ADDP 3.2

OPERATIONS SERIES

ADDP 3.2

AMPHIBIOUS OPERATIONS

Australian Defence Doctrine Publication (ADDP) 3.2—Amphibious Operations, edition 2, is issued for use by the Australian Defence Force (ADF) and is effective forthwith. This publication supersedes ADDP 3.2, edition 1, dated 2003.

A.G. HOUSTON, AO, AFC
Air Chief Marshal
Chief of the Defence Force

Department of Defence
Canberra ACT 2600

29 January 2009

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FOREWORD

1. ADDP and ADF 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 other ADF publications 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 3.2—Amphibious Operations, provides broad guidance for commanders and staff at all levels of the ADF, on the nature and scope of amphibious warfare within the ADF.

3. ADDP 3.2 consists of five chapters, which provide an overview of ADF amphibious warfare.
   • Chapter 1—provides an introduction and outlines the ADF amphibious concepts and roles.
   • Chapter 2—covers the command, control and communications aspects of amphibious operations.
   • Chapter 3—describes the four types of amphibious operations and provides a description of how amphibious forces are used in military support operations.
   • Chapter 4—defines the seven standard phases of an amphibious operation.
   • Chapter 5—provides a description of the amphibious planning process.

4. This publication is produced as the lead of a series of ADDP and ADFP with the theme of Amphibious Operations. Other publications include ADFP 3.2.1—Amphibious Operations Procedures (draft) and ADFP 3.2.3—Littoral Environmental Assessment Procedures (to be issued) which cover the joint procedural level doctrine concerned with ADF amphibious warfare.

5. ADDP 3.2—Amphibious Operations, edition 2 partially supersedes ADDP 3.2—Amphibious Operations, edition 1, 2003 which should be retained as reference material until ADFP 3.2.1—Amphibious Operations Procedures, is issued in 2009.
Northern Atlantic Treaty Organisation/Coalition Amphibious Doctrine

6. Northern Atlantic Treaty Organisation (NATO) ATP–8(B) Volume I—
Doctrine for Amphibious Operations, and NATO ATP–8(B) Volume II—
Tactics Techniques and Procedures for Amphibious Operations, are the
current References for the conduct of Amphibious Operations with NATO or
Coalition forces.
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Proposals for amendment of ADDP 3.2 may be initiated in either of the following ways:

- By Minute to:
  
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  Australian Defence Force Warfare Centre  
  RAAF Base  
  WILLIAMTOWN NSW 2314

- By directly entering comment into the Joint Doctrine Development Environment (JDDE) found on the ADFWC Defence Restricted Network (DRN) website (see [http://intranet.defence.gov.au/VCDFweb/sites/adfwc/](http://intranet.defence.gov.au/VCDFweb/sites/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 button 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.

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CHAPTER 1
AMPHIBIOUS CONCEPTS

Executive summary
This chapter introduces Australia’s amphibious concept, details definitions and roles, and introduces the types of amphibious operations.

- Amphibious forces can provide government with a cost-effective option for shaping and influencing the geo-political environment.
- The amphibious task force (ATF) is a joint force, therefore, amphibious operations, training and rehearsals must be jointly planned and coordinated.
- Amphibious operations include demonstration, raid, assault and withdrawal. Amphibious forces also offer considerable advantages in conducting military support operations (MSO) where short notice responses and political sensitivities commonly restrict the employment of other land-based capabilities.
- Amphibious operations constitute a manoeuvrist approach to warfighting.
- In order to achieve success, an amphibious task force should have at least local sea control over adversary surface and sub-surface forces, local air superiority, and a significant advantage of combat power over the enemy forces in the immediate amphibious objective area (AOA) for the duration of the landing operation.

… a pillar of the Australian Defence Force’s maritime doctrine is on the ability to project and sustain land power over strategic distances, into underdeveloped operational environments. Sea power, and specifically amphibious capability, is crucial to that end.

General Peter Cosgrove, AC MC
18 November 2002

Introduction

1.1 Australia’s regional security interests require the Australian Defence Force (ADF) to have the ability to respond comprehensively to political or military contingencies in our region, which can arise with little or no warning. An amphibious capability provides government with a range of political response options to apply military force, and project national power. The capabilities of a balanced and rapidly deployable amphibious joint task force
are consistent with recent, contemporary and likely future ADF strategic and operational tasks. An amphibious capability provides options to carry out an assortment of tasks across the range of military operations, extends the reach of the ADF, provides an expeditionary capability, allows for the deployment of larger, more mobile and heavily equipped land forces, and affords an additional capability to provide humanitarian assistance and disaster relief (HADR) when required. Given Australia’s geo-strategic environment it will be rare that the ADF amphibious capability will not be critical to achieving a successful operational outcome.

The recent high demand on Defence is likely to continue. Accordingly, our force must continue to develop and retain the ability to provide response options across the range of potential domestic, regional and global strategic scenarios. It must be versatile, robust, joint and integrated.

Australian’s National Security—A Defence Update 2005

1.2 An amphibious task force has significant inherent advantages. An ATF can sail early with orchestrated publicity and demonstrate intent. Alternatively, an ATF can deploy covertly if political understatement and diplomatic sensitivity dictates. The ATF can take passage through international waters without infringement of territorial borders. Furthermore, the ATF can poise at sea, raid or land on a potentially hostile coast at a time and place of military choice entirely independent of shore infrastructure. Like all naval forces, while poised the ATF offers presence without occupation, and deterrence without commitment. The range of options the ATF provides strategic planners creates uncertainty in the adversaries’ mind and can subsequently lead to the incorrect positioning of adversary forces. Amphibious operations may be supported by, or conducted in conjunction with Special Forces and airborne operations, which can further exacerbate the adversaries’ uncertainty.

Definitions

1.3 The following key definitions are utilised in amphibious operations.

- **Amphibious operations.** A military operation launched from the sea by a naval and landing force embarked in ships, landing craft or rotary wing aircraft, with the principal purpose of projecting the landing force ashore tactically into an environment ranging from permissive to hostile.

- **Amphibious task force.** A task organisation of naval forces and a landing force with their organic aviation and other supporting forces, formed for the purpose of conducting an amphibious operation.
• **Landing force.** The task organisation of ground and aviation units assigned to an amphibious assault operation.

• **Littoral.** Those regions relating to or existing on a shore or coastal region, within direct control of, and vulnerable to, the striking power of maritime expeditionary forces.

• **Amphibious objective area.** A geographical area, delineated in the operation order, for purposes of command and control within which is located the objective to be secured by the amphibious task force. This area must be of sufficient size to ensure accomplishment of the amphibious task force’s mission and must provide sufficient area for conducting necessary sea, air and land operations.

1.4 The following publications are relevant references for amphibious operations:

• ADF Publication (ADFP) 3.2.1—*Amphibious Operations Procedures*.

• ADFP 3.2.2—*Littoral Environment Assessment Procedures* (under development).

• ADFP 2.3.1—*Rapid Environment Assessment*.

• North Atlantic Treaty Organisation Allied Tactical Publication–8 (B)—*Doctrine for Amphibious Operations*.

**Types of amphibious operations**

1.5 There are four recognised types of amphibious operations:

• **Amphibious demonstration.** An amphibious operation conducted for the purpose of deceiving the enemy by a show of force with the expectation of deluding the adversary into an unfavourable course of action.

• **Amphibious raid.** An amphibious operation involving the swift incursion into or temporary occupation of, an objective area followed by a planned withdrawal.

• **Amphibious assault.** The principal type of amphibious operation, which involves establishing a force on a hostile or potentially hostile shore.

• **Amphibious withdrawal.** An amphibious operation involving the extraction of forces by sea in naval ships or craft from a hostile or potentially hostile shore.
Military support operations

1.6 In recent times the ADF has deployed and conducted MSO in Africa, the Middle East and our immediate geographic region including South East Asia and the South Pacific. In these diverse locations, the ADF has undertaken tasks from famine and disaster relief to peacekeeping and peace enforcement operations and HADR. Strategic guidance and Australia’s Amphibious Concept, indicates MSO will be an ongoing requirement, which has significant implications for the future ADF amphibious capability.

1.7 Amphibious forces have a significantly enhanced ability to conduct MSO. Amphibious operations obviate the requirement to establish facilities ashore prior to conducting activities such as humanitarian assistance, disaster relief or evacuation operations. Improvements in ship-to-objective mobility enable direct military assistance to be provided to remote areas. Unarmed landing parties can create a less threatening appearance, while powerful and immediate means of protection are available from weapon systems within the amphibious force. ADF MSO undertaken by maritime forces will be planned and conducted as amphibious operations.

1.8 MSO include:

- peace operations,
- evacuation operations,
- humanitarian operations, and
- disaster relief operations.
Chapter 1

1.9 Chapter 3 of this publication provides further detail on the types of MSO operations and the planning considerations for the amphibious contribution to them. Further details on amphibious operations in support of MSO can also be found in Australian Defence Doctrine Publication (ADDP) 3.10—Evacuation Operations.

Amphibious capability is rapidly becoming the capability of first resort.

General Peter Cosgrove, AC MC
18 November 2002

Sealift

1.10 Combat support operations, which involve sea movement, such as administrative disembarkation on friendly territory, water terminal and logistics over-the-shore operations, possess certain characteristics and employ some of the techniques of an amphibious operation. However, by definition these are not amphibious operations as they are administrative in nature. They are classed as sealift operations and are covered separately in ADDP 4.4—Movement and Transport.

Roles of the amphibious task force

1.11 The roles of the ATF include the following:

• combat operations either as an independent force or in support of other components of a joint force;

• seizure of theatre entry facilities (eg ports or airports) to allow the introduction of follow on forces;

• denial of the use of an area or facilities to an adversary; and

• participation in MSO to promote peace, provide HADR and support government authorities in response to a crises.

Amphibious resource requirements

1.12 The ADF ability to conduct amphibious operations is determined by the availability of suitable maritime assets, required for each phase of an amphibious operation. Amphibious ships will normally land troops by landing craft or helicopter. ADFP 3.2.1—Amphibious Operations Procedures, details the carrying capacity of current ADF maritime assets that would be used in amphibious operations.

1.13 Amphibious shaping operations establish preconditions for a range of activities within the AOA, including invasive manoeuvre, protection of the landing force (LF) and/or the isolation of the adversary. These supporting
operations focus on attacking the adversary’s cohesion and limiting their potential. Amphibious shaping operations seize the initiative, gain battlespace dominance in the littoral and create a fundamental dilemma for the adversary commander as to the likely place and time of any landing. Demonstrations and raids may be used as components of supporting or shaping operations prior to the main assault.

1.14 A range of forces from all three services may be used to conduct or support advance force operations during the shaping phase of an amphibious operation. Additionally, warships with organic helicopters and supporting surveillance, strike and air defence aircraft will be required to escort amphibious shipping and provide fire support to the landing operation.

1.15 The ADF will normally utilise chartered merchant shipping, or rely on coalition partners to provide additional sea transport and support LF assets during extended operations. However, even under emergency regulations, only a very small number of Australian ships with a self-discharge capability are free to be diverted from essential merchant shipping tasks. Merchant shipping suitable for ADF use must be obtained via normal commercial charter and will need to meet one of the five following employment categories: military sea lift, freighting tankers, armament and victualling stores ships, and support ships for inshore forces. Details on suitable types of merchant shipping are contained in ADDP 4.4.

1.16 Vessels, such as landing craft heavy (LCH), are required to land armour and heavy vehicles. They are also able to land a large number of combat troops concurrently. However, they are slow and particularly vulnerable during the sea passage phase, nor do they have the sea-keeping ability or endurance to make lengthy ocean passages, therefore, that are not deemed as strategic amphibious assets. Smaller landing craft medium, amphibious assault vehicles and amphibians are valuable assets and may be embarked as deck cargo in amphibious or sea transport ships to reduce passage time.
1.17 The concept for operations (CONOPS) for ADF amphibious forces is derived from the Defence White Paper (2000), the Defence Security Updates (2003, 2005 and 2007), and Defence strategic guidance such as the Australian Military Strategy (AMS). This concept has been further expanded upon in Australia’s Amphibious Concept (AAC–2008), which describes the ADF Amphibious Deployment and Sustainment (ADAS) system model.

1.18 The maritime environment provides commanders with significant scope to conduct manoeuvre warfare from the sea across littoral regions, through the conduct of amphibious operations. The boundary between sea and land is no longer a barrier as in the past, but rather an area in which an amphibious operation can be mounted by assaulting from the sea using uninterrupted manoeuvre towards the objective. The operation may later require establishment of a sea point of disembarkation to enable sustainment, reinforcement, or relief in place of the Landing force.

1.19 The manoeuvrist approach to warfare, utilising amphibious operations, seeks to shatter the adversary’s cohesion through a series of actions orchestrated to a single purpose that creates a turbulent and rapidly deteriorating situation with which the adversary cannot cope. The manoeuvrist approach focuses commanders at every level on exploiting an adversary’s weakness, avoiding adversary strength and protecting friendly vulnerabilities. This approach favours movement, flexibility and an indirect method to the conduct of operations rather than the more costly and static, attrition-based approach.
1.20 Due to contemporary defensive capabilities, the Second World War amphibious tactic of storming ashore on heavily defended beaches is unlikely to succeed without taking excessive combat casualties. Amphibious operations should focus where adversary defences are weakest. They should be conducted at a time and place that will enable the maximum build-up and application of land combat power before the enemy has time to react.

1.21 An amphibious operation is unlikely to occur in isolation. Comprehensive shaping of the intended theatre is achieved through the application of pre-assault forces to reduce the risk to own troops and enable them to move quickly from landing areas to objectives.

Australian Defence Force amphibious operational concepts

1.22 The Australian approach to amphibious operational concepts is underpinned by the tenets of;

- ship-to-objective manoeuvre (STOM);
- distributed operations; and
- sea basing.

1.23 Ship-to-objective manoeuvre. STOM emphasises focus on the projection of force by both surface and air means directly to the objective from the sea, to dislocate the adversary in time and space. STOM balances high impact with a smaller footprint and offers freedom of manoeuvre to achieve surprise and maintain tempo. The commander is provided with agility in timing and force application to sustain a range of concurrent tasks and avoid an implied loss of tempo and initiative when establishing a traditional beachhead. The ADAS STOM concept is for the insertion of two company groups by air in two waves and concurrent insertion of another two company groups by surface means in multiple waves. Embarked aviation offers quick, flexible insertion and extraction of combat forces with air deployable fire support, vehicles and logistics. Landing craft provide the capability to insert and extract the heavy elements of the landing force.

1.24 Distributed operations. Distributed operations refer to discrete tactical activities in separate locations, which may be dispersed throughout the AOA. Distributed operations exploit the potential of air and surface assets to manoeuvre directly to objectives providing the potential for simultaneous synchronised operations providing the scope for tactical commanders to take the initiative. The commander can achieve surprise and discrimination by launching initial assault waves by air from over-the-horizon with follow on waves launched from closer inshore once initial objectives have been secured and it is safe for amphibious platforms to close the coast. Risks associated with distributed operations include increased demand on command and control (C2) networks, fire support availability, tactical mobility and sustainment.
1.25 **Sea basing.** Sea basing affords highly flexible and responsive support by virtue of protection from land threats afforded by basing force projection, C2 and logistics assets at sea, and is therefore inextricably linked to both STOM and distributed operations. Sea basing is also intended to reduce the operational pause associated with the build-up of combat power ashore prior to the break out to secure objectives. Sea basing may not fully negate the requirement to deploy land based logistic support ashore however, it facilitates the establishment of the forces in the AOA with minimal initial requirement for build up of land bases. The size and resource base of the ADF ships limit the scale of sea basing and this will affect the tempo and duration of amphibious operations. Sea basing requires conceptual and doctrinal development along with significant capability investment in force projection and logistic support assets, as longer term force sustainment is beyond the organic capability of specialist amphibious shipping.

*The force that confronts the enemy is the normal; that which seeks his flanks and rear the extraordinary. In battle use the normal force to engage and the extraordinary to win.*

**Sun Tzu (BC 544–496)**

**The Art of War**

**Relative strength requirements**

1.26 In order to achieve success, an amphibious task force should have as a minimum, local sea control over adversary surface and subsurface forces, local air superiority, and a significant advantage of combat power over the enemy forces in the amphibious objective area AOA for the duration of the operation. However, where there are compelling operational imperatives, an amphibious operation may be undertaken based on an overall superiority of force in the AOA. An ATF may not possess numerical superiority in landing forces against an adversary, but may still be able to conduct an assault successfully by using surface and air superiority to assist in shaping and neutralising enemy land forces.

1.27 In addition to maximising local superiority of forces within the AOA, an ATF should have reasonable assurance of freedom from effective interference by enemy surface, subsurface, air or ground forces from outside the AOA.
Amphibious Task Force

1.28 The ATF represents the combination of respective Service FE and their operational concepts. The amphibious CONOPS draws on the current philosophies of naval task groups, the Army’s combined arms teams, whole-of-government and Joint inter-agency task forces as its framework. Navy’s composite warfare commander construct utilises centralised command and decentralised control, where differing but complementary warfare sub-specialisations contribute to the overall operational effectiveness of a naval task group. Army’s combined arms initiative requires flexible, task-specific, mission agile combat groups that can be rapidly reorganised and re-tasked as a situation develops. The ATF emerges from the combination of these organisational structures.

1.29 The ATF must be flexible and adaptive enough to conduct differing mission types either sequentially or simultaneously. ATF combat strength is derived from the combination of the naval amphibious task group with the mission-specific combined arms team embarked. The ATF is also a scalable organisation incorporating naval, land, air and supporting components. These components must be sufficiently networked to ensure a high degree of situational awareness combined with mission appropriate C2 arrangements.
1.30 **Capability components.** The ATF is based around the deployment and sustainment requirements of the amphibious ready element (ARE), the amphibious ready group (ARG) or an intermediate contingent force.

- **Amphibious ready element.** The ARE provides an immediate short notice amphibious capability. The ARE is capable of conducting humanitarian assistance or non-combatant evacuation operations at short notice. The ARE is based on one major fleet amphibious unit with a LF of approximately a ready combat team (RCT) with associated headquarters element.

- **Amphibious ready element plus.** The ARE plus is based on two major fleet amphibious units (2 x landing platform amphibious (LPA) or LPA + landing ship heavy (LSH)) dependant on hull availability and a LF of approximately a RCT or ready battalion group minus.

- **Amphibious ready group.** The ARG is based on three major fleet amphibious units (2 x LPA + LSH) and a LF of approximately a RBG capable of an amphibious landing and assault. A RBG may be comprised of infantry, armour (including tanks), artillery, engineers, reconnaissance and mobility helicopters and other vehicles selected for the required combat mission.

**Figure 1–4: Amphibious capability components**
HISTORICAL EXAMPLE—BEFORE GALLIPOLI
AUSTRALIAN OPERATIONS IN 1914

The undeniably heroic actions of the Australian and New Zealand Army Corps in the opposed landing at Gallipoli Cove on 25 April 1915, and the national mythology that grew from this, has overshadowed the earlier successful actions of the Australian forces during the First World War, including the first amphibious landing and the first offshore military expedition planned and coordinated by Australia.

