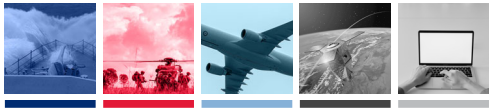
ADF Land Domain Publication



Land Domain Publication - Note

LNote 7.2.3 Olvanan Maritime Tactics

Issued by authority of the Chief of Army.

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LNote 7.2.3 *Olvanan Maritime Tactics*

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Preface

1. ADF Land Domain Publications (LPubs) describe the fundamental principles that guide land forces actions, and provide the common frame of reference on how the Army achieves its mission. LPubs are the basis of the Army's training system based on time-tested, proven principles of war, combined with the critical analysis of contemporary lessons. LPubs have been shaped since 1901 by Army's proud history and culture, while being constantly adapted as required, thereby representing the sum of the Army's collective historical knowledge, presented into objective guides for action. In essence LPubs explain and guide *'who we are', 'what we do' and 'how we do it'*.

2. ADF doctrine provides the framework that guides thinking but does not dictate what to do. While doctrine publications are written in a non-prescriptive style that allows latitude in interpretation and flexibility in application, they are specific enough to provide informed guidance. Doctrine is about fighting power and the integration of its three components: intellectual, moral and physical, applied through mission command and our manoeuvrist approach to warfighting.

3. Land procedural publications provide the authorised procedural and technical knowledge required for land forces to achieve their mission. Unlike doctrine, procedural publications convey information covering a range of activities based on best possible practice, in clear detailed steps that, depending on the publication, describe and/or prescribe how to perform specific tasks and drills. Whilst the majority of procedural publications are descriptive in nature, the decision not to follow the guidance contained in the publications should be justifiable. Land procedural publications are aligned and subordinate to ADF doctrine.

4. Land procedural publications include a number of publications that prescribe the procedures for the safe conduct of a range of tasks and activities required for delivering a range of lethal warfighting capabilities. Procedural publications which are safety in nature are written with an expectation of compliance, and therefore do not attempt to prescribe every 'do' and 'don't'. A number of land procedural publications are classified as Landworthiness Regulations

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5. **Land Domain Publication - Note (LNote)** is a provisional publication valid for no more than 24 months from its release until it is cancelled, released as an enduring LPub or absorbed into an existing LPub. LNote can be released:

a. as an addendum to an existing land publication

b. to provide additional information of significance in a timely manner to address an emerging issue, an identified lesson, or to satisfy a major/critical knowledge gap

c. as an unscheduled/short notice new publication, published in response to changing strategic guidance, introduction of new capabilities, emerging threats or opportunities.

Aim

6. LNote 7.2.3 Olvanan Maritime Warfare, aims to provide an in depth understanding on how the training adversary, known as the Olvanan Peoples' Army (OPA), established under the Decisive Action Training Environment (DATE) construct will conduct Maritime Warfare operations, highlighting the doctrine, strategy and tactics of the Olvanan People's Navy (OPN).

7. This publication provides philosophical and application-level doctrine on Olvanan Maritime warfare. It describes the nature and scope of adversary tactics in support of operations. This publication aims to inform commanders and other key personnel about the OPN's Maritime-enabled strategic objectives, historical and cultural background and context, and the OPN's maritime strategy.

Land publication L-Library

8. The ADF Land Power Library (L-Library) is the single access point, and digital catalogue for Army's authorised land power artefacts, supporting resources, including other related publications. In addition to accessing all current and historical publications, the L-Library contains links to ADF doctrine, and other ADF domain publications, as well as approved international partner publications. The L-Library is accessible via Land Domain Publications website.

9. Additional printed copies of Land Publications may be ordered using the Defence Print Ordering Portal which can be accessed via this link: https://printportal/overview.web.

Security

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1. Amendments to this Land Domain Publication are issued on the authority of the Chief of Army pursuant to Army Standing Instruction (Knowledge Management) Part 2 – *Management and Governance of ADF Land Domain Publications*.

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3. Proposals to amend this publication may be emailed to: armybattlelab.landdomainpublications@defence.gov.au.

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Chapter 1

Country study – Olvana

1.1 The People's Republic of Olvana is a communist nation that was founded in the mid-20th century after several decades of internal civil conflicts and global wars. Though the government has evolved over its seven decades of existence, it is still dominated by the Olvanan Communist Party. While the government was uncompromising in its approach to social change during the mid to late 20th century, it has adopted a more lenient stance regarding the way it approaches domestic economic and social challenges. Today, Olvana's massive economy and modernising military have enabled it to become a regional hegemon capable of exerting tremendous pressure and influence throughout the region and across the globe.

1.2 As the largest country in terms of size and population in the region, Olvana maintains the largest military in the Pacific region. The OPA is composed of not only a land force, but the Olvana People's Navy (OPN) and Olvana People's Air Force (OPAF) are subordinate to the OPA. Olvana's military has been undergoing a push to modernise its equipment and transform the way it prepares for and executes military operations. Olvana has successfully closed the technological gap that once separated it from western militaries, enabling its forces to create challenges for even the most advanced adversaries, and allowing Olvana to become a leading exporter of military technology to developing countries. The OPA active duty units operates primarily Tier 1 and 2 weapons. As new weapons are fielded by the OPA, the older Tier 3 weapons are cascaded to the reserve units or sold to other countries. The military plays a large role within Olvana's national strategy, not only in a traditional sense, but also in building influence and shaping conditions during competition.

1.3 Over the last half-century, Olvana has gradually evolved from being a primarily agrarian economy into one of the world's economic powers. The state run economy increased its emphasis on foreign trade and foreign investments. These reforms, coupled with cheap labour and mass industrialisation, allowed Olvana to become a major trading partner with the world. The resultant economic growth raised the country from one of the poorest underdeveloped nations to one of the world's leading economic superpowers. Olvana uses its economic influence to shape regional and global international relations.

1.4 Olvana's sheer size, both geographic and in population, means it is an extremely socially diverse country. The Olvanan ethnicity shapes the predominant national culture however, there are a wide variety of minority groups. During the latter half of the 20th century, the Olvanan government took steps toward social control, seeking to assimilate all minority populations and push out religion. These efforts led to mixed results, and eventually the government began to relax its policies on forced assimilation. That said, some among the minority populations still believe that the government is seeking assimilation through economic means. While the overwhelming majority of the population embraces the Olvanan culture as it is defined by the state, it remains a friction point among minority populations. The two primary religions are Hinduism, and the traditional Olvanan Folk religion. The Hindu population is found within the interior of the country while the Olvanan Folk religion is practiced more in the eastern and coastal regions. In addition to these two primary religions, Olvana is also home to Muslims, Christians, and others.

1.5 The People's Republic of Olvana maintains a large information environment, with its internet industries counted among the world's most active. Olvana is however, one of the world's most restrictive media environments. Olvana will utilise its cyber capabilities against external opposition parties and foreign governments. Olvana will also attempt retain total control over the nation's internal information environment by suppressing dissent within the populace over all communications mediums, though the internet remains the most free and accessible.

1.6 The Olvana infrastructure is modern and continues to improve as the urbanisation continues. Significant emphasis was placed on modernising the infrastructure in the past 20 years. Olvana has a state of the art mass transit system. The Olvanan government continues to subsidise the mass transit system to increase ridership and decrease congestion on the roads and air pollution. Airports range from large international airports that can handle almost any aircraft currently in production to small, unimproved dirt strips. Seaports are modern and can handle all modern cargo vessels. The country recently suffered from high levels of pollution in the urban areas and the government has made policies to combat pollution in urban environments. Air pollution has improved significantly but ground and water pollution are still way above acceptable western levels.

1.7 Olvana is a large country located in eastern Asia that borders three major bodies of water: The Yellow Sea, the East China Sea, and the South China Sea. The country's terrain varies from high mountains and green plateaus to river valleys and deltas, with climates ranging from tropical to semiarid to sub-alpine. Multiple natural hazards exits, resulting from Olvana's geology, weather, native wildlife, and human activity.

1.8 Olvanans see time as a precious resource, which is extremely important; as such, they frequently apologise for taking up someone's time. They do not accept tardiness and will often arrive 30 minutes prior to an agreed time. Olvanan time management stems from the other-centric view that one should use as little of another's time as possible. The concept of karma as applied to consideration of others leads to short, concise events that begin early and end even earlier. This extremely fast-paced and time-focused culture is viewed positively by the government and has been reinforced accordingly. This has resulted in a proactive, offensive view of conflict that focuses on pre-emptive action. US personnel interacting with Olvanan military leaders will need to prepare extensively beforehand and have potential decisions pre-approved by the chain of command in order to be successful. Olvana sits within the Olvanan Time Zone, which is seven hours ahead of Greenwich Mean Time/Coordinated Universal Time; it does not observe Daylight Saving Time.

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Chapter 2

Maritime-enabled National Strategic Objectives

Background

2.1 Olvana maintains a very long-term planning window for international strategic objectives. These objectives began to become far more ambitious in the late 1980s and the continued success of the Olvanan economy has fuelled goals that are ever more ambitious.

2.2 The Olvanan Communist Party (OCP) maritime-enabled National Strategic Objectives (NSOs) are:

a. Win without fighting

b. Re-integrate disputed island territories

c. Maintain and overtly enforce claim of maritime approaches (including dash-line claim) as sovereign waters (possessing the capability to keep the adversary outside of defined limits in order to resist invasion from the sea)

d. Maritime operations and outcomes used to promote national security and the position of the OCP at home

e. Maritime operations in the Pacific and Indian Oceans, which support the global OCP political interests and provide a constant global presence.

2.3 As far back as the 1950s, it was clear that the NSOs would require a modern and capable navy. The NSOs give rise to a maritime warfare doctrine that is largely defensive in nature, with the ability to achieve Sea control in defined areas close to Olvana but predominately focussing on denial, particularly further afield. This strategy of denial aims to ensure that competing or adversary countries are entirely unable to influence or impact claims and objectives within the stated area.

2.4 This defensive nature of this doctrine implies that offensive maritime operations will be used only to counter adversary moves against Olvanan strategic objectives. While this does not preclude offensive and pre-emptive strikes to achieve these objectives, this is not the preferred course of action (COA). Olvana intends to develop and deploy a military that provides sufficient deterrent that enables it to achieve its own goals without intervention.

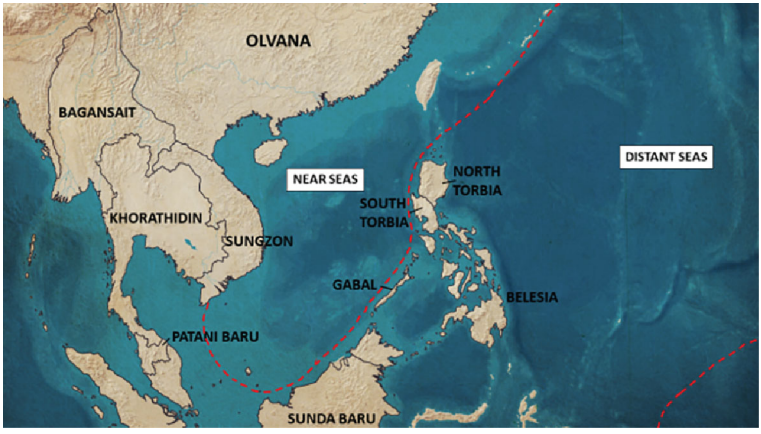
Olvana's maritime region of interest

2.5 Olvana's maritime region of interest is defined as the area proceeding from Olvana's coast out to the second island chain. This region is divided into two distinct areas, referred to as the Near Seas and the Distant Seas (see Figure 2.1).

a. *Near seas.* The maritime region that extends from Olvana's coast to the first island chain.

b. *Distant seas.* The maritime region that extends from the outer boundary of the first Island chain out to the second island chain.

Figure 2.1: Olvana's maritime region of interest



Societal and social influences

2.6 Two social and societal norms predominantly influence Olvana's maritime-enabled NSO and their achievement through doctrine: unanimity and collectivism. These concepts can be summarised by the following extracts from an analysis of Olvana's social landscape:

a. *Unanimity.* The Olvanan people are a much-unified people who want to make their country great again. For many years, Olvana was at the mercy of European colonial powers and now that Olvana's economic performance has pushed them to the top of the world stage, the people want to help the country stay there.

b. *Collectivism.* Olvana is a collectivist culture where the needs of the group outweigh any individual preferences. In business and social groups, while there is commitment to the internal group, there is hostility to any outsiders. The importance of the role of one's ancestors in day to day life is significant and can impact the factors that an individual may take into account when they are making a decision.

2.7 For Olvanans, the most influential maritime ancestor is explorer Admiral Zheng He and much of the Olvanan sense of pride in their maritime heritage derives from him. Furthermore, the Olvanan people have a significant affinity with their navy, and the OCP has been using increasingly ambitious Global Maritime Task Group deployments as a means to stoke patriotism back home.

2.8 Since his assumption of power, OCP Chairman Kang Wuhan has consistently pushed a narrative of Olvanan global supremacy. The presence of hard power on the global stage has been largely achieved through the OPN, an organisation that is fiercely loyal to Kang. The Chairman's teachings remain a major influence in their maritime doctrine, chief among which is the statement: '*The lazy westerner grows fat whilst the proud Olvanan worker prepares to do what is necessary to take back what is ours.*'

2.9 The belief, that western culture no longer has the stomach to shed blood and treasure on the battlefield, is a cornerstone of Olvana's maritime doctrine. Many tactics are grounded in the belief that western support for war will quickly wane should sufficient casualties be inflicted in the early stages of a conflict. Likewise, it is believed that the economic cost of flighting a major war in a distant Pacific theatre will quickly lead to financial impacts that the everyday western citizen is unwilling to bear. These assumptions drive the creation of distinctly Olvanan tactics, such as the targeting of units with minimal military value but will create economic effects on the adversary.

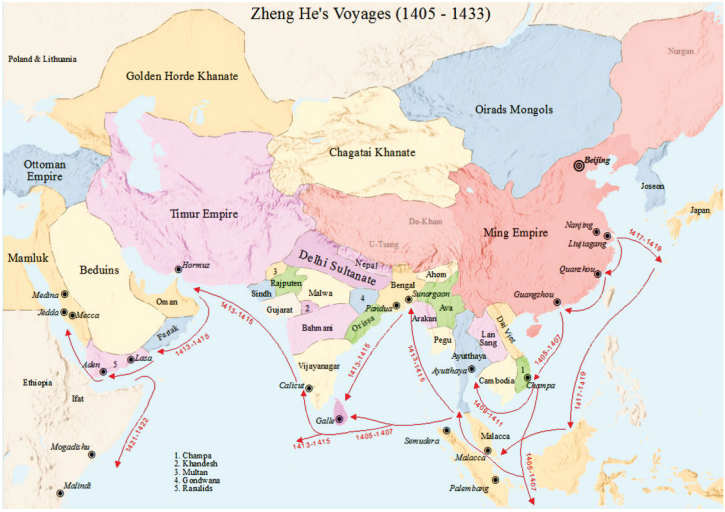
Historical influences

2.10 Whilst much of the Olvanan pre-1912 histories are viewed with suspicion or are discredited by the OCP, some historical events cut through this and are the source of significant patriotism. The OCP often use these stories to manipulate the national consciousness through historic validation of their objectives and plans.

2.11 Olvana's most beloved historical maritime narrative is the story and voyages of Admiral Zheng He. The OCP frequently leverages the mythos of Zheng's voyages to validate its expansionist maritime agenda and territorial claims (see Figure 2.2). This historical antecedent is also regularly referenced to garner support for the significant financial impact of the OPN modernisation program over the past two decades.

2.12 An Admiral and diplomat who lived 1371–1433, Zheng helped extend the maritime and commercial influence of Olvana throughout the regions bordering the Indian Ocean. He commanded seven naval expeditions almost a century before the Portuguese reached India by sailing around the southern tip of Africa.

