national commander in support of coalition targeting, or to contribute them to the coalition providing they may be pre-emptively tasked by the national commander.

7.10 Recent operations have highlighted the importance of compatible targeting doctrine and processes to facilitate interoperability with coalition partners and allies, and have vindicated the trend towards adapting the

relevant doctrine of Australia's traditional coalition partners. Interoperability will remain an important requirement for the future development of Defence targeting capabilities.

7.11 Australia participates actively in international forums to ensure compatibility of targeting doctrine, training, processes, tools, products and data sets. Exercises and exchange postings are also essential in developing interoperability and mutual understanding between the targeting architectures of Australia's traditional coalition partners.

Responsibilities of coalition lead nation

7.12 The lead nation in coalition targeting should be responsible for the following:

- The provision of support data to participants in coalition targeting, including target lists, target system analysis and target materials. The lead nation will be responsible for ensuring that this material is handled by coalition participants in accordance with its classification and releasability. On occasion, where a coalition partner is able to contribute to the provision of these products, a collaborative effort will need to be established within the coalition.
- Provision of targeting tools to enable coalition partners to actively participate in the targeting processes. The lead nation will be responsible for ensuring that these tools are handled by coalition participants in accordance with their classification and releasability.
- Coordination of targeting processes to ensure that participants are aware of their responsibilities and adhere to the required timelines and product formats.
- Ensuring suitable coalition representation on any decision-making or advisory bodies concerned with coalition targeting.
- Embedding coalition participants in any national targeting processes or bodies provided by the lead nation in lieu of corresponding coalition constructs.

Responsibilities of contributing nations

7.13 Contributing nations in coalition targeting should:

- ensure that the lead nation is provided with and is cognisant of the contributing nation ROE and TD (or equivalent guidance);
- represent national interests and obligations in targeting decision-making for and abstaining from the prosecution of targets which are not consistent with these;
- validate targets to ensure that their prosecution is consistent with national interest and obligations; and
- respect classifications and releasability constraints on targeting information and tools provided by the lead nation.

HISTORICAL EXAMPLE—COMMAND ARRANGEMENTS DURING IRAQ WAR, 2003

During Operation FALCONER, the CDF, General Cosgrove, retained control of Australian forces at all times, while still working effectively within the coalition. To ensure effective overall strategic direction of our efforts in Iraq, he received briefings and advice on an almost daily basis from Defence's Strategic Command Group.

To operate successfully in coalition, the Australian forces in the Middle East Area of Operations needed to operate under the operational control of coalition component commanders. This arrangement allowed coalition commanders to assign specific tasks to ADF forces while they remained under their Australian commanding officers at unit level. Although ADF force elements worked toward the overall Coalition combat plan, there were processes in place to ensure that Australian forces were always employed in accordance with Australian Government policies. Royal Australian Air Force and Special Forces officers were placed in the Coalition Air Operations Centre to ensure that targets assigned to ADF units were appropriate and lawful. Australian Commanders had ADF legal officers to advise them on LOAC and ROE during the process of allocating targets. Australia received targets on the US-developed strike lists but assessed them according to Australia's own legal obligations. Several target categories were subject to Australian ministerial approval before they could be engaged. Australian pilots could, and on occasion did, abort missions to avoid the risk of unintended casualties if their target could not be clearly identified from the air. These arrangements, complemented by the training and professionalism of our personnel, worked very smoothly.

GLOSSARY

Unless stated otherwise, approved terms and definitions from the Australian Defence Glossary (ADG) are used within this publication. Externally sourced terms and definitions, herewith approved for ADF use, have the source designated in brackets following the definition, using the following legend:

NATO *Allied Administrative Publication–6, NATO Glossary of Terms and Definitions, 2003 (AAP–6)*

US *US Joint Publication 1–02, DOD Dictionary of Military and Associated Terms*

additional damage

Unintentional or incidental injury or damage affecting enemy combatants, military objects and military objectives that would be lawful military targets in the circumstances ruling at the time. (Proposed new definition)

area of operations

1. An operational area defined by a joint commander for land or maritime forces to conduct military activities. Normally, an area of operations does not encompass the entire joint operations area of the joint commander, but is sufficient in size for the joint force component commander to accomplish assigned missions and protect forces. (NATO)

2. An operational area defined by the joint force commander for land and naval forces. Areas of operation do not typically encompass the entire operational area of the joint force commander, but should be large enough for component commanders to accomplish their missions and protect their forces. (US)

battle damage assessment

The timely and accurate estimate of damage resulting from the application of military force, either lethal or non-lethal, against a predetermined objective. Battle damage assessment can be applied to the employment of all types of weapon systems (air, ground, naval, and special forces weapon systems) throughout the range of military operations. Battle damage assessment is primarily an intelligence responsibility with required inputs and coordination from the operators. Battle damage assessment is composed of physical damage assessment, functional damage assessment, and target system assessment.

