MINISTRY OF DEFENCE

Ministry of Defence

Joint Doctrine Publication 0-10
British Maritime Doctrine

DCDC

JOINT DOCTRINE PUBLICATION 0-10

BRITISH MARITIME DOCTRINE

Joint Doctrine Publication 0-10 (JDP 0-10), August 2011,
is promulgated as directed by the Chiefs of Staff

MP Colley

Assistant Chief of the Defence Staff (Development, Concepts and Doctrine)

AUTHORISATION

The Development, Concepts and Doctrine Centre (DCDC) is responsible for publishing Joint Doctrine Publications (JDPs) within a hierarchy of similar publications. Readers wishing to quote JDPs as reference material in other work should confirm with the DCDC Doctrine Editor whether the particular publication and amendment state remains authoritative. Comments on factual accuracy or proposals for amendment are welcomed by the Doctrine Editor at:

The Development, Concepts and Doctrine Centre
Ministry of Defence
Shrivenham
SWINDON, Wiltshire, SN6 8RF

Telephone number: 01793 314216/7
Military Network: 96161 4216/4217
Facsimile number: 01793 314232
Military Network: 96161 4232
E-mail: dcdc-doceds@mod.uk

DISTRIBUTION

Distribution of JDPs is managed by the Forms and Publications Section, DSDA Operations Centre, C16 Site, Ploughley Road, Arncott, Bicester, OX25 1LP. Requests for issue of this publication, or amendments to its distribution, should be referred to the DSDA Operations Centre. All other DCDC publications, including a regularly updated CD *Joint Doctrine Disk* (containing both JDPs and Allied Joint Publications (AJPs)), can also be demanded from the DSDA Operations Centre.

DSDA Help Desk: 01869 256052
Military Network: 94240 2052

All publications (including drafts) are available to view and download on the Defence Intranet (RLI) at: www.dcdc.dii.r.mil.uk
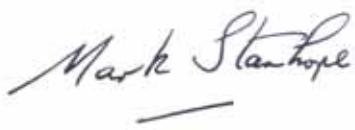
This publication is available on the Internet at: www.mod.uk/dcdc

Foreword

In a world of rapid change, characterised by issues such as globalisation, climate change, resource scarcity and population growth to name but a few, the crucial importance of the sea to the UK remains unchanged. We are a maritime trading nation whose national interests are truly international both in terms of our security and our prosperity. This document is the Royal Navy's capstone doctrine and it defines both the purpose of British maritime power and the way in which it can be applied in pursuit of the national interest. It builds upon previous editions of British Maritime Doctrine and has been jointly endorsed, reflecting the contemporary nature of operations.

While our individual service experiences are invaluable and help shape our daily business, doctrine is that corporate knowledge, based upon our collective experience that defines our profession. While the context has changed, many of the lessons of the past are just as applicable today and this is captured in British Maritime Doctrine. Drawing on these experiences, doctrine is the medium by which we can consistently and coherently articulate how and why we deliver our business in the way that we do, to both the internal and external audience. Now, perhaps more than ever, we need to understand and adhere to the enduring principles that have guided the Royal Navy through centuries of success.

It is incumbent upon all of us as professional mariners in the Armed Forces to fully understand what our Service provides for the nation. Only by so doing can we continue to deliver against our strategic objectives and our proud tradition of operational success. I encourage you all most strongly to read this doctrine, think about it, understand it and apply it appropriately.