Figure 2.2: The voyages of Zheng He, 1405–1433



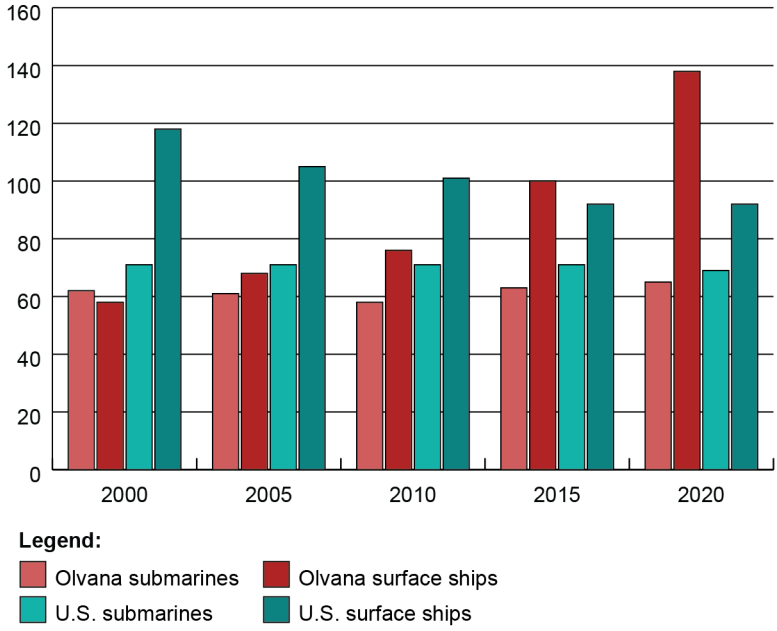
2.13 Zheng He's historical legacy is often cited as evidence that the world should not fear Olvana's growing maritime power. The global reach and supremacy of Olvana as a maritime power during Zheng's time represents the pinnacle of Olvana's position on the world stage. For half a millennium the country became more insular and a series of losses at the hands of the Japanese during the 19th and early 20th centuries brought the country to its geopolitical nadir.

2.14 These humiliations fuelled the rise of the OCP in the early twentieth century, as food shortages ravaged a rapidly growing population in a shrinking economy. Drawing on the prestige of Zheng He's Olvana and the maritime defeats to the Japanese, the OCP determined that future security threats could only be effectively countered with a strong navy.

2.15 Since the 1950s, the OPN has enjoyed funding increases well ahead of the pace of economic growth. This has led to a fundamental shift in OPN capability in the last 20 years, as Olvana has built up a primarily brown water fleet into the largest naval force in the world. OCP spending on the OPN has increased at a rate not seen since the

US-Soviet arms race of the 1970s and 1980s. The resulting modernisation and expansion program has succeeded in the world's largest and arguably most capable Navy (see Figure 2.3).

Figure 2.3: Olvanan People's Navy growth 2000–2020



Chapter 3

Olvanan military capability

Historical influences

3.1 The OCP aims rely heavily on a large, modern, well-trained, equipped and networked OPN. Until recently, the Olvanan military was heavily dependent on Donovian equipment, often of the previous generation. However, since the early 2000s, Olvana has moved steadily towards on-shoring its military hardware supply. Olvana is now recognised to produce materiel that is at least as capable as the Donovian equivalents, and in many cases the Olvanan technology is superior. This is most visible in combat aircraft, guided munitions, cyber technology, and surface naval vessels.

3.2 The maritime-enabled NSO discussed above have guided the development of four key focus areas for the OPN:

a. *Non-contact warfare.* This stipulates that weapons must be capable of being delivered outside of the adversary's sphere of influence. This has led the OPN to develop very long-range guided munitions that can be delivered by ships, aircraft, and submarines.

b. *Long-range surveillance.* The need for persistent long-range surveillance has driven the development of a vast constellation of intelligence, surveillance and reconnaissance satellites providing constant coverage of the entirety of the Near and Distant Seas.

c. *Fast, seamless networks.* Capable, flexible, and redundant communication networks provide the ability to pass targeting information between assets and from strategic sources to weapon-carrying platforms quickly and without compatibility constraints.

d. *Cyber assurance.* Whilst offensive cyber is being deployed into theatre, the protective cyber technologies were developed first to assure the other focus area, particularly the networked collaborative targeting and engagement capabilities.

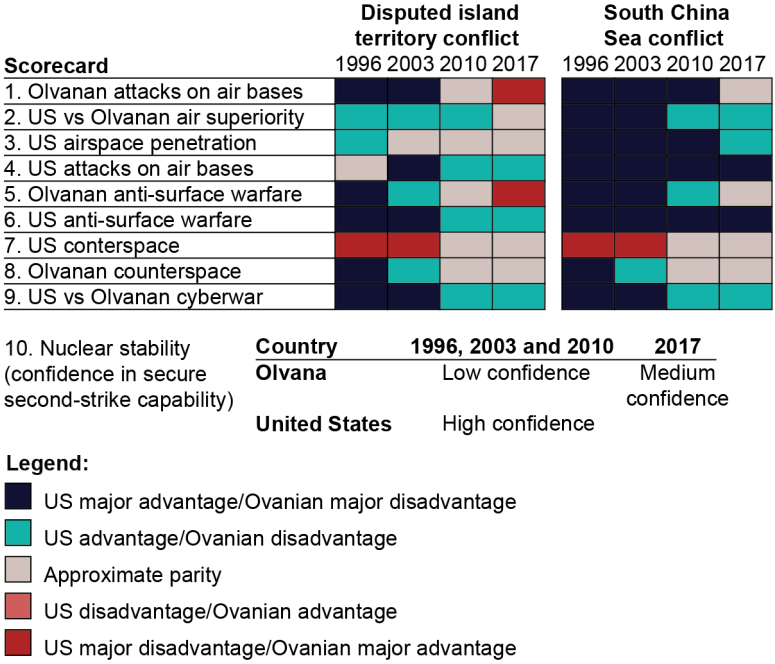
3.3 Once the initial four focus areas were deemed to have been achieved, the recapitalisation program focussed on replacing legacy capabilities with 5th Generation platforms, pursued a greater reliance on unmanned systems, and then focused on building scale.

Current military capability

3.4 The current strength of the Olvanan military lies predominantly in the scale and quality of its platforms.

3.5 The industrial strength that will enable Olvana to maintain and replace platforms during a major peer conflict cannot be understated, but is beyond the scope of this publication. Additionally, the political will and tolerance for wartime causalities inherent within the Olvanan political system provides a significant comparative advantage over Western democracies (see Figure 3.1).

Figure 3.1: United States – Olvana Military Scorecard, 1996–2017



Military capability – current focus

3.6 The scale and sophistication of the Olvanan military has now achieved the level required to enable the achievement of the maritime enabled NSO. The maturity of the individual services, their platforms, experience, training and assured mission sets can be considered as peer or near-peer level to the United States equivalent.

3.7 Underpinning much of the OCP military confidence is the perception of the Olvanan people to accept far greater losses than a Western adversary. Thus, the tolerable losses for any given military operation are far greater than a Western democracy would accept, providing a significant advantage in a prolonged conflict. For this reason, the scale and structure of the OPN is designed to anticipate significant losses over the course of a conflict and still maintain numerical advantage in the Near Seas.

3.8 Noting Olvana's defensive strategic focus and prioritisation of Olvana's immediate strategic region, the OPN can anticipate that any potential conflict will be fought within close proximity to its own borders. When considering that such a conflict will thus take place at some distance from Western powers (notably the US, UK, and Australia), the size and capability of the Olvanan Armed Forces is sufficient to achieve the single service mission sets necessary, assuming comparable attrition on both sides.

3.9 The area of current focus is interoperability and networking across platforms, services and between strategic enablers and the services and platforms themselves.

Interoperability and networking

3.10 Interoperability and networking, especially inter-service or between strategic commands, remains an area of weakness for the Olvanan military. Mission sets that rely on frictionless networking are not yet able to be completed reliably.

3.11 This vulnerability stems from the relative immaturity of the Olvanan military, exacerbated by rapid expansion over the past few decades. Capability gaps within certain platforms exacerbate this issue, notably the fourth generation aircraft which comprise the bulk of the OPAF, that were not designed to operate within a network-enabled battlespace.

3.12 These challenges have contributed to the 'siloed' nature of Olvana's armed services and significant overlap of capability development between the services. In many cases this creates a vicious cycle, with increased siloing driving independent development of systems that do not easily network with one another, exacerbating the problem. Within the maritime warfare sphere, this is most evident in the paucity of multi-role mission sets and the complexity of reassigning ships to a new task. For example, a surface action group conducting anti-surface warfare (ASuW) operations will struggle to rapidly re-task to an anti-submarine warfare (ASW) or air defence mission, limiting operational flexibility.

3.13 In the case of a large-scale conflict, this disadvantage will likely be mitigated due to the nature of the probable adversary. A multilateral, multi-service adversary coalition will experience similar

challenges in interoperability, communications, and networking. However, should the opposing force consist primarily of US forces or fit within a predominantly unilateral command and control (C2) structure, this would not be the case and Olvana's vulnerabilities would be exacerbated.

Maritime interoperability and networking weaknesses

3.14 The following are identified maritime mission set weaknesses and potential mitigations:

a. Olvanan People's Marine Corps (OPMC) and OPN interoperability within a large scale contested amphibious assault.

b. Complex airspace de-confliction in the littoral and within Near Seas where ground-based long-range surface-to-air missiles (SAM) and defensive counter air (DCA) exist.

c. Strategic and OPAF asset surveillance and targeting – delivery to maritime assets is insufficiently assured and timely.

d. Strategic assets provide cueing only, leaving the OPN platform to gain tracking and target the threat.

e. OPAF/OPN combined targeting and strike is well rehearsed, but remains cumbersome and lacks stealth.

f. Carrier and land based air operations are not yet integrated.

g. Carriers operate best in the Distant Seas and in the entry points to the Near Seas, in order to mitigate this weakness and extend the fixed wing combat aircraft coverage.

h. OPAF and strategic cueing to on-task submarines is unreliable and is often avoided.

i. Numbers and positions of deployed submarines mean less cueing is required. Utilisation of nuclear powered submarines in the Distant Seas able to increase speed to meet threats.

3.15 Some areas requiring interoperability are more easily mitigated such as operational command of fixed-wing ASW aircraft squadrons being transferred from the OPAF to the theatre ASW Commander (OPN) during operations.

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Chapter 4

Maritime-enabled National Strategic Objectives responsibilities

4.1 The OCP has determined that achievement of the maritime-enabled NSOs is the responsibility of the OPN. The Maritime warfare doctrine is constructed around the achievement of the NSOs and this remains the primary purpose of the OPN.

4.2 The OPAF and OPA are designated to support the OPN in the achievement of the maritime-enabled NSOs. Strategic supporting effects are orchestrated through the Olvanan Supreme High Command (OSHC), including:

a. Space and satellite

b. Intelligence

c. Cyber

d. Irregular and asymmetric warfare

e. Special forces.

4.3 The OSHC and the upper echelons of the OPA are tightly coupled and as such, the OPA generally takes primacy over the other two services. However, the strategic importance of the maritime-enabled NSOs has inverted this, with the OPN taking priority in planning and execution, with OPA and OPAF acting in a supporting role.

Olvanan People's Army maritime enabling capabilities

4.4 Land-based transporter erector launcher platforms provide an anti-ship cruise missile (ASCM) and anti-ship ballistic missile (ASBM) capability. These platforms are operated exclusively by the OPA, which is the primary capability provided by the OPA in support of maritime operations. Examples of these platforms include the YJ-62 ASCM, CJ-10 ASCM, and the DF-21 medium range ASBM.

4.5 Re-integration of any disputed island territories will be likely led by the OPA in concert with the OPMC. The OPMC forms part of the OPN and is expanding from its current strength of approximately 10,000 personnel. The OPMC is structured and resourced to conduct amphibious combat and assault operations up to and including any campaign to re-take disputed islands. Notwithstanding the OPMC contribution, the role of the OPN in such a conflict would be primarily focused on operational sea-lift, sustainment, and local sea control for the duration of the campaign.

Olvanan People's Air Force maritime enabling capabilities

4.6 The key OPAF capabilities utilised by the OPN are:

a. Airborne early warning (AEW), C2 platforms (eg, KJ-2000 and KJ-3000).

b. Long range surface surveillance and targeting (eg, WZ-7 Soaring Dragon, Y-8X, Y-8 maritime patrol aircraft (MPA) and H-6 families of aircraft).

c. Long range ASW search and attack aircraft (eg, Y-8Q).

d. Long range maritime strike aircraft carrying YJ-12 or similar ASCMs (eg, H-6 Badger, JH-7 Flying Leopard, and the in-development H-20 stealth bomber).

e. Electronic warfare (EW) platforms such as EW variants of the H-6 (HD-6), Y-8GX, Y-9GX, JH7, and J-16D.

Irregular and asymmetric warfare enablers

4.7 Irregular and asymmetric warfare capabilities are held within the OSHC or within the Special Operations branch of the OPA. These assets can be deployed via various means into the maritime domain.

a. *Olvanan Maritime Militia.* The Olvanan Maritime Militia (OMM) represents a significant and flexible capability used to shape the maritime environment, especially within disputed maritime territorial areas. The OCP maintain a public position that the OMM is not controlled by the OPN or OSHC, and as such the OCP can politically distance themselves from any actions that take place. In times of open conflict in the region the OMM can

provide more than mere nuisance factor. The legal ambiguity of their status under the law of armed conflict can be leveraged to create tactical dilemmas and foment legal uncertainty.

b. *Maritime asymmetric warfare enablers.* These enablers provide additional capabilities to the maritime domain. The use of uncrewed aerial vehicles (UAVs) in the maritime domain is proving increasingly effective globally, especially in denying major surface combatants freedom of action close to the coast. Additionally, support ships such as a hospital ship can be utilised as a form of soft-power influence to shape the operating environment prior to any conflict.

   (1) *Uncrewed aerial vehicles.* The OPA have successfully modified anti-personnel UAV swarms for ASuW use in the maritime domain.

   (2) *Hospital ship.* The Type 920 Hospital ship Daishan Dao frequently deploys to sensitive areas under the guise of providing humanitarian aid. However, sources suggest that its crew and equipment commonly comprise numerous non-humanitarian capabilities, including for intelligence gathering.

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Chapter 5

Maritime strategy

5.1 The OPN derives its approach to maritime strategy in light of doctrine and the legislated requirement that it be ready to achieve the maritime-enabled NSOs (and provide support to any other NSOs) at any time, on order from the OCP. This includes the enduring mission of the OPN to prevent foreign interference with Olvanan interests within the Near Seas.

5.2 Historic Near Seas interventions from Western navies have contributed to the firmly-held belief within the OCP that Western powers will likely intervene in any attempt by Olvana to re-integrate disputed island territories.

5.3 Successful national strategy and diplomatic endeavours have resulted in a low level of threat to Olvana from rogue states and religiously or issue-motivated extremist organisations.

5.4 The defensive nature of the maritime-enabled NSOs and the nature and capability of Olvana's perceived adversary has shaped an overarching maritime strategy of defensive counter-intervention. This has in turn predicated a focus on anti-access/area denial (A2/AD) as an overarching principle of maritime strategy. A2/AD comprises two distinct but related concepts:

a. *Anti-access.* Action intended to slow deployment of the Olvanan adversary forces into a theatre or cause the adversary to operate further from the location of conflict than they would prefer.

b. *Area denial.* Action intended to impede adversary operations within areas where Olvana cannot prevent access.

5.5 Anti-access prevents movement to (or entry into) a theatre, while area denial impedes manoeuvre within a theatre. Olvana is vigorously pursuing an A2/AD strategy throughout its maritime region of interest (Near and Distant Seas).