On 07 August 1914, the British War Office requested that Australia seize the German colonies in Nauru, the Caroline Islands and New Guinea. The primary reason for this request was to prevent enemy wireless stations from passing information to the German East Asiatic Squadron of the Imperial German Navy, commanded by Vice Admiral Graf von Spee. On 11 August, the destroyers HMAS PARRAMATTA, HMAS YARRA and HMAS WARREGO, covered by the light cruiser HMAS SYDNEY, prepared to launch a torpedo attack on the German anchorages in Simpsonhaven and Matupi Harbour, New Britain, but found the enemy squadron gone. Landing parties were placed ashore at Rabaul and Heberthshöhe to destroy the wireless station, but when it was learned that the station lay inland it was clear that an expeditionary force would be required.

On 29 August 1914, in Australia’s first coalition operation, a New Zealand Expeditionary force of 1400 troops landed at Apia, Western Samoa, covered by the guns of HMAS AUSTRALIA, and the cruisers HMAS MELBOURNE, HMS PSYCHE, HMS PYRAMUS, HMS PHILOMEL and the French vessel FNS MONTCALM. With no troops to defend the islands, the German Administrator surrendered on 30 August. The wireless station and harbour facilities were thereafter denied to Admiral von Spee’s squadron.
HISTORICAL EXAMPLE (cont.)
The Australian Naval and Military Expeditionary Force (ANMEF), consisting of a battalion of 1000 infantry and a smaller battalion of 500 naval reservists and time-expired Royal Navy seaman, left Sydney on 19 August aboard the transport HMAT BERRIMA, a liner requisitioned from the Pacific and Orient line. The force sailed for Port Moresby where Royal Australian Navy (RAN) supporting vessels including HMAS AUSTRALIA, the cruisers SYDNEY and ENCOUNTER, the destroyers PARRAMATTA, WARREGO and YARRA, and the submarines AE1 and AE2 joined in. The force then sailed for Rabaul on 07 September. Meanwhile, on 09 September, HMAS MELBOURNE landed a party on Nauru to destroy the wireless station, whereupon the German Administrator promptly surrendered.

On 11 September, a force consisting primarily of naval reserve personnel was put ashore at Kabakaul to seize the wireless station located inland at Bitapaka. The landing force experienced strong initial resistance and was forced to make small group attacks through thick jungle to outflank the enemy. The wireless station was captured and destroyed. On 12 September, a combined Navy and Army force was put ashore at nearby Heberthshöhe, while another landing force seized Rabaul.

On 14 September, HMAS ENCOUNTER shelled German positions at Toma, the RAN’s first shore bombardment. The German resistance, comprising 40 reservists and 110 native troops, was no match for the ANMEF, covered by the 12” guns of HMAS AUSTRALIA, and the acting Governor surrendered all of German New Guinea on 17 September 1914. Subsequent operations occupied Bougainville and the New Guinea mainland colonies unopposed. The campaign was an overwhelming success, rapidly achieving all objectives set by the War Office.

CHAPTER 2

COMMAND, CONTROL AND COMMUNICATIONS

Executive summary

This chapter discusses the command, control and communications aspects of amphibious operations.

- The amphibious objective area (AOA) is an identified area of specific size in which Commander amphibious task force (CATF) has the freedom of manoeuvre to accomplish the mission.

- The primary task of the amphibious task force (ATF) is to establish the landing force (LF) ashore tactically.

- Embarked amphibious forces employ a parallel chain of command.

- The ATF is comprised of the amphibious task group, the embarked LF, protective screening escorts, supporting mine countermeasures (MCM) vessels, advance force elements, a replenishment group and assigned air assets.

- Communications and information systems (CIS) planning within an amphibious operation must take into account a diverse range of requirements and single-Service capabilities.

- Electronic warfare (EW) provides threat warning, offensive support and force protection to the ATF. Emission control (EMCON) may be critical to the protection of the amphibious force and is utilised to deceive the adversary.

All men can see these tactics whereby I conquer, but what none can see is the strategy out of which victory is evolved.

Sun Tzu (BC 544–496)
The Art of War

Introduction

2.1 The complexity of amphibious operations and the vulnerability of amphibious forces demand unity of command in planning and execution. Reliable, secure and responsive communications are absolutely vital to effective command and control (C2) of an amphibious operation. This chapter provides guidance on the unique command, control and communications aspects of the planning and conduct of an amphibious operation.
COMMAND AND CONTROL OF AMPHIBIOUS OPERATIONS

2.2 Command of Australian Defence Force (ADF) forces participating in military campaigns and operations is vested in Chief of Joint Operations (CJOPS) by the Chief of Defence Force (CDF). CJOPS will normally designate the Commander joint task force (Comd JTF) to command a specific operation, including an amphibious operation. Comd JTF headquarters staff will participate in operational planning, including force integration and support required to meet the objectives detailed in the CDF warning order (WNGO) or CJOPS planning directive and the operation order (OPORD).

2.3 When an amphibious operation is planned, CJOPS or the Comd JTF will designate a CATF and a Commander landing force (CLF). During planning, embarkation, rehearsal, movement and assault, the CATF, under authority of the Comd JTF, will exercise clear and unambiguous authority over assigned, attached, embarked and supporting forces. CATF and CLF must be provided with accurate and timely intelligence and situational awareness using the best command, control, communications and intelligence systems available. This requires a highly reliable, integrated and secure CIS.

AREAS OF OPERATION

Theatre

2.4 The theatre is the designated geographic area for which an operational level joint or combined task force commander is appointed and in which a campaign or series of major operations is conducted. The theatre will normally be nominated by the CDF and commanded by CJOPS on initiation of a campaign.

Joint force area of operation

2.5 The joint force area of operations (JFAO) is that portion of the theatre nominated by CJOPS for the conduct of joint military operations and their administration as part of the campaign. The JFAO is that area of the battlespace allocated to a Comd JTF for the conduct of operations for a specific mission, for a period of time.

Amphibious objective area

2.6 The AOA is a three-dimensional, geographical area within which the objective to be secured by the ATF is located. The AOA is designated to assist the C2 of an amphibious operation by defining the boundaries within which the CATF has the freedom of manoeuvre to accomplish the mission. This area must be of sufficient size to ensure accomplishment of the ATF
mission and must provide sufficient area for conducting necessary sea, air and land operations but not be so large as to be beyond the CATF control capability. The AOA may be outlined in the OPORD and further defined by the CATF and CLF during the amphibious planning phase. The AOA provides other forces within the JFAO, a delineation of the CATF area of responsibility. The AOA may be used in conjunction with a maritime exclusion zone or an air defence identification zone and may delineate the boundaries for the application of specific rules of engagement.

Figure 2–1: HMAS TOBRUK conducting amphibious operations

COMMAND APPOINTMENTS

Commander Joint Task Force

2.7 The Comd JTF commands all joint operations within a defined JFAO, this includes the responsibility for any amphibious operations within that JFAO. The Comd JTF will be delegated operational command of all forces assigned to a JTF. The Comd JTF will exercise command through either the direct method or the component method\(^1\). If the direct method of command is employed then the CATF and CLF will be directly responsible to the Comd JTF for the planning and conduct of the amphibious operations. If the component method of command is used, then the CATF will be under

\(^1\) More detail of ADF C2 is embodied in Australian Defence Doctrine Publication (ADDP) 00.1—Command and Control.
command of the joint force maritime component commander (JFMCC) and the CLF will be under command of the joint force land component commander (JFLCC). The ADF normally utilises the direct method of JTF command, however, the component method may be used when operating as part of a larger more comprehensive allied or coalition force structure.

**Commander Amphibious Task Force**

2.8 CATF is the senior Navy officer appointed as the commander of the ATF and in the ADF will normally be the officer holding the fleet staff position of Commander Australian Amphibious Task Group (COMAUSATG). CATF is assigned overall responsibility for all aspects of the planning and conduct of an amphibious operation. CATF consults closely with Comd JTF and CLF along with other JTF component/force commanders where necessary, to plan an amphibious operation.

**Commander landing force**

2.9 CLF is the senior Army officer appointed as the commander of the LF. CLF plans and determines the combat scheme of manoeuvre ashore including the sequencing and delivery of landing force units and has immediate responsibility for the conduct of LF tactical operations ashore. In the component method of command CLF will be directly responsible to the JFLCC.

Figure 2–2: Direct method of Joint Task Force command
Figure 2–3: Component method of Joint Task Force command

COMMAND RELATIONSHIPS

Command designations

2.10 If they have not already been detailed in the OPORD, Commanders of subordinate task organisations within the ATF are designated by CATF or CLF, as appropriate.

Parallel chains of command

2.11 The interrelationship of naval and LF tasking during the planning for and execution of the amphibious operation requires the establishment of parallel naval and LF chains of command and corresponding commanders at all levels within the ATF organisation. The following fundamental considerations govern the application of such a system of parallel command:

• CATF is responsible for the amphibious operation and, except during the planning phase, has authority over assigned forces to ensure the success of the operation.

• During the planning phase, CATF and CLF are coequals for planning decisions (regardless of relative rank).
• Issues that affect only the naval forces are dealt with by CATF through the maritime chain of command.

• Issues that affect only the LF are dealt with by CLF through the land chain of command.

• Issues that affect both the maritime and land forces are dealt with through the respective chains of command. Typically, these issues will be referred to CATF and CLF for consideration and resolution.

2.12 ATF unit commanders at all levels are required to maintain a close and continuous relationship to ensure that, except in emergencies, no commander makes decisions affecting corresponding commanders without consultation. In such cases, the commander making an emergency decision will notify corresponding commanders at the earliest practicable opportunity.

2.13 Changes to the landing plan will be made only after consultation between and concurrence by both CATF and CLF.

2.14 Detailed provisions covering special command arrangements not otherwise covered must be clearly specified for each operation.

2.15 All necessary orders from one commander affecting personnel under command of a corresponding commander should be issued through the appropriate counterpart commander. This will not affect the paramount authority of a commander of a ship or aircraft over persons embarked therein concerning matters affecting safety and good order of the ship or aircraft. Nor will it affect the authority of a senior officer present to act in an emergency.

2.16 Ultimately, the successful C2 of an amphibious operation is wholly reliant on the effective close, mutually supportive and continuously consultative personal working relationship between the individuals who are CATF and CLF and their subordinate commanders.

Disagreements

2.17 Issues with which CATF, CLF and commanders of other components are unable to agree during the planning phase, are referred to the Comd JTF or CJOPS for resolution.

Command relationship during operations

2.18 On commencement of an amphibious operation (usually on embarkation of the LF aboard ATF vessels), CATF assumes responsibility for the entire force and for the conduct of the landing operation, and is vested with the commensurate command authority necessary to ensure success.
ADDP 3.2 Chapter 2

CATF exercises command authority through the task force organisational commanders. The latter, in turn, exercise their authority through their own subordinate chains of command.

2.19 Within the AOA, CATF is given specific command authority, as prescribed by CJOPS/Comd JTF having overall authority for success of the operation. CATF will exercise coordination and control, as prescribed, over forces not a part of the ATF when such forces are operating within the AOA after the arrival of the advance force or the ATF. When such forces are merely passing through the AOA, control will be exercised only to the extent of preventing or minimising mutual interference. Subject to the overall authority of CATF, responsibility for the conduct of tactical operations ashore and for the security of all personnel and installations located within the AOA ashore, is vested in CLF.

2.20 The commanding officer (CO) of a ship transporting troops, exercises command authority over all personnel embarked. While embarked, troop administration is a function of the officer commanding embarked forces (OCEF), subject to regulation from the ships' CO.

Naval authority over landing force units

2.21 No Navy commander, other than CATF, may exercise authority over, or assume responsibility for, the operations of LF units, except where a Navy commander subordinate to CATF has been designated as commander of a subordinate force composed of maritime and land elements (eg for advanced force operations).

Consultation between commanders

2.22 When exercising command authority, the CATF obtains and considers the opinion of appropriate subordinate commanders, particularly in cases involving a decision requiring the exercise of professional judgement in their operational fields of expertise.
SUPPORTED AND SUPPORTING COMMAND RELATIONSHIP

2.23 The coordination of all activities across the ATF is essential to maximise the combat power of assigned forces to achieve the amphibious mission. A key method for the Comd JTF to prioritise and coordinate the use of forces, resources and effort in a complex operation, is by assigning subordinate commanders as supported or supporting commanders and designating the main effort in each phase of an operation.

2.24 Supported commanders. Supported commanders have primary responsibility for all aspects of an assigned task and are allocated resource priority. Supported commanders must indicate to supporting commanders their support missions/requirements and associated coordinating instructions.

2.25 Supporting commanders. Supporting commanders provide forces, equipment, logistics or other support to a supported commander as required. They must advise the supported commander on the availability and most appropriate employment of their assets. Supporting commanders are responsible to complete the mission/tasks allocated to them by the supported commander.
2.26 The assignment of supported and supporting commanders is dynamic and will change according to the needs of the situation. In a complex operation (for example, in the action phase of an amphibious operation), the maritime component commander may be designated the supported commander for the amphibious line of operation, which in this case is also designated the main effort. Concurrently the air component commander may be designated the supported commander for the intelligence, surveillance and reconnaissance line of operation. Due to the multiple capabilities inherent to many ADF force elements, both commanders may also be designated as supporting commanders for the others’ line of operation. However, regardless of supported and supporting arrangements, the main effort remains paramount.

2.27 A supported commander may be designated for the entire operation, a particular phase or stage of the operation, a particular function, or a combination thereof. The supported commander will normally execute the main effort for that phase or stage of the mission. Hence, the supported commander may shift during an operation.

2.28 In cases where the ATF and LF, are also designated as JTF components it may be appropriate to designate either as a supported or supporting commander for specific phases or the entire duration of the amphibious operation. Within the Australian context, the command relationship will normally be a CATF and CLF construct with the supporting and supported relationship as designated in the OPORD.

2.29 CATF, as the officer charged with responsibility for the overall amphibious operation, would normally be assigned as the supported commander for the operation, with CLF becoming the supported commander once the LF is sufficiently established ashore. However, the evolution of joint and combined operations for diverse missions and threats highlights a requirement for greater flexibility during military operations. Accordingly the theatre commander or Comd JTF may specify alternate command relationships amongst CATF, CLF and other commanders taking into account priorities for protection, assistance and sustainment during the phases of an amphibious operation.
COMMAND AND CONTROL ASSETS AND AGENCIES

Subordinate command appointments

2.30 CATF exercises overall control of the ship-to-shore movement through control groups responsible for planning and controlling either the waterborne and/or rotary wing assault. Each control group provides the positive control functions and coordination with supporting arms that is necessary to conduct their part of the ship-to-shore movement. CATF provides control via key control group personnel and agencies including:

- **Primary control officer.** The primary control officer embarked in a primary control ship is directly responsible to CATF for the control of the waterborne ship-to-shore movement for a single landing point and for individual landing craft support to landings at that beach.

- **Supporting arms coordinator.** The supporting arms coordinator (SAC) is responsible to CATF for the control and coordination of the supporting arms coordination centre (SACC). Their prime function is the overall coordination of artillery, naval surface fire support (NSFS), close air support (CAS), air interdiction (AI) and de-confliction of fire support with ground and air operations. The SAC will normally be the senior artillery adviser to CLF.

2.31 **Amphibious airspace coordination element.** The amphibious airspace coordination element (AMACE) is a specialist Royal Australian Air Force (RAAF) element in support of CATF to provide airspace management and control within the AOA for amphibious operations. The AMACE provides joint battlefield airspace control and is normally collocated with the SACC.

2.32 **Helicopter operations officer.** A staff from COMAUSATG may fill the helicopter operations officer (HOO) position however it is normally filled by one of the embarked aviation element officers. This position is responsible for the aviation-tasking desk within the amphibious joint operations room (JOR) afloat. The HOO primary responsibility is to monitor the execution of the helicopter employment and assault landing table (HEALT) and the air tasking order (ATO) and to implement authorised change requests.

2.33 **Amphibious cargo officer.** The amphibious cargo officer (ACO) is responsible to CATF for load planning and embarkation and disembarkation of all personnel and equipment afloat. The ACO is the central point of contact for all embarking units for loading and embarkation issues. The ACO must have an in-depth understanding of the surface assault schedule and HEALT in order to monitor their execution and effectively provide change recommendations, coordination and support.

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2 Refer ADDP 3.3—Joint Airspace Control.
Liaison officers

2.34 Liaison officers provide specialist advice to CATF, CLF and their respective agencies and may include:

- **Air liaison officer.** The air liaison officer will normally be located within the AMACE. In addition to having overall responsibility for airspace coordination, they may also be responsible to CATF for coordination of all CAS, AI and defensive counter air aircraft.

- **Naval gunfire liaison officer.** The naval gunfire liaison officer is responsible for providing preparation and planning assistance to the commander of the NSFS ships.

- **Army air defence commander.** The Army air defence commander is responsible for the deployment and coordination of Army air defence assets ashore. An experienced officer from the air defence unit or sub-unit assigned normally fills this position.

- **Air defence liaison officer.** The air defence liaison officer (ADLO) is responsible for liaison between the land tactical air control party (TACP) and maritime air defence when the SACC is moved ashore.

- **Special Operations liaison officer.** Contingent upon forces involved, specialist officers will be required to provide advice to CATF and liaise with Special Operations Forces involved in supporting the amphibious operation.

Figure 2–5: Vehicles fording through a water gap from an LCM8
Formation of subordinate task groups

2.35 The CATF exercises operational authority over the entire ATF during operations. Under certain circumstances it may be necessary to form subordinate parallel task groups within the ATF. The decision to do so should be made during planning by the CATF in consultation with CLF. If this occurs a subordinate naval commander may be delegated command authority over a corresponding LF commander. This situation would normally only arise on the following occasions:

- **Formation of amphibious attack groups.** Where simultaneous, or nearly simultaneous, assaults are required in areas so widely separated as to preclude effective control by a single tactical commander, CATF may form two or more amphibious task groups from the existing elements of the ATF. These groups would provide offensive support for corresponding landing groups.

- **Formation of subordinate amphibious task force.** A subordinate ATF is usually formed when there is a requirement to conduct separate operations, such as the operations of an advance force with a corresponding LF.

- If air elements participate in advance force or attack group operations, the organisation and principles expressed above would apply at the advance force or attack group level.

- The CATF or escorting task group anti-air warfare commander will normally be assigned air defence responsibility for the seaward sector of the AOA.

Supporting Arms Coordination Centre

2.36 The SACC is responsible for the control of all fire support while the control of supporting arms is afloat. Once the LF and CLF headquarters are fully established ashore, the functions of the SACC\(^3\) will normally transfer to the joint offensive support coordination centre (JOSCC) ashore.

2.37 Control and coordination of offensive support is carried out through the SACC under the direction of the SAC. The SACC is established in the ship carrying the CATF and CLF. Coordination of LF artillery, NSFS and CAS, are the prime functions of the SACC. The SACC is responsible for the coordination of all offensive support in the AOA including ensuring deconfliction of indirect fire weapons with friendly air movements.

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\(^3\) Refer to ADDP 3.1—Joint Fire Support.
2.38 The procedures for control and coordination of air support and NSFS are described in detail in ADDP 3.1. The SACC organisation should incorporate the duties of a TACP and a naval fire support operations centre.