First Sea Lord

British Maritime Doctrine

Maritime power is:

The ability to project power at sea and from the sea to influence the behaviour of people or the course of events

(INTENTIONALLY BLANK)

PREFACE

1.   The purpose of *British Maritime Doctrine* is defined in *British Defence Doctrine*, which refers to the discrete doctrine publications of the maritime, land, and air and space environments '*that guide the single Services and provide the necessary familiarity and broad basis of understanding for joint and component commanders, formations and units to operate effectively across environmental boundaries*'.[1] The fourth edition of *British Maritime Doctrine* therefore has 2 aims: to provide authoritative direction on the employment of maritime power to those sailors, marines, soldiers and airmen charged with its delivery; and to explain as clearly as possible its utility to soldiers, airmen and all of the other actors who influence, or are influenced by, the use of maritime power.[2] Just as *British Defence Doctrine* '*provides the broad philosophy and principles underpinning the employment of the British Armed Forces*',[3] so *British Maritime Doctrine* serves the same purpose for the maritime component by describing what maritime power does, how it does it, and to what end. Maritime power is defined as:

> *The ability to project power at sea and from the sea to influence the behaviour of people or the course of events*[4]

2.   Understanding maritime power is critical for the following reasons:

> a.   The UK is a maritime nation whose prosperity, stability and security depend upon the vital access provided by the sea and the maintenance of an international system of law and free trade.[5]

> b.   The UK will remain a global player, committed to shaping a more stable world. British maritime power contributes significantly to protecting and promoting UK national interests at home and across the world, at sea and from the seas.

> c.   A high proportion of future conflict is likely to occur in, or adjacent to, a zone of maritime influence, while the sovereignty of some of our

---

[1] Joint Doctrine Publication 0-01 (3rd Edition) *British Defence Doctrine* (BDD)*,* paragraph 408a.
[2] Allied Joint Publication (AJP)–3.1, *Allied Joint Maritime Operations*, paragraph 0101, defines maritime power as *military, political and economic power exerted through the use of the sea, and exercised by sea, air and land resource*. However, unless mentioned specifically the economic dimension – UK's civil maritime capacity and activity, particularly that of the merchant marine – is not included as part of the definition of British maritime power in this publication.
[3] BDD (3rd Edition) paragraph 1.
[4] This is aligned with Air Publication 3000 *British Air and Space Doctrine* (4th Edition), page 3.1 (Air Power Studies 2009) definition of air power and AJP–3.1.
[5] *Future Air and Space Operational Concept* paragraph 113.

14 Overseas Territories (12 of which are islands) will be subject to territorial claims by other states.[6]

d.   The maritime environment provides critical access for joint assets allowing influence in support of political objectives, the conduct of a wide range of maritime security and international engagement and, when necessary, the means to assemble and apply decisive combat power at a time and place of political choice.[7]

3.   The military dimension of maritime power is delivered primarily by the Royal Navy, supported by the British Army, the Royal Air Force and other elements of the Ministry of Defence and wider UK Government departments and Agencies (referred to collectively in the context of this document as maritime forces). The Royal Navy comprises 4 fighting arms (Surface Flotilla, Submarine Service, Royal Marines and Fleet Air Arm), the Royal Fleet Auxiliary and Maritime Reserve forces.

Provenance

4.   In the Royal Navy, the existence of formal doctrine can be traced back to the original edition of *Fighting Instructions*, issued to the Fleet in 1672. More recently, higher level doctrine was promulgated to the Royal Navy in the form of the *Naval War Manual* published between 1948 and 1969. In 1995 the first of 3 editions of *British Maritime Doctrine* was published. This publication became increasingly joint in its philosophy, with the third edition drawing heavily on the higher level *British Defence Doctrine*. As with Army Doctrine Publication *Operations* and Air Publication *British Air and Space Power Doctrine*, *British Maritime Doctrine* was a single-Service product produced by the Maritime Warfare Centre. This edition of *British Maritime Doctrine* is the first environmental doctrine publication to be published as a joint publication, produced by the Ministry of Defence and endorsed by all 3 Services.