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casualty

1. In relation to personnel, any person who is lost to his organisation by reason of having been declared dead, wounded, diseased, detained, captured or missing. (NATO)
2. Any person who is lost to the organisation by having been declared dead, duty status—whereabouts unknown, missing, ill, or injured. (US)

centre of gravity

Characteristics, capabilities or localities from which a nation, an alliance, a military force or other grouping derives its freedom of action, physical strength or will to fight.

civilian objects

All objects which are not military objectives.

combatants

Combatants comprise all organised armed forces, groups and units (except medical service and religious personnel) who are under the command of a party to a conflict and are subject to an internal disciplinary system.

collateral damage estimation

The process by which Commanders' and their staff estimate the physical damage and collateral effects on non-combatant persons, property and environment(s) occurring incidental to military operations given the application of available methods to mitigate collateral damage(s) and consideration of required military objectives. (Proposed new definition)

collateral damage

Unintentional or incidental injury or damage to persons or objects that would not be lawful military targets in the circumstances ruling at the time. Such damage is not unlawful so long as it is not excessive in light of the overall military advantage anticipated from the attack.

collection

The exploitation of source by collection agencies and the delivery of the information obtained to appropriate processing unit for use in the production of intelligence. (NATO)

combat assessment

The determination of the overall effectiveness of force employment during military operations. Combat assessment is composed of three major components:

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- a. battle damage assessment,
- b. munitions effectiveness assessment, and
- c. re-attack recommendation.

course of action

A possible plan open to an individual or commander that would accomplish, or is related to accomplishment of, the mission. Note: it is initially stated in broad terms with the details determined during staff war-gaming.

damage assessment

The determination of the effect of attacks on targets.

decisive points

Are those events, the successful outcome of which is a precondition to the elimination of the enemy's centre of gravity.

desired mean point of impact

A precise point, associated with a target, and assigned as the centre for impact of multiple weapons or area munitions to achieve the intended objective and level of destruction. May be defined descriptively, by grid reference, or by geo-location.

dual use targets

Are targets characterised as having both a military and civilian purpose or function. In most cases, dual use targets consist of facilities/structures associated with senior government level command and control, national communications infrastructure, media centres, national power and petroleum oil and lubricants infrastructure, industrial facilities, and public utilities providing support to both the non-combatant civilian population and the combatant military. Dual use targets may also consist of LOAC protected facilities/structures occupied by combatants. (Proposed new definition)

dynamic targeting

Targeting that prosecutes targets identified too late, or not selected for action in time to be included in deliberate targeting. (US)

effect

1. The physical or behavioural state of a system that results from an action, a set of actions, or another effect.
2. The result, outcome, or consequence of an action.
3. A change to a condition, behaviour, or degree of freedom (US Joint Publication 1-02)

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effective damage

That damage necessary to render a target element inoperative, unserviceable, non-productive, or uninhabitable.

end state

The political and/or military situation to be attained at the end of an operation, which indicates that the objective has been achieved.

fires

The effects of lethal or non-lethal weapons.

functional damage assessment

The estimate of the effect of military force to degrade or destroy the functional or operational capability of the target to perform its intended mission and on the level of success in achieving operational objectives established against the target. This assessment is based upon all-source information, and includes an estimation of the time required for recuperation or replacement of the target function.

high pay-off target

A target whose loss to the enemy will significantly contribute to the success of the friendly course of action. High-payoff targets are those high-value targets that must be acquired and successfully attacked for the success of the friendly commander's mission.

high pay-off target list

A prioritised list of high pay-off targets by phase of a joint operation. (US)

high value target

A target the enemy commander requires for the successful completion of the mission. The loss of high-value targets would be expected to seriously degrade important enemy functions throughout the friendly commander's area of interest.

indicators

In intelligence usage, an item of information which reflects the intention or capability of a potential enemy to adopt or reject a course of action. (US)

information operations

1. The coordination of information effects to influence the decision making and actions of a target audience and to protect and enhance our own decision making and actions in support of National interests.
2. The integrated employment of the core capabilities of electronic