2.39 The SACC will include elements from the following organisations:

- artillery tactical headquarters;
- ground based air defence coordination centre;
- surveillance target acquisition cell;
- naval fire support operations centre;
- TACP (including airspace control element);
- air liaison officers; and
- communications staff.

**Tactical air control**

2.40 The tactical air control system is an arrangement of agencies extending from the air operations centre (AOC) at the operational level down to the tactical level and is a means by which air operations are planned, tasked and controlled and coordinated within the JFAO and AOA. Joint tactical airspace control procedures for ADF operations is explained in detail in ADDP 3.3.

2.41 The key air elements of tactical air control that support amphibious operations are as follows:

- **Air operations centre.** The AOC is a jointly staffed operations centre controlling all joint air operations in the JFAO. Through the facilities of the AOC, the joint force air component commander (JFACC) effects centralised control and coordination of the assigned joint air effort to meet the Comd JTF intent. The AOC will coordinate all non-organic air support for the CATF and CLF in support of amphibious operations and issues the ATO for the JFAO. The operation of the AOC is enhanced by the expertise of liaison elements such as the battlefield coordination detachment and naval air liaison to assist in the integration of effort. The AOC controls and coordinates the tactical air control system.

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4 Current policy promotes the concept of a permanent AOC supporting all ADF air operations under the command of an appointed JFACC. Under this concept, the Headquarter Joint Operations Command, Air and Space Operations Centre would fill the AOC role in support of deployed JTF commander(s) as directed by CJOPS.
- **Tactical air control party.** The TACP is a RAAF sponsored, jointly staffed organisation normally attached to a Brigade/LF headquarters. The TACP is an agency of the AOC and is responsible for advising CATF and CLF on AOA airspace management and ensuring that all assigned and supporting air assets are tasked and controlled effectively to meet air support requirements, without jeopardising air safety. Elements of the TACP, prior to it going ashore with the LF, form part of the AMACE support to the SACC as an integral part of the ADF tactical air control system. Once ashore the TACP will normally be collocated with the JOSCC.

- **Helicopter direction centre.** The helicopter direction centre conducts local air approach functions separating conflicting aircraft in the vicinity of the ships and providing instrument approaches to their particular ship as required. In practice this function is performed by the AMACE and ships aviation organization.

### Airspace control

2.42 The Comd JTF will appoint a single airspace control authority (ACA) for the operation, this will usually be the JFACC. The ACA is responsible for the control and management of all airspace within the JFAO. For large scale amphibious operations, with significant air support, the CATF may be designated as a subordinate ACA (SACA) for the AOA for the duration of the amphibious operation. Designating the CATF as a SACA may be desirable to ensure that all air operations and airspace control procedures within the AOA are centrally controlled. However, for CATF to be designated as a SACA for the AOA, the ATF must have the ability and forces to affect the required degree of airspace control.

### Transfer of control

2.43 To ensure unity of effort in amphibious air operations, CATF will coordinate air operations within the defined AOA airspace with the relevant commander responsible for airspace control in adjacent areas of the JFAO. At the termination of the amphibious operation, the AOA airspace is disestablished, and the airspace control will be exercised as per doctrine for the control of airspace in the JFAO by the designated ACA.

2.44 As tactical control and coordination agencies are established ashore, CLF will coordinate with CATF to assume control and coordination of LF supporting arms, as well as local airspace control and air defence within the landward portion of the AOA. For this to occur, appropriate authorities and agencies must be established to carry out the functions to be transferred. CLF may choose to delegate these functions to a commander ashore, or keep these functions sea-based depending on the size and duration of the mission. Designated authorities and agencies are then phased ashore as required as part of the LF.
2.45 To facilitate an orderly transfer of control, specific control functions may be incrementally passed as facilities ashore become operational. After passing control ashore, afloat control centres continue to monitor air communications circuits in a standby status, ready to resume control in the event of an emergency.

COMMUNICATIONS AND INFORMATION SYSTEMS

2.46 Suitable and responsive communications are vital to effective amphibious C2. This section provides general guidance on CIS requirements for the ATF and LF. Additional information should be sought from current joint communications planning guidance detailed in ADDP 6.0—Joint Communications and Information Systems.

Scope and requirements of communication planning

2.47 Communications and information systems. The CATF CIS staff (N6) is responsible for the production of the amphibious operation CIS support plan for the ATF. Communications plans for subordinate elements are developed in accordance with the joint communications and information systems officer (JCISO). CIS staff (N6/Joint Communications Staff) responsibilities are further detailed in ADDP 6.0. CIS requirements for amphibious operations are detailed in Australian Defence Force Publication 3.2.1—Amphibious Operations Procedures.

Communications and information systems support requirements

2.48 An amphibious operation requires a reliable, secure, rapid, flexible joint force interoperable CIS, capable of operations in a hostile environment. This system must provide for C2 of the ATF as a whole and for lateral communications between all elements of the ATF, in execution of common or coordinated functions.

2.49 Amphibious operations requirements include the provision of suitable CIS that supports the following:

- reliable, secure, rapid and interoperable communications;
- the provision of command support systems and intelligence support systems to the CATF and CLF afloat;
- coordination and control of pre-assault operations which includes shaping and advance force operations;
- control of offensive support operations including NSFS and CAS;
- ship-to-shore movement control;
• coordination of logistic support and combat service support (CSS), including embarkation;
• coordination of the protection of the ATF;
• coordination of support to the ATF by other forces;
• tactical air operations, including helicopter operations during the assault landings and for logistic support and CSS;
• medical regulation or a system to coordinate the orderly evacuation of a casualty from the point of injury, or the onset of disease, to and between medical treatment facilities;
• assault vehicle and landing craft control; and
• protection of friendly CIS from adversarial attack (for example, electronic protection, operations security (OPSEC) and communications security.

2.50 Changes in command relationships, task organisation, and disposition of forces require maximum flexibility in CIS plans. These plans must minimise the amount of non-essential communications and whenever possible, maximise the use of multiple-purpose circuits. Common agencies should be used to assist in the reduction of mutual interference by decreasing frequency allocation requirements. Exploiting alternate means of communication such as visual, helicopter or surface messenger, will assist rapid and secure delivery of information between forces within the ATF.

Communications information systems planning considerations

2.51 CIS requirements vary with the size and composition of the ATF, supporting task elements and the LF. Planners must carefully consider the following communications factors:

• CIS planning must support the requirements of the ATF during each phase of the operation from planning through to the conduct of an assault and beyond. The CIS plan must also consider the transition from the completion of the amphibious operation to the next operational phase to minimise the amount of restructuring of the existing CIS architecture.

• Each command organisation within the ATF must have tactical communications connectivity with units within that force. Radio circuits provided must also ensure effective command and coordination of supporting fire. In joint or combined operations, the dissimilar nature of the forces and equipment involved may require allocation of additional circuits to permit the desired degree of C2.
• Individual CIS requirements of major groups of the ATF must be provided for as elements may operate in widely separated areas during some phases of the amphibious operation. Simultaneously, the CIS support plan for each element must permit operation of the force as a whole without undue interference between elements when they are in close proximity. During an amphibious assault, support from the sea by surface and air, makes it imperative that plans for joint tactical communication circuits be thoroughly coordinated.

• Separation of individual ships and forces, as a defensive measure against unconventional weapons and during over-the-horizon amphibious operations, increases the requirement for long-range communications. Accordingly, allocation of shipboard communications equipment must be considered carefully in the planning process with respect to naval and LF requirements.

• The geographic location of the landing area may dictate a need for special and alternate means of communications. Local communication standards, frequency and facilities must be considered to prevent interference, monitor conflicting traffic, and ensure continuity.

• When operating as part of a larger joint operation, ATF CIS support plans must be integrated into the joint task force CIS plan to ensure de-confliction of frequencies and call signs.

• Using intelligence of the adversary’s capabilities to monitor and counter the ATF CIS capabilities, an effective CIS support plan must provide:
  – an EMCON plan for the use of CIS that executes OPSEC measures, supports military deception plans, and maintains C2 of own forces;
  – transmission and cryptographic security to deny the adversary OPSEC indicators and classified information;
  – low probability of detection or intercept, redundant communications nets, authentication, anti-jam systems and physical defence of CIS assets; and
  – avoidance of mutual interference and deconfliction of friendly communications jamming.

2.52 ATF components must be prepared to use the appropriate formatted text messages in accordance with current tactics and doctrine.
2.53 The CIS support plan must allow for the provision of command support systems for the CATF and CLF and their supporting headquarters. In addition, the provision of additional support systems (for example, intelligence) must be included in the plan.

Communications protection

2.54 During planning, equipping and training for the operation, commanders must bear in mind that during an amphibious assault, the adversary may attempt to spoof radio communications using jamming or imitative communications deception. Communication plans in the event of denial or degradation of the use of the radio frequency spectrum must be considered. The effects of adversarial interference can be minimised by:

- use of alternate frequencies and call signs;
- development of plans for locating an adversary’s jamming stations and neutralising or destroying them by offensive action;
- provision of specialised training for all operators in anti-jamming and anti-spoofing procedures;
- regular use of authentication;
- provisions for other means of communication, such as beamed super high frequency, infra-red, visual, boat or helicopter messenger;
- employment of radio silent landing procedures;
- terrain masking;
- use of directional antennae;
- use of power to burn through jamming; and
- frequency hopping radios and anti-jamming modems.

The whole secret of the art of war lies in the ability to become master of the lines of communication.

Napoleon
Communications information systems responsibilities

2.55 Commander amphibious task force responsibilities. CATF is responsible for:

- determination of CIS requirements for naval forces, to include requirements of ATF chartered merchant shipping, review and approval of CIS requirements of the LF and other forces, and consolidation of CIS requirements for the ATF as a whole;
- establishing during the planning phase, provisions to ensure adequate communications for organic air elements of the ATF with other supporting air elements in the theatre or AOA;
- acquisition and assignment of the necessary technical facilities to subordinate elements of the force;
- identifying CIS requirements for each participating ATF force element including the provision of equipment and manning for:
  - joint command support systems and communications centre facilities for CATF and CLF;
  - embarked joint agencies for example, the SACC and the JOR; and
  - CLF while embarked to exercise C2 of assigned forces including those ashore;
- establishment of provisions to ensure adequate communications for the naval elements of the ATF during the planning phase;
- preparation of appropriate military deception guidance and OPSEC to convey and deny indicators to enemies via communications means;
- promulgation of requirements for establishing liaison between all commands of the participating forces for CIS planning;
- preparation and promulgation of a coordinated communications plan for employment of CIS during the operation;
- development of the communications system to support medical regulating and casualty management in conjunction with CLF; and
- preparation and promulgation of an airborne and air assault coordinated plan for employment of CIS during airborne and air assault operations.

2.56 Commander landing force responsibilities. CLF is responsible for:
• provision of adequate LF communications during the planning phase;

• development and promulgation of a plan integrating air operations ashore with air support from air elements outside the AOA;

• determination of requirements for communication support controlled by higher headquarters and submitting these requirements to CATF;

• determination of requirements for shipboard communication facilities and services while embarked;

• maintaining liaison with CATF and advice to subordinate LF units in all CIS planning matters;

• development and promulgation of a coordinated CIS plan for the LF and for submitting this plan to CATF for review, coordination, approval and inclusion in the ATF CIS plan as appropriate; and

• development and promulgation of a plan for link-up operations for integration with any other ground forces ashore.

2.57 Other force commanders. Commanders of other major elements within the ATF are responsible for determining their CIS requirements and submitting those requirements to CATF for coordination.
Communications planning for chartered merchant shipping

2.58 Where it has been identified that chartered merchant shipping will be employed in support of an amphibious operation, commanders need to consider the following additional responsibilities, which should be reflected in the CIS order:

• Australian Fleet Headquarters is responsible for the identification of communication facilities available aboard chartered merchant shipping.

• CATF is responsible for integrating existing merchant communications capabilities into the communications plan, and for determining additional communications requirements needed for C2 during the movement to the AOA and during the ship-to-shore movement phase.

• CLF is responsible for determining and identifying to CATF any additional communications necessary to meet LF requirements.

Electronic warfare planning

2.59 EW provides threat warning, offensive support and CIS protection. EW is a weapon system in its own right and as part of the commander’s arsenal should be fully integrated into the planning of all amphibious operations. Offensive EW complements offensive support by engaging area targets, such as radio nets, and degrading the adversary’s C2 systems. Defensive EW contributes to the integrity of the amphibious force C3 system. EW units may be allocated to the amphibious force or pre-positioned to support amphibious operations. The emphasis placed on EW for amphibious operations is dependent on the:

• EW threat to friendly communications and electronic systems;

• number, location and types of targets requiring suppression or neutralisation including adversary C2, surveillance and target acquisition, and EW systems;

• EW equipment held by the ADF, capable of being deployed against the adversary;

• existing information databases held on the adversary; and

• need for surprise.
Amphibious operations are extremely vulnerable to interdiction. The amphibious force is particularly vulnerable in the littoral where there is limited sea room to manoeuvre. EW systems provide a measure of protection and all participating units should ideally be configured with EW protection systems programmed with relevant radar threat libraries. Compiling these libraries will require advance consideration and possibly covert or clandestine preparatory operations. In addition to protection systems, pre-positioned, strategic EW units can contribute to countering adversarial forces by:

- warning of approach, direction and composition of adversarial forces;
- attacking adversary sensors and communications; and
- locating and identifying targets for physical suppression.

EW resources can contribute to counter surveillance and target acquisition by directly engaging an adversary’s surveillance systems and reporting communications used by these systems. Signals intelligence reporting links will be a high priority targets for friendly EW and their disruption will enhance short and long-term operations security for the amphibious force.

Electronic warfare coordination

EW support to an amphibious operation requires detailed coordination and planning to ensure that the EW plan is fully integrated with operational and offensive support plans. The aim of EW support is to provide a tactical advantage through the provision of intelligence and by protecting friendly communications electronic systems, while disrupting the adversary’s electronic communications systems. Provision of this support in amphibious operations should not interfere with friendly C3, which will be tested by the nature of the operation alone. In addition, the EW target is not confined to formal boundaries and as such, coordination of EW operations will ensure duplication of effort is avoided and EW support is optimised.

Dedicated EW assets may be assigned to the CATF for the accomplishment of the mission, but this will be dependent on the:

- availability of EW assets, for example, specialised aircraft for electronic attack during the movement phase;
- direct support teams from the Royal Australian Navy Tactical Electronic Warfare Support Section or similar allied organisations;

All warfare is based on deception.

Sun Tzu (BC 554–496)
The Art of War
• adversary’s offensive and defensive weapon systems en route to and in the AOA; and

• CATF and CLF concept of manoeuvre and deception plan for the operation.

Additional guidance

2.64 Additional information should be sought from current joint communications planning guidance detailed in ADDP 6.0. Further information on EW is detailed in ADDP 3.5—Electronic Warfare.

HISTORICAL EXAMPLE—AIR POWER AND AMPHIBIOUS OPERATIONS, SECOND WORLD WAR

The relationship between sea power and air power was key to the Allied campaign in the South West Pacific in World War II. General Douglas MacArthur determined that airfields were the tactical centres of gravity and operational decisive points. He could control the sea only if he controlled the airfields. He could control the airfields only if he could take the land on which they stood. He could do this only if he could control the sea. When Allied forces faced the Japanese 17th Army in well-prepared defensive positions on Rabaul, they did not assault the island. Instead, the Allies took a number of nearby areas from the sea, often against little or no opposition, and established air bases. The Allied aircraft then gained temporary local air superiority to allow further amphibious landings in the Admiralty Islands, completely isolating Rabaul. After that, the Rabaul-based Japanese quickly ran out of fuel and became as irrelevant as if they had been overrun, but at a fraction of the human and materiel cost.

CHAPTER 3

TYPES OF AMPHIBIOUS OPERATIONS

Executive summary

This chapter explains the scope and planning considerations of the following four types of amphibious operations:

- Demonstrations can form part of shaping operations in an amphibious operation. Amphibious demonstrations should be sufficiently realistic to force a commitment of adversary resources to deal with the perceived threat.
- Raids are limited by time and space. Planning for an amphibious raid always includes a planned withdrawal of the landing force (LF).
- Prosecution of amphibious assault objectives must be decisive. Flexibility of plans and speed of execution are key factors in the assault.
- The amphibious withdrawal is the principal means of reconstituting the amphibious task force (ATF) at sea. The withdrawal must be planned in detail, including time and place for re-embarkation. Withdrawal of non-amphibious troops may be a complicating factor.
- Military support operations (MSO) are planned in exactly the same way as other amphibious operations however, there are additional factors to be considered.

A self-contained and sea-based amphibious force is the best kind of fire extinguisher because of its flexibility, reliability, logistic simplicity and relative economy.

Sir Basil Liddell Hart
Deterrence or Defence, 1960

Introduction

3.1 The four types of amphibious operation are easily remembered by the acronym ‘DRAW’ (demonstrations, raids, assaults, and withdrawal). This chapter examines each of these in more detail, including the scope and planning considerations for each type of operation. Chapter 4 addresses the logical sequencing of phases that may occur within each type of operation. The wide variation in the purpose of amphibious operations and the consequent variation in composition of the amphibious force and associated
naval forces require a full description of the command arrangements which apply in each case. This chapter also details how amphibious task forces may also be utilised in the conduct of MSO.

**AMPHIBIOUS DEMONSTRATIONS**

3.2 An amphibious demonstration is an operation conducted for the purpose of deceiving the enemy by a show of force, with the expectation of deceiving and deluding the enemy into an unfavourable course of action.

3.3 Demonstrations can have operational or tactical level effects in the battlespace¹. They may be conducted within or beyond an amphibious objective area (AOA); in conjunction with another type of amphibious operation to dilute enemy littoral defences, or to divert or fix enemy reserve forces that could threaten other operations.

3.4 The effectiveness of a demonstration increases in direct proportion to the degree of realism involved in its execution. An amphibious demonstration should neither be underplayed nor overplayed. All visible, audible and electronic aspects of the demonstration must appear to be authentic. A demonstration may include:

- the approach of demonstration forces to the demonstration area;
- at least part of the ship-to-shore movement;
- employment of special forces (SF) and tactical deception units;
- a communications deception plan;
- a brief but intense preliminary bombardment, which is usually more effective than deliberate harassing fire over longer periods; and
- the conduct of amphibious raids.

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¹ See Australian Defence Doctrine Publication (ADDP) 3.0—Operations, for an explanation of the effects-based approach.
The following types of amphibious demonstrations can be employed:

- **Demonstrations within the AOA.** A portion of the ATF may conduct an amphibious demonstration within the AOA. The desired effect may be to cause the adversary to employ reserves improperly, to disclose weapon positions by inducing premature weapon discharge, to distract attention, to place an early burden on command, control, communications and intelligence systems, to precipitate a general air or naval engagement, or to harass.

- **Demonstrations beyond the AOA.** An amphibious demonstration may be conducted beyond the AOA to divert or fix enemy reserves or other forces capable of affecting the amphibious operation, to distract attention from such an operation, or to precipitate a general air or naval engagement. Such a demonstration may be executed as a supporting operation by a separate ATF. Commander joint task force (Comd JTF), decides the time and place of the demonstration based on recommendations by Commander amphibious task force (CATF) and Commander LF (CLF);

- **Demonstrations in support of other joint force operations.** An amphibious demonstration may be conducted to support other joint force operations. A demonstration conducted before, during or after commencement of another operation may distract the attention of adversary commanders and induce the enemy into diverting major resources from the main area of operations. The decision to conduct such a demonstration is made by the Comd JTF based on recommendations by CATF and CLF and other commanders as appropriate.