Structure

5.   The previous edition of *British Maritime Doctrine* pre-dated much of the contemporary hierarchy of joint doctrine and, consequently, included material that was generic to defence rather than being specific to the maritime environment. Material detailed in other Joint Doctrine Publications has therefore been removed from this publication. Although designed to be read in a logical progression from chapter to chapter, individual chapters also stand by themselves.
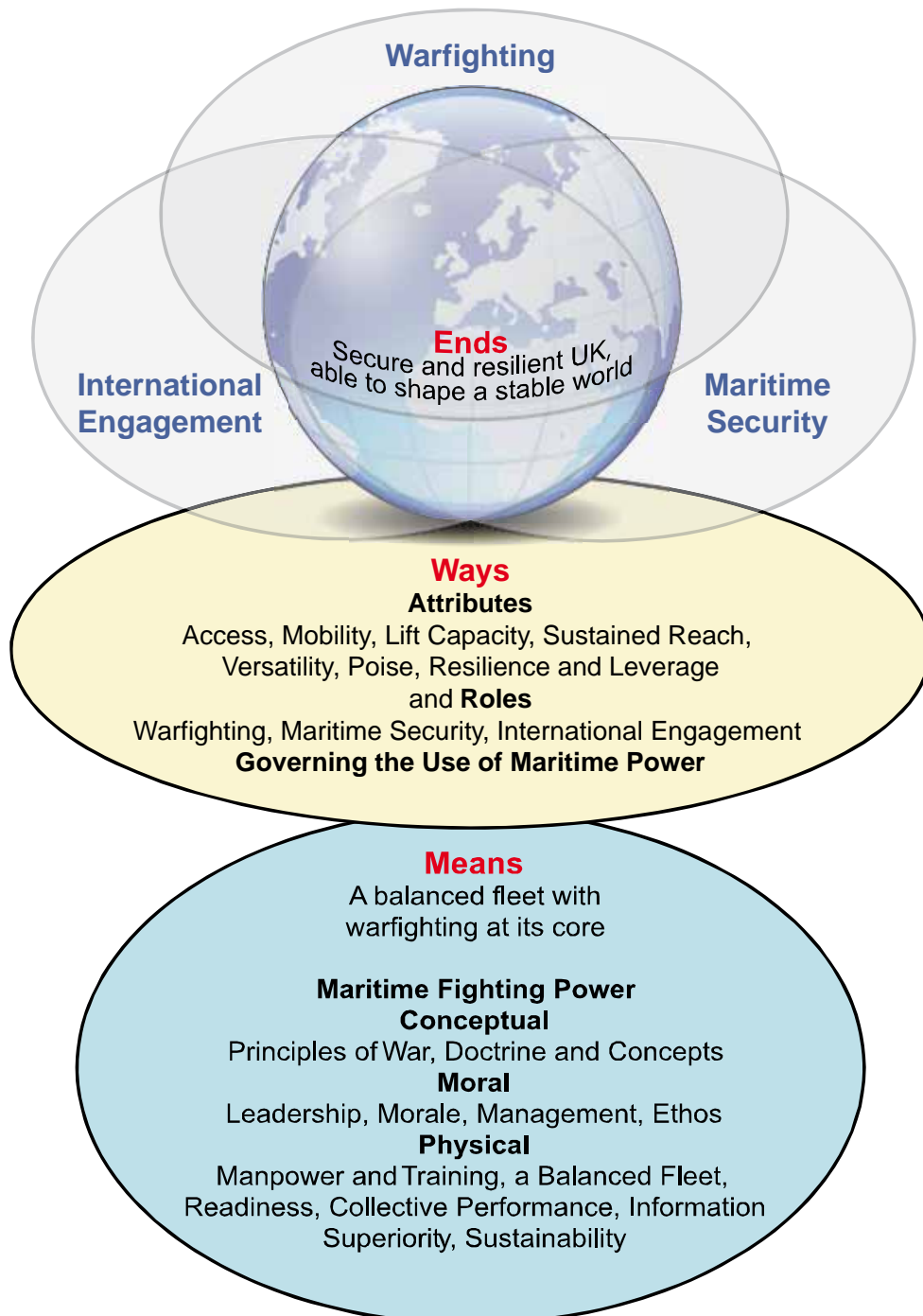
---

[6] DCDC Strategic Trends Programme, *Future Character of Conflict* paragraph 7 and 25 (October 2009).
[7] *Future Maritime Operating Concept* paragraph 123 (DCDC, November 2007).