5.6 Olvana's maritime region of interest is defined as the area proceeding from Olvana's coast out to the second island chain. This region is divided into two distinct areas, referred to as the Near Seas and the Distant Seas.

a. *Near Seas.* The maritime region that extends from Olvana's coast to the First Island Chain.

b. *Distant Seas.* The maritime region that extends from the outer boundary of the First Island chain out to the Second Island Chain.

5.7 Olvana's A2/AD strategic can be mapped directly onto the maritime region of interest. OPN strategy that A2 is achieved within the Near Seas, and area denial is achieved within the Distant Seas.

5.8 The recent OPN maritime capability growth and recapitalisation along with the improved strategic military enablers (satellite, cyber, reclaimed island bases etc) now allows an A2/AD maritime strategy within the Near and Distant Seas.

5.9 Notably, all of Olvana's disputed island territories lie within the Near Seas. This presents an opportunity for the OPN to utilise an operation to reclaim these territories as a validation of its maritime strategy. If the forced reintegration of these territories is successful, then all other strategic aims within the Near Seas can be achieved.

5.10 The OPN's capabilities, if utilised effectively, could prove to be a sufficient deterrent to enable a reintegration of disputed island territories without kinetic action. Of course, this assumes that a non-kinetic reintegration attempt would not trigger a military intervention from the United States or other adversaries. Any retaliatory or first strike by an Olvanan adversary would necessarily provoke a kinetic response, likely triggering a major regional or global conflict.

5.11 OPN maritime strategy has been carefully designed to eliminate the option for a restrained or limited adversary intervention. The need for an adversary to project a persistent presence into the geographically distant theatre would necessitate a large-scale response that would trigger a major conflict. This creates a strategic dilemma for any adversary, who would be forced to choose between inaction and commitment to full-scale conflict.

5.12 As discussed above, while the OPN has the lead on this element of strategic planning, significant support from the OPAF is required to achieve success. Primarily, persistent maritime surveillance and airborne strike capabilities are essential supporting capabilities that the OPN cannot achieve organically.

Olvana's potential adversaries

5.13 **Most dangerous course of action.** The OPN assesses that the most dangerous adversary COA is a massive retaliatory strike against key theatre and mainland infrastructure. Such a strike would target military, C2, and communications infrastructure across large areas of Olvana. This is only considered to be feasible if conducted by a US-led coalition force, initially comprising:

a. A nuclear intercontinental ballistic missile (ICBM) strike launched from ballistic missile submarines (SSBNs); and/or

b. A sophisticated and widespread cyber strike.

5.14 Providing sufficient disruption to enable access to theatre for conventional strike by:

a. carrier strike group (CSG) operations

b. land-based (air and land forces); or

c. a sophisticated and widespread cyber strike

d. a combination of the above.

5.15 The OPN takes the lead in countering CSG operations and long range missiles targeting reef bases, and the relevant parts of component 5. However, satellite cueing and land-based long-ranges SAMs would be utilised to intercept incoming missiles after launch. Following this, Olvana would retaliate with ICBM launches from land siloes and SSBNs.

5.16 OPN strategy focusses on the A2/AD measures required to prevent the adversary's follow-on conventional activities, namely components 3 and 5. A key planning assumption is that the initial strike occurs from a point of origin beyond the Distant Seas. It should be noted that the OPN cannot prevent ICBM launches from SSBNs beyond the Distant Seas.

Most likely course of action

5.17 The OPN assesses that the most likely adversary COA is a kinetic response to an Olvanan action, such as reclamation of a disputed island territory. This response is expected to come in two distinct phases:

a. Airborne and submarine-launched strikes against airfields, naval ports, and C2 installations in the Near Seas.

b. A co-ordinated attack from maritime forces marshalling in two locations – beyond the southern extremity of the Near Seas in the South China Sea, and the area south of mainland Japan. Each of the attacking fleets would include a US Navy CSG and an associated coalition force. Forward basing of coalition air assets in Japan and long-range strikes from Guam would support this action.

5.18 In this scenario, the adversary would attempt to reduce Olvanan air and sea power sufficiently to enable CSG access into the Near Seas at an acceptable risk level. This would require significant bombardment of island and reef installations in the South China Sea to neutralise the ASCM/ASBM and SAM threat.

5.19 The adversary would also need to counter Olvana's significant submarine threat within the Near Seas. The OPN maintains this capability by ensuring a permanent subsurface presence in the Near and Distant Seas across its five submarine classes. Notwithstanding these enduring presence patrols, any increase in the deployment of OPN submarines to sea may be a precursor for a significant Olvanan operation.

Olvanan People's Navy anti-access/area denial strategy

5.20 In response to the most likely and most dangerous COAs as identified above, the OPN pursues an aggressive A2/AD strategy (see Figure 5.1). This is implemented in accordance with the following command guidance:

a. *Near Seas (A2).* All adversary military assets inside the first island chain or South China Sea are to be escorted, targeted or engaged.

b. *Distant Seas (AD).* All adversary military assets inside the second island chain and northeast of Singapore are to be detected and tracked.

Figure 5.1: Olvanan People's Navy anti-access/area denial strategy

5.21 Notably, the stated strategy is the minimum outcome required by the OPN. Ideally, the OPN seeks the ability to target and engage targets in outer reaches of the Distant seas. This aspirational target will be facilitated by:

a. Earlier indications and warnings (I&W) through more persistent surveillance assets and intelligence sources.

b. Faster and more agile networked C2 systems able to pass targeting fidelity data to the weapon carrying platforms quickly.

c. A greater number of persistent weapon carrying platforms possessing faster reaction times and enabled by forward basing (OPN carrier battle groups [CBGs]; submarine, attack, nuclear [SSN]; uncrewed air and sub-surface and OPAF forward basing on the various reef air fields in the South China Sea).

d. Increased automation of decision-making and greater clarity of orders enabling the increased decentralisation of decision making power.

5.22 Noting the number, location, and disparity of technology of OPN and OPAF assets, the primary challenge with achieving the above is one of C2.

Chapter 6

Above-water warfare

Initial cueing

6.1 Initial response assets can include:

a. UAVs

b. MPA

c. airborne early warning and control (AEW&C) aircraft

d. strike aircraft

e. surface combatants; or

f. any combination of the above.

6.2 The relevant on-task unit will be responsible for tracking the target until it is no longer in a position to enter the Near Seas within the reaction time, or tracking duties are handed over to another unit. Olvana has persistent or nearly persistent satellite coverage across the Near and Distant Seas.

Above-water capabilities

6.3 I&W for air threats are provided by Olvana's AEW&C platforms (see Figure 6.1):

a. Shaanxi KJ-500

b. Xi'an KJ-600 (carrier-launched)

c. Shaanxi KJ-2000.

6.4 These platforms also provide C2 for fighter and ASuW strike aircraft, such as the Shenyang J-31 and Sukhoi Su-35.

Figure 6.1: Olvanan airborne early warning and control platforms

KJ-500
AEW&C aircraft

Range: 5700 km
Speed: 550 kph/296 kts
Length: 36 m
Span: 40 m
Service ceiling: 10 500 m
Radar: Fixed dorsal AESA
Engine: 4 x Turboprop

KJ-600
AEW&C aircraft (CATOBAR)

*

Range: 1200 km
Speed: 693 kph/374 kts
Length: 18.4 m
Span: 25 m
Service ceiling: 10 500 m
Radar: Fixed dorsal AESA
Engine: 2 x Turboprop

https://commons.wikimedia.org/wiki/File:KJ-600_flight.jpg
中国新闻社, CC BY 3.0 <https://creativecommons.org/licenses/by/3.0>, via Wikimedia Commons

KJ-2000
Mainring AEW&C aircraft

Range: 5000 km
Speed: 900 kph/485 kts
Length: 46.6 m
Span: 50.5 m
Service ceiling: 10 200 m
Radar: Type-88 AESA
Engine: 4 x Turbofan

Anti-surface warfare tactics overview

6.5 On receipt of an ASuW indication or warning at the periphery of the Distant Seas, the preferred asset for tracking is the WZ-7 Soaring Dragon UAV (see Figure 6.2). Satellite surveillance information is non-real time with an increasingly reduced latency and susceptible to disruption from weather and other atmospheric disturbances. The WZ-7 has sufficient operational endurance to provide persistent presence deep into the Distant Seas.

6.6 If within range, a surface asset will be vectored to intercept within the mid to close areas of the Distant Seas and provide an overt and persistent shadow. OPN surface combatants are persistently deployed to enable pre-positioning within close range of chokepoints in the first island chain, to ensure that all adversary assets can be escorted immediately upon entry into the Near Seas.

6.7 Foreign task groups and other highly capable adversary assets will receive a higher response level. ASuW submarines patrol the Near and Distant Seas in designated patrol boxes that are engineered to maximise the area covered. The Great Underwater Wall (GUW) provides I&W directly to OPN submarines in the case of task group or other significant incursions.

6.8 The Shaanxi KQ-200 MPA is pre-positioned at forward air bases to ensure rapid response times. Although primarily an ASW asset, KQ-200s are also utilised in the inner Distant Seas and approaches to the Near Seas to provide tracking and targeting data in support of ASuW surface combatants.

Figure 6.2: WZ-7 Soaring Dragon

WZ-7
Soaring Dragon long-range UAV

Range: 7000 km
Speed: 750 kph/404 kt
Length: 14.3 m
Span: 24.86 m
Service ceiling: 18 000 m
Endurance: 10 hours
Engine: 1 x Turbojet

6.9 Land-based fast air strike platforms operate best with targeting provided real time from an I&W platform. However, limited endurance mostly limits these platforms to the Near Seas, where doctrine necessitates kinetic engagement options. Strike capability in the Distant Seas is limited to carrier-based fast air platforms embarked on the OPN's aircraft carriers.

6.10 The Xi'an H-6 Badger strategic bomber provides a greater level of persistence than fast air and possesses capable networked targeting abilities along with strike abilities (see Figure 6.3). Like MPAs, strategic bombers are forward-deployed to island and reef airfields in the Near Seas, as a 'pouncer' unit. The H-6s most commonly operate in the Near Seas and inner Distant Seas.

Figure 6.3: H-6 Badger

H-6
Badger Strategic bomber

Range: 6000 km
Speed: 1050 kph/566 kt
Length: 34.8 m
Span: 33 m
Service ceiling: 12 800 m
ASM missiles: KD-88, Y-100, YJ-62, C-301, C-101, CM-802A, YJ-12, DF-21D
Bombs: CS/BBC5, GB2A, GB5, GB6

Emerging anti-surface warfare capabilities

6.11 A long-standing technological goal for Olvana has been to reduce the latency of satellite information such that satellite detections can be utilised for providing targeting fidelity information to ASuW surface combatants, aircraft, and submarines.

6.12 This remains a work in progress, however the latency has reduced to a level that now allows smart weapons to be cued onto targets with sufficient fidelity to allow them to locate their targets with an acceptable probability of kill and engagement of friendly or non-combatant ships.

6.13 The process for satellite-based targeting follows the following steps:

a. Satellite detects a target and tracks it.

b. Submarines are vectored into an optimum location in their patrol boxes and provided with a time to regain communications.

c. At the predetermined time, submarines and surface combatants are provided the targeting solution and salvo sizes and other engagement particulars.

d. Olvana prefers to overwhelm the targets defences and does so with large numbers of legacy weapons supplemented with more sophisticated ones. Legacy weapons are often fired first with smart weapons following quickly. The ability for networking between weapons is desired.

Employment of the surface combatant – air defence, anti-surface warfare, and land strike

6.14 OPN surface combatants are highly flexible multi-role vessels capable of the full spectrum of operations from warfighting to search and rescue. OPN doctrine for surface combatants focusses on the warfighting end of the spectrum leaving the corvettes and Coast Guard to deal with the peacetime mission sets where possible.

6.15 The OPN sees the surface combatants as a mobile weapon and sensor-carrying platform that predominantly outsources detection, tracking, and targeting to satellite and other non-organic capabilities available within the broader Olvanan military.

6.16 The superior range of Olvanan maritime strike guided missiles further bolsters this tactic.

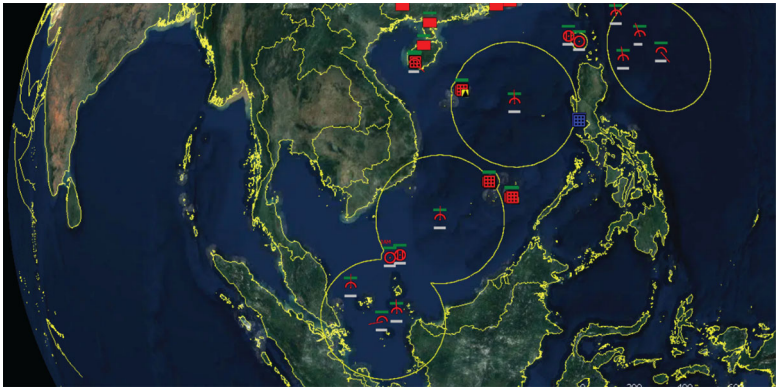
Anti-surface warfare sensors

6.17 Airborne surface surveillance is provided by a mix of platforms operating from the Olvanan mainland, reef and island airfields (see Figure 6.4):

a. **KQ-200 MPA** – ASuW I&W, targeting also available. ASW I&W plus weapon delivery (light weight torpedo and depth charges)

b. **WZ-7 Soaring Dragon** – long-range UAV for ASuW I&W and targeting. WZ-7 can also provide persistent tracking for surface targets once detected.

Figure 6.4: Reef-based and mainland-launched airborne surveillance platforms



6.18 Both platforms have the ability to conduct active and passive surveillance. However, the altitudes required and the range of sensors allow them to operate with relative impunity at range, so overt patrol is usual for KQ-200. Both of these platforms are vulnerable to offensive counter air (OCA) patrols from US carrier-based fast air, but can operate safely within range of OPAF reef-based SAMs or with fast air escort from:

a. **J-20 Mighty Dragon air superiority fighter** – land or reef-based, relatively short time on task unless air-to-air refuelling (AAR) is available. The J-20 can provide fighter escort in order to counter US carrier-based OCA strikes on the surveillance aircraft (see Figure 6.5).

Figure 6.5: J-20 Mighty Dragon

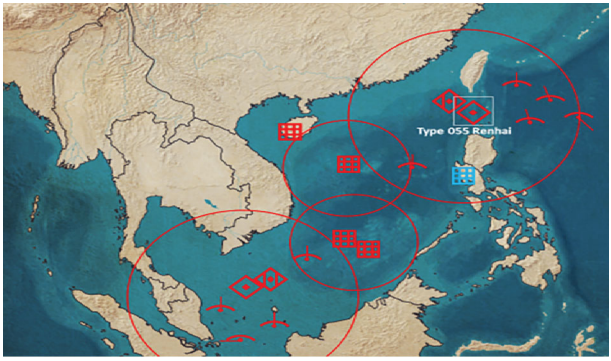
J-20
Mighty Dragon Stealth air superiority fighter

Range: 6000 km
Speed: Mach 2.0
Length: 20.4 m
Span: 13.5 m
Service ceiling: 20 000 m
Missiles: PL-15, PL-21
Bombs: LS-5

Surface weapons (including sea-based)

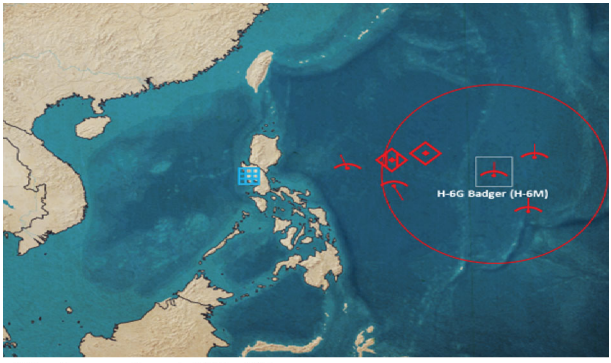
6.19 Olvana's reef bases have numerous transporter erector launcher systems providing both ASuW and air defence missile capability. Figure 6.6 to Figure 6.8 shows reef-based YJ-62 and YJ-100 (CJ-10A Mod ASCM) on the Type 055 Renhai-class cruiser. **Note:** The YJ-12 ASCM is also employed from the reefs with a maximum range of 215 nm.