### Planning considerations

3.6 An amphibious demonstration is planned and conducted similarly to any other amphibious operation, which is critical to establishing the credibility of the operation. A well-planned demonstration can be converted into an actual landing if the appropriate opportunity presents. Alternatively, it may serve as a deterrent to an adversary, which may obviate the need for the assault. Some of the considerations in planning amphibious demonstrations includes the following:

- **Location.** The demonstration area should be near enough to the main operation area to permit subsequent employment of the demonstration force in accordance with the tactical plan. However, it should also be sufficiently separated from the main effort to avoid interference and to ensure the adversary is materially delayed in repositioning forces. The demonstration area should be suitable for an actual landing, for only in such an area can the threat of landing be
plausible. The demonstration area should be important to the adversary, otherwise they might not react. If the purpose of the demonstration is to cause the adversary to prematurely disclose its positions, or for harassment, it may be conducted near the main operation area prior to execution (ie by an advance force).

- **Timing.** The timing of a demonstration is coordinated to achieve the maximum desired level of reaction from enemy forces. The timing of a demonstration conducted in support of another operation is based on the timings of the supported operation.

- **Forces.** The demonstration force is of such composition and size as to cause the desired reaction. When the demonstration force is constituted from within the ATF, the LF reserve and the shipping in which it is embarked may be employed if the reserve is not required in the immediate area of the main landing. On completion of the demonstration, the demonstration force is reconstituted and its elements are reassigned in accordance with the operation order or plan.

- **Supporting arms.** The demonstration force may execute offensive support of a nature and scope that ensures credibility. Factors that may limit the availability of offensive support are the availability of naval surface fire support (NSFS) ships, integrated air support and ammunition supply.

- **Rehearsals.** Conduct of rehearsals supports the realism of an amphibious demonstration. Rehearsals can be demonstrations in themselves.

- **Execution.** The demonstration must be prolonged enough to allow the adversary to react to it. The movement of forces toward the beach or landing zone (LZ) is conducted as a normal ship-to-shore or ship-to-objective manoeuvre. The difference being that landing craft waves do not actually beach and helicopter waves do not land troops (ie turn-away landing or deceptive drop-offs unless the demonstration also includes an amphibious raid). Empty landing craft should maintain sufficient distance from the beach to preclude close observation. At a pre-arranged time or distance from the beach or LZ, or upon signal, the boat and/or helicopter waves withdraw. Smoke may be used to confuse observation and conceal the withdrawal.
3.7 An amphibious raid is an operation involving a swift incursion into or the temporary occupation of an objective to accomplish an assigned mission followed by a planned withdrawal.

3.8 Amphibious raids are operations that are limited by time, space and resources. They are conducted in order to destroy or disrupt part of an adversary’s infrastructure. Raids involve the temporary occupation of an objective followed by a pre-planned withdrawal. As with all amphibious operations, raids can be used to increase the tempo of a campaign, shape the battlefield or create opportunities for subsequent operations. In many circumstances, the raid will be the amphibious operation of choice of the Comd JTF. Well-planned and executed amphibious raids offer tactical flexibility, minimise risk and avoid the requirement to commit substantial combat power ashore for extended periods.
Types of raids

3.9 Amphibious raids are conducted as independent operations or in support of other operations, such as another amphibious landing, or land, air, maritime or SF operations. Depending on the purpose of the raid, forces may insert covertly, relying on stealth to approach the objective, or overtly with full fire support in a manner that may resemble the early stages of a ‘full blown’ amphibious assault.

3.10 Generally, amphibious raids are conducted to:

• destroy certain targets, particularly those that do not lend themselves to destruction by other means;

• harass the adversary by attacks on isolated outposts, military support installations or unit headquarters (HQ);

• capture or neutralise key personnel or units;

• attack the adversary rear or flank positions on a seacoast, in support of engaged forces;

• obtain information on hydrography, terrain, adversary dispositions, morale, strength, movements, and weapons;

• create a diversion in connection with strategic or tactical deception operations;

• evacuate individuals, or materiel; or

• establish, support, or coordinate unconventional warfare activities.

Planning considerations

3.11 Planning and execution of an amphibious raid is conducted in the same general manner as an amphibious assault except that a raid always includes a pre-planned withdrawal of the raiding force. The following should be considered when planning a raid:

• Surprise. Surprise is an essential ingredient in the success of an amphibious raid and offsets the lack of logistic and fire support normally associated with amphibious operations.

• Security. Security during the planning and execution of a raid must receive particular attention, to include full exploitation of deception measures.
Withdrawal. The withdrawal must be planned in detail, including time and place for re-embarkation. If the landing point and withdrawal points are not the same, positive means of location and identification must be established. Special situations may permit planning for withdrawal of the raiding force directly into friendly territory without re-embarkation. Detailed planning must include provision for an alternate extraction method in the event of inclement weather. The raiding force may have to remain ashore in a hide until it is possible to execute the extraction.

Choice of landing area. The following factors will influence the choice of landing areas for the raiding force:

- Beaches or LZ need not necessarily meet all the requirements of an amphibious assault. In small-scale raids, beaches or LZ are chosen from the point of view of ensuring tactical surprise.
- A raid will normally be of limited duration.
- The limited objective and short duration of the amphibious raid will usually simplify logistic support requirements.
- Small-scale raids may be executed with limited communications.

Timing. The duration of operations ashore may influence the choice of H-hour and consequently, the conditions of visibility under which the raiding force is landed. This may also affect the scope of logistic and/or combat service support (CSS) arrangements.

Purpose. The purpose of the raid, including its relation to other concurrent or imminent operations that it may support, will influence the selection of D-day for the raid. In addition, these same factors may affect the availability of shipping, aircraft and logistic and/or CSS and/or offensive support means for the raid.

Embarkation. Planning for the embarkation of forces assigned to participate in an amphibious raid is similar to preparation for the amphibious assault, including consideration of operational security measures.

Offensive support. Offensive support planning is similar to that for an amphibious assault except that where surprise is a major factor, fire support is usually withheld and radio silence is maintained until surprise is compromised.
• **Landing.** Planning for ship-to-objective movement is generally similar to that for an amphibious assault, except that movement may be made entirely by helicopter.

• **Rehearsals.** Thoroughly integrated rehearsals are essential to precision and speed in executing a raid. All participating forces must be drilled in every detail of disembarkation, movement ashore, operations ashore, withdrawal and re-embarkation. Rehearsals are as important in preparation for amphibious raids as for other types of amphibious operations. Timing is critical and cannot be accurately estimated or adhered to without adequate rehearsals.

![Figure 3–2: Unloading an embarked LCM8 from a Landing Platform Amphibious](image)

**AMPHIBIOUS ASSAULT**

3.12 The principal type of amphibious operation is the amphibious assault. This is distinguished from other types of amphibious operations in that it involves establishing a force with some permanency on a hostile or potentially hostile shore.

3.13 The purpose of an amphibious assault is to secure an operational objective. This may be a port, airfield or other tactically vital ground to facilitate subsequent operations. Due to the importance of amphibious assault operations, prosecution of objectives must be decisive or the combat resources will be wasted. In order to ensure the long-term security of these
objectives once seized, the insertion of the initial wave must be closely followed by the general offload of the force so that a viable and effective point of disembarkation (POD) can be established. All combat elements must be mutually supporting and self-sustaining with overwhelming combat power consolidated ashore as soon as possible. Manoeuvres to gain further operational space and depth can then be conducted. However, a balance must be struck between maintaining the integrity of the POD for its subsequent use and the conduct of offensive operations, which extend internal lines of communication and logistic support.

Types of assault

3.14 Amphibious assaults fall into the following two categories:

- **Amphibious assault on a potentially hostile shore.** The amphibious force will aim to land in undefended areas; however, such operations will be mounted against the contingency that an adversary will react before completion of the landing operation; and

- **Amphibious assault on a hostile shore.** The amphibious force will aim to attack a weak point in the adversary’s defences where they cover all potential landing sites. The assault will avoid landing under fire but exploit mobility to attack from an unexpected direction.

3.15 **Organisation of assault forces.** Assault forces normally divide into an assault echelon and a follow-on echelon. The former lands in the initial stages of the assault and will consist of craft with specialised amphibious combat forces embarked.

3.16 **Area organisation.** Amphibious operating and control areas, and inland operating areas in the AOA, are selected to meet tactical requirements and to facilitate the control of ship-to-shore movement. CATF, in coordination with CLF, selects the location of the amphibious operating and control areas. Detailed information on the various control areas is contained in Allied Tactical Publication 8—*Doctrine for Amphibious Operations*. CLF selects the location of inland operating areas, including drop zones and LZ in accordance with the LF scheme of manoeuvre ashore. CLF and CATF coordinate the selection of necessary approach and retirement lanes, checkpoints, rendezvous areas and aids to navigation to facilitate movement of air-landed troops. Where appropriate, other component commanders participate in this coordination.

3.17 **Control.** CATF is responsible for overall control of ship-to-shore movement of surface and helicopter-borne assault forces. CATF is also responsible for controlling and coordinating the movements of all other airborne assault forces operating within the AOA.
3.18 The system for control of the ship-to-shore movement is governed by the LF plan. The maximum area over which centralised control of ship-to-shore movement can be effectively exercised varies in each situation and is largely governed by the ATF communications capabilities.

3.19 The control system must provide the means for rapid fulfilment of LF requirements during the ship-to-shore movement. Stand-by control means are kept available so that casualties can be replaced rapidly.

Planning considerations

3.20 The amphibious assault is the most complete and complex type of amphibious operation. A detailed description of the amphibious planning process is contained in chapter 5.

AMPHIBIOUS WITHDRAWAL

3.21 Amphibious withdrawal is the extraction of forces by sea in naval ships or craft, and/or by helicopters, from a hostile or potentially hostile shore.

3.22 Amphibious withdrawals are conducted to disengage forces for employment elsewhere. They may be conducted under enemy pressure, as part of an amphibious raid or as a planned phase of an operation. Withdrawal begins with establishment of defensive measures in the AOA and ends when all elements of the force have been extracted and embarked on designated shipping. Withdrawals are complicated by the necessary requirement to tactically load and reconfigure the LF during the withdrawal, when time and space is at a premium. The amphibious withdrawal is the principal means of reconstituting the ATF at sea.

Types of withdrawal

3.23 There are several types of amphibious withdrawal. Many of which require the withdrawn force to re-load tactically in preparation for a further mission with attendant planning complications. The following are some examples of amphibious withdrawal.

- Evacuation of friendly forces forced to withdraw through enemy action. These forces may be physically and psychologically reduced and in need of high levels of medical support; may not be amphibious trained and will require extra guidance by amphibious forces conducting the withdrawal. They may need assistance from the ATF in re-equipping, re-furbishing and re-habilitating. The land, sea and air dimensions of the AOA may be under intense enemy pressure so AOA defence, force protection and restrictions in time and space for planning and executing the withdrawal may be extreme.
• Re-embarkation of a landing force whose amphibious operation has terminated. The withdrawal may be a pre-planned phase of an amphibious raid or the orderly re-embarkation of the LF whose amphibious assault has terminated. Importantly, re-embarking the LF restores the operational level availability of the ATF.

• Embarkation of land component forces by amphibious means for transport by sea to a seaport for disembarkation. The withdrawing forces may not be trained in amphibious techniques and procedures so may need extra guidance by amphibious-trained forces. Tactical loading may not be possible or necessary as the land component forces will expect to be received and staged at the sea point of disembarkation.

3.24 Support to non-combatant evacuation operations (NEO) is not necessarily an amphibious operation however, an ATF provides flexibility and broadens the range of options should a situation deteriorate. Withdrawal of Australian approved foreign nationals (AFN) and other personnel may be conducted by amphibious forces during a NEO.

Planning considerations

3.25 Except in the case of amphibious raids, planning processes for an amphibious withdrawal are usually abridged. Nevertheless, the following basic planning factors must be considered when planning a withdrawal:

• **Timing.** When enemy action against the LF is substantial or when the requirement for forces elsewhere is great, the time available for planning and execution of the withdrawal may be short.

• **Available facilities.** Facilities for embarkation and loading may be extremely restricted, compounding logistic and CSS challenges.

• **Fire support.** The required fire support may not be readily available.

• **Control means.** Means for controlling the withdrawal may be limited particularly due to incompatible communications networks.

• **Weather, terrain and hydrography.** The operation may by necessity, be conducted under adverse conditions of weather, terrain and hydrography due to timings and operational circumstances.

• **Visibility.** Circumstances may render it advisable to conduct the operation in darkness or under conditions of limited visibility.

• **Complicating factors.** The force to be withdrawn could be land forces not originally inserted by amphibious operations and unfamiliar with amphibious procedures, thereby complicating the operation.
• **Embarkation procedures.** Embarkation of forces to be redeployed for further operations is conducted in accordance with normal planning procedures detailed in Chapter 5 and Australian Defence Force (ADF) Publication 3.2.1—*Amphibious Operations Procedures*. If embarkation is associated with the termination of operations ashore and redeployment of troops to staging areas, planning procedures should be as abridged as necessary to conform to time restrictions. The level of pressure from an adversary and the degree of familiarity with amphibious procedures of withdrawing forces, will significantly affect the efficiency of embarkation.

• **Embarkation area size.** The initial size of the embarkation area depends on several factors, such as:
  
  – essential terrain required for defence in the event the embarkation is conducted under enemy pressure;
  
  – the number of personnel and amount of equipment and supplies to be embarked;
  
  – artillery, NSFS and close air support availability for defence of withdrawing units if required;
  
  – the nature and extent of the littoral and useable beaches; and
  
  – the time available for embarkation.

![Figure 3–3: LCM8 Lining up for a stern ramp marriage](image)
MILITARY SUPPORT OPERATIONS

3.26 MSO are sensitive to political and civil considerations, and often the military may undertake a supporting rather than the leading role. The ADF may undertake a wide range of MSO tasks and these will normally require close cooperation with civil agencies, international, government and non-government organisations (NGO). MSO are carried out as all other amphibious operations. Either as a raid if planning a withdrawal, or as an assault.

3.27 Amphibious forces offer considerable advantages in conducting MSO operations where short notice responses and political sensitivities commonly restrict the employment of other more intrusive land-based military capabilities. Whether they are employed or not, the mere presence of a nation’s amphibious shipping poised offshore can influence, and may even defuse, events ashore. If employed, amphibious forces are particularly well-suited to conduct MSO in terms of their personnel and troop carrying ability and inherent C2, communications and information systems (CIS), logistics, ship-to-shore movement and enhanced health facilities. In general, conduct of an MSO by amphibious forces maximises the operational effect while minimising the footprint ashore and consequent pressures in infrastructure.

3.28 MSO are not limited to any one geographical area, and may be conducted abroad or within Australian. While MSO are less demanding than combat operations, this does not preclude the escalation of MSO to a conflict situation. Force protection and readiness for combat operations when executing MSO is necessary to ensure the safety of friendly military forces and non-combatants. Important considerations which impact these operations are legal issues, civil-military cooperation, the likelihood of close interaction with a civilian populace, and the goal of promoting peace and avoiding unnecessary conflict.

Types of military support operations requiring amphibious support

3.29 There are a number of MSO that involve amphibious forces and some of these are described as follows:

- **Humanitarian operations.** Assets that an ATF may provide include:
  - skilled personnel;
  - cargo carrying capacity for relief supplies;
  - medical facilities;
  - power generation capability;
– troops to assist in restoration and maintenance of order in a
time of chaos; and
– rotary wing and landing craft to transport supplies or conduct
rescue operations.

• Peace operations. ADF amphibious forces comprising amphibious
shipping, embarked forces, landing craft and helicopters are capable
of supporting all categories of peace operations including
peacekeeping, peace enforcement and peace building.

3.30 Peace enforcement. Peace enforcement is coercive in nature and is
conducted under Chapter VII of the United Nations (UN) Charter when the
consent of all parties to the conflict has not been achieved or might be
uncertain. Peace enforcement is designed to maintain or re-establish peace
or enforce the terms specified in a UN or Coalition mandate.

3.31 NEO are conducted for the purpose of evacuating Australian and AFN
civilian non-combatants from locations in a foreign country when they are
faced with the threat of hostile or potentially hostile actions. The responsibility
for the protection and, if necessary, evacuation of Australian nationals, in the
first instance, rests with the Australian government representative, normally
the head of mission (HOM). Procedures and guidance for the conduct of
evacuation operations are detailed in Australian Defence Doctrine
Publication (ADDP) 3.10—Evacuation Operations.

Figure 3–4: LPA/LCM8 stern ramp marriage
Planning considerations

3.32 The nature of MSO contingencies will generate a range of mission-specific planning considerations. Some generic issues that are pertinent to their conduct are:

- For NEO, humanitarian assistance and peace tasks, the host country:
  - may support the Australian Government’s intent and ADF operations;
  - Defence and Police Forces may support ADF operations; and
  - security and logistic support will probably be limited.

- Disaster relief assistance will be scaled back as international civil aid and NGO arrive in the host nation; commitment to any such operation will be of limited duration.

- Logistic planning aspects of MSO are complicated by the tenuous nature of the operations, and some modifications to normal practices will likely be necessary.

Detailed planning considerations

3.33 Some of the detailed planning considerations for MSO include the following:

- **Rules of engagement.** Due to the desire to prevent or limit conflict, the rules of engagement (ROE) are likely to be more restrictive than for normal amphibious operations. Training in applicable ROE is essential.

- **Non-government organisations.** In most MSO activities, interaction with NGO will be a necessary part of a successful operation. Some NGO are wary if not almost hostile towards the military, however, effort should be made to coordinate activities with these organisations in a positive manner. ADDP 3.11—*Civil Military Operations*, provides additional guidance on dealing with NGO.

- **Public affairs.** The worldwide media coverage afforded to military operations and MSO makes planning for public affairs a vital component of the planning process.

- **Security.** The problem of distinguishing between neutral and hostile elements is particularly difficult where there is a need to employ local labour.
Legal issues. Unique legal issues, particularly when international law and humanitarian issues are involved, will require understanding by appropriate forces.

Non-combatants. Civilian non-combatants present unique additional considerations for safety, accommodation, medical care (especially infants and the elderly), document processing and administration.

Logistics. Logistics, civil affairs and medical elements may be required in quantities disproportionate to their normal military roles.

Training. Education and training of forces is necessary for successful operations. While war-fighting skills may be adaptable to most military support operations, for some, those skills are not compatible and special training will be required prior to the operation. Mission-specific training should ideally be conducted as part of pre-deployment or en-route training and provides service personnel with the background and information necessary to perform their assigned tasks.

Scale of operations. Operations may be conducted on a small scale (one or two ships with sub-unit-sized embarked forces augmented with aviation and landing craft assets) and there may not be a higher JTF HQ overseeing the operation. The force commander may therefore be designated as the Comd JTF reporting directly to Headquarters Joint Operations Command.