6.   Chapter 1, *The Ends*, describes UK national interest, the strategic maritime environment and defines the purpose of British maritime power drawing from the strategic political direction provided in the *National Security Strategy* and the *Strategic Defence and Security Review*. Chapter 2, *The Ways*, details the enduring attributes and roles of British maritime power. Finally, Chapter 3, *The Means*, explains how the conceptual, moral and physical components of fighting power combine to deliver a balanced fleet with war-fighting at its core.

7.   The ends, ways and means of British Maritime Power are summarised in the following diagram:

Warfighting

International Engagement

Ends
Secure and resilient UK, able to shape a stable world

Maritime Security

Ways
Attributes
Access, Mobility, Lift Capacity, Sustained Reach, Versatility, Poise, Resilience and Leverage
and **Roles**
Warfighting, Maritime Security, International Engagement
Governing the Use of Maritime Power

Means
A balanced fleet with warfighting at its core

Maritime Fighting Power
Conceptual
Principles of War, Doctrine and Concepts
Moral
Leadership, Morale, Management, Ethos
Physical
Manpower and Training, a Balanced Fleet, Readiness, Collective Performance, Information Superiority, Sustainability

Linkages

8.   *British Maritime Doctrine* is part of the hierarchy joint doctrine publications and should be read in conjunction with *British Defence Doctrine*, which sets out the generic concepts of warfighting valid across all environments. *British Maritime Doctrine*, alongside Army Doctrine Publication *Operations* and *British Air Space Power Doctrine*, provide the capstone strategic doctrine for the three military environments, *British Maritime Doctrine* explains the ends, ways and means of maritime power. *Allied Joint Maritime Operations* provides the operational level maritime doctrine and Royal Navy *Fighting Instructions* forms the basis for tactical maritime doctrine; together they explain how maritime power works.

Acknowledgments

9.   This edition draws heavily on previous editions. Many individuals from military organisations and academic bodies have contributed a great deal to the development of this fourth edition. The author would like to thank all of those who have assisted him in the production of this publication. Particular thanks must be given to Commander David Preece Royal Navy and the Corbett Centre of King's College London whose members, under the direction of Professor Geoff Till, have provided much academic rigour.

Captain J A P White Royal Navy

CONTENTS

British Maritime Doctrine

(INTENTIONALLY BLANK)

CHAPTER 1 – THE ENDS

UK NATIONAL INTEREST AND THE STRATEGIC MARITIME OPERATING ENVIRONMENT

"It is upon the navy…that the safety, honour, and welfare of this realm do chiefly depend."

King Charles II

101.   Maritime power is not an end in itself. Operating within the national security framework, it is part of a whole of government approach to the UK's enduring responsibilities and distinctive role in the world, the maritime environment playing a significant part across the breadth of our national strategic objectives. The aim of this chapter, therefore, is to articulate what constitutes the UK's national interest; these are the *ends* towards which maritime power is exercised. It will also look at the strategic maritime operating environment in order to highlight the importance of the maritime domain to global affairs, and to the UK in particular. Finally, it will introduce the maritime contribution to UK national security.

SECTION I – UK NATIONAL INTEREST

102.   UK national interest comprises the security, prosperity and freedom of the state.[1] Above all else, the most important duty of the Government is to safeguard the state, its citizens, its prosperity and way of life.

Current Context

103.   The contemporary world is characterised by rapid, unpredictable change and increasing global inter-dependence, where challenges such as climate change, terrorism, nuclear proliferation, piracy and resource scarcity,[2] affect the international community collectively. The potential for conflict is growing.