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warfare, computer network operations, psychological operations, military deception, and operations security, in concert with specified supporting and related capabilities, to influence, disrupt, corrupt or usurp adversarial human and automated decision making while protecting our own. (US)

joint desired point of impact

A unique, alpha-numeric coded aimpoint identified by a three dimensional (latitude, longitude, elevation) mensurated point. It represents a weapon or capabilities desired point of impact or penetration and is used as the standard for identifying aimpoints. (US)

joint fires

Fires produced during the employment of forces from two or more components in coordinated action to produce desired effects in support of a common objective. (US)

joint integrated prioritised target list

A prioritised list of targets approved and maintained by the joint force commander. Targets and priorities are derived from the recommendations of components and other appropriate agencies, in conjunction with their proposed operations supporting the joint force commander's objectives and guidance. (US)

joint prioritised target list

A prioritised list of targets, in order of importance to the successful completion of the mission, developed to support a course of action identified during the joint military appreciation process. This prioritised list is derived from the joint target list.

joint targeting coordination board

A group formed by the joint force commander to accomplish broad targeting oversight functions that may include but are not limited to coordinating targeting information, providing targeting guidance and priorities, and refining the joint integrated prioritised target list. The board is normally comprised of representatives from the joint force staff, all components, and if required, component subordinate units.

joint targeting steering group

A group formed by a combatant commander to assist in developing targeting guidance and reconciling competing requests for assets from multiple joint task forces.

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joint target list

1. The consolidated list of targets so designated because they meet the commander's objectives. Note: it forms part of the master target list.
2. A consolidated list of selected targets, upon which there are no restrictions placed, considered to have military significance in the joint force commander's operational area (US)

joint task force

1. A force composed of assigned or attached elements of two or more Services established for the purpose of carrying out a specific task or mission.
2. A joint force that is constituted and so designated by the Secretary of Defense, a combatant commander, a sub-unified commander, or an existing joint task force commander. (US)

lines of operation

Describe how military force is applied in time and space through decisive points on the path to the enemy's centre of gravity.

lethal

The method of attack which is intended to cause physical damage to personnel, material, or capabilities.

master target list

The encompassed listings of targets designated for a campaign or operation, and comprises the joint target list, restricted target list and no-strike list.

measures of effectiveness

1. Tools used to measure results achieved in the overall mission and execution of assigned tasks. Measures of effectiveness are a prerequisite to the performance of combat assessment.
2. A criterion used to assess changes in system behaviour, capability, or operational environment that is tied to measuring the attainment of an end state, achievement of an objective, or creation of an effect. (US)

measures of performance

A criterion used to assess friendly actions that is tied to measuring task accomplishment. (US)

mensuration

The process of measurement of a feature or location on the earth to determine an absolute latitude, longitude, and elevation. For targeting

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applications, the errors inherent in both the source for measurement as well as the measurement processes must be understood and reported. (US)

military objectives

Legitimate objects of attack and comprise:

- a. all combatants who have a capacity and are willing to fight;
- b. establishments, buildings and locations at which the armed forces or their materiel are located; and
- c. other objects which, by their nature, location, purpose or use make an effective contribution to military action and whose total or partial destruction, capture or neutralisation, in the circumstances ruling at the time, offers a definite military advantage. The presence of non-combatants in or around a military objective does not change its nature as a military objective. Non-combatants in the vicinity of a military objective must share the danger to which the military objective is exposed.

mission

1. A clear, concise statement of the task of the command and its purpose. (NATO)
2. The task, together with the purpose, that clearly indicates the action to be taken and the reason therefore. (US)

munitions effectiveness assessment

Conducted concurrently and interactively with battle damage assessment, the assessment of the military force applied in terms of the weapon system and munitions effectiveness to determine and recommend any required changes to the methodology, tactics, weapon system, munitions, fusing, and/or weapon delivery parameters to increase force effectiveness. Munitions effectiveness assessment is primarily the responsibility of operations with required inputs and coordination from the intelligence community.

non-combatant

An individual, in an area of combat operations, who is not armed and is not participating in any activity in support of any of the factions or forces involved in combat.

non-lethal weapons

Weapons designed and developed to incapacitate or fight off personnel, with a low probability of fatal outcomes or permanent injuries, or to disable materiel, with a minimum of collateral damage or consequences on the environment.

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no strike list

A list of objects or entities characterised as protected from the effects of military operations under international law and/or rules of engagement. Attacking these may violate the law of armed conflict or interfere with friendly relations with indigenous personnel or governments. (US)

objective

A clearly defined and attainable goal for a military operation, for example seizing a terrain feature, neutralising 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.

on-call target

Planned target upon which fires or other actions are determined using deliberate targeting and triggered, when detected or located, using dynamic targeting. See also planned target; dynamic targeting. (US)

operation

1. A designated military activity using lethal and/or non-lethal ways and means to achieve directed outcomes in accordance with national legal obligations and constraints.