HISTORICAL EXAMPLE—OPERATION SUMATRA ASSIST—BANDA ACEH, JANUARY—MARCH 2005

The tsunami that struck Indonesia on Boxing Day 2004 destroyed many communities. With 48 hours notice, HMAS KANIMBLA sailed to provide humanitarian relief to the victims in the Banda Aceh region of Indonesia as part of Operation SUMATRA ASSIST. The tsunami destroyed the shoreline and port facilities so Navy hydrographers and the Australian Army amphibious beach team needed to locate a suitable beach-landing site for the embarked LCM8. Army engineers put ashore with their earth moving equipment in spite of these difficulties. KANIMBLA continued to provide fresh water and meals to those ashore and the embarked Sea King helicopters flew humanitarian missions, while the ships medical facility also supported the operation. KANIMBLA also provided a safe haven for personnel to rest and recover from work ashore.

CHAPTER 4

PHASES OF AN AMPHIBIOUS OPERATION

Executive summary

Amphibious operations consist of seven distinct phases, the sequence of which varies slightly depending on whether or not operations are initiated while the amphibious task force (ATF) is already at sea.

- Planning, embarkation, rehearsal, movement, shaping, action and termination are the seven phases of amphibious operations.
- Commander amphibious task force (CATF) and Commander landing force (CLF) have significant responsibilities during the embarkation phase of the operation. The execution of this phase may have a direct impact on all other aspects of the landing operation.
- Planning for sea transit, advance force operations, landing force (LF) operations, sustainment and termination or subsequent operations are a critical shared responsibility between CATF and CLF.
- Amphibious support operations including littoral environmental assessment procedures, mine countermeasures (MCM), and shaping operations must be carefully planned and coordinated. Such operations should be conducted so as to avoid the disclosure of the location and timing of the intended amphibious operation.

The general who wins the battle makes many calculations in his temple before the battle is fought. The general who loses makes but few calculations beforehand.

Sun Tzu (BC 544–496)
The Art of War

Introduction

4.1 An amphibious operation is a complete operation within itself and comprises seven distinct phases that are discussed below in sequence. From this sequence of activities, we derive the acronym (P E R M S A T). Figure 4–3 depicts the relationship between these operational phases, the command relationships and the activities and associated outputs of the planning process. The phases are:

- Planning;
- Embarkation (mounting and embarkation);
• Rehearsal;
• Movement (and sea passage);
• Shaping operations;
• Action; and
• Termination.

4.2 If the ATF is already at sea with the LF embarked when operations are initiated, the sequence will by necessity be modified to (E M S P R A T):

Planning phase

4.3 Operations are normally initiated as a response to a decision in support of national strategic policy. Planning and the refinement of all plans must be concurrent and in harmony with other operational processes. The planning phase is conducted in three stages:

• **Strategic directives.** The initiation of campaign planning and assignment of forces, including command relationships will be in the form of a Chief of the Defence Force (CDF) warning order (WNGO) or alert order to Chief of Joint Operations (CJOPS), Service chiefs and Group heads.

• **Operational directives.** The CDF WGNO will be followed by the CJOPS WNGO to assigned forces and appoint the Commander joint task force (Comd JTF) and order assigned assets to an appropriate degree of readiness. A CJOPS planning directive will follow, from which the headquarters joint operational command concept of operations (CONOPS), operational instruction and operation order (OPORD) will be developed.

• **Amphibious planning.** Planning for amphibious operations will be conducted jointly by the CATF and the CLF, on receipt of a CJOPS or a Comd JTF WNGO or OPORD. The amphibious planning process encompasses the principles of the joint military appreciation process (JMAP)\(^1\).

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1 See Australian Defence Doctrine Publication 5.0—Joint Planning (Provisional) and Australian Defence Force Publication (ADFP) 5.0.1—Joint Military Appreciation Process.
• **Mounting, embarkation, and the landing plan.** Plans for mounting, assembly of assault shipping and movement of troops to embarkation points are prepared by the planning staff of CATF and CLF as separate documents in the form of embarkation and loading plans. The plan for the amphibious landing of assigned tactical forces is prepared by CLF. These plans must be coordinated and distributed as soon as practical to permit initiation of preliminary movements and preparations of LF units to ensure the embarkation is undertaken in an efficient manner.

4.4 Planning must be thorough and accurate from the outset and based on the JMAP process to ensure all aspects of operational planning are addressed. Individual JMAP phases will be planned and closely monitored to accord with the changing operational and tactical situation. As the operation progresses, there will be a need to continuously reassess environmental factors and update plans.

**Embarkation phase**

4.5 Embarkation comprises both the mounting\(^2\) and embarkation phases of an amphibious operation. This phase includes the assembly of participating forces, embarkation of the LF and departure of the amphibious task group (ATG) with support shipping to commence the operation. Mounting and embarkation are linked to the extent that the requirement of one always affects the other.

![Figure 4–1: Landing Craft Heavy discharging land forces](image)

\(^2\) See ADFP 3.0.3—Mounting Operations.
4.6 Mounting. During the mounting phase the diverse elements of the amphibious force are assembled for preparation, training and embarkation in such an order that the forces can achieve the amphibious operation’s objectives when landed. Mounting phase planning includes:

- confirmation of assigned force elements including command and control relationships;
- movement and assembly of assigned forces to the mounting location;
- final preparation, integration and training of the LF elements; and
- personnel and equipment preparations for embarkation.

4.7 Embarkation. The embarkation phase is the period during which forces, equipment and supplies are embarked in the assigned shipping from the mounting base (MB) or point of embarkation (POE). The primary objective of this phase of an amphibious operation is the orderly embarkation of personnel and materiel in assigned shipping in a sequence designed to meet the requirements of the LF landing plan and ultimately the tactical concept of operations ashore. While amphibious ships are loaded tactically, there is generally little capacity to significantly adjust the load configuration after embarkation is complete. Further detailed guidance on the planning and conduct of the embarkation phase of the operation, including civil shipping support to amphibious operations, is provided in ADFP 3.2.1—Amphibious Operations Procedures and ADFP 4.4.2—Transport and Terminal Operations.

4.8 Mounting and embarkation sequence of events. An indicative mounting and embarkation sequence of events is:

- CATF and CLF, supported by the local movement control organisation, agree on the outline embarkation plan;
- the MB including force assembly and transit areas are confirmed and prepared to facilitate accommodation and preparation of the LF and preparations for their subsequent embarkation;
- an assessment of the capacity of assigned shipping is made. If insufficient shipping is available it may be necessary to:
  - seek the assistance of Headquarters 1st Joint Movement Group to supplement assigned shipping with merchant charter;
  - modify the CONOPS for a reduced force level; or
  - notify higher command that insufficient shipping is available and request force assignment of additional maritime assets.
assembly of the LF at the MB and mounting activities commences and
a pre-embarkation conference is conducted; and

embarkation is commenced at the designated time, in accordance with
the embarkation plan.

**4.9 Mounting and embarkation planning responsibilities.** The
responsibilities for mounting and embarkation planning are as follows:

- **CATF** is responsible for:
  - allocating assigned assault shipping assets to the LF based on
    stated LF requirements;
  - organising maritime forces for the embarkation phase;
  - ordering assault shipping assets to the embarkation point;
  - reviewing and approving the overall LF embarkation and
    loading plans;
  - providing ship loading characteristics information to CLF;
  - developing plans for the procurement and coordination of
    material handling assets required from external agencies to
    support the LF and amphibious shipping during the
    embarkation (eg Roll-on/Roll-off and wharf facilities); and
  - advising CLF of the numbers of personnel and stowage
    requirements for materiel, liquids, ammunition, helicopters,
    landing craft, and any other forces to be embarked with the LF.

- **CLF** is responsible for:
  - designating preferred tactical groupings for embarkation, in the
    form of the landing priority table (LPT), and submitting them to
    CATF for review, approval and subsequent inclusion in the
    amphibious load planning table;
  - developing the LF organisation for embarkation and landing;
  - informing headquarters joint movement group of the scheduled
    requirement to move the units to the POE;
  - determining and advising CATF of the assets (personnel,
    equipment, materiel) required from forces afloat and external
    agencies at the POE during loading; and
  - determining and advising CATF of LF requirements for assault
    shipping.
Other subordinate ATG commanders are responsible for:

- providing the CATF and CLF with the lift requirements (ie personnel, equipment and supplies) to be embarked in LF spaces for inclusion in the embarkation and loading plans;
- organising and preparing their forces for embarkation; and
- providing representation at all embarkation planning meetings and conferences.

Figure 4–2: LCM8 on the beach

Rehearsal phase

4.10 The complex nature of amphibious operations requires the sequential aspects of offloading and landing be practised and tested before the operation is conducted. Rehearsals validate the communications, landing sequence and control measures planned for a specific landing. The ships and the landing force conduct drills to ensure familiarity with all aspects of unloading. These drills should cover all aspects of the assault, including the landing, under similar conditions of terrain and timing.

Movement phase or sea passage

4.11 Movement plan. Movement of the ATF to the amphibious objective area (AOA) includes the departure of ships from mounting bases in the embarkation area, the approach to, and arrival at assigned positions in the AOA. The ATF is organised into movement groups, which depart in accordance with the movement plan on prescribed routes (with alternate routes designated for emergency use). Protective measures are required to prevent adversary interdiction en route. ATF movement to the AOA may be interrupted by rehearsals, diversion to staging areas for logistic and/or
combat support reasons, weather or temporary stops at regulating stations or intermediate staging points. CATF is responsible for preparing the sea passage plan during the planning phase. CATF prepares a general sea movement plan in which coordinating instructions are included as necessary. Subordinate force and group commanders prepare their own detailed movement plans. The movement plans are generally among the last plans to be completed during the planning phase as they are informed by the overall requirements and timings of the operation. Each movement plan is normally included as an annex to the amphibious operation order.

4.12 Coordination with other forces. Coordination between forces supporting an amphibious operation and the ATF is provided in planning guidance issued by the Comd JTF or higher authority.

4.13 Postponement plan. Postponement may be necessary due to environmental conditions or unexpected movements by adversary forces after the ATF has commenced its passage from the embarkation point to the AOA. This contingency is covered by executing a postponement plan. Postponement is usually in 24-hour blocks and involves backtracking or diversion of ships into a designated staging area. A longer postponement may involve return of the ATF to a staging area or MB. The postponement plan is prepared by CATF and is usually promulgated as a part of the operational plan.

4.14 Alternate plans. Adverse weather and other unfavourable situations may necessitate additional movements, a deviation from the movement plan, or use of an alternate plan. The alternate plan for an amphibious operation may differ from the preferred plan and necessitate separate movement plans. Movement plans must therefore be flexible enough to execute alternate plans at any point between the final staging area and a point as close as practicable to the AOA.

Shaping operations

4.15 Shaping at the operational level is the influencing of the battlespace to create an environment conducive to the achievement of the mission. Shaping seeks to deter, deny or deceive the adversary and create an environment in which operations can be successfully conducted. Amphibious shaping operations are the next phase in amphibious operations and establish the preconditions for a range of activities within the intended AOA, including manoeuvre, protection of LF and isolation of the adversary. These activities will involve, intelligence gathering, surveillance and reconnaissance, deception, special forces (SF) raids, strike and battlespace denial missions, and information operations. Shaping operations may be offensive and pre-emptive, and aim to prevent the adversary from amassing their forces or manoeuvring efficiently against the ATG. Amphibious shaping operations include both advance force operations (prior to the establishment of the AOA)
and pre-landing operations (once the AOA has been established). Amphibious shaping operations should be conducted in a manner that avoids disclosure of the time and location of an amphibious assault, to deny an adversary the time and ability to exploit this information.

4.16 Pre-landing operations. Pre-landing operations include final preparation of the landing area, such as clearing landing routes and obstacles, gathering localised tactical intelligence, assessment of the littoral environment, relieving SF in place, and providing terminal guidance to assault waves. The need for pre-landing operations must be considered at an early stage in the planning for an amphibious operation.

4.17 Responsibilities for planning advance force operations. After the decision to employ an advance force has been made the responsibilities for operations planning are as follows:

- CLF is responsible for the preparation of LF requirements for naval surface fire support (NSFS), close air support, air interdiction, pre-D Day seizure of supporting positions, demonstrations and reconnaissance, and submission of these requirements to CATF. CLF is also responsible for nominating the LF staff party to accompany the advance force (ADVFOR) commander. If pre-D Day landings or demonstrations are to be conducted, CLF will direct the landing group commander to report to the ADVFOR commander for planning.

- CATF is responsible for consolidating the requirements of the LF with those of other elements of the ATF and for issuing directives to the ADVFOR commander who prepares detailed plans for operations of the advance force. CATF reviews these plans to ensure they meet overall requirements.

- The designated ADVFOR commander is responsible for detailed planning for advance force operations and ensuring plans fulfil overall requirements of the ATG. The ADVFOR commander prepares plans for NSFS, air operations, landing site reconnaissance, underwater demolition, MCM and pre-D Day landing. Landings or demonstrations are planned in consultation with the landing group commander of the ADVFOR. In this planning, the ADVFOR Commander follows the same procedures CATF observes when planning the main landing.

- The Landing Group commander plans LF advance force operations in conjunction with the ADVFOR commander, following the same procedures CLF follows when planning the main landing.

4.18 Mine countermeasures operations. The initial success of an amphibious operation requires the free use of waters within the AOA. Planning for preliminary MCM operations should include measures to reduce the likelihood of enemy mining. This may involve concealment of intentions or
exclusion of enemy forces from the planned operating area, possibly by the use of protective minefields. If enemy mining cannot be prevented then plans should be prepared for employing MCM vessels in support of the ATG. Account must be taken of the MCM command and support requirements, protection of MCM forces, and the time scale and risk of compromise that MCM activity will entail.

4.19 Supporting operations. Some of the other operations required include isolation of the AOA and military deception. The ATF can isolate the AOA with air attacks, NSFS and amphibious raids against airfields, aircraft, communications, supply centres and other critical vulnerabilities. Operational level deception operations will be conducted under the direction of CJOPS. Tactical level deception operations may be conducted under the direction of the Comd JTF or delegated to the CATF. Tactical level deception planning would be conducted under the direction of CATF with forces assigned to the ATF. Tactical deception operations may be conducted by the advance force or the main body of the ATF. The tactical deception plan is designed to conceal from the adversary the time and place of landing and to cause them to reveal their positions or commit their reserves prematurely.

![Figure 4–3: HMAS TOBRUK beached](image)

**Action phase**

4.20 Action. The action phase begins when the LF arrives in the assigned positions in the AOA and terminates with the accomplishment of the ATF mission. An essential feature of the action phase is the seamless link between
all force elements, in particular between the advance force, pre-landing and the main assault force. Accomplishment of the land objectives is the task of the LF. Operations of other elements of the ATF are directed toward supporting the LF during the assault. The scheme of manoeuvre chosen by CLF is the key factor in determining the sequence of the assault.

4.21 **Ship-to-shore movement.** The plan for ship-to-shore movement is developed to ensure the landing of troops, equipment and supplies at the prescribed time, place, and in the formation required by the LF scheme of manoeuvre ashore. Ship-to-shore movement begins on the order of CATF and ends when the unloading of assault shipping is completed. Unloading operations may be divided into two periods:

- the assault and initial unloading period is primarily tactical and must provide quick response to LF requirements ashore; and
- the general unloading period is primarily logistic oriented and emphasises rapid completion of the unloading of personnel and materiel remaining in assault shipping.

4.22 **Relationship to other planning.** Detailed planning for the ship-to-shore movement can only begin after the LF scheme of manoeuvre ashore is determined. Ship-to-shore movement planning culminates with preparation of the landing plan and must be substantially completed before embarkation planning can begin. The landing plan and plan of offensive support are carefully integrated. The landing plan provides for requisite logistic support of all forces ashore. Attention should be paid to preserving operational security during logistic planning.

4.23 **Ship-to-shore movement planning.** Responsibilities for the landing phase movement planning are as follows:

- CLF is responsible for determining ship-to-shore priorities and tactical requirements and presenting them to CATF. CLF also prepares the LF landing plans and produces the LPT;
- CATF is responsible for the preparation of the overall ship-to-shore movement and the landing plan. This includes the allocation of ships and landing craft in the surface assault schedule and helicopter employment and assault landing table; and
Commanders of other major forces assigned to the ATF, including those assigned for movement to the AOA but not part of the amphibious operation, are responsible for determining and presenting their supporting requirements to CATF.

Figure 4–4: LCM8 operations with HMAS TOBRUK

4.24 Ship-to-shore movement planning considerations. Principal factors that influence ship-to-shore planning are the:

• basic requirements for providing maximum support to accomplish the initial tactical objectives ashore, including maintenance of tactical integrity of the LF, and achieving the required degree of concentration or dispersion;

• dispersion of assault shipping including the sea echelon plan\(^3\);

• availability of the means for landing;

• force protection available to the ATF;

• maintenance of the aim and flexibility to exploit weaknesses in enemy defences and respond to contingencies;

• availability and planned use of supporting arms; and

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3 Description of tactical sea echelon plans may be found in Allied Tactical Publication 36—Ship to Shore Movement.
need for speed and positive centralised control.

4.25 Ship-to-shore planning sequence. The ship-to-shore planning sequence is as follows.

- LF tactical requirements are submitted to CATF, along with a statement of available organic lift (excluding the ship-to-shore means, helicopters, raiding craft, and amphibious vehicles).
- Maritime lift requirements are determined.
- LF and maritime requirements are consolidated.
- CATF and CLF must request additional support if the assigned means cannot satisfy ship-to-shore movement requirements. If additional means cannot be made available by higher authority, landing and tactical plans must be adjusted accordingly.
- The landing plan is prepared after the final allocation of means has been made. The plan represents the integrated sum of detailed plans for waterborne and helicopter-borne ship-to-shore movement prepared by corresponding maritime and LF echelons at all levels.
- The landing plan is composed of a range of documents that present in detail all instructions for execution of the landing. These documents are incorporated as annexes to operation and administrative plans and orders; altogether, they constitute the landing plan.

4.26 Landing documents. Documents that support the landing plan are prepared by both the maritime and LF forces. Preparation responsibilities, purposes, descriptions and examples of maritime and LF documents that form the overall landing plan are provided in ADFP 3.2.1—Amphibious Operations Procedures.

Termination phase

4.27 Termination. The termination phase is predicated on the accomplishment of the amphibious mission set out in the CJOPS operation order. The termination phase may result in the LF either progressing to subsequent LF operations or to a withdrawal. On termination of the amphibious operation, the AOA will be dissolved.

4.28 Withdrawal. A withdrawal must be planned in detail including a time and place for re-embarkation of the LF. If the landing points and withdrawal points are not the same, positive means of location and identification of the latter must be established. Special situations may permit planning for withdrawal of the raiding force directly into friendly territory without re-embarkation. Withdrawal by air may be possible when the area of operations includes a useable airfield or terrain suitable for landing helicopters.
HISTORICAL EXAMPLE—NEW GUINEA, THE SECOND WORLD WAR

To most Australians, the campaign fought against the Japanese in New Guinea during the Second World War (WWII) is typified by images of Australian diggers and New Guinea natives or ‘fuzzy-wuzzy angels’ struggling across the Kokoda Track or fighting hand-to-hand at Milne Bay. Very few would have considered this to have been a maritime campaign, yet this is exactly what it was, for the final arbiter of victory or defeat in the jungles of New Guinea was maritime power.