---

[1] *A Strong Britain in an Age of Uncertainty: The National Security Strategy* (NSS), October 2010, paragraph 0.9.
[2] A fuller analysis can be found in the Development, Concepts and Doctrine Centre's (DCDC) Global Strategic Trends Programme, *Global Strategic Trends – Out to 2040* (4th Edition).

The Future Character of Conflict

'Globalisation increases the likelihood of conflict involving non-state and failed-state actors. State-on-state conflict will not disappear, but its character is already changing. Asymmetric tactics such as economic, cyber and proxy actions instead of direct military confrontation will play an increasing part, as both state and non-state adversaries seek an edge over those who overmatch them in conventional military capability. As a result, the differences between state-on-state warfare and irregular conflict are dramatically reducing.

This will add to the pressures on military personnel and the government. It will be more difficult to distinguish our enemies from the civilians, media, non-governmental organisations and allies also present on the battlefield. We must expect intense scrutiny of our operations by a more transparent society, informed by the speed and range of modern global communications.

Our enemies will continue to attack our physical and electronic lines of communication. And the growth of communications technology will increase our enemies' ability to influence, not only all those on the battlefield, but also our own society directly. We must therefore win the battle for information, as well as the battle on the ground.

This environment will place a premium on particular military capabilities, including intelligence, surveillance, target acquisition and reconnaissance. It will demand sophisticated and resilient communications and protected mobility by sea, land and air. It will also mean that our people must continue to be our winning edge. We will need highly capable and motivated personnel with specialist skills, including cultural understanding; strategic communications to influence and persuade; and the agility, training and education to operate effectively in an increasingly complex environment.'

DCDC *Future Character of Conflict*[3] as quoted in the 2010 Strategic Defence and Security Review (SDSR).

104. In a world of change, however, some constants remain. Britain is an island state dependent on the free movement of maritime traffic and highly reliant on the stability and security of the globalised world: it has worldwide interests and responsibilities; it benefits from being a hub for global activity; it is an influential Permanent Member of the United Nations Security Council, G8/20, NATO and the EU; and, in addition to the UK, it is responsible for the

---

[3] DCDC Strategic Trends Programme, *Future Character of Conflict* (FCOC), February 2010.

security of 14 overseas territories (12 of which are islands),[4] with a large number of UK nationals living overseas.[5] Furthermore, the national interest continues to be under-pinned by a firm commitment to human rights, justice and the rule of law.[6]

105.   Such wide-ranging national interests in an unstable world that is increasingly susceptible to conflict, make the UK both vulnerable and sensitive to events across the globe. Consequently, British Armed Forces are likely to remain heavily committed to operations, a significant proportion of which are in, or may be decisively influenced by, the maritime environment.

The National Security Strategy

106.   National strategy directs the co-ordinated application of the instruments of national power in the pursuit of national policy aspirations.

The National Security Strategy 2010

'The UK is well placed to benefit from the world of the future. The National Security Strategy of the United Kingdom is to use all our national capabilities to build Britain's prosperity, extend our nation's influence in the world and strengthen our security. The networks we use to build our prosperity we will also use to build our security. We will use all the instruments of national power to prevent conflict and avert threats beyond our shores: our Embassies and High Commissions worldwide, our international development programme, our intelligence services, our defence diplomacy and our cultural assets. We will give top priority to countering the threat from terrorism at home and overseas. We will maintain the defensive and offensive capabilities needed to deploy armed force to protect UK territory and its citizens from the full range of threats from hostile action and to meet our commitments to our allies.

Our strategy reflects the country that we want to be: a prosperous, secure, modern and outward-looking nation, confident in its values and ideas. Our national interest comprises our security, prosperity and freedom. We must be a nation that is able to bring together all the instruments of national power to build a secure and resilient UK and to help shape a stable world.