Figure 6.6: Comparative ranges of reef-based YJ-62 and Renhai-launched YJ-100



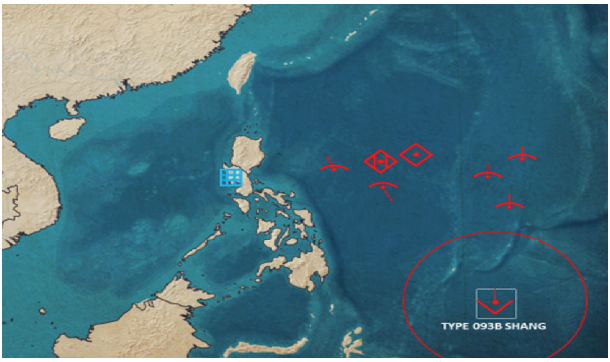
Air-launched anti-ship ballistic missile weapons

Figure 6.7: H-6 Badger carrying YJ-100, 4h loiter - forward-deployed carrier battle group and land-based DF-26 range ring also visible



Submarine-launched anti-ship ballistic missile weapons

Figure 6.8: Two Shang-class submarines, attack, guided missile, nuclear carrying YJ-18 290 nm forward-deployed carrier battle group and land-based DF-26 range ring also visible



Submarine-launched ASuW weapons

Legend:

Surface Carrier Base
Plane Range ring

Asymmetric capabilities

6.20 **Uncrewed aerial vehicle swarm.** From palm-sized micro drones to more capable UAVs the size of a dinner plate, Olvana's swarm drones provide a formidable threat. Although these platforms carry only a small explosive charge, they can be used to target vulnerable external sensor and communications equipment on adversary surface combatants. This can provide a scalable effect, ranging from a minor degradation in capability up to a full mission kill.

6.21 The short-range nature of these UAVs require them to be deployed in littoral areas, chokepoints or ahead of the predicted track of a target vessel. Although currently deployed from airborne platforms, an alternative implementation would leverage the Olvanan Maritime Marine vessels to deploy a swarm in a covert manner. This could include the use of derelict vessels or floating debris that conceals the swarm until it is remotely activated.

6.22 The swarm can be activated by a radio signal from a surface or airborne asset (or land-based if tethered close to shore). Alternatively, activation is possible via passive electronic support. The desired radar signature is detected from a passive target vessel and the swarm is released on the relevant bearing.

6.23 The UAVs then rely on their own passive guidance and depending on size this can be optical, infrared or the target radar or communications signal itself.

Olvanan Maritime Militia

6.24 The OMM is a paramilitary force of fishing vessels tasked with providing I&W and conducting surveillance and harassment activities. C2 arrangements are murky, however it is believed that the OCP has ultimate authority over these fleets. OMM mission sets and activities are most suited to the early shaping phases of operations. The OMM does not fit within OPN force structures and there is minimal direct communication between the OMM and other Olvanan military units. This allows the OCP to maintain plausible deniability for the actions of the OMM in diplomatic circles.

6.25 The OMM will seek to confuse and embarrass adversary naval units, often deliberately creating close-quarters situations in order to create ambiguities under the International Regulations for Preventing Collisions at Sea. Militia vessels have been known to use VHF communications to distract and confuse, while manoeuvring in an erratic and dangerous manner. These vessels will often manoeuvre whilst streaming equipment from their stern and cross the wakes of vessels close to their sterns in an attempt to snag, damage, or part the cables of towed bodies. At times collisions with foreign warships have occurred, and invariably the OCP has distanced itself from any wrongdoing on the part of the OMM.

6.26 This weaponisation of the International Regulations for Preventing Collisions at Sea to confuse, embarrass and drive adversary warships away from claimed and sensitive areas has been observed on multiple occasions, being employed against various nationalities operating in the area. Of late, the forcing of close quarters situations through deliberate manoeuvring at high speeds in close proximity ahead of a vessel continuing on their navigation track,

has caused multiple collision near-misses and diplomatic incidents. These instances of such actions have been well documented and reported on by government and media sources.

Hospital ships and spy ships

6.27 The Anwei-class hospital ship notionally provides medical care facility to Olvanan operations, but is suspected to carry significant amounts of signals intelligence and communications intelligence capabilities along with complementary intelligence gathering surveillance equipment and personnel. Its communications suite is significant and more akin in scale to the USS Blue Ridge-class C2 platform than a hospital ship. The vessel is often deployed amongst a fanfare of propaganda and deploys to areas and situations that are inconvenient to Olvana's competitors and adversaries.

6.28 Its formal designation as a hospital ship creates additional challenges for adversary military planners, as such a vessel retains significant protections under the laws of armed combat, despite its military and intelligence capabilities (see Figure 6.9).

Figure 6.9: Anwei AH (920) hospital ship

Anwei AH (920) Hospital ship

Crew: 200 crew, 600 medical staff
Aircraft: 1 x Z-8JH helicopter
LOA: 170 m
BEAM: 25 m
Engines: Twin diesel
Tonnage: 14 000
Medical capability: 300 beds, 20 ICU beds, 8 operating theatres

6.29 The Dongdiao-class spy ship or electronic surveillance ship and its derivative Type 815G are the newest Olvanan electronic surveillance ships in service with the OPN (see Figure 6.10). After entering service in the latter half of 1999, the ship went through major upgrades several years later, with parabolic antennas replaced by three large radomes. In addition to collecting electronic intelligence, this class is also tasked to perform ballistic missile tracking. There is a hangar for a helicopter.

Figure 6.10: Dongdiao Auxiliary General Intelligence (815)

Dongdiao AGI (815)

Crew: 250
Aircraft: 1 x Z-8JH helicopter
LOA: 170 m
BEAM: 25 m
Engines: Twin diesel
Tonnage: 14 000
Sensors: Various

Airborne anti-surface warfare capabilities

6.30 When considering the use of airborne anti-surface warfare capabilities, the OPA first divides it's waters between distant and near seas. This allows the OPA to delineate responsibilities for detecting, tracking, targeting and engaging (see Figure 6.11).

Figure 6.11: Airborne anti-surface warfare capabilities

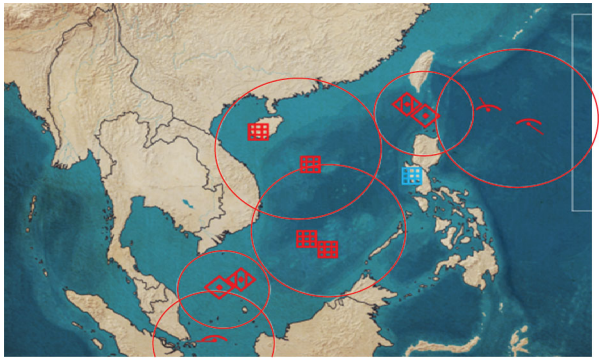
Reef-based intelligence, surveillance and reconnaissance and strike assets

6.31 The reclaimed reefs built in the South China Sea are home to significant air search radar and long-range SAM installations. Forward basing of long-range MPA and strike aircraft such as the H-6 Badger and KQ-200 is supported by AAR aircraft such as the IL-78 Midas. KJ-2000 Mainring provides a persistent and robust AEW&C capability. These assets can deploy across all of the Near Seas, and the western regions of the Distant Seas.

Air sensors

6.32 In Figure 6.12, the approaches to the Near Seas are covered by the two CBGs. KJ-600 and 500 aircraft provide AEW outside the missile engagement zone (MEZ) of the Renhai-class cruiser attached to the CBG. KJ-2000 can also deploy to these areas, either from mainland Olvana or from the forward operating airfields on the three reefs.

Figure 6.12: Airborne anti-surface warfare capabilities continued



Air sensors

Legend:

Surface Carrier Base
Plane Range ring

6.33 DCA/OCA is provided via carrier-based fast air assets beyond the MEZ. Mobile strategic air defence sensors are provided by the Yuan-Wang-class, missile range instrumentation ship, capable of tracking satellites and ballistic missiles (see Figure 6.13).

Figure 6.13: Yuan Wang missile range instrumentation ship (718)

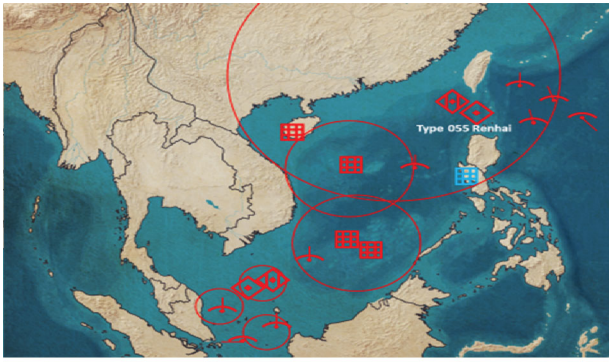
Yuan Wang AGM (718)
Missile range instrumentation ship

Range: 18 000 nm
Speed: 20 kts
Aircraft: 1 x Z-8JC capable
LOA: 180 m
BEAM: 22.2 m
Draught: 8
Tonnage: 17 000
Sensors: Various

Air defence weapons

6.34 The reef based SAM systems are a layered combination of S-400 Grizzly (SA-21 a/b) up to 215 nm, HQ-9 80 nm and HQ-12 30 nm (see Figure 6.14).

Figure 6.14: Air defence weapons



6.35 The Renhai-class cruiser utilises a combination of HHQ-9 for area air defence and HHQ-10 for point defence.

6.36 Carrier-based fast air commonly utilise combinations of PL-15 (94 nm), PL-12 (50 nm) and PL-10 (11 nm) air-to-air missiles for OCA and DCA.

Chapter 7

Anti-submarine warfare

7.1 The sub-surface detection and tracking problem is significantly more challenging. Olvanan military research facilities are believed to be working on low earth orbit wide-area sub-surface surveillance technologies but these are not yet deployed or proven.

7.2 The achievement of detecting all sub-surface adversary assets entering the Distant Seas cannot be assured and, as such, a probabilistic approach is used. The most dangerous adversary COA is considered to be the incursion of an SSBN into the Near Seas without being detected. Thus, Olvana's ASW mission sets are designed around increasing the detection probability of any subsurface incursion through a system of layered defence. The priority of this tasking is evidenced by the significant expenditure on platforms, research, and training in ASW.

Anti-submarine warfare platforms and capabilities

7.3 **Acoustic detection arrays.** Olvana operates two distinct seabed sensor arrays for detecting submarines and other underwater objects. The first is located on the approaches to the Near Seas and is a set of discrete sonar arrays laid in chokepoints, on the boundaries of the first island chain, and in the approaches to the southern extremity of the South China Sea. The second array is an extensive, linked detection array known as the GUW. The GUW is the largest passive acoustic detection array in the world, extending from an area close to Japan to the Celebes Sea, via the approaches to Guam. The GUW follows seabed ridges, mounts and more shallow areas to provide a continuous line of sensor nodes.

7.4 Each sensor is a node in the wider network of the array. Stealthy communications buoys can be raised briefly to the surface to send flash reports via satellite communications to OPN headquarters (HQ) providing detection and simple pertinent acoustic signature information. The position of the node on the wall provides location. The capability has been proven at depths of up to 2000 m, with buoyant tethers allowing the sensor ball to float at the optimum depth.

In areas of known poor detection ranges, the node spacing is reduced and Surveillance Towed Array Sensor System (SURTASS) vessels more often deploy to these areas.

7.5 Olvanan SSNs loitering in patrol boxes overlapping the GUW are able to receive short range cueing directly from any node, via low bandwidth basic alerts. The SSN can use this to re-position towards the node which reported the detection via a high speed transit to shadow surface or sub-surface contacts of interest.

Surveillance Towed Array Sensor System ships

7.6 The Type-927 Dongjian-class acoustic surveillance ship (see Figure 7.1) is equipped with a highly capable SURTASS array for acoustic detection. These ships are stationed within the limits of the GUW, but patrol in the deep water reaches of the Distant Seas. Working in conjunction with gliders and unmanned systems, the SURTASS ships will attempt to classify and locate underwater contacts, passing data back to the theatre anti-submarine warfare (TASW) HQ for analysis prior to promulgation to surface combatants. It is believed that the SURTASS platforms operate in well-defined patrol boxes and are not cued onto potential sub-surface contacts by GUW or glider detections.

Figure 7.1: Dongjian Auxiliary General Oceanographic Surveillance (927)

Dongjian AGOS (927)
Auxiliary, general oceanographic surveillance

Range: INA
Speed: 20 kts
Aircraft: 1 x helicopter
LOA: 90 m
BEAM: 30 m
Draught: INA
Tonnage: 5000
Sensors: Surveillance Towed Array Sensor System

Uncrewed underwater vehicles and gliders

7.7 The Haiyi ('Sea Wing') ASW surveillance uncrewed underwater vehicle (UUV) glider features a torpedo-shaped main body constructed from aluminium alloy or carbon fibre composite material and features a pair of swept wings. Gliders move through the water without traditional propulsion, instead relying on shifting internal ballast, along with articulated wings to provide lift, moving up and down through the depths like a porpoise. This highly efficient form of propulsion enables the gliders to deploy for months on end without refuelling. The OPN deploys gliders in large numbers on the extremities of the Distant Seas, forming a barrier between the GUW and the SURTASS patrol boxes. They are deployed and maintained by Type 925 Dajiang-class submarine tenders (see Figure 7.2).

7.8 Deployed as passive autonomous surveillance platforms, long-range UUVs can provide cueing, but do not provide credible ability to continuously track detected sub-surface or surface contacts. With sufficient warning and if within intercept range, they can be vectored into an area and conduct opportunistic attacks, however the

OPN blue-on-blue problem cannot be underestimated. The frequency of communications between TASW HQ and the UUVs is not regular and reliable enough to make vectoring onto a threat reliable. These UUVs operate in similar areas to the gliders but cannot operate collaboratively with them. They are also laid and maintained by submarine tenders.

7.9 The Haishen 6000 and HSU 001 UUVs can be utilised in a 'self-destruct mode' whereby the vessel detonates a payload in close proximity to a surface ship or submarine. These UUVs are used as I&W platforms, predominantly in the Distant Seas, but could be redeployed to the Near Seas as expendable strike platforms in extremis. As with all of the OPN's ASW detection platforms, all data are fed directly into TASW HQ, not directly to surface combatants.

Figure 7.2: Dajiang Auxiliary Submarine (925)

Dajiang AS (925)
Auxiliary submarine tender

Crew: 308
Range: INA
Speed: 20 kts
LOA: 156 m
BEAM: 20.6 m
Engines: Twin diesel
Tonnage: 10 087
Deep submergence rescue vehicles:
1 x LR7 or 2 x Type 7103 DSRV

Anti-submarine weapon platform integration

7.10 ASW submarines are cued onto sub-surface detections in order to track adversary submarines in the Distant Seas. These are usually Shang-class submarine, attack, guided missile, nuclear (SSGN), while conventionally powered boats are predominantly employed within the Near Seas for escort and strike missions.

Anti-submarine weapon maritime patrol aircraft

7.11 Whilst the MPA conduct regular patrols in the inner parts of the South China Sea, they are most effective when cued onto potential sub-surface contacts. The primary sensor employed is the single-use sonobuoys, and certain variants are armed with lightweight anti-submarine torpedos.

Anti-submarine weapon surface combatants

7.12 The Olvanan surface combatants utilised for ASW are equipped with a towed array sonar system and an ASW helicopter. The Type 054A Jiangkai II-class frigate is the workhorse of the Olvanan fleet, and is the most capable ASW surface combatant.

7.13 The ASW Jiangkai II embarks a Z-9C ASW helicopter, equipped with dipping sonar and lightweight torpedos (see Figure 7.3).