As the Americans and Australians went over to the offensive in New Guinea the inherent advantages of sea power, in the context of flexibility and manoeuvre, became apparent. The Seventh Fleet Amphibious Force was established under the command of Rear Admiral Daniel E. Barbey, USN. From October 1942 through to July 1944 this force conducted a series of amphibious assaults from Goodenough Island in the east through to Sansaport on the western tip of New Guinea. These assaults, when combined with the central Pacific advance, were a demonstration of manoeuvre warfare on a grand scale. Strong enemy forces were bypassed, while captured areas became advanced bases, airfields and logistics depots for the continuing maritime offensive against the Japanese. After Kokoda, there were no other northern advances across New Guinea. The movement of Allied forces was in a westerly direction in a series of amphibious assaults.

RAN ships, in particular the Infantry Landing Ships HMAS KANIMBLA, HMAS WESTRALIA and HMAS MANOORA, cruisers, destroyers and the Bathurst Class corvettes played an important part in the naval campaign for New Guinea providing escorts, fire support, amphibious sea lift, minesweeping, survey and logistic support.

The stalwart efforts of the Australian and US ground forces alone did not halt the Japanese advance. It was the combination of the maritime interdiction campaign against Japanese supply lines, amphibious movements to outflank and bypass defensive positions, and successful convoying that forced the Imperial Japanese forces back from Port Moresby to their final defeat.

Annexes:
A. Mounting and embarkation sequence
B. Rehearsal and action sequence
See attached notes
Notes

(a) Chief of Joint Operations (CJOPS) operation order will normally designate Commander joint task force (Comd JTF), Commander amphibious task force (CATF) and Commander landing force (CLF), confirm force assignment of all forces taking part in the amphibious operation, and detail command and control arrangements and the mission.

(b) Headquarters 1st Joint Movement Group (HQ 1JMOVGP) will be assigned in support of the operation but will normally not move any units until after the mounting meeting has been conducted. They may move some land units to unit concentration areas. Units being moved by HQ 1JMOVGRP will be required to complete and submit a deployment planning data sheet once force assigned.

(c) The initial planning conference (IPC) will be scheduled by CATF and from this meeting a preliminary amphibious and landing force concept of operations (CONOPS) will be developed and warning orders sent to assigned forces involved in the amphibious operation. If there is no CONOPS then ships should plan to be loaded using the CJOPS CONOPS and generic battle organisations for the landing force (LF). The first major meeting of all the participants may not occur until the mounting meeting.

(d) CATF/CLF staff complete the IPC, which should provide the amphibious CONOPS and LF CONOPS. CATF will then instruct the ships to submit a ‘start state signal’ and CLF will order LF units to provide an ‘amphibious planning table’ for the land units, to the amphibious control officer (ACO).

(e) The ACO will then complete a preliminary loading plan and send this back to the ships and land units. The plan will then be discussed and all the participating units will bring the required information to the ‘mounting meeting’ which is convened by CLF and chaired by the ACO.

(f) The ‘mounting meeting’ may be used as the initial planning conference (IPC) as all the operations officers/unit logistic representative (S4)/ships army detachment (SAD) must attend this meeting. By the end of the meeting all units involved will have a loading plan and CATF will produce the ‘embarkation order’ which forms the basis of the ‘movement order’ which is produced by HQ 1JMOVGP.
ADDP 3.2

(g) The ACO will chair the pre-stow conference, however, the local joint movement control officer (JMCO) could chair the conference if required. This is conducted in order for the units and the ships to complete the ‘call forward plan’.

(h) The JMCO is responsible to move units to the embarkation point, the SAD from the ship being loaded then controls the embarkation with the JMCO assisting.
Notes

(a) The Concept of Operations (CONOPS) for the amphibious operation may have been decided on before embarkation. If it has not been then the CONOPS will be produced whilst at sea, during the rehearsal and movement phase of the operation. This CONOPS will then be passed to Commander amphibious task force (CATF) for approval and to be consolidated in the overall operational CONOPS which may then require a re-stow of landing forces (LF) equipment.

(b) From the overall CONOPS an amphibious operational tasking message (OPTASK AMPHIB) will be produced which will coordinate the information to complete a surface assault table (SAS) and helicopter employment and landing table (HEALT), these documents will be passed to the amphibious units and Commander landing force (CLF) and be briefed as part of ship to objective manoeuvre (STOM) orders.

(c) On completion of rehearsals, the OPTASK AMPHIB will be refined along with the SAS and HEALT before the final orders group. These should be issued before the final meeting along with STOM orders.

(d) On completion of the action the Commander joint task force will confirm the orders for the force, it should be one of three options: firstly the amphibious objective area will be dissolved and the ensuing operation becomes an administrative move back to their unit locations—in this instance it will be conducted by Headquarters 1st joint movement group (HQ 1JMOVGP). The second option is an operational continuance, ie subsequent operations and continued support for the same operation. The third option is that the LF joins up with other land based forces.

(e) In the case of the two operational phases then a CONOPS will be produced by each group and brought together under CATF at the termination/back load conference. This conference will be run on the same lines as the mounting meeting.

(f) At the back load conference a back load plan will be completed, with an SAS/HEALT and that will then be executed using the amphibious beach team.

(g) If the back load is a non-operational move then HQ 1JMOVGP will chair the pre-stow conference and issue a movement order to the units and the amphibious task group in order to move units back to home locations.
CHAPTER 5
AMPHIBIOUS PLANNING

Executive summary
This chapter discusses the planning process, sequence and specific requirements for amphibious operations.

• Planning for amphibious operations uses the joint military appreciation process (JMAP).

• Amphibious planning is a joint planning task for Commander amphibious task force (CATF) and Commander landing force (CLF) that starts with the landing forces (LF) mission analysis (MA) to identify possible landing sites within the amphibious objective area (AOA).

• The planning sequence includes development and analysis of the LF course of action (COA), developing the LF scheme of manoeuvre ashore, determining the amphibious task force (ATF) supporting tasks and objectives and determining the ATF concept of operations (CONOPS).

• Joint fire support is required for all amphibious operations where there is a perceived or actual threat.

• Accurate and timely intelligence is fundamental to the joint intelligence preparation of the battle space (JIPB) for planning and decision-making.

• Littoral environmental assessment procedures collate the necessary information on a beach landing site, its seaward approaches and the adjacent hinterland.

In preparing for battle, I have always found that plans are useless, but planning is indispensable.

General Dwight D. Eisenhower (1890–1969)

INTRODUCTION
5.1 Every operation requires careful and detailed preparation and planning. However, the amphibious operation is generally more complicated than most owing to it being conducted simultaneously in the maritime, land and air domains in the littoral environment with the need to coordinate in detail the actions of all forces involved from the highest level. The sequence of planning is critical because of the need for concurrent and interrelated decision making.
5.2 Conceptually, the amphibious operation should be viewed as a single integrated operation rather than two or three parallel operations. Within the constraints of the available amphibious ships and their unique characteristics, the landing plan should be designed around the LF scheme of manoeuvre and provide maximum flexibility to respond to changes in the tactical situation. Additionally, the order of landing of the various assault waves (helicopter and landing craft) and the conduct of unloading should be driven by the tactical situation and the need for a rapid build-up of combat power ashore.

5.3 Amphibious planning is an integral part of the joint planning environment at the operational level. Planning for all phases of amphibious operations uses the joint operational planning process which incorporates the JMAP (see figure 5–1). Further guidance on Australian Defence Force (ADF) planning is contained in Australian Defence Doctrine Publication (ADDP) 5.0—Joint Planning (Provisional) and Australian Defence Force Publication (ADFP) 5.0.1—Joint Military Appreciation Process.

AMPHIBIOUS PLANNING PROCESS

5.4 For an amphibious operation, either the Chief of Joint Operations (CJOPS) or the Commander joint task force (Comd JTF) will appoint the CATF, normally Commander Australian Amphibious Task group (COMAUSATG), and the CLF, normally the embarking forces Brigade commander. Amphibious operations employ a myriad of joint and single-Service expertise, attributes and assets. The CATF and the CLF will together direct the amphibious planning activity and provide the appropriate commander’s guidance. Both CATF and CLF, and their respective staffs, need to be proficient at the JMAP, as much of the MA and COA development and analysis will rely heavily on each other’s objectives, tasks and planned end-states. Accordingly, the importance of inter-Service staff liaison during the amphibious planning process cannot be over emphasised.

5.5 The initial indication of a requirement to conduct an amphibious operation will be confirmed through receipt of a warning order or planning directive from either CJOPS or the Comd JTF. The nominated CATF and CLF will undertake liaison and initiate planning immediately on receipt of an order to commence planning. There will be a need to organise planning staff, exchange liaison officers (LO) and co-locate key planning staff. The major focus for this initial preliminary scoping stage of the planning process will be:

- activate the planning staff;
- identify planning tools;
- issue initial commander’s guidance (both CATF and CLF);
- consider the adequacy or otherwise, of the joint assets indicated for possible force assignment;
• determine the time available for planning, force preparation, mounting and movement; and

• conduct an initial assessment of critical information requirements.

![Joint Operations Planning Diagram](image)

**Figure 5–1: Joint operations planning process**

**Planning responsibilities**

5.6 The planning directive\(^1\) issued by either CJOPS or the Comd JTF will initiate amphibious operation planning, and should identify the required LF mission and end-state, and the ATF objectives to guide the subsequent detailed planning. By virtue of position, CATF carries the overarching responsibility to lead the preparation, development and execution of the amphibious plan. CLF is responsible for planning and executing the LF aspect of the landing and the land tactical scheme of manoeuvre ashore. CATF and CLF are considered equals in amphibious planning matters and decision making with regards to the amphibious operation. The development of a successful CONOPS for the amphibious operation requires effective interaction, cooperation and synchronisation between CATF, CLF and their respective staffs.

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\(^1\) Most likely either a planning directive or warning order (WNGO).
Critical facts and assumptions

5.7 Certain planning assumptions and assessments based on the JIPB must be made by CATF and CLF staff during the MA phase of operational planning. The mission assigned by CJOPS or the Comd JTF should normally indicate the directed, essential and implied tasks to be undertaken by the LF and will also detail any constraints or restrictions to which CATF and CLF must adhere. Additionally the planning directive or order should designate objectives within the AOA that must be secured and the battlespace effects to be achieved. CJOPS or Comd JTF will provide initial guidance to CATF and CLF whose planning task is to provide the higher commander with options and recommendations once the MA and COA development and analysis phases of the JMAP have been conducted.

5.8 The MA and COA development phases of the amphibious planning sequence will be significantly impacted and influenced by the JIPB process. Additionally, identification of available landing sites, environmental considerations which will determine their suitability, and the LF proposed scheme of manoeuvre ashore, will shape the development of the overall amphibious plan and broadly dictate the landing sequence, location and the LF combat support and combat service support requirements. These concepts will subsequently determine the loading, unloading and assault sequences and ultimately the movement and rehearsal timeline. The initial phases of the landing plan must be developed with the LF insertion and manoeuvre plan, and the LF objectives and required end-state in mind.

Joint military appreciation process

5.9 During the amphibious planning sequence, certain planning activities and phases are undertaken concurrently by CATF and CLF while other planning activities by necessity are undertaken sequentially. The amphibious planning sequence that flows from the JMAP process is generally as follows:

• CATF and CLF combined MA;
• CLF COA development using CATF subject matter experts;
• CATF supporting COA development;
• CATF/CLF COA analysis; and
• CATF/CLF COA decision and CONOPS development.
5.10 Mission analysis. The combined CATF and CLF planning staff conduct the initial MA together if possible to review the situation, examine the ATF objectives and determine the criteria for the end-state ashore. The JIPB process examines the known facts and assumptions and aids in identifying any commanders critical information requirements and information shortcomings. Assigned, implied and additional tasks are identified along with any imposed constraints or restrictions. Finally an analysis of the adversaries and own centre of gravity is conducted. The MA concludes by CATF and CLF identifying the ATF mission and LF objectives considered essential for the accomplishment of the amphibious mission and conducting a risk assessment to identify any major unknowns or capability shortcomings.

5.11 The CATF/CLF MA will determine whether there are any gaps in the environmental information factors that may be answered by the rapid environmental assessment (REA) process. CATF will also identify the ATF objectives and determine if there are sufficient naval and air assets to conduct the operation. Once completed, the MA can be briefed to the Comd JTF and importantly, CATF and CLF can request allocation of additional forces or assets necessary to meet any identified capability shortcomings.

5.12 Course of action development. Once the MA has been confirmed, along with the ATF mission CLF will develop a number of LF COA ashore. This must cover the allocated tasks and objectives for the LF and other supporting forces, including airborne and special force units. CLF will also formulate alternate COA including options for alternate landing areas, subsidiary landings and link-up operations. CATF and CLF can then jointly develop the ATF COA to support the range of LF COA. CATF and CLF staff must identify all the available options for the conduct of landings.

5.13 Course of action analysis. Once the LF COA development has been completed the options are examined and analysed against the adversaries most likely and most dangerous courses of action. CATF may still be refining the amphibious COA development as the LF COA analysis is being conducted. At this stage, it is important that both the CLF and CATF COA be analysed and wargamed in unison to determine any disconnects between the LF and ATF COA and to ensure that the ATF can support each of the LF COA. This is in effect a tabletop rehearsal in order to assess each COA and determine the advantages and risks associated with each COA.

5.14 Decision and CONOPS development. Once the COA analysis has been completed, the alternate COA are compared and presented to the operational commander for further guidance and final decision. Once the operational commander has confirmed the preferred option, the CONOPS is completed. The CONOPS is usually a written and graphic representation, in broad outline of CATF and CLF intent with respect to the operation. The CONOPS gives an overall picture of the operation, including the formation for landing and the scheme of manoeuvre for accomplishing the LF and ATF objectives.
5.15 The CONOPS should ensure that it includes all joint aspects of the operation. This incorporates the situation, mission, execution, including timings, the landing plan, joint fire support and force protection requirements, airspace control mechanism, logistic combat support and, administrative and communications requirements. A standard amphibious planning process flow chart is contained in annex A to this chapter.

5.16 The outline of the landing plan should include:

- a landing beach or helicopter landing zone (HLZ) for each LF unit;
- the method and assets used for landing each unit; and
- the order in which personnel and materiel are landed in order to put a balanced force ashore, with sufficient offensive support, as quickly as possible.

Figure 5–2: HMAS TOBRUK with amphibious load

5.17 Concept of operations. The CONOPS is the final product of the JMAP. The CONOPS will be agreed by both CATF and CLF and generally briefed to the superior commander for endorsement. The CATF and CLF will normally require a back brief at each stage of the JMAP process during the CONOPS development in order to provide guidance and approval for further detailed planning.
5.18 **Orders.** Orders that may be issued by a commander are as follows:

- **WNGO.** A WNGO is preliminary notice of an action which is to follow. A WNGO is often used as a planning or initiating directive that describes the situation, allocates forces and resources, establishes command relationships, provides other initial planning guidance, and initiates subordinate unit mission planning.

- **Alert order.** An alert order (ALERTO) may be used in a similar manner to a WNGO and alert supporting elements. An ALERTO may also be used to bring forces to a state of readiness prior to execution.

- **Execute order.** An execute order is the order to initiate military operations as previously directed by the WNGO or ALERTO.

5.19 **Operations order.** The amphibious operations order (OPORD), which is developed from the CONOPS, covers all aspects of the operation up to the landing, and should normally be issued no later than embarkation. The OPORD should cover the priority of landing and initial operations ashore as an annex to the amphibious operation OPORD. Many of the supporting plans may be issued as annexes to the OPORD, though they may also be stand-alone orders as and where appropriate. The OPORD and its annexes will be amended by fragmentary orders as changes occur.

5.20 **Maritime Tactical Messages.** Pre-formatted maritime tactical messages will be issued by the CATF or delegated composite warfare commanders. They provide a standard method for ordering specific tasks and/or exchanging information required to command and control a maritime force. The key messages are as follows:

- **Operational tasking message.** The following operations tasking messages will be used in amphibious operations:
  - Operational tasking (OPTASK)—general message contains general matters of direction, organisation, instructions and aspects common to all forms of maritime warfare including detailed instructions and composite warfare responsibilities.
  - OPTASK messages provide detailed information for specific maritime warfare aspects within individual areas of maritime warfare responsibility and for tasking of naval and supporting resources. The OPTASK AMPHIB is the primary means by which CATF promulgates directives, duty assignments and other essential instructions and information to subordinate naval commanders in order to execute an amphibious operation.
PLANNING CONSIDERATIONS

Initial planning

5.21 Detailed planning which begins at the MA, must continually consider whether the ATF can support each LF COA. The detailed planning will include the formulation of the scheme of manoeuvre ashore and other supporting plans, including the joint fire support plan (naval, air and artillery), mine and obstacle clearance plans, and ship-to-shore movement plans. Complementary detailed plans for naval forces and participating air elements provided for transporting, protecting, landing and supporting the LF must also be developed. These plans will likely form annexes to the ATF OPORD. During the detailed planning, the adequacy of forces made available for the operation must constantly be scrutinised. If additional forces are required, they are requested from higher authority through the appropriate channels.

5.22 Embarkation plan. When planning the embarkation phase it is important that decisions are made at the appropriate level to ensure a smooth transition is made from single-Service responsibilities during assembly, to joint responsibility under the CATF and CLF. Such planning must be completed prior to embarkation of LF in order to determine the cargo configuration to support the required offload.

5.23 The landing plan. A number of factors must be considered in formulating the most appropriate landing plan for any given scenario. For example, some craft, such as amphibians and hovercraft, can successfully cross beaches inaccessible to conventional landing craft. Conversely, the required force build-up rate ashore may require that the beach be accessible by all landing and amphibious craft.

5.24 Additional assets. Traditional approaches to combat loading and landing craft assignment procedures should be reconsidered whenever assets are added to the force. As the landing plan expands, the embarkation plan becomes more complex. Time, distance and payload considerations become significant embarkation and disembarkation planning factors.

Liaison

5.25 Effective liaison between CATF and CLF is a critical requirement for planning. Immediately following receipt of a WNGO, LO are exchanged and arrangements developed to continue and expand the liaison team to meet the requirements of the particular operation. For example, where the ATF is intended to provide ongoing intelligence and logistic support to the LF ashore after landing, specialist LO are likely to be required within the CATF N2 and N4 branches afloat.
5.26 In addition, CATF may need to exchange LO with the Comd JTF to facilitate coordination of the amphibious plan with JTF plans for supporting maritime and air operations designed to achieve the critical preconditions in the AOA for an assault to proceed.

**Sequencing**

5.27 The standard sequence for planning an amphibious operation involves a series of activities and planning conferences designed to facilitate the continual exchange of information and synchronisation of plans between CATF and CLF and their respective staffs. A key milestone in this process is the development of the amphibious CONOPS for higher approval and subsequent translation into the detailed orders and instructions required for execution.

5.28 Regardless of the number of LO exchanged and whether CATF and CLF are collocated, formal planning conferences are required to ensure joint agreement is achieved at key points during the JMAP. The number of planning conferences actually conducted will vary with the proximity of CATF and CLF planning staff and the time available.