Our outlook will be characterised by flexibility and resilience and underpinned by a firm commitment to human rights, justice and the rule of law. This

---

[4] Anguilla; Bermuda; British Antarctic Territory; British Indian Ocean Territory; British Virgin Islands; Cayman Islands; Falkland Islands; Gibraltar; Montserrat; Pitcairn Islands; Saint Helena, Ascension and Tristan da Cunha; South Georgia and South Sandwich Islands; Sovereign Base areas of Cyprus; and Turks & Caicos Islands; along with the UK and dependencies, have a combined Exclusive Economic Zone of over 2.5 million square miles, the 5th largest in the world.
[5] Estimated at 5.5 million, almost 10% of the population – NSS, paragraph 2.5.
[6] NSS, paragraph 0.9.

Strategy outlines the international context in which we can best pursue our interests: through a commitment to collective security via a rules-based international system and our key alliances, notably with the United States of America (US); through an open global economy that drives wealth creation across the world; and through effective and reformed international institutions including the North Atlantic Treaty Organization (NATO), as the anchor of transatlantic security, and our vital partnership in the European Union (EU).'

<div align="right">The National Security Strategy 2010</div>

107.   As the world balance of power shifts to a multi-polar construct with the rise of powers such as India, China and Brazil, the UK will continue to maintain its close relationship with the US, rely on NATO and develop a leading role in Europe and with emerging states, to counter continuing global inter and intra-state conflict. More frequent and complex operations will require a more agile response than the conventional inter-state conflicts of the past. A policy of 'identifying risks early and treat(ing) the causes, rather than having to deal with the consequences'[7] underpins our national efforts to both defend and promote the international system and the UK's place within it.

108.   Treating the causes of instability and conflict will be achieved through a combination of understanding and influencing both our friends and our enemies. In order to succeed, policy and strategy must be under-written by capable, credible armed forces; military force can reassure, persuade, deter and coerce, sometimes simultaneously, delivering decisive lethal force when necessary. Maritime forces, appropriately structured, trained and resourced, provide the Government with a cost effective military means by which influence can leverage conflict prevention or resolution. The ships, submarines and aircraft, that by their presence, guarantee freedom of navigation for all, may in turn exploit those freedoms for strategic, operational and tactical military effect, largely free from the need for host-nation support, and free from the vulnerabilities of access, basing and overflight permissions. This means access to within 12 nautical miles of all of the world's 147 coastal states, enabled by a right of transit through the world's choke points which cannot be impeded or suspended, as well as the right to conduct innocent passage *in* the *territorial waters* of any coastal state, which may be restricted only in very limited cases.

109.   Protecting and promoting our vital national interests, including domestic security, cannot be separated from the security and stability of the wider international system.[8] The UK will therefore 'continue to play an active and

---

[7] NSS, Foreword.
[8] *Securing Britain in an Age of Uncertainty: The Strategic Defence and Security Review* (SDSR), paragraph 2.10.

engaged role in shaping global change'.[9] International problems usually require international solutions, although the UK will maintain the ability to act independently if necessary. The UK will maintain its close relationships with traditional allies and partners, while simultaneously developing new multi and bilateral relationships in order to combat a diverse spectrum of threats at source.

110.   Britain's enduring national responsibilities and distinctive role in the world are reflected in 2 complementary strategic objectives:

The Ends

'**Ensuring a secure and resilient UK** – protecting our people, economy, infrastructure, territory and way of life from all major risks that can affect us directly – requiring both direct protection against real and present threats such as terrorism and cyber attack, resilience in the face of natural and man-made emergencies and crime, and deterrence against less likely threats such as a military attack by another state.'

'**Shaping a stable world** – acting to reduce the likelihood of risks affecting the UK or our interests overseas. We do this by applying all our instruments of power and influence to shape the global environment and tackle potential risks at source. We must address trends that contribute to instability, as well as tackling risks directly.'

The National Security Strategy 2010

---

111.   The UK is a maritime nation whose prosperity, stability and security depend upon the vital access provided by the sea and the maintenance of an international system of law and free trade.[10] The maritime environment is therefore critical in achieving the UK's national strategic ends.