Figure 7.3: Anti-submarine weapon surface combatants

Jiangkai II (054A) Frigate, guided missile	Z-9C Multi-role helicopter	Shang SSGN (093) Attack submarine nuclear powered
		
Range: 8000 nm **Speed:** 27 kts **LOA:** 134 m **Beam:** 16 m **Draught:** 5.0 **Tonnage:** 4000 **64-cell VLS:** HQ-16, CY-5 **ASCM:** 2 x 4-cell YJ-83 **Radar:** 382 'Top Plate' **Aircraft:** 2 x Z-9 or KA-28	**Range:** 1000 km **Speed:** 305 kph **Length:** 12.1 m **Rotor:** 13.7 **Endurance:** 5 hours **Sensors:** HS-12 Dippling sonar, FLIR **Weapons:** LWT torpedos, 23 mm gun	**Range:** Unlimited **Speed:** 30 kts **LOA:** 107 m **Beam:** 11.0 m **Prop:** 7 blade **Tonnage:** 6096 **Torpedos:** YU-3, YU-4, YU-6, YU-8 **Sonar:** H/SQ2-252, H/SQG-207 **Radar:** Type 356 **Mines:** 36 x various

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Anti-submarine weapon layered defence

7.14 Within the Distant Seas, Olvana's strategy is primarily to deter, delay, and deny effective use of adversary submarines. The secondary objective is to maximise the probability that these submarines will be detected and tracked prior to entry into the Near Seas.

7.15 The layered nature of the Olvanan ASW strategy is designed to achieve these two aims. It is organised into three layers:

a. Outer layer – Detect

b. Middle layer – Track

c. Inner layer – Engage.

7.16 Sub-surface surveillance I&W are provided via the active and passive detection assets detailed below. These assets work together in a layered defence from the GUW along the second island chain, through the Distant Seas, to the first island chain where surface combatants and MPA are stationed.

Outer layer – Detect

7.17 The outer layer has three sub components comprising (from farthest out):

a. The GUW fixed passive sonar array.

b. Large UUVs and gliders deployed recovered and supported by tenders.

c. SURTASS vessels.

7.18 These components are designed to provide early I&W for adversary submarines entering or operating within the outermost areas of the Distant Seas. The GUW has a relatively short latency but its probability of acquisition of a quiet submarine is not high.

7.19 The UUVs and gliders immediately report all contacts on detection. This provides short latency reporting, but regularly generates spurious detections, degrading the systems' effectiveness. Their spacing and movement is irregular however, they are hard to detect so are intended to also deter an adversary from fast transit through the Distant Seas.

7.20 SURTASS vessels are effective but limited in number and are highly dependent on water column conditions. There are generally three Dongjian-class ships on station in the Distant Seas.

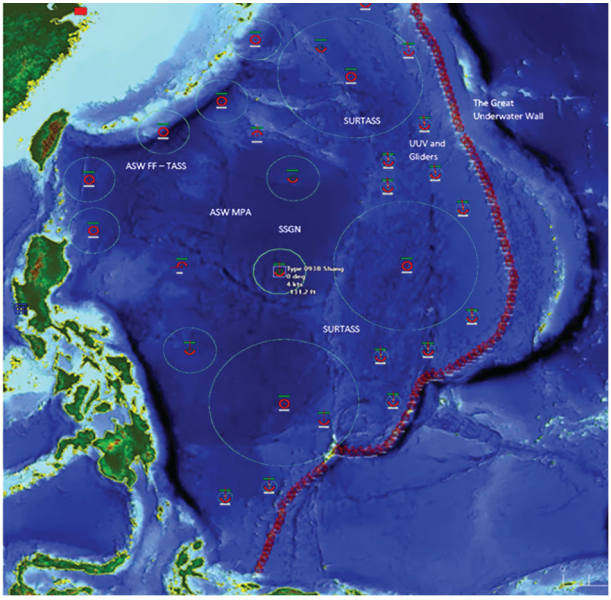
7.21 All systems in the outer layer are believed to report autonomously into theatre ASW HQ, where the feeds are collated, sanitised, and cross-referenced to generate a more reliable intelligence picture for distribution. This process increases the latency of reporting, which results in stale or inaccurate reports, particularly for fast-moving assets.

Middle layer – Track

7.22 The middle layer is designed to maximise the probability of gaining tracking on detections from the outer layer or organic detections.

7.23 Figure 7.4 depicts the various layers inside the GUW. UUV and gliders roam the furthest reaches, just inside the GUW. To the west of this, a minimum of three SURTASS vessels sweep in patrol boxes. Submarines capable of ASW can also be tasked inside this layer, repositioning based on their daily communications check based on cueing from the outer layers. ASW MPA patrol in the approaches to the first island chain in the first third of the Distant Seas.

Figure 7.4: Great Underwater Wall



Inner layer – Engage

7.24 The inner layer of defence is westward of the first island chain, within the Near Seas. This layer comprises MPA such as the Y-8 ASW variant, armed with lightweight torpedos and other ASW weapons, as well as Jiangkai II-class frigate with assigned helicopters optimised for subsurface warfare.

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Chapter 8

Submarine Operations

8.1 Submarines play a number of roles in the OPN. OPN submarine mission sets can include mining operations, special forces insertion and extraction, and intelligence, surveillance and reconnaissance but the main mission sets are:

a. nuclear deterrence and long-range land strike

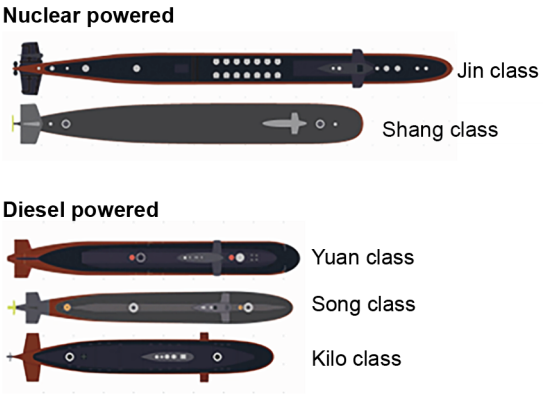
b. contribution to A2/AD operations

c. support to surface task groups (CBG and amphibious task group [ATG]).

Platforms

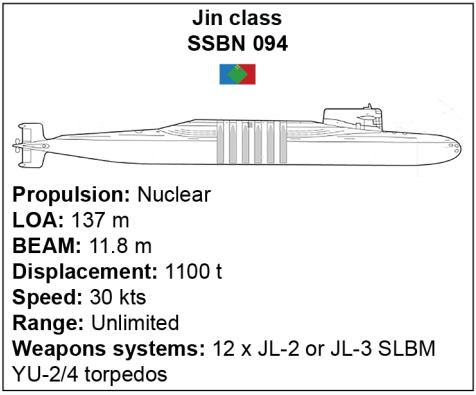
8.2 The OPN operates five classes of submarine, each of which has a specific role and purpose (see Figure 8.1):

Figure 8.1: Olvanan submarine platforms



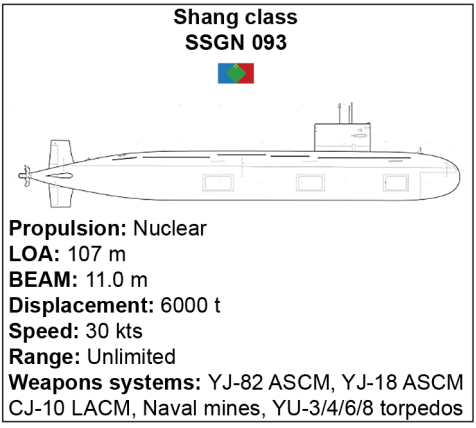
a. Jin-class ballistic missile submarine is Olvana's nuclear deterrent and flagship submarine (see Figure 8.2).

Figure 8.2: Jin-class submarine



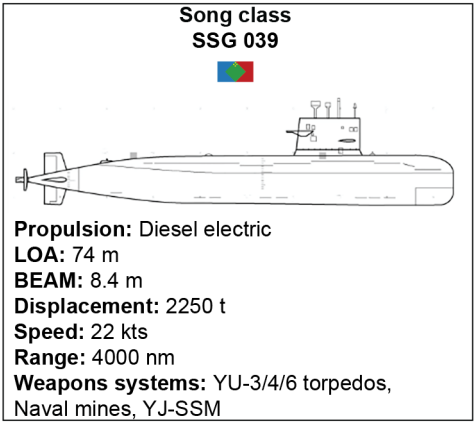
b. Shang-class nuclear-powered attack submarine combines high speed, underwater endurance and a land and maritime strike capability (see Figure 8.3).

Figure 8.3: Shang-class submarine



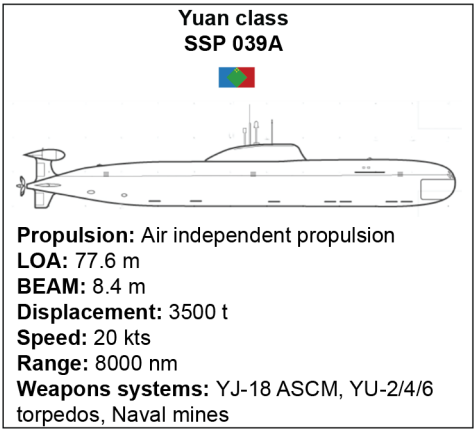
c. Song-class of diesel-electric attack submarines are perfect for defending chokepoints, laying mines, and patrolling in shallow littoral waters (see Figure 8.4).

Figure 8.4: Song-class submarine



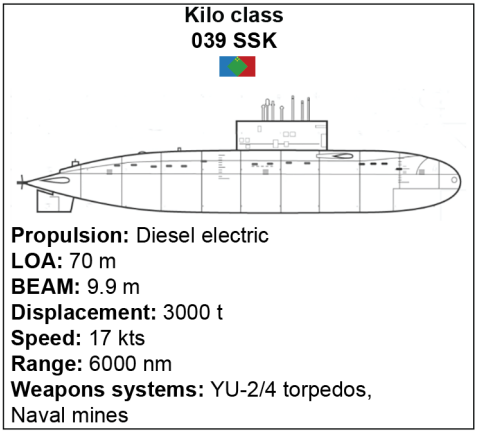
d. Yuan-class is a slightly-larger variant of the Song, with air independent propulsion for increased underwater endurance, enabling it to operate in open ocean as well as the littorals (see Figure 8.5).

Figure 8.5: Yuan-class submarine



e. Kilo-class is a diesel-electric attack submarine, primarily for intelligence, surveillance and reconnaissance tasks (see Figure 8.6).

Figure 8.6: Kilo-class submarine



Nuclear deterrence and long-range strike

8.3 Olvana's strategic nuclear deterrence program is conducted by its six Jin-class SSBNs. At any time, two SSBNs are deployed to undisclosed locations, one in the Near Seas and one in the Distant Seas. These vessels operate independently in large patrol boxes, with no need for sustainment from surface submarine tenders. Each submarine can carry up to 12 ballistic missiles, providing a formidable nuclear capability. The JL-2 ballistic missile is capable of striking targets at up to 4500 miles while the newer JL-3 missile has a reported range of up to 6000 miles, capable of reaching the western seaboard of the United States (see Figure 8.7).

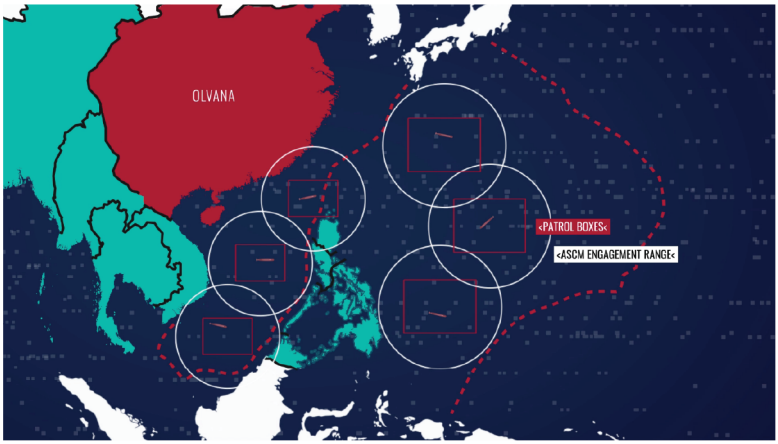
Figure 8.7: Nuclear deterrence and long-range strike

Submarine anti-access/area denial

8.4 Olvana's maritime A2/AD strategy relies heavily on the employment of Shang-class submarines in the Near and Distant Seas (see Figure 8.8).

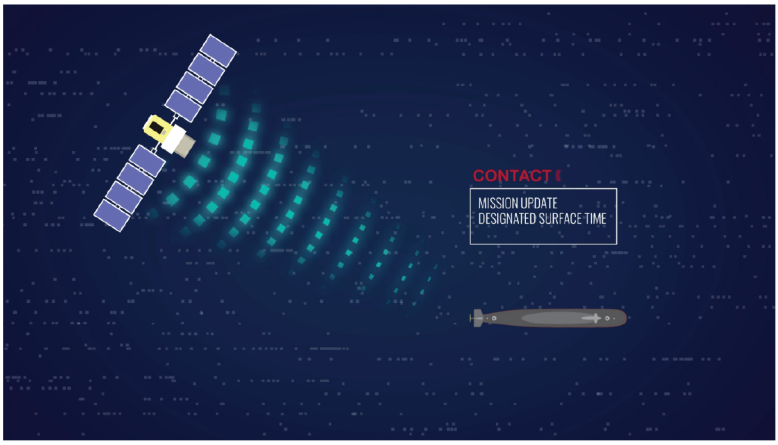
8.5 The primary line of defence comes from a rotating deployment of six Shang class submarines: three in the Near Seas and three in the Distant Seas. Each boat operates within a defined patrol box, to ensure de-confliction between the vessels. These patrol boxes have been carefully positioned relative to natural chokepoint in the island chain, and designed to maximise the range and coverage of submarine-launched ASCMs.

Figure 8.8: Submarine anti-access/area denial



8.6 Each Shang-class submarine is expected to return to periscope depth every 24 hours to communicate with command via satellite link. However, as they are nuclear powered they are able to remain submerged indefinitely in the event of an engagement or should an operational need arise. Once it returns to periscope depth, the boat will be provided with a mission update and a designated time to return to periscope depth again. Returning to periscope depth times vary in order to retain tactical deception (see Figure 8.9).

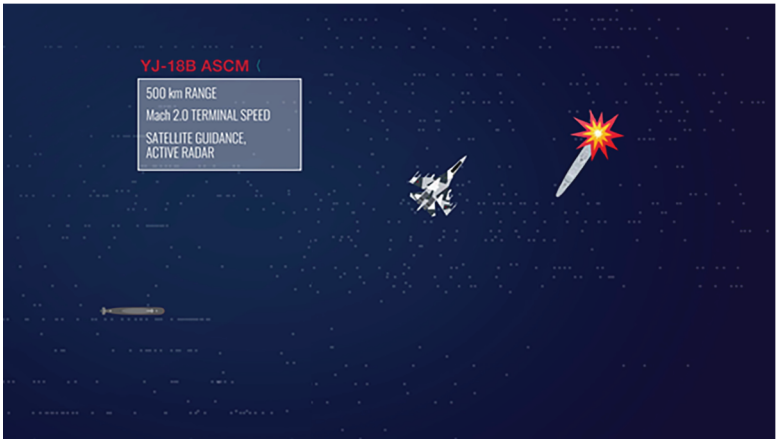
Figure 8.9: Submarine anti-access/area denial



8.7 If a target exists, the satellite can pass targeting information directly to the submarine without the need for an aircraft or surface vessel to relay it. The submarine is able to immediately launch an ASCM strike, or dive and redeploy to engage the target at a later time or from a more tactical position.