5.29 The standard JMAP planning sequence is applied within the time and space constraints of the operation. For example, time constraints may require the force to embark and sail before all amphibious planning is complete. In such circumstances, separate orders will be issued to cover the mounting and initial unit movement phases, with detailed planning and orders for subsequent phases conducted and issued at sea.

**Figure 5–3: Landing Platform Amphibious operations room**
5.30 **Designation of landing sites.** A landing site is a continuous segment of coastline over which troops, equipment and supplies can be landed by surface means. The landing site is restricted in maximum length only to the extent of useable, uninterrupted coastline, but must be a minimum length to contain at least one landing area. CATF determines and designates the potential landing sites within the AOA.

5.31 **Selection of landing areas.** The landing area is that part of the AOA within which an amphibious force conducts the landing operation. The landing area includes the beach, the approaches to the beach, the back of beach for assembly and transport, the joint fire support areas, the airspace occupied by close supporting aircraft and the terrain in the advance to the initial objective. CATF delineates landing areas, expressed in terms of sea area and airspace required, for each beachhead selected by CLF. To ensure unity of effort, CATF should coordinate planning for air operations within the AOA. CATF then forwards to CLF an evaluation of each potential landing area in terms of supportability from a maritime perspective (sea and air), including the relative order of preference. From a LF perspective, CLF then selects primary and alternate landing areas from those provided by CATF that will best facilitate accomplishment of the LF mission. CLF presents final selections to CATF for concurrence.

5.32 **Selection of beachheads.** A beachhead is a designated area on a hostile or potentially hostile shore, which when seized and held, ensures the continuous landing of troops and materiel and provides manoeuvre space requisite for subsequent operations projected ashore. The beachhead represents the physical objective of the amphibious operation. CLF determines the best possible beachheads for each landing site designated by CATF and notifies CATF of the selections.

5.33 **Airmobile operations—helicopter landing zone.** The HLZ is a specified ground area for landing assault helicopters to embark or disembark troops and/or cargo. The HLZ may contain one or more landing sites. CLF selects desired HLZ and advises CATF. In reviewing these selections, CATF considers the ability of other forces to support the proposed HLZ.

5.34 **Fixed-wing aircraft landing and drop zones.** When employing airborne or air-transported forces, CLF, after consulting with the airborne troop commander and air commanders, selects the drop zone and landing zones. CATF reviews the selected zones for the supporting airborne operations to determine the ability to support operations with forces available. For further information refer to ADDP 3.9—Airborne Operations.

5.35 **Selection of D–Day and H-hour.** If not specified in the planning directive, CATF, after consultation with CLF and other commanders as appropriate, selects the tentative date (D–Day) and hour (H-hour) of the landing. During planning, tentative dates and hours are promulgated as early as possible. Consideration should be given to conducting the initial landing
phase during the early morning under cover of darkness in order to achieve surprise and provide the following day to substantially complete landing operations.

Figure 5–4: Airmobile operations from an Landing Platform Amphibious

Airspace control

5.36 Planning for airspace procedures should commence at the very outset of the amphibious planning process. Airspace control within the AOA will accord with policy and procedures promulgated by the Comd JTF appointed airspace control authority, most likely the joint force air component commander. However, for large scale amphibious operations the CATF may be designated as a subordinate airspace control authority for the AOA.

5.37 To support the CATF in managing and controlling the airspace an amphibious mobile airspace coordination element (AMACE) may be assigned. The AMACE is a specialist Royal Australian Air Force element deployed as part of an amphibious or maritime task force to provide airspace management and control function. Specialist input on AOA airspace management needs to be considered in designing the airspace and determining airspace control measures. For further information on airspace control refer to ADDP 3.3—Joint Airspace Control.
5.38 The supporting airspace plan should:

• identify the airspace control agency that is managing the airspace within the AOA on behalf of the CATF;

• consider integration and coordination with adjacent and superior airspace control agencies during the amphibious operation and subsequent land force operations;

• allow integration of defensive counter-air operations;

• impose minimal constraints on supporting air units; and

• identify airspace procedures for joint fire support.

Force protection

5.39 A force protection plan should be developed for both the sea passage and landing phases of the operation. Ships within the AOA need protection from hostile aircraft, surface and sub-surface elements. Comd JTF must ensure assets are assigned to ensure the protection of the ATF particularly during the vulnerable landing phase. Comd JTF may delegate responsibility for providing air, surface and sub-surface defence to subordinate commanders in accordance with the composite warfare commander concept.

Fire support

5.40 Fire support is required in all amphibious assaults where the adversary has lodged near the beach or where the beaches and landing areas are within range of their indirect fire weapons. Fire support may also be required as part of an amphibious withdrawal, demonstration or deception plan and should always be available on call.

5.41 Fire support is applicable to both offensive and defensive operations; it may be organic to the force or provided by a supporting force, and covers:

• naval surface fire support (NSFS)—encompassing naval gunfire support, surface and air launched missiles;

• close air support (CAS);

• indirect fire from land units;

• air interdiction (AI); and

• aerial fire support.
5.42 **Supporting arms coordination.** The supporting arms coordinating centre coordinates joint fire support to the LF during the landing. Detailed planning and coordination is required to ensure an efficient, economical, and safe employment of offensive support assets.

5.43 **Naval surface fire support plan.** The NSFS plan must provide for:

- assignment of ships to NSFS duties and areas of responsibility;
- ammunition allowance and plans for replenishment;
- incorporation of NSFS into the overall fire plan, preparation of a target list and communications support requirements;
- assignment of NSFS forward observation parties and their insertion into the AOA; and
- air-spotting requirements.

5.44 **Air support plan.** The rotary and fixed-wing air support plan should cover the following air support requirements:

- CAS and AI to cover pre-H hour neutralisation of the adversary near beaches and landing areas and the support of LF in securing its objectives;
- strikes against pre-planned battlefield targets;
- air observation post and joint terminal attack controller missions; and
- reconnaissance of inland targets or future objectives.
5.45 **Land platforms.** Integral mortar and direct support artillery sub-units must be landed early to provide organic fire support in the initial stages of a landing. In an emergency, light armour and mortars may be fired from ships decks.

5.46 **Direct fire support.** Automatic, direct fire ships’ weapons or armoured vehicles on landing craft may also be used for direct fire support during a landing. This requires detailed, on-the-spot integration with the LF and may be used in the beach suppression role or against individual targets.

5.47 Detailed requests for air and maritime offensive support are submitted by subordinate elements of the amphibious group to CATF during detailed planning of the landing using the formats laid down in ADDP 3.1—Joint Fire Support and ADFP 3.1.1—Joint Fire Support Procedures. CATF in consultation with CLF then allocates overall priorities for fire support. During the landing phase, CLF allocates priorities for targets ashore.
Intelligence

5.48 Accurate and timely intelligence is the keystone for planning and decision-making. As it is difficult to alter plans significantly during the initial assault, the requirement for intelligence has special relevance in an amphibious operation. If plans are based on what is later found to be an inaccurate intelligence estimate, the initial phase of the assault may have to be conducted as planned with higher than expected losses of personnel and equipment and with a possible early commitment of the reserves. Therefore, the CATF and CLF must be continuously and rapidly informed of any changes in the primary intelligence factors of:

- enemy strength and disposition,
- weather and environment, and
- terrain.

5.49 Objectives of the intelligence process. The primary objective of the intelligence process for amphibious planning is to reduce as much as possible, the uncertainties regarding the physical environment and the enemy situation. A second major objective is the formulation and supervision of operational security and counterintelligence measures designed to conceal LF intentions and activities, and to destroy the effectiveness of the enemy intelligence effort. As in all aspects of the amphibious operation, the need for total coordination of efforts between the ATF and LF is of paramount importance.

5.50 Basic intelligence requirements. The CLF must have all pertinent intelligence on the weather, terrain, topography and hydrography within the objective area, and the adversary forces within or adjacent to it that may affect the amphibious operation. Beaches and HLZ receive special attention. CLF also requires intelligence on local inhabitants and the extent to which they may hinder or assist the operation. Existing natural and man-made obstacles must be evaluated and those areas that offer the best potential for emplacement of offensive minefields and barriers must be determined. The availability of maps and recent imagery must be determined early and requirements forwarded so that adequate quantities are available for planning and operations.

Commander amphibious task force intelligence responsibilities

5.51 During planning, the CATF is responsible for the following:

- determination of intelligence requirements for planning by the maritime forces, review of intelligence requirements of the LF and other forces, and consolidation of intelligence requirements for the ATF as a whole;
• collection and processing of information and dissemination of intelligence to major elements of the ATF;
• procurement of maps, charts, town plans, port and harbour studies, lists of geodetic data, photographs and other graphic aids for the LF;
• preparation of intelligence estimates affecting the force as a whole;
• preparation of intelligence studies that relate to the mission and area of operations;
• establishment of liaison with operational intelligence agencies that are not part of the ATF, including area and departmental agencies as necessary;
• initiation of requests and directives for the collection of information by reconnaissance, observation, friendly or indigenous forces and other agencies;
• determination of security and counterintelligence measures applicable to the ATF as a whole, in addition to those specified by higher authority;
• preparation and distribution of an intelligence annex to the ATF operation plan;
• establishment of a target information centre; and
• establishment of a joint intelligence centre (JIC) at the outset of planning, in conjunction with the CLF, as required.

5.52 CLF intelligence responsibilities. During planning, the CLF is responsible for the following:
• determination of intelligence requirements for the LF as a whole; preparation of a collection plan to satisfy those requirements; and submission of requests for required information and intelligence to the CATF or through the CATF to higher commands;
• collection and processing of information and dissemination of information including target information and derived intelligence to the LF and the ATF;
• establishment of liaison with intelligence agencies of the ATF and with area intelligence agencies, in cooperation with the CATF, to assist in the collection of information of primary interest to the LF;
• dissemination of map, chart, photographic and other graphic aid
requirements; submission of requirements for these to the CATF when beyond the capability of the LF to satisfy; and distribution of such material to the LF;

- preparation of intelligence estimates, summaries, studies and dissemination of information, including target information and intelligence, as developed, to the LF and ATF;

- assisting in the determination of the requirement for a JIC and provide staff as required;

- assignment of reconnaissance and observation missions and other intelligence tasks to subordinate elements of the LF;

- execution of reconnaissance and observation missions and other intelligence tasks assigned by the CATF or by higher authority;

- preparation of intelligence estimates, summaries and studies for the LF;

- preparation of counterintelligence estimates and plans for the LF, including determination and execution of security measures required to protect information against espionage, material against sabotage and personnel against subversion; and

- preparation for counterintelligence actions ashore, both offensive and defensive, to destroy the effectiveness of adversary intelligence activities.

5.53 Other force commanders. Other force commanders are responsible for determining and stating their intelligence requirements, and for preparing and executing an intelligence plan compatible with the specific needs of their respective forces. The force commanders to the CATF must submit requests for intelligence peculiar to the specialised operations of these forces.

5.54 Intelligence support plan. The intelligence support plan should be issued as an OPORD annex, and is the formal intelligence order for the conduct of intelligence operations and activities. This is the medium through which information and intelligence will be disseminated, reconnaissance and observation missions assigned, and other intelligence tasks and procedures stated. Drafts of the intelligence support plan should normally be distributed to other commanders in advance of the OPORD for use as planning guides.
Littoral environment assessment

5.55 A significant factor in planning amphibious operations is the littoral environmental conditions. During any operation in the littoral, knowledge of the meteorology, topography, surf and bathymetric conditions is required. In addition to being an unknown factor, the environment can pose a threat to the seaward insertion and extraction of the LF. The purpose of littoral environmental assessment is to collate the necessary information on a beach or landing site, its seaward approach the adjacent hinterland and atmospheric conditions in the area so that the risk from the environment is minimised. The means by which the ADF collects information about the beach and its environs is called littoral environment assessment and the doctrine, procedures and products associated with this are contained in ADFP 3.2.2—Littoral Environment Assessment Procedures.

5.56 Beach assessment for an amphibious operation is an activity that will occur at both the operational and tactical level. Defence geospatial agencies will support the Headquarters Joint Operations Command (HQJOC) Joint Environment Centre (JEC) in a preliminary environmental assessment. The initial assessment of amphibious objectives will require the analysis of archive materials such as nautical charts or maps. Part of this analysis will be a gap assessment to identify deficiencies in environmental information and subsequently any requirement to undertake littoral environmental assessment collection operations.

5.57 Rapid environmental assessment. The timeline of operational planning does not always allow for the time required to conduct a beach survey. When this is the case, the CATF may require a rapid assessment from the advance force elements, beach teams and hydrographers. REA is the direction, collection, processing and dissemination of relevant information relating to the physical environment of a battlespace and the development of products and databases for use by warfare commanders. REA may be considered as a real time assessment of the impact of the physical environment on a specific military operation to include hydrographic, oceanographic and atmospheric conditions that influence the capabilities and performance of forces involved. REA is therefore one of the overarching requirements to plan and execute an amphibious operation. REA information must be accurate, timely, seamless, coherent and relevant.

5.58 Headquarters joint operations command. The HQJOC JEC produces the overarching geospatial supporting plan for amphibious operations, and designates an ATF REA coordinator who will oversee the obtaining of beach environmental information. If necessary, HQJOC will task supporting units for the operation. The JEC will collate all environmental information available and provide it to the ATF REA coordinator.
5.59 Rapid Environmental Assessment coordinator responsibilities. The ATF REA coordinator will be a geospatial specialist, either a Navy hydrographer or Army military geospatial information specialist. The ATF REA coordinator responsibility is to collate, analyse and report the results of a beach collection operation to the CATF.

Logistic planning and support

5.60 Joint coordination of logistic support is required during the planning phases and early stages of an amphibious operation. Detailed planning for logistic support of a joint force is contained in ADDP 4.2—Support to Operations and ADFP 3.2.1—Amphibious Operations Procedures.

5.61 A number of factors influence logistic policy for amphibious operations. These are:

- warning time, type of operation and duration;
- location and climatic conditions;
- available assets;
- specialist equipment required; and
- configuration of the LF.

5.62 Warning time. The amount of warning, type of operation and its duration will dictate the logistic support required. A short warning operation will initially place significant demands on logistic stocks of fuel, medical supplies and ammunition.

5.63 Location and climatic conditions. The location and climatic conditions can significantly influence how logistic support is achieved. If the operation is planned for mainland Australia, then much of force line logistic support could be shore based or brought to the AOA overland. The seasonal conditions may also dictate the method and lines of communication for logistic support of the LF.

5.64 Available assets. In the planning phase, sufficient shipping should be identified to carry all logistic support within the ATF. Re-supply by air to a point of entry following an amphibious operation would use considerable air assets however, it has the advantage of a relatively quick build-up of logistic support within the AOA. A balance between available assets and required redundancy should be identified early in the planning cycle to prevent unnecessary wastage.
5.65 Specialist equipment. Amphibious operations are generally part of a wider objective. Therefore, the need for specialist equipment to support subsequent operations should be considered in developing the amphibious logistic plan. Dependent upon the mission, the ATF will require specialist stores delivered to the AOA. For example, in support of a disaster relief operation following an initial amphibious operation, the LF may require a considerable amount of heavy plant and equipment.

5.66 Configuration of the landing force. The order of battle of the LF also influences the logistic plan. An operation based on light infantry with minimal support is likely to have a more limited logistic support requirement than an airmobile force with rotary wing assets or a mechanised force with armour attached which will require different and more extensive types of logistic support.

5.67 Amphibious operations may take place in conjunction with an airborne operation or an air logistics support follow-up phase. The joint logistic plan should be based on an integrated air, maritime and land lift aimed at delivering logistic support to the force at the right time and place in sufficient quantities to meet operational objectives. Consideration should be given to the level of redundant logistic support, modes of delivery and stockpiles required to ensure the success of the mission. Although detailed logistic planning will tend to complement the operational plan, amphibious shipping space limitations could influence and limit the scope of initial logistic support operations.

5.68 Planning considerations for logistic support to an amphibious operation should include the following principles:

- Logistic support must be continuous, flexible, responsive and mobile.
- Combat elements should be relieved of the logistic burden to the greatest possible extent.
- Logistic lines of communication should be safeguarded during all phases of the operation.
- Assembly and embarkation sequence of personnel and materiel should be designed to meet the requirements of the LF scheme of manoeuvre.

Training

5.69 The development and maintenance of an effective joint amphibious capability within the ADF is based on an endorsed joint approach to collective training and readiness in the form of an incremental training cycle. This cycle, comprising a yearly progression of activities at the basic, intermediate and advanced levels, aims to build on the achievement of single-Service training and readiness objectives in order to meet stated preparedness and capability requirements.
5.70 The implementation of the amphibious joint training cycle is planned and conducted in accordance with the processes for other joint and combined exercises. COMAUSATG planning staff, play a key role in coordinating and planning joint amphibious training activities in conjunction with Land Headquarters. The results are reflected in various published programs, such as the Program of Major Service Activity and Fleet Activity Schedule and exercises and activities are planned, resourced and conducted by the appropriate force element groups.

HISTORICAL EXAMPLE—OPERATION ASTUTE

In May 2006 during Operation ASTUTE, the ADF deployed troops to Dili to help bring security, peace and confidence to the people of Timor Leste. A forward element secured the Comorro airfield in order to enable the follow-on force to establish a presence in Dili and two landing sites, designated Blue and Red Beaches, were chosen near the end of the runway; predictably just beyond the western limit of chart AUS 901.

The Royal Australian Navy’s Deployable Geospatial Support Team deployed in a Zodiac from the bow door of one of HMAS MANOORA’s LCM8 at sunset, surveying the beaches and surrounding areas by moonlight during the evening of 27 May 2006, utilising both single beam and sidescan sounders. Initial indications of a shoal area on approach quickly discounted Red Beach as an option and by the following morning, the processed survey data had been merged with existing hydrographic data and overhead imagery to create a new, composite chart. The ADF first operational amphibious landing since Operation OBOE 2 at Balikpapan, 01 July 1945, proceeded smoothly with over 1500 troops and their equipment passing safely over Blue Beach.