> "*Let us begin with an island, an essentially maritime nation…Her power, as everyone knows, is a complex edifice that rests not only on the territory of the Home State but also on the extended network of commercial, financial, colonial, political, banking, and agriculture concerns, of which the maritime communications constitute the soul, the nervous system and the arterial circulation. The centre of gravity is not in 'the old country' but elsewhere at some mysterious point situated in the immensity of the oceans.*"

Admiral Raoul Castex, French Navy (1878 – 1968)

---

[9] NSS, paragraph 2.1.
[10] *Future Maritime Operating Concept 2007*, DCDC, paragraph 101, November 2007.

SECTION II − THE STRATEGIC MARITIME ENVIRONMENT

112.   In the physical sense, the maritime environment comprises the High Seas[11] and Exclusive Economic Zones (EEZs)[12] (through which warships enjoy high seas freedoms and from which their aircraft enjoy rights of overflight), and territorial seas[13] in which warships may exercise innocent passage, which does not include the right of overflight. The littoral, a vast, highly complex, and immensely diverse area, comprises EEZs, territorial seas, and land territory. The sea covers approximately 70% of the earth's surface, nearly 80% of the world's population lives within 100 miles of it (and this figure increases each year) and over three quarters of member states of the UN are coastal states. All coastal states have extended their jurisdiction through national maritime zones, in many cases including EEZs to as far as 200 nautical miles. Most human maritime activity – shipping, fishing, oil exploration, etc – is currently conducted within those 200-mile EEZs, to which warships and submarines have unrestricted access and presence to conduct exercises and routine operations. This means that a substantial proportion of the world's economic and political activity is being conducted in a narrow strip of land and sea on average no wider than 300 miles. This narrow band, referred to as the *littoral* and is defined as *those land areas (and their adjacent sea and associated air space) that are predominantly susceptible to engagement and influence from the sea*.[14]

113.   There are 6 dimensions to the maritime environment; the physical, economic, diplomatic, political, legal and military. These dimensions are intrinsically inter-related and no single dimension is any more important than another. That said, the physical dimension is the overarching context for all of the others – it articulates what is unique about the maritime environment and how it shapes those who use the sea.

The Physical Dimension

114.   Oceans provide access to all parts of the globe, with the exception of the hinterlands of large continents. Along with space and cyberspace great swaths of the oceans make up the *Global Commons* and no state may validly

---

[11] 'The term *high seas* means all parts of the sea that are not included in the territorial sea or in the internal waters of a State.' UN Convention on the Seas (UNCLOS) 1958 Article 1.

[12] 'The exclusive economic zone is an area beyond and adjacent to the territorial sea (where) the coastal State has...sovereign rights for the purpose of exploring and exploiting, conserving and managing the natural resources, whether living or non-living.' UNCLOS 1982 Part V Article 56.

[13] 'The sovereignty of a coastal State extends, beyond its land territory and internal waters and, in the case of an archipelagic State, its archipelagic waters, to an adjacent belt of sea, described as the territorial sea.' UNCLOS 1982 Part II Article 2.1.

[14] FCOC, page 40.

subject any part of the high seas to its sovereignty.[15] One of the more significant physical maritime characteristics is maritime choke points, such as the straits of Hormuz or Malacca. The greatest cluster of choke points is found around Indonesia, the Philippines and the South China Sea.[16] Maritime trade is highly dependent on free movement through these confined waters and the closure of significant straits would seriously hamper vital trade flow with grave consequences for the global economy.