8.8 Coordinated strikes with air- and submarine-launched anti-ship missiles are possible utilising this method but the OPN and OPAF struggle to deliver ASuW strikes from aircraft in the furthest reaches of the Distant Seas without a carrier present to provide air superiority (see Figure 8.10).

Figure 8.10: YJ-18B anti-ship cruise missile



8.9 The advent of the short latency satellite targeting has pushed the OPN to move away from torpedo attacks. However, if the missile-based strategy has failed and enemy units are operating within Olvana's backyard, submarines will need to remain submerged for long periods to avoid detection.

8.10 Submarine commanders are capable of independent tasking, but in the absence of regular communications they will only be able to strike at targets of opportunity within their patrol boxes. Co-ordinated strike is not possible in this context.

8.11 In the event of an overwhelming invasion force, the patrol box construct is abandoned and Olvana will put to sea as many submarines as are available, including Shang, Song, and Kilo class boats. In this contingency the risks of interaction between friendly units is much higher, but that is a tactical decision made necessary by immediate threat.

8.12 Any targets identified may be engaged, in order to prevent lodgement of a CBG or ATG within Olvana's territory. Olvanan submarines may execute torpedo strikes on targets of opportunity, but this is not the preferred strategy.

Support to task group

8.13 The Shang-class submarine is regularly employed as part of a CBG or ATG. In this role, the SSGN provides a point defence function; protection of the carrier from ASW threats. The boat patrols between 50 and 100 miles ahead of the surface group, providing early detection of any threats.

8.14 The nuclear-powered boat's ability to maintain high speed and remain underwater for weeks at a time makes it ideal for this role. The Shang class is capable of torpedo and guided missile strikes. The submarine remains within the air defence screen provided by the surface units, acting as a last line of defence against subsurface attacks. If it is not able to safely engage, Shang can reposition to provide targeting information to the surface combatants.

Conventionally-powered submarines

8.15 Olvana's fleet of diesel electric submarines are smaller and quieter than the nuclear powered boats. Conventionally powered submarines are not force assigned to task groups, as they are unable to keep up with the fast-moving surface ships However, they can be employed for specific tasks in support of a larger mission, such as chokepoint transit or amphibious objective area (AOA) lodgement. Their small size and silent operation mode enables them to operate in the shallow littoral waters of the first island chain, with very low chance of detection.

8.16 When submerged, the Song and Kilo class submarines can only use battery power. However, once the battery is depleted, the submarine must return to periscope depth in order to run its diesel generator and charge the battery. The Yuan-class's air independent propulsion technology allows it to remain submerged for up to two weeks without surfacing. This allows the submarine, air independent propulsion to operate in a dual role, small enough to work the littorals but large enough to deploy into the Distant Seas as required.

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Chapter 9

Carrier battle group operations

9.1 Olvana's aircraft carrier operations are well planned and thought through. Limited mission sets are currently available and the carrier is primarily employed in an A2/AD role in line with the overall OPN strategy. Carriers are not utilised currently in a force projection or offensive role, however, their ability to strike at particular island targets is able to provide a deterrent effect. For this reason, the OPN eschews the US nomenclature of 'carrier strike group', instead preferring 'carrier battle group'.

9.2 CBG operations are conducted over four phases:

a. Work up

b. Prepare and surveil

c. Transit

d. Operate in theatre.

Carrier battle group platforms

9.3 **Sector screen.** A standard CBG will comprise the following platforms arranged in a sector screen (see Figure 9.1).

Figure 9.1: Carrier battle group sector screen

1 x Kuznetstov aircraft carrier (CV)

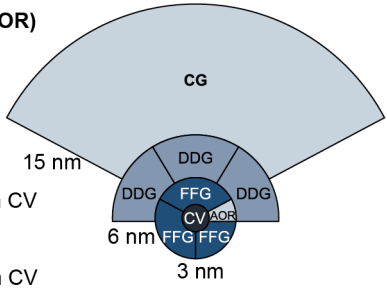
1 x Fuyu fast combat support ship (AOR)
Part of FFG sector screen

1 x Renhai cruiser (CG)
Air defence, 6 to 15 nm upthreat

3 x Luyang III destroyer (DDG)
180° AAW sector screen, 3 to 6 nm from CV

3 x Jiangkai II frigate (FFG)
360° ASW sector screen, 1 to 3 nm from CV

1 x Shang attack submarine (SSN)
Wide area patrol, 50 to 100 nm ahead of CBG



9.4 **Air wing.** Capable of deploying up to 85 aircraft, the Type 003 will be one of the most powerful aircraft carriers in the world, behind only of the United States Navy's Nimitz and Ford-class carriers. The probable composition of its embarked wing will be:

a. *J-15 Flying Shark.* The J-15 is the main defensive and offensive component of the Types 001 and 002 class aircraft carriers, and will probably also be on the Type 003, most likely in a modernised version.

b. *J-15 Flying Shark upgrade.* A new, more advanced variant of the Flying Shark would integrate next-generation technologies comparable to those of the J-11B and J-16. These would include new and more powerful domestic engines with vectored thrust; new 5th generation EW and avionics systems; possible use of artificial intelligence; a powerful active electronically scanning array radar; the latest range of smart weaponry, such as the PL-15 missile for long-range air-to-air combat; extensive use of composite materials in the fuselage and radar absorbent materials coatings to reduce its radar signature, etc. This new version could remain single-seat, or a two-seat version could be developed, similar to the Air Force J-16 (OPAF), which already incorporates several of the technological elements mentioned above.

c. *J-35.* The J-35 will be the discrete companion to the future iteration of the J-15, and they will work as a team, much as the US Navy's F/A-18 E/F Super Hornet and F-35C Lightning II do.

Supporting elements

9.5 **Aircraft:**

a. Y-8 MPA (ASW variant) on-task in week prior to transit

b. Wing Loong/WZ-7 (or similar) long range UAV, enough for constant presence during key phases

c. Z-9 ASW helicopter (organic to CBG platforms)

d. KJ-2000 Mainring

9.6 **Other supporting assets:**

a. Shang-class SSGN

b. Special forces embedded ashore in local areas

c. Satellite feeds

d. Human intelligence from land forces

e. SURTASS vessels

f. Hydrographic survey aircraft or ships aircraft

Phase 1 – Work up

9.7 **Initial platform workup.** Basic Independent local training operations with organic air ops. Carrier exercises own control of own aircraft, usually near home port.

9.8 **Integrated air ops, land based fast air and organic.** Control of own and land based aircraft. Integration of AEW and C2 aircraft such as Mainring. Training strike (land based) and DCA (organic) and escort of strike aircraft. This is usually conducted in a low threat with minimal adversary fast air to counter.

9.9 **Independent air ops, high end warfighting.** Contested OCA/DCA mission sets with own AEW and C2. Organic air are trained to prevent adversary strike aircraft and their escorts from reaching the Near Seas land targets such as reefs. This is conducted often in the far reaches of the Near Seas and the perceived threat vectors from South Torbia or Guam.

9.10 **Task group integration.** Once the independent air ops is successful the task group will be formed and surface combatant escorts will be worked up. A zone Air Defence method is utilised with DCA 100 to 200 nm out from the carrier and the cruiser, guided missile (CG) and guided missile destroyers (DDGs) covering inside around 75 nm.

Phase 2 – Prepare and surveil

9.11 As with all Olvanan missions, the preparatory phase of any CBG operations begins well before the tactical action is planned. Foreign investment in ports, harbours, and other maritime infrastructure provides an opportunity for oceanographic surveillance vessels to conduct high quality hydrographic surveys of key channels. These surveys go far beyond the level required for economic investment, with a focus on acoustic and thermal conditions.

9.12 It is assessed that Olvana has achieved a high level of preparation for all key chokepoints and crucial maritime areas in its Near Seas, and is increasingly carrying out such surveys in the Distant Seas.

Phase 3 – Transit

9.13 When passage planning, multiple distinct route options should be identified and both surveilled to an equal level. This provides options should one be found to be unsuitable, and creates a tactical dilemma for the enemy seeking to predict the movements of the CBG.

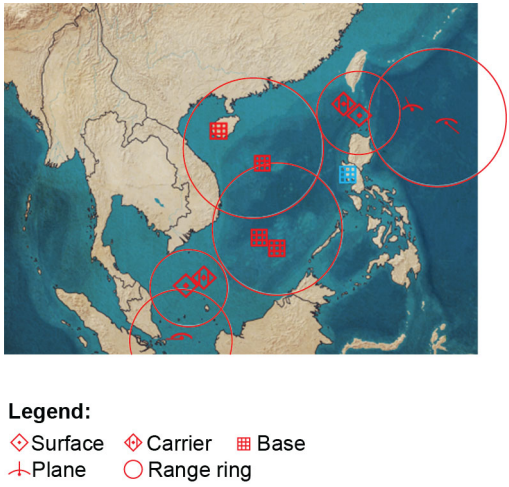
9.14 The surveillance phase takes place across all theatre domains. Satellites provide ongoing imagery of the area, while MPA search for subsurface threats. On the ground, intelligence operatives apparently working on maritime infrastructure projects provide information on the human terrain, while special force soldiers infiltrate any potential weapon sites.

9.15 Where possible, chokepoints should be avoided as these present significant risk to the CBG.

Phase 4 – Operate in theatre

9.16 The CBG is used to push the adversary further away from the Near Seas by extending the threat to aircraft further than can be achieved from the reef and mainland areas alone. Figure 9.2 shows the air sensors installed on the three artificial reefs (Woody Island NW, Subi Reef Middle and Mischief Reef SE).

Figure 9.2: South China Sea air sensors



9.17 The approaches to the Near Seas are covered here by the two CBGs. The KJ-600 and KJ-500 provide AEW outside the MEZ of the Renhai CG that provides area air defence from its position in the sector screen. The KJ-2000 can also deploy to these areas from mainland Olvana or from the forward operating airfields on the three reefs.

9.18 DCA/OCA is provided via carrier-based fast air assets outside the MEZ of the CG.

a. The reef based SAM systems are a layered combination of S-400 Grizzly (SA-21 a/b) up to 215 nm, HQ-9 (80 nm) and HQ-12 (30 nm).

b. The Renhai-class CG utilises a combination of HHQ-9 and HHQ-10 for point defence.

c. Carrier based fast air commonly utilise combinations of PL-15 (94 nm), PL-12 (50 nm) and PL-10 (11 nm) for OCA and DCA.

Chapter 10

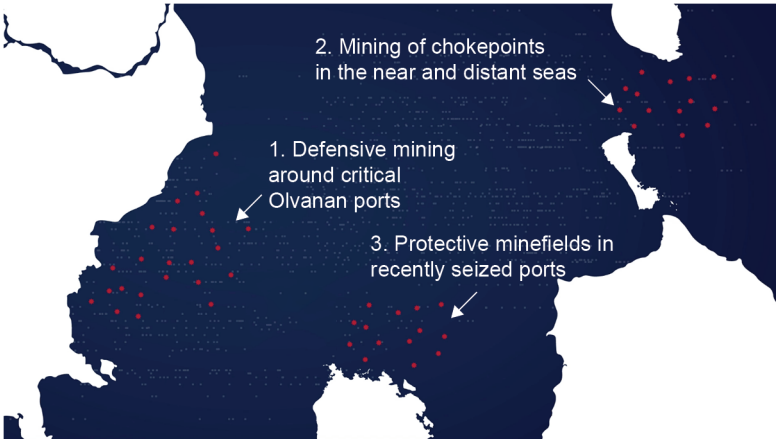
Mine warfare operations

Overview

10.1 Mine warfare is a critical enabler of Olvana's maritime A2/AD strategy. This is a key pillar of Olvana's 'win without fighting' principle, providing a persistent A2/AD function without active intervention. A2/AD is a core function of this doctrine and Olvana utilises sea mining as an asymmetric enabler to achieve its strategic aims.

10.2 The goal of mine warfare is to achieve sea denial for adversary ships and submarines, while permitting free movement for Olvana's platforms (see Figure 10.1).

Figure 10.1: Mine warfare



10.3 Olvanan doctrine uses mine warfare in three key areas:

a. Defensive mining around critical Olvanan ports.

b. Mining of chokepoints in the Near and Distant Seas.

c. Protective minefields in recently-seized ports.

10.4 While Olvana is capable of laying offensive minefields, this does not presently align to its doctrine.

Mine types and mine warfare platforms

10.5 Olvana is assessed to have a stockpile of 80 000 to 100 000 mines of various types, enough to achieve its strategic goals. A summary of the primary mine types is provided in Figure 10.2.

Figure 10.2: Mine types

Model	TDD	Type/ Mission	Laying platform	Case depth (m)	Warhead
C-1 500 C-1 1000	Acoustic, magnetic	Bottom ASW, ASuW	Surface ships, aircraft, submarines	6-30	300/700
EM-52	Acoustic, magnetic, pressure	Rocket propelled straight rising ASW, ASuW	Surface ships	200	140
EM-56	Acoustic, magnetic, pressure	Mobile (13 km) ASuW	Submarines	45	380
M-3	Contact	Moored ASuW	Surface ships, submarines	12-430	Large
M-4	Acoustic	Moored ASW, ASuW	Surface ships, submarines	200	600
PMK-2	Acoustic (passive/ active)	Rocket propelled encapsulated torpedo ASW	Aircraft, surface ships, submarines	400 (anchor depth >1000)	110

10.6 Olvana's flagship mine warfare platform is the Type 082 II Wozang-class mine countermeasure vessel. This vessel is capable of a wide range of mine clearance activities, as well as mine laying. Olvana also utilises airborne platforms, maritime militia fleet, and even scientific research vessels to covertly lay mines (see Figure 10.3).

Figure 10.3: Mine warfare platforms

Wozang MSC (08211)
Minesweeper, coastal

Range: 500 nm
Speed: 15 kts
LOA: 5.5 m
BEAM: 9.3 m
Draught: 2.6 m
Tonnage: 575
Sweeping gear: Type 317, Type 318, Type 319
Mines: Up to 6 various types

Y-8FQ
Maritime patrol aircraft

Range: 5615 km
Speed: 660 kph
Length: 34 m
Span: 38 m
Service ceiling: 10 400 m
Sensors: CHIN radome, MAD sonobuoys
Engine: 4 x Turboprop

KQ-200
Maritime patrol aircraft

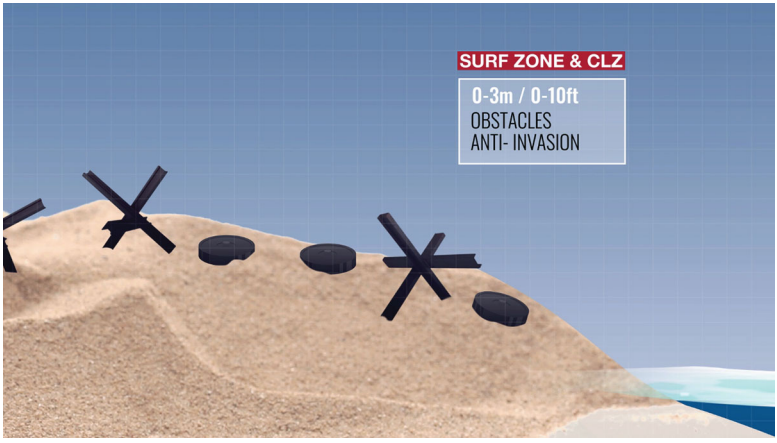
Range: 5000 km
Speed: 560 kph
Length: 36 m
Span: 38 m
Service ceiling: 10 400 m
Sensors: Radar, FLIR, MAD sonobuoys
Engine: 4 x Turboprop

Mine laydown

10.7 Mine warfare is a central tenet of Olvana's strategy of layered defence. A wide range of mine types is utilised at varying depths to provide a layered defence.