2. A military action or the carrying out of a strategic, tactical, service, training, or administrative military mission; the process of carrying on combat, including movement, supply, attack, defence and manoeuvres needed to gain the objectives of any battle or campaign. Related term: airborne 1. (NATO)

2. A military action or the carrying out of a strategic, operational, tactical, service, training, or administrative military mission. (US)

physical damage assessment

The estimate of the quantitative extent of physical damage (through munition blast, fragmentation, and/or fire damage effects) to a target resulting from the application of military force. This assessment is based upon observed or interpreted damage. (Amended ADG definition)

planned target

Target that is known to exist in the operational environment, upon which actions are planned using deliberate targeting, creating effects which support commander's objectives. There are two types of planned targets: scheduled and on-call. (US)

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precision-guided munition

A weapon that uses a seeker to detect electromagnetic energy reflected from a target or reference point and, through processing, provides guidance commands to a control system that guides the weapon to the target. (US)

prohibited target

Prohibited targets are protected against attack by relevant international law and various other protocols and treaties. They are listed in the no strike target list. As such, they will remain prohibited until they lose that protection and, consequently, become subject to lawful attack. (NATO)

re-attack recommendations

An assessment, derived from the results of battle damage assessment and munitions effectiveness assessment, providing the commander systematic advice on re-attack of targets and further target selection to achieve objectives. The re-attack recommendation considers objective achievement, target, and aimpoint selection, attack timing, tactics, and weapon system and munitions selection. The re-attack recommendation is a combined operations and intelligence function. (US)

restricted target

A valid target that has specific restrictions placed on the actions authorized against it due to operational considerations. (US)

restricted target list

A list of restricted targets nominated by elements of the joint force and approved by the joint force commander. This list also includes restricted targets directed by higher authorities.

rules of engagement

Directives that set out the circumstances and limitations within which commanders may apply military force to achieve military objectives in support of Government policy, and guide the application of force, but in doing so they neither inhibit nor replace the command function.

scheduled target

Planned target upon which fires or other actions are scheduled for prosecution at a specified time. See also planned target, deliberate targeting. (US)

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sensitive target

Targets where the commander has estimated the physical damage and collateral effects on civilian and/or non-combatant persons, property and environments occurring incidental to military operations exceed established national level notification thresholds.(Proposed new definition)

target

1. An object of a particular action, for example a geographic area, a complex, an installation, a force, equipment, an individual, a group or a system, planned for capture, exploitation, neutralisation or destruction by military forces. (NATO)
2. An area, complex, installation, force, equipment, capability, function or behaviour identified for possible action to support the commander's objectives, guidance and intent. Targets fall into two general categories: planned and immediate. (US)

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.

target complex

A geographically integrated series of target concentrations.

target development

The systematic examination of potential target systems—and their components, individual targets, and even elements of targets—to determine the necessary type and duration of the action that must be exerted on each target to create an effect that is consistent with the commander's specific objectives. (US)

targeting directive

The principal strategic level directive for the conduct of Australian Defence Force targeting activities in support of operations. It in parallel with rules of engagement informs all subordinate targeting guidance and should allow maximum operational flexibility and autonomy consistent with national policy. (Proposed new definition)

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target folder

A folder, hardcopy or electronic, containing target intelligence and related materials prepared for planning and executing action against a specific target.

target intelligence

Intelligence which portrays and locates the components of a target or target complex and indicates its vulnerability and relative importance.

targeting

Targeting is the process of selecting and prioritising targets and matching the appropriate response to them taking account of operational requirements and capabilities.

target materials

Graphic, textual, tabular, digital, video, or other presentations of target intelligence, primarily designed to support operations against designated targets by one or more weapon systems. Target materials are suitable for training, planning, executing, and evaluating military operations.

target nomination list

A list of targets nominated by component commanders, national agencies, or the joint force commander staff for potential inclusion on the joint integrated prioritised target list to support joint force commander objectives and priorities.

target of opportunity

1. A target which appears during combat and which can be reached by ground fire, naval fire, or aircraft fire, and against which fire has not been scheduled. (NATO)
2. A target visible to a surface or air sensor or observer, which is within range of available weapons and against which fire has not been scheduled or requested. (US)

target system

1. All the targets situated in a particular geographic area and functionally related.
2. A group of targets that are so related that their destruction will produce some particular effect desired by the attacker. (US)

target system analysis

An all-source examination of potential target systems to determine relevance to stated objectives, military importance, and priority of