Annex:
A. Amphibious planning process flow chart
GLOSSARY

Unless stated otherwise, approved terms and definitions from the Australian Defence Glossary are used within this publication. Externally sourced terms and definitions, herewith approved for Australian Defence Force 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

amphibious assault
The principal type of amphibious operation which involves establishing a force on a hostile or potentially hostile shore. (NATO)

amphibious demonstration
A type of amphibious operation conducted for the purpose of deceiving the enemy by a show of force with the expectation of deluding the enemy into a course of action unfavourable to him.

amphibious cargo officer
The main movements officer on the Commander Amphibious Task Group staff responsible for coordinating all loads and offloads, and providing liaison between ships, craft and embarking units.

amphibious objective area
A geographical area, delineated in the initiating directive, for purposes of command and control within which is located the objective to be secured by the amphibious task force. This area must be of sufficient size to ensure accomplishment of the amphibious task force’s mission and must provide sufficient area for conducting necessary sea, air and land operations. (NATO)

amphibious operation
A military operation launched from the sea by a naval and landing force embarked in ships or craft, with the principal purpose of projecting the landing force ashore tactically into an environment ranging from permissive to hostile. (NATO)

amphibious raid
A type of amphibious operation involving swift incursion into or temporary occupation of an objective followed by a planned withdrawal.
amphibious shipping
Organic Navy ships specifically designed to transport, land, and support landing forces in amphibious assault operations and capable of being loaded or unloaded by naval personnel without external assistance in the amphibious objective area.

amphibious task force
A task organisation of naval forces and a landing force, with their organic aviation and other supporting forces, formed for the purpose of conducting an amphibious operation. (NATO)

amphibious withdrawal
A type of amphibious operation involving the extraction of forces by sea in naval ships or craft from a hostile or potentially hostile shore. (NATO)

beachhead
A designated area on a hostile or potentially hostile shore which, when seized and held, provides for the continuous landing of troops and materiel, and provides manoeuvring space required for subsequent projected operations ashore. (NATO)

campaign
1. A set of military operations planned and conducted to achieve a strategic objective within a given time and geographical area, which normally involve maritime, land and air forces. (NATO)
2. A controlled series of simultaneous or sequential operations designed to achieve the operational commander’s objective, normally within a given time or space. (US)

C-day
The unnamed day on which a deployment operation commences or is to commence. The deployment may be movement of troops, cargo, weapon systems, or a combination of these elements using any or all types of transport. The letter ‘C’ will be the only one used to denote the above. The highest command or headquarters responsible for coordinating the planning will specify the exact meaning of C-day within the aforementioned definition. The command or headquarters directly responsible for the execution of the operation, if other than the one coordinating the planning, will do so in light of the meaning specified by the highest command or headquarters coordinating the planning.
close support area(s)
Those parts of the ocean operating areas nearest to, but not necessarily in, the objective area. They are assigned to naval support carrier battle groups, surface action groups, surface action units, and certain logistic combat service support elements.

coalition operation
An operation conducted by forces of two or more nations, which may not be allies, acting together for the accomplishment of a single mission.

combat power
The total means of destructive and/or disruptive force which a military unit/formation can apply against an opponent at a given time.

combat service support
The support provided to combat forces, primarily in the fields of administration and logistics. (NATO)

combined arms team
A case-by-case mix of combat, combat support, combat service support and command support elements selected on the basis of a specific combination of task, terrain and threat.

combined operation
An operation conducted by forces of two or more allied nations acting together for the accomplishment of a single mission.

commander, amphibious task force
The Navy officer designated in the order initiating the amphibious operation as the commander of the amphibious task force.

commander, landing force
The officer designated in the order initiating the amphibious operation as the commander of the landing force for an amphibious operation.

composite warfare commander
The officer in tactical command is normally the composite warfare commander. However, the composite warfare commander concept allows an officer in tactical command to delegate tactical command to the composite warfare commander. The composite warfare commander wages combat operations to counter threats to the force and to maintain tactical sea control with assets assigned; while the officer in tactical command retains close control of power projection and strategic sea control.
control group
Personnel, ships, and craft designated to control the waterborne ship-to-shore movement.

embarkation phase
In amphibious operations, the phase that encompasses the orderly assembly of personnel and materiel and their subsequent loading aboard ships and/or aircraft in a sequence designed to meet the requirements of the landing force concept of operations ashore.

embarkation plans
The plans prepared by the landing force and appropriate subordinate commanders containing instructions and information concerning the organisation for embarkation, assignment to shipping, supplies and equipment to be embarked, location and assignment of embarkation areas, control and communication arrangements, movement schedules and embarkation sequence, and additional pertinent instructions relating to the embarkation of the landing force.

dead state
End-state is identified at the national and military levels as follows: The national end-state is the set of desired conditions, incorporating the elements of national power that will achieve the national objectives; and the military end-state is the set of desired conditions beyond which the use of military force is no longer required to achieve national objectives.

fire support area
An appropriate manoeuvre area assigned to fire support ships from which to deliver gunfire support to an amphibious operation. (NATO)

follow-up
In amphibious operations, the landing of reinforcements and stores after the assault and follow-on echelons have been landed. (NATO)

H-hour
The specific time at which an operation or exercise commences, or is due to commence, or a reference for the designation of days and hours before or after an event. (NATO)

helicopter control officer
The helicopter control officer is responsible to the central control officer for rotary wing mission control and coordination. The helicopter control officer liaises with the staff to ensure rotary wing loads and movements meet landing force requirements as the operation progresses.
**helicopter landing zone**
A specific ground area for landing assault helicopters to embark or disembark troops and/or cargo. A landing zone may contain one or more landing sites.

**helicopter transport area**
Areas to the seaward and on the flanks of the outer transport and landing ship areas, but preferably inside the area screen, for launching and/or recovering helicopters.

**joint force area of operations**
That portion of a theatre necessary for joint military operations and their administration as part of a campaign.

**joint force**
A general term applied to a force which is composed of significant elements of the Navy, Army and Air Force, or two or more of these Services, operating under a single commander who is in turn directly responsible to the Chief of Joint Operations.

**Joint Intelligence Centre**
The agency that consolidates amphibious task force and landing force intelligence functions to efficiently support the commander, amphibious task force, and the commander, landing force. The JIC is activated as early as possible and dissolved when the commander, landing force, assumes full responsibility for operations ashore.

**joint task force**
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.

**landing area**
1. The part of the objective area within which the landing operations of an amphibious force are conducted. This includes the beach, the approaches to the beach, the transport areas, the fire support areas, the airspace occupied by aircraft in close support and the land included in the advance inland to the initial objective. (NATO)
2. The area used for air landing of troops and materiel. (NATO)
3. That part of the operational area within which are conducted the landing operations of an amphibious force. It includes the beach, the approaches to the beach, the transport areas, the fire support areas, the airspace occupied by close supporting aircraft, and the land included in the advance inland to the initial objective. (US)
4. The general area used for landing troops and materiel either by airdrop or air landing. This area includes one or more drop zones or landing strips. (US)
5. Any specially prepared or selected surface of land, water, or deck designated or used for take-off and landing of aircraft. (US)

landing beach
The portion of a shoreline required for landing a battalion landing team, which can also be used as a tactical locality over which a force larger or smaller than a battalion landing team may be landed. (NATO)

landing force
The task organisation of ground and aviation units assigned to an amphibious operation. (NATO)

landing group
A subordinate task organisation of the landing force capable of conducting landing operations, under a single tactical command, against a position or group of positions. (NATO)

landing plan
In amphibious operations, a collective term referring to all individually prepared naval and landing force documents that, taken together, present in detail all instructions for execution of the ship-to-shore movement.

landing site
In amphibious operations, a continuous segment of coastline over which troops, equipment and supplies can be landed by surface means.

L-hour
The specific hour on C-day at which a deployment operation commences or is scheduled to commence.

logistics
The science of planning and carrying out the movement and maintenance of forces. (NATO)

manoeuvre
Employment of forces on the battlefield through movement in combination with fire, or fire potential, to achieve a position of advantage in respect to the enemy in order to accomplish the mission. (NATO)
military support operations

The use of military forces for purposes other than combat operations usually associated with war.

mobilisation

1. The act of preparing for war or other emergencies through assembling and organising national resources. (NATO)
2. The process by which the armed forces or part of them are brought to a state of readiness for war or other national emergency. This includes assembling and organising personnel, supplies, and material for active military service. (NATO)
3. The act of assembling and organising national resources to support national objectives in time of war or other emergencies. Related term: industrial mobilisation. (US)
4. The process by which the Armed Forces or part of them are brought to a state of readiness for war or other national emergency. This includes activating all or part of the Reserve Components as well as assembling and organising personnel, supplies, and materiel. (US)

movement plan

In amphibious operations, the naval plan providing for the movement of the amphibious task force to the objective area. It includes information and instructions concerning departure of ships from embarkation points, the passage at sea, and the approach to and arrival in assigned positions in the objective area.

national objectives

The aims, derived from national goals and interests, toward which a national policy or strategy is directed and efforts and resources of the nation are applied.

naval surface fire support

Fire provided by navy surface gun, missile and electronic warfare systems in support of a unit or units tasked with achieving the commander’s objective.

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. (NATO)
operation
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. (NATO)

operational objectives
These are the objectives that need to be achieved in the campaign to reach the military strategic end-state. Correct assessment of operational objectives is crucial to success at the operational level.

organisation for embarkation
In amphibious operations, the administrative grouping of the landing force for the overseas movement, and includes, in any vessel or embarkation group, the task organisation which is established for landing as well as additional forces embarked for purposes of transport, labour or for distribution to achieve a maximum of security.

organisation for landing
In amphibious operations, the specific tactical grouping of the landing force for the assault.

parallel chains of command
In amphibious operations, a parallel system of command, responding to the interrelationship of Navy, landing force, Air Force, and other major forces assigned, wherein corresponding commanders are established at each subordinate level of all components to facilitate coordinated planning for, and execution of, the amphibious operation.

planning directive
In amphibious operations, the plan issued by the designated commander, following receipt of the operation order initiating the amphibious operation, to ensure that the planning process and interdependent plans developed by the amphibious force will be coordinated, completed in the time allowed, and important aspects not overlooked.

planning program
The program prepared and issued by a commander that prescribes the schedule of planning events for staff.

pre-landing operations
In amphibious operations, operations conducted between the commencement of the assault phase and the commencement of the ship-to-shore movement by the main body of the amphibious task
force. They encompass similar preparations conducted by the advanced force but focus on the landing area, concentrating specifically on the landing beaches and the helicopter landing zones to be used by the main landing force. Pre-landing operations also encompass final preparations for the ship-to-shore movement.

**primary control officer**
In amphibious operations, the officer embarked in a primary control ship assigned to control the movement of landing craft, amphibious vehicles, and landing ships to and from a coloured beach.

**primary control ship**
In amphibious operations, a ship of the task force designated to provide support for the primary control officer and a combat information centre control team for a coloured beach.

**regulating point**
An anchorage, port, or ocean area to which assault and assault follow-on echelons and follow-up shipping proceed on a schedule, and at which they are normally controlled by the commander, amphibious task force, until needed in the transport area for unloading.

**rehearsal**
In amphibious operations, the period during which the prospective operation is practiced for the purpose of testing adequacy of plans, the timing of detailed operations, and the combat readiness of participating forces, ensuring that all echelons are familiar with plans and the testing of communications-information systems.

**ship-to-shore movement**
That portion of the assault phase of an amphibious operation which includes the deployment of the landing force from the assault shipping to designated landing areas.

**supporting arms**
Weapons and weapons systems of all types employed to support forces by indirect or direct fire.

**supporting arms coordination centre**
The joint tasking agency established aboard the amphibious command ship in which all communications facilities incident to the coordination of fire support of the artillery, air, and naval gunfire are centralised. This is the naval counterpart to the fire support coordination centre utilised by the landing force.
supporting operations
In amphibious operations, those operations conducted by forces other than those assigned to the amphibious task force. They are ordered by higher authority at the request of the amphibious task force commander and normally are conducted outside the area for which the amphibious task force commander is responsible at the time of their execution. (NATO)

tactical level of conflict
The tactical level of conflict is concerned with the planning and conduct of battle and is characterised by the application of concentrated force and offensive action to gain objectives.

targeting
The process of selecting targets and matching the appropriate response to them taking account of operational requirements and capabilities. (NATO)

theatre
A designated geographic area for which an operational level joint or combined commander is appointed and in which a campaign or series of major operations is conducted. A theatre may contain one or more joint force areas of operations.

transport area
In amphibious operations, an area assigned to a transport organisation for the purpose of debarking troops and equipment.
ACRONYMS AND ABBREVIATIONS

Unless stated otherwise, approved Australian Defence Force terms and definitions are used within this publication.

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
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</thead>
<tbody>
<tr>
<td>AAC</td>
<td>Australia’s Amphibious Concept</td>
</tr>
<tr>
<td>AAWC</td>
<td>anti-air warfare commander</td>
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<tr>
<td>ADDP</td>
<td>Australian Defence Doctrine Publication</td>
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<tr>
<td>ABT</td>
<td>amphibious beach team</td>
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<td>ACA</td>
<td>airspace control authority</td>
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<td>ACC</td>
<td>air component commander</td>
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<td>ACE</td>
<td>airspace coordination element</td>
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<td>ACO</td>
<td>amphibious cargo officer</td>
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<td>ADAS</td>
<td>amphibious deployment and sustainment</td>
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<td>ADDP</td>
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<td>Australian Defence Force</td>
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<td>ADFP</td>
<td>Australian Defence Force Publication</td>
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<tr>
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<td>Australian Defence Force Warfare Centre</td>
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<td>air defence liaison officer</td>
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<td>AMS</td>
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<td>AMTP</td>
<td>Australian Maritime Tactical Publications</td>
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<td>ANMEF</td>
<td>Australian Naval and Military Expeditionary Force</td>
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<td>AOA</td>
<td>amphibious objective area</td>
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<td>air operations centre</td>
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<td>AOR</td>
<td>auxiliary oiler re-supply</td>
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<td>APOE</td>
<td>air point of embarkation</td>
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<td>APOD</td>
<td>air point of disembarkation</td>
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<td>ARE</td>
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<td>amphibious ready group</td>
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<td>ASIF</td>
<td>Australian special information facility</td>
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<td>ATF</td>
<td>amphibious task force</td>
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<td>ATO</td>
<td>air tasking order</td>
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<td>allied tactical publication</td>
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<td>air traffic control</td>
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<td>BDE</td>
<td>Brigade</td>
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<td>BN</td>
<td>Battalion</td>
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<tr>
<td>C2</td>
<td>command and control</td>
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<td>C3I</td>
<td>command, control, communications and intelligence</td>
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<td>CAS</td>
<td>close air support</td>
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<td>CATF</td>
<td>Commander amphibious task force</td>
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<td>CCS</td>
<td>central control ship</td>
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<td>CDTG</td>
<td>clearance diving task group</td>
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<td>CDF</td>
<td>Chief of the Defence Force</td>
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<td>CDT</td>
<td>clearance diving team</td>
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<td>CIMIC</td>
<td>civil-military cooperation</td>
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<td>communications and information systems</td>
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<td>CJOPS</td>
<td>Chief of Joint Operations</td>
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<td>Comd JTF</td>
<td>Commander Joint Task Force</td>
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<td>CLF</td>
<td>Commander landing force</td>
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<tr>
<td>CO</td>
<td>Commanding officer</td>
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<tr>
<td>COA</td>
<td>course of action</td>
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<tr>
<td>COG</td>
<td>centre of gravity</td>
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<td>COMAUSATG</td>
<td>Commander Australian Amphibious Task Group</td>
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<tr>
<td>COMDT ADFWC</td>
<td>Commandant Australian Defence Force Warfare Centre</td>
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<td>COMSEC</td>
<td>communications security</td>
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<td>concept of operations</td>
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<td>CWC</td>
<td>composite warfare commander</td>
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<td>DCO</td>
<td>defensive counter air</td>
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<tr>
<td>DRAW</td>
<td>demonstrations, raids, assault, and withdrawal</td>
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<tr>
<td>DRN</td>
<td>defence restricted network</td>
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<td>DSN</td>
<td>defence secret network</td>
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<td>DZ</td>
<td>drop zone</td>
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<td>EMCON</td>
<td>emission control</td>
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<td>EMSPRAT</td>
<td>embarkation, movement, shaping operations, planning, rehearsal, action, and termination</td>
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<td>EP</td>
<td>electronic protection</td>
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<td>EW</td>
<td>electronic warfare</td>
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<td>EXECUTO</td>
<td>execute order</td>
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<td>FAS</td>
<td>fleet activity schedule</td>
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<td>force beach headline</td>
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<td>FE</td>
<td>force element</td>
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<tr>
<td>FFH</td>
<td>helicopter frigate</td>
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<td>FFG</td>
<td>guided missile frigate</td>
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<td>fleet headquarters</td>
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<td>FOB</td>
<td>forward operating base</td>
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<td>FRAGO</td>
<td>fragmentary order</td>
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<td>GBADCC</td>
<td>ground based air defence coordination centre</td>
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<td>Abbreviation</td>
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<td>humanitarian assistance and disaster relief</td>
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<td>HMAS</td>
<td>Her Majesties Australian Ship</td>
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<td>helicopter operations officer</td>
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<td>head of mission</td>
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<td>Headquarters</td>
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<td>HQ 1JMOVGP</td>
<td>Headquarters 1st Joint Movement Group</td>
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<td>HQ JOC</td>
<td>Headquarters Joint Operations Command</td>
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<td>IO</td>
<td>Information operations</td>
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<td>ISR</td>
<td>intelligence, surveillance and reconnaissance</td>
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<td>J2</td>
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<td>J4</td>
<td>joint logistics staff</td>
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<td>joint communications staff</td>
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<td>JBAC</td>
<td>joint battlefield airspace control</td>
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<td>joint environment centre</td>
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<td>JFAO</td>
<td>joint force area of operations</td>
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<td>Joint Forces Air Component Commander</td>
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<td>JFLCC</td>
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<td>joint intelligence preparation of the battlespace</td>
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<td>JMAP</td>
<td>joint military appreciation process</td>
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<td>joint operations planning process</td>
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<td>Joint Task Force Headquarters</td>
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<td>LARCV</td>
<td>lighter amphibious re-supply cargo vessel</td>
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<td>land component commander</td>
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<td>LCH</td>
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<td>LCM8</td>
<td>landing craft medium mark 8</td>
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<td>LCVP</td>
<td>landing craft vehicle and personnel</td>
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<td>landing force</td>
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<td>land headquarters</td>
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<td>LO</td>
<td>liaison officer</td>
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<td>MA</td>
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<td>mounting base</td>
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<td>mine countermeasures</td>
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<td>MGI</td>
<td>military geospatial information</td>
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<td>MSO</td>
<td>military support operations</td>
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<td>MWV</td>
<td>minor war vessel</td>
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<td>N6</td>
<td>naval communications staff</td>
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<td>North Atlantic Treaty Organisation</td>
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<td>NEO</td>
<td>non-combatant evacuation operations</td>
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<td>NGLO</td>
<td>naval gunfire liaison officer</td>
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<td>naval gunnery officer</td>
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<td>NSFS</td>
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<td>OAS</td>
<td>offensive air support</td>
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<td>OCEF</td>
<td>officer commanding embarked forces</td>
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<td>OPGEN</td>
<td>operations general order</td>
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<td>OPINST</td>
<td>operational instruction</td>
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<td>OPORD</td>
<td>operation order</td>
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<td>operations security</td>
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<td>operational tasking message</td>
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<td>OTH</td>
<td>over-the-horizon</td>
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<td>OVP</td>
<td>operational viability period</td>
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<td>PCO</td>
<td>primary control officer</td>
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<td>primary control ship</td>
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<td>PCRF</td>
<td>primary casualty reception facility</td>
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<td>PERMSAT</td>
<td>planning, embarkation, rehearsal, movement, shaping, action, termination</td>
</tr>
<tr>
<td>PMSA</td>
<td>program of major service activities</td>
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<td>POE</td>
<td>point of entry</td>
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<td>point of disembarkation</td>
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<td>point of injury</td>
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<td>RAAF</td>
<td>Royal Australian Air Force</td>
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<td>Royal Australian Navy</td>
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<td>RBG</td>
<td>ready battalion group</td>
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<td>ready combat team</td>
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<td>REA</td>
<td>rapid environmental assessment</td>
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<td>rules of engagement</td>
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<td>Sikorsky Mark 70–A (Blackhawk) helicopter</td>
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