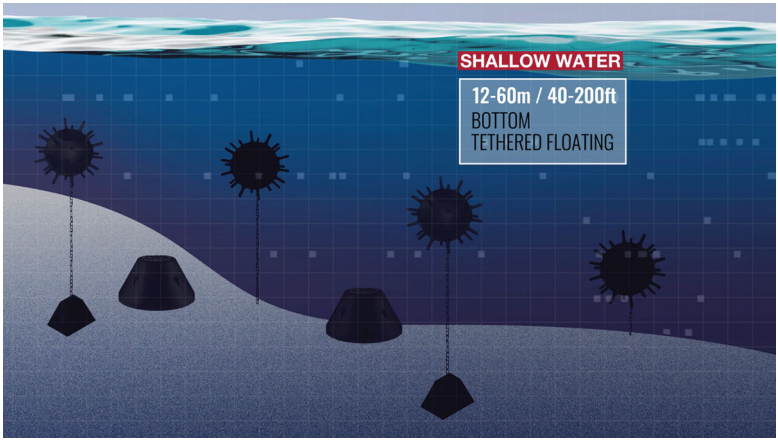
10.8 Along the shoreline and in the intertidal zone, landmines and passive fortifications are more reliable than sea mines (see Figure 10.4).

Figure 10.4: Intertidal defence



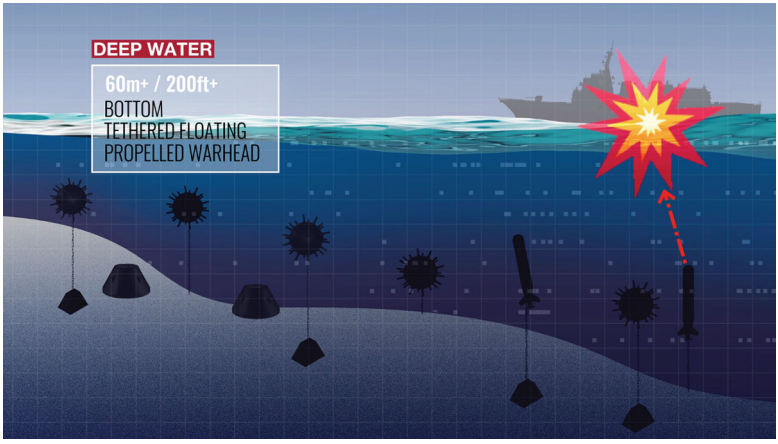
10.9 In very shallow water, bottom mines are laid while in slightly deeper water, tethered floating mines provide a variable height threat (see Figure 10.5).

Figure 10.5: Shallow water defence



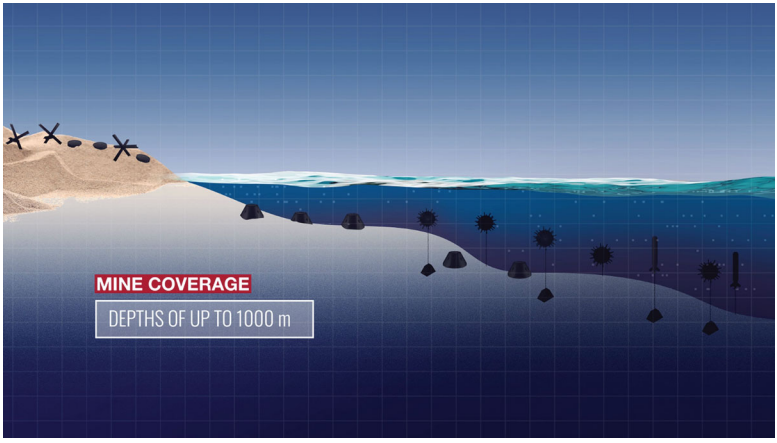
10.10 Propelled warhead mines will launch on activation and actively seek out targets (see Figure 10.6).

Figure 10.6: Deep-water defence



10.11 Olvana does not employ untethered floating mines as the use of these weapons is prohibited under international law. This would counteract Olvana's strategic aim to be recognised as a legitimate military power. This layered approach provides mine coverage to depths of up to 1000 m, which is sufficient for almost all relevant areas within the Near Seas and surrounding archipelagos (see Figure 10.7).

Figure 10.7: Deep-water defence – 1000 metres



Chapter 11

Chokepoint transit

11.1 The chokepoint transit is probably the most dangerous part of the voyage for an Olvanan task group. Threats from air, land, sea, and sub-surface all converge at a time when the task group is unable to manoeuvre with freedom.

11.2 The OPN are well versed in executing choke point operations. All strategically viable choke point passages in the OPNs area of interest are shaped and prepared long before they are used. They are sure to have more than one option prepared and scoped in advance. Chokepoint transits are conducted over three phases:

a. Prepare

b. Surveil

c. Control.

11.3 Each phase employs vast strategic and political approaches to the areas of operation in order to provide access to shaping units. Transit areas are selected well in advance and significant resources are applied to ensure the above phases are successful.

Platforms

11.4 **Task group.** The composition of the transiting task group depends on the subsequent mission to be achieved. Transit of a chokepoint is not a mission in and of itself, but merely a necessary tasking that needs to be achieved in order to achieve a higher mission. For this reason, the organic capability of the task group may vary significantly, affecting what supporting elements need to be employed.

11.5 Figure 11.1 considers a standard ATG with the following platforms arranged in a sector screen.

Figure 11.1: Task group composition

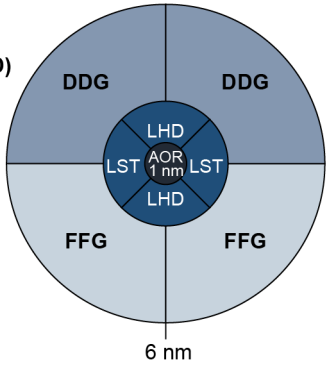
1 x Fuchi Auxiliary (AOR)
1 nm radius in centre of screen

2 x Yushen Amphibious Assault Ship (LHD)
1 to 3 nm from AOR

2 x Yuting Landing Ship (LST)
1 to 3 nm from AOR

2 x Luyang III destroyer (DDG)
180° AAW sector screen, 3 to 6 nm from ATG

2 x Jiangkai II frigate (FFG)
180° AAW sector screen, 3 to 6 nm from ATG



Supporting elements

11.6 **Aircraft:**

a. Y-8 MPA (ASW variant) on-task in week prior to transit.

b. Wing Loong/WZ-7 (or similar) long range UAV, enough for constant presence during key phases.

c. Z-9 ASW helicopter (organic to task group platforms).

11.7 **Other supporting assets:**

a. Patrol submarine (Yuan or Song class).

b. Special forces embedded in local area.

c. Satellite feeds.

d. Human intelligence from land forces.

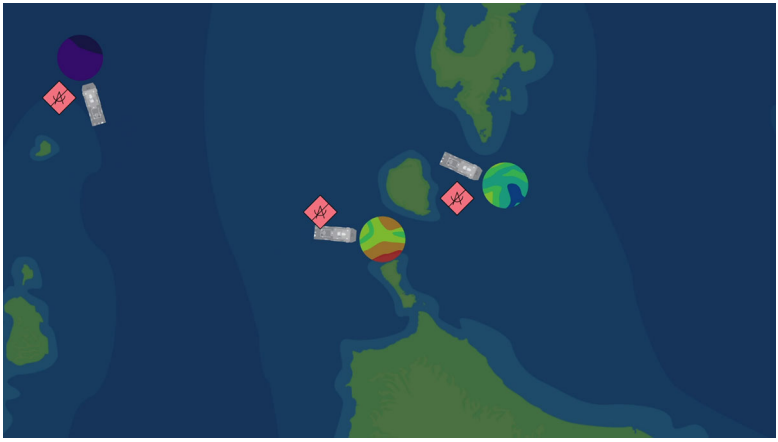
e. SURTASS vessels.

f. Hydrographic survey aircraft or ships.

Phase 1 – Prepare

11.8 As with all Olvanan missions, the preparatory phase of the chokepoint transit begins well before the tactical action is planned. Foreign investment in ports, harbours, and other maritime infrastructure provides an opportunity for oceanographic surveillance vessels to conduct high quality hydrographic surveys of key channels. These surveys go far beyond the level required for economic investment, with a focus on acoustic and thermal conditions (see Figure 11.2).

Figure 11.2: Hydrographic survey vessels provide detailed charting of chokepoints



Phase 2 – Surveil

11.9 Once the need for a chokepoint transit has been identified, suitable options are selected and the surveillance phase begins. Where possible, at least two distinct options should be identified and both surveilled to an equal level. This provides options should one be found to be unsuitable, and creates a tactical dilemma for the enemy seeking to interdict the task group. Even if one channel should prove unfeasible, surveillance methods should be carried out on all options, so as to deny the enemy insight into which is the preferred option (see Figure 11.3).

Figure 11.3: Chokepoint surveillance

11.10 The surveillance phase takes place across all theatre domains. Satellites provide ongoing imagery of the area, while MPA search for subsurface threats. On the ground, intelligence operatives apparently working on maritime infrastructure projects provide information on the human terrain, while special force soldiers infiltrate any potential weapon sites. Meanwhile, below the surface, Yuan-class submarine patrols ensure the waterway remains clear

Phase 3 – Control

11.11 Sea control and air supremacy are established in the hours leading up to the transit. Enduring dominance is unsustainable, but for the period of the transit, it is necessary to maintain superiority over the battlespace. Fast air off from nearby island bases provides DCA patrols. Threats on the ground are disabled by covert special force operations and a final Yuan transit is conducted a few hours prior to the task group transit.

11.12 MPA fly overhead, laying a multistatic sonobuoy field, supported by the dipping sonar of Z-9 helicopters launched from the task group (see Figure 11.4).

Figure 11.4: Z-9 approaches chokepoint

11.13 Immediately prior to the transit, one frigate with assigned helicopter breaks off from the main group to sweep the planned route with its towed array sonar. Working with the sonobuoys, this sonar is able to create a multistatic field to provide enhanced acoustic fidelity and ensure that the channel is clear of any hostile assets (see Figure 11.5).

Figure 11.5: Frigate with assigned helicopters sweeping planned route

11.14 The task group switches to an overt posture, with full coverage of the electromagnetic spectrum. Transit is conducted at the highest speed possible (dependant on the slowest unit in the task group), to minimise time in the high-risk zone. For the duration of the transit, Olvana has complete sea and air control over the area. Once the chokepoint transit has been completed, the task group can re-posture to minimise counter-detection and proceed towards its objective.

Chapter 12

Amphibious operations

12.1 The ability to conduct an amphibious landing operation is a key pillar of Olvana's naval doctrine. However, with no contemporary amphibious operational experience, Olvana invariably prefers to utilise existing port facilities rather than attempt a contested beach assault.

12.2 However, where operational requirements demand a beach-style assault, Olvana will seek to leverage speed, relying heavily on landing craft air cushioned and rotary wing air insertion (see Figure 12.1). Where the assault is likely to be heavily defended Olvana will use overwhelming amounts of air power (including land attack cruise missiles) to conduct sufficient strikes to reduce the threat level to much more manageable level. Only then will an amphibious landing be attempted.

Figure 12.1: Amphibious lodgement platforms

Yuyi LCAC (726) Landing craft, air cushion	Yushen LHD (075) Landing helicopter dock	Z-8C Transport helicopter
		
Range: 175 nm **Speed:** 80 kt **LOA:** 33 m **Beam:** 16.8 m **Draught:** N/A **Tonnage:** 160 **PAX:** 60 to 70 troops with kit **Vehicles:** 1 x type-96 MBT or 2 x ZBD-05 IFV	**Range:** INA **Speed:** 23 kts **LOA:** 237 m **Beam:** 45 m **Draught:** 8.5 **Tonnage:** 36 000 **Aircraft:** 28 x Z-8C or Z-9C **Short range SAM:** 2 x 14-CELL HHQ-10 **Flexible load capacity:** Up to 1800 troops, type 726 LCAC	**Range:** 1020 km **Speed:** 275 kph **Length:** 20.3 m **Rotor:** 18.9 m **Complement:** 3 crew, 27 PAX **Sensors:** HS-12 dipping sonar **Weapons:** YJ-8, YJ-82, LWT torpedos

Phase 1 – Shape (months prior to lodgement)

12.3 Olvana's doctrine of any amphibious operation requires an extensive surveillance and shaping campaign. At least two AOA are surveilled to increase landing options and conceal the force's intentions.

12.4 Industrialised port facilities provide deep-water berths, reinforced wharves and shore-based cranes to facilitate rapid disembarkation of troops and equipment. Foreign aid and direct investment in local infrastructure gives Olvana access to key facilities, and as well as financial leverage over political leaders. Meanwhile, Olvanan military intelligence personnel infiltrate integrate into port authorities and other agencies as special forces infiltrate the local populace.

12.5 Surveillance and collection platforms include:

a. Type 927 Dongjian-class SURTASS ships recording oceanographic conditions

b. Type 039A Yuan-class submarine, guided missile

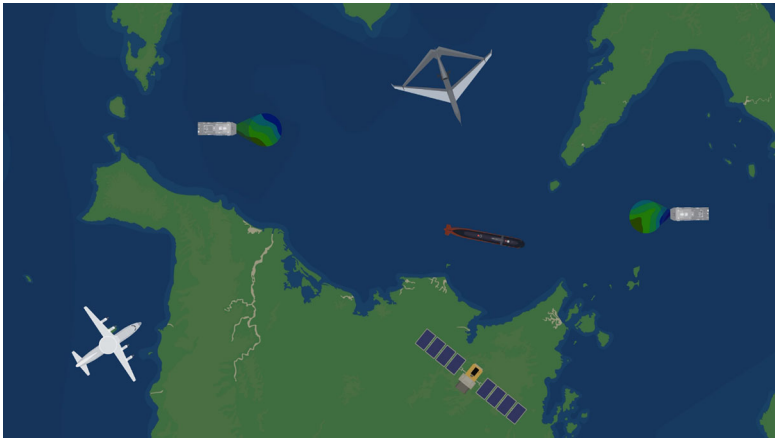
c. WZ-7 Soaring Dragon high-altitude UAV

d. Shaanxi Y-8 MPA

e. Low Earth orbit satellites.

12.6 With the exception of the SURTASS scans and Yuan-class submarine operations, all surveillance is conducted within a week of the landing operation, to ensure information is correct and reduce the risk of the operation being detected by the adversary (see Figure 12.2).

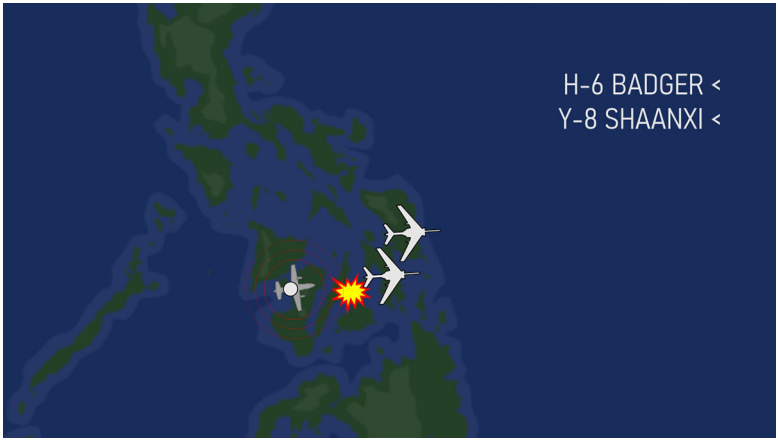
Figure 12.2: Surveillance and collection prior to amphibious landings



Phase 2 – Sea and air control (days prior to lodgement)

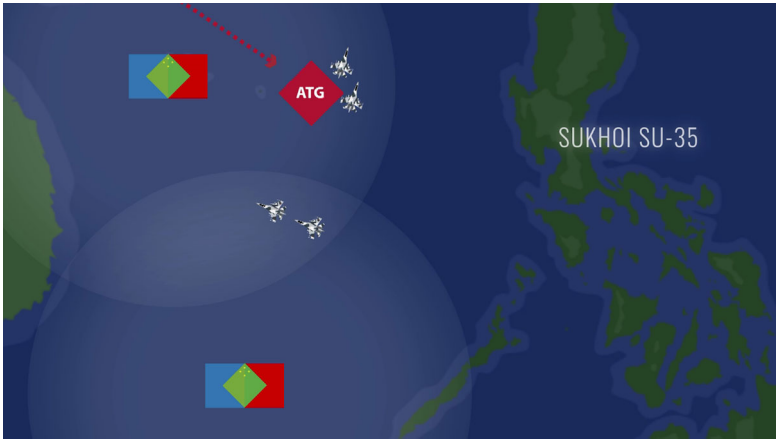
12.7 Long-range strike bombers (H-6 Badger, Tu-22M Backfire) target coastal defence and SAM sites defending the AOA. Launched from reef airfields in the Near Seas, these aircraft employ AAR to extend their strike range carry air-to-ground missiles and precision guided munitions. A Y-8 electronic attack variant accompanies the bombers, providing long-range jamming to support the mission (see Figure 12.3).