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attack. It is an open-ended analytic process produced through the intelligence production process using national and theatre validated requirements as a foundation. (US)

target system assessment

The broad assessment of the overall impact and effectiveness of the full spectrum of military force applied against the operation of an enemy target system or total combat effectiveness (including significant subdivisions of the system) relative to the operational objectives established.

target system component

A set of targets belonging to one or more groups of industries and basic utilities required to produce component parts of an end product, or one type of a series of interrelated commodities. (US)

time sensitive target

A joint force commander designated target requiring immediate response because it is a highly lucrative, fleeting target of opportunity or it poses (or will soon pose) a danger to friendly forces. (US)

unanticipated target

A target of opportunity that was unknown or not expected to exist in the operational environment. (US)

unplanned target

A target of opportunity that is known to exist in the operational environment. (US)

validation

1. A process associated with the collection and production of intelligence that confirms that an intelligence collection or production requirement is sufficiently important to justify the dedication of intelligence resources, does not duplicate an existing requirement, and has not been previously satisfied.
2. In computer modelling and simulation, the process of determining the degree to which a model or simulation is an accurate representation of the real world from the perspective of the intended uses of the model or simulation. Related terms: independent review; verification 2.
3. Execution procedure used by combatant command components, supporting combatant commanders, and providing organisations to confirm to the supported commander and US Transportation Command that all the information records in a time-phased force and deployment data not only are error free for automation purposes, but

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also accurately reflect the current status, attributes, and availability of units and requirements. Unit readiness, movement dates, passengers, and cargo details should be confirmed with the unit before validation occurs.

weaponeering

The process of determining the quantity of a specific type of lethal or non-lethal weapons required to achieve a specific level of damage to a given target, considering target vulnerability, weapons effect, munitions delivery accuracy, damage criteria, probability of kill, and weapon reliability.

weapons effective assessment

Conducted concurrently and interactively with battle damage assessment, the assessment of the military force applied in terms of the weapon system and weapons effectiveness to determine and recommend changes to the methodology, tactics, weapon system, weapons, and/or weapon delivery parameters to increase force effectiveness.

ACRONYMS AND ABBREVIATIONS

Unless stated otherwise, approved ADF terms and definitions are used within this publication.

Additional Protocol 1	Additional Protocol I to the Geneva Convention of 1949
ADDP	Australian Defence Doctrine Publication
ADF	Australian Defence Force
ADFP	Australian Defence Force Publication
A-G	Attorney General's Department
APL	anti-personnel landmines
BDA	battle damage assessment
C2	command and control
CA	combat assessment
CDE	collateral damage estimation
CDF	Chief of the Defence Force
CIA	Central Intelligence Agency
CJOPS	Chief of Joint Operations
COA	course of action
Comd JTF	Commander Joint Task Force
DEPSEC IS&IP	Deputy Secretary Intelligence, Security and International Policy
DEPSEC SCG	Deputy Secretary Strategy, Coordination and Governance
DFAT	Department of Foreign Affairs and Trade
DP	decisive points
DSTC	Defence Strategic Targeting Committee
DSTP	Defence Strategic Targeting Policy
F2T2EA	find, fix, track, target, engage and assess
FDSP	Federal Directorate for Supply and Procurement
FSCM	fire support coordination measures
HQJOC	Headquarters Joint Operations Command
ID	identification
IO	information operations
ISR	intelligence, surveillance and reconnaissance
JIPB	joint intelligence preparation of the battlespace
JIPTL	joint integrated prioritised target list

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JMAP	joint military appreciation process
JMEM	Joint Munitions Effectiveness Manual
JPTL	joint prioritised target list
JTCB	joint targeting coordination board
JTF	joint task force
JTL	joint target list
JTSG	joint targeting steering group
LOAC	Laws of Armed Conflict
LTA	legal target appreciation
MOE	measures of effectiveness
MOP	measures of performance
MTL	master target list
NATO	North Atlantic Treaty Organisation
NSL	no-strike list
OGA	other government agencies
PGM	precision guided munitions
PM&C	Prime Minister and Cabinet
RAAF	Royal Australian Air Force
RCA	riot control agents
ROE	rules of engagement
TD	targeting directive
TM	target materials
TSA	target systems analysis
TST	time sensitive targets
US	United States of America
VCDF	Vice Chief of the Defence Force
WEA	weapons effectiveness assessment