Figure 12.3: Long-range bombers supported by electronic warfare aircraft



12.8 As the ATG proceeds through the Near Seas, land-based fast air provides air cover, but soon the task-group moves beyond range of the reef airfields (see Figure 12.4).

Figure 12.4: Fast air providing air cover



12.9 Entering the Distant Seas, the task group is joined by a Liaoning-class CSG, which provides air cover superiority for the remainder of the lodgement period (see Figure 12.5).

Figure 12.5: Air superiority

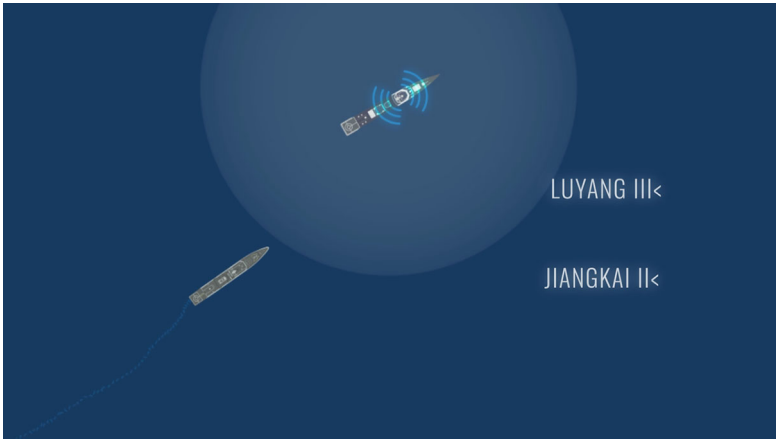
12.10 J-15s from the aircraft carrier fly combat air patrol missions supported by the KJ2000 ‘Mainring’ AEW&C aircraft.

12.11 Z-9 helicopters from the task group conduct ASW tasks with land-based MPA in support. UAVs continue to provide a constant feed of aerial reconnaissance (see Figure 12.6).

Figure 12.6: Z-9 Helicopters conduct anti-submarine warfare

12.12 Once the air threat has been reduced to an acceptable level, the task group deploys a pair of surface combatants forward. The DDG provides area air defence, while the guided missile frigate (FFG) deters subsurface threats (see Figure 12.7).

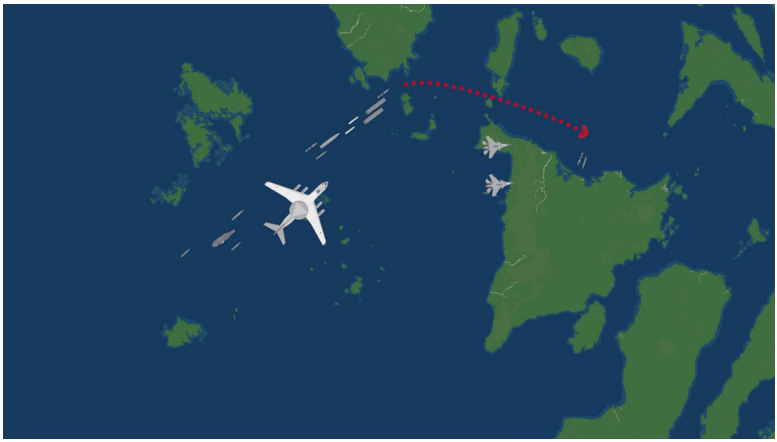
Figure 12.7: Surface combatants deployed forward



Phase 3 – Lodgement

12.13 DCA patrols are launched from the carrier, to ensure the skies remain clear. Once the threat level in the port is lowered to an acceptable level, the ATG proceeds into the lodgement area (see Figure 12.8).

Figure 12.8: Defensive counter air patrols



12.14 The CSG remains in the marshalling area 100 miles to the west, well outside the range of coastal defence cruise missile sites. Defending the carrier is a Renhai CG, to shield it from aerial threats, and two FFGs, monitoring the depths for hostile submarines (see Figure 12.9).

Figure 12.9: Carrier strike group marshalling

12.15 Surface combatants provide naval gunfire support as the amphibious landing ships enter the port to disembark soldiers and equipment to the initial landing area. Once ashore, self-propelled howitzers provide mobile firepower to combat any remaining hostiles, as the landing force organises itself for onward manoeuvres. They now rely on their air superiority and the vigilance of their fleet to hold the territory (see Figure 12.10).

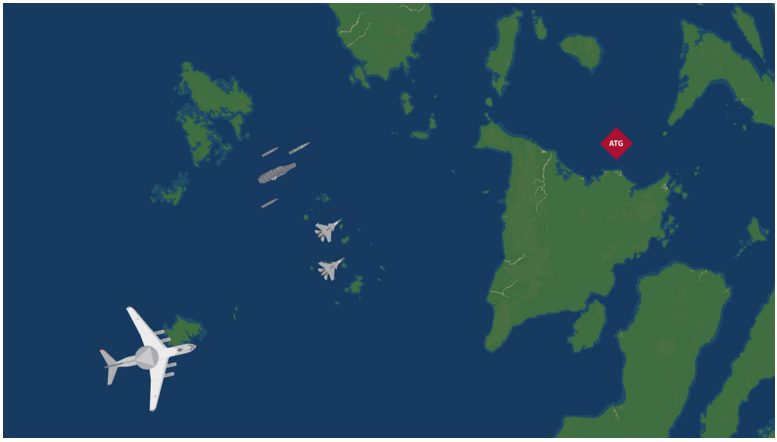
Figure 12.10: Initial lodgement

Phase 4 – Defend

12.16 From the marshalling area, the carrier serves as a platform from which to launch fighters into the region. Once air dominance is assured, an AAR tanker (IL-76) is available to extend the range of carrier-launched fighters.

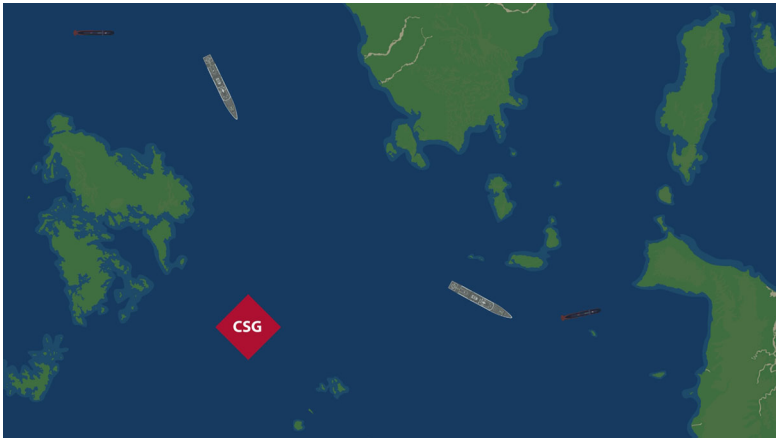
12.17 Flying in pairs, J-15s operate as a combat air patrol and can be configured for a dual strike role to attack targets of opportunity. 'Mainring' provides long range EW and C2 for the DCA/OCA, and strike fighters (see Figure 12.11).

Figure 12.11: J-15 Combat air patrol



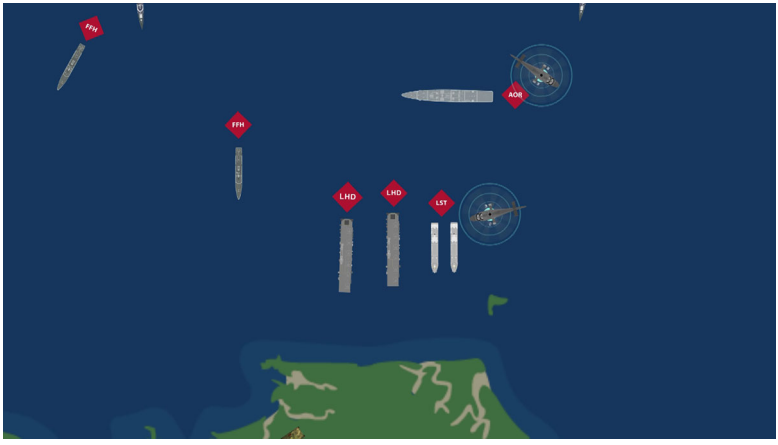
12.18 North of the carrier, two Yuan-class submarines and another FFG will hold station near natural chokepoints, lying in wait for enemies seeking to engage the Olvanan fleet (see Figure 12.12).

Figure 12.12: Task group holding station near chokepoint



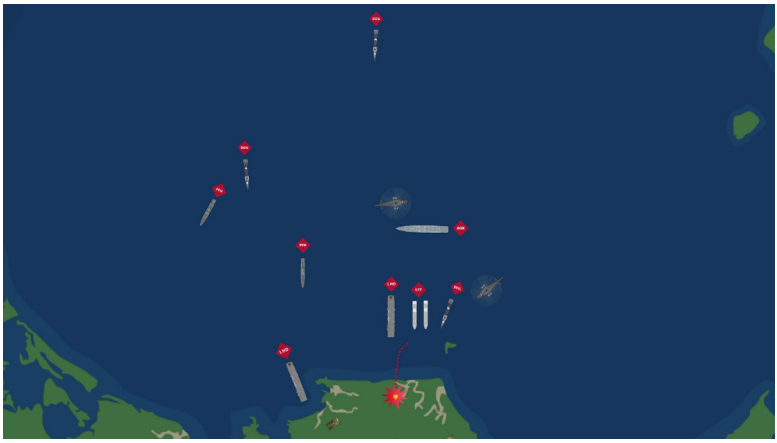
12.19 The most congested area is above the occupied city and its port. ASW helicopters dip for submarines around the vulnerable auxiliary oil, replenishment and the amphibious landing ships (see Figure 12.13).

Figure 12.13: Anti-submarine warfare helicopters scan



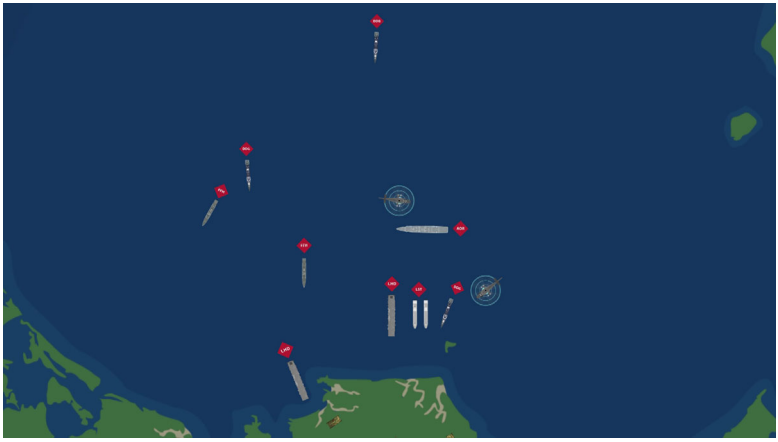
12.20 Within the amphibious assault area, the landing ships wait in a line formation offshore, entering the port in turn to resupply equipment and soldiers in WZ-551 amphibious armoured carriers (see Figure 12.14).

Figure 12.14: Landing ships waiting offshore



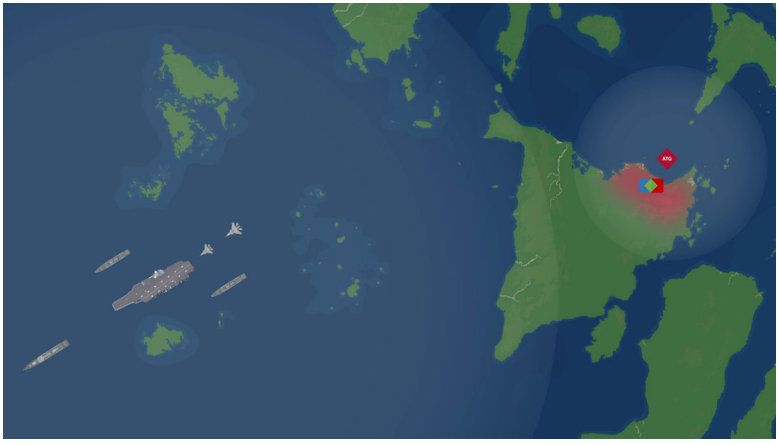
12.21 Forming the end of the line is a DDG, which uses intelligence from aircraft (WZ-7 and Y-8s) to suppress ground opposition with naval fires. Further back, another DDG performs area air defence duties. The Fujian-class tanker ensures ongoing fuel supply for the entire task force (see Figure 12.15).

Figure 12.15: Guided missile destroyer providing support to amphibious objective area



12.22 With lodgement complete and the AOA secured, Olvana has established a foothold on foreign territory. The CSG is now free to redeploy, assured that the ground forces can maintain control of the area (see Figure 12.16).

Figure 12.16: Carrier strike group redeploying



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Abbreviations

The source for approved Defence terms, definitions and abbreviations is the Australian Defence Glossary (ADG), available on the Defence Protected Network at http://adg.dpe.protected.mil.au/.

Opposing Forces (OPFOR) abbreviations are specific to enemy publications and will not be found in the ADG.

A2/AD	anti-access/area denial
AAR	air-to-air refuelling
AESA	active electronically scanned array
AEW	airborne early warning
AEW&C	airborne early warning and control
AOA	amphibious objective area
AOR	area of responsibility
ASBM	anti-ship ballistic missile (OPFOR)
ASCM	anti-ship cruise missile
ASuW	anti-surface warfare
ASW	anti-submarine warfare
ATG	amphibious task group
C2	command and control
CBG	carrier battle group (OPFOR)
CG	cruiser, guided missile
COA	course of action
CSG	carrier strike group (OPFOR)
DCA	defensive counter air
DDG	guided missile destroyer
EW	electronic warfare
FFG	guided missile frigate
FFH	frigate with assigned helicopters (OPFOR)
GUW	Great Underwater Wall (OPFOR)
HQ	headquarters
I&W	indications and warnings
ICBM	intercontinental ballistic missile
ICU	intensive care unit
INA	information not available
LHD	landing helicopter dock

LOA	length overall (OPFOR)
LST	landing ship, tank
LWT	light weight torpedo
MBT	main battle tank
MEZ	missile engagement zone
MPA	maritime patrol aircraft
NSO	National Strategic Objectives (OPFOR)
OCA	offensive counter air
OCP	Olvanan Communist Party
OMM	Olvanan Maritime Militia
OPA	Olvanan People's Army
OPAF	Olvanan People's Air Force (OPFOR)
OPMC	Olvanan People's Marine Corps (OPFOR)
OPN	Olvanan People's Navy (OPFOR)
OSHC	Olvanan Supreme High Command (OPFOR)
SAM	surface-to-air missile
SSGN	submarine, attack, guided missile, nuclear
SSN	submarine, attack, nuclear
SURTASS	Surveillance Towed Array Sensor System
TASW	theatre anti-submarine warfare (OPFOR)
UAV	uncrewed aerial vehicle
UUV	uncrewed underwater vehicle