115.   The maritime operating area ranges from the deep waters of the open oceans to the more confined and often shallower waters of littoral regions, estuaries and rivers. Geographic, oceanographic and meteorological conditions across these environments vary, and this is manifested in huge ranges in air and sea temperature, salinity and humidity that are managed by maritime forces conducting operations worldwide. The weather at sea can be unforgiving. It affects the physical performance of individuals as well as influencing military decision making at both the tactical and operational levels. Flying and amphibious operations as well as radar and sonar performance are all dependant on sea state, wind and extremes of temperature. In order to survive and operate at sea, it is imperative to understand the challenges of the environment fully, to be a mariner first. Skilful seamanship, individual and collective training and comprehensive doctrine can help mitigate these effects, as can the acquisition of equipment designed to operate in such a demanding environment. These conditions will also affect an enemy and adverse conditions can be used to advantage; a submarine, for example, can use poor sonar conditions to minimise the risk of detection. Furthermore, the mobility of maritime forces may allow them to move to an operating area where conditions are more favourable. An aircraft carrier can, for instance, seek out and exploit a local weather window in poor visibility to continue flying operations. This may be a particularly significant capability when shore based aircraft are weather-bound.

116.   By routinely deploying globally, British maritime forces have gained the experience necessary to turn these challenges to their advantage. The Royal Navy's hydrographical, meteorological and oceanographic capability enables commanders to exploit the maritime environment fully to either mitigate its impact or use it advantageously.

---

[15] States may make continental shelf claims to 350nm but the seabed of the high seas is administered by the International Seabed Authority.

[16] Transit of these choke points, a right which cannot be impeded or suspended by coastal states, provides guaranteed access and presence around the globe to all.

The Economic Dimension

117.   Since the first cargos were moved by sea more than 5,000 years ago, maritime trade has been at the forefront of global development and will remain the principal means by which materials are transported between states. Shipping unlocked Adam Smith's theory of the division of labour, which enabled the growth of capitalism so central to UK prosperity. Since 1945 the world has seen a steady expansion of seaborne trade at around 4.8% per annum.[17] More recently the containerisation of general cargo has revolutionised the global economy and opened the floodgates for global commerce by moving goods relatively freely and easily from anywhere to anywhere.[18] The container has made domestic firms global and changed the face of our high street. Cities that had been the centre of maritime commerce for centuries, such as Liverpool and New York have been replaced by massive new ports, such as Felixstowe (the largest container port in the UK), which rather than in days and thousands of man hours now unload and reload a ship in hours, with minimum human interaction.

118.   Today, cargo moves between more than 3,000 major commercial ports dominated by 3 economic centres, North America, Europe and Asia, strung along the *Westline*. 'Together they own over 90% of the world's manufacturing industry and much of its technology. So naturally they also dominate sea trade'.[19] With the UK nicely placed in the middle, London is the world's principal centre for a wide variety of maritime industries. From the Baltic Exchange[20] to marine insurance, maritime law, maritime banking, IT, classification and shipbroking facilities, the City of London easily rivals centres such as Hong Kong, Singapore, New York and Athens.[21] With air, space and cyber now facilitating well informed decision-making, seaborne trade plays an ever more essential role in the prosperity of the UK.

A £56 Billion Sector

'The UK maritime sector directly employs over 410,000 people (and at least that many indirectly). It is a £56 billion turnover sector, bigger than automotive and more than double the size of aerospace and agriculture combined – it is the largest maritime sector in Europe.'[22]

---

[17] Stopford M, *Maritime Economics* (3rd Edition), Routledge, page 38, 2009.
[18] Levinson M, *The Box*, Princeton University Press, page 2, 2006.
[19] Stopford M, *Maritime Economics* (3rd Edition), Routledge, page 348, 2009.
[20] The Baltic Exchange is the world's only independent source of maritime market information for the trading and settlement of physical and derivative contracts. Its international community encompasses the majority of world shipping interests and its members are engaged in arranging the ocean transportation of bulk cargoes such as oil, coal grain and iron ore; trading freight derivatives and buying and selling merchant vessels.
[21] http://www.cityoflondon.gov.uk/Corporation/homepage.htm
[22] The £56 billion is based on 2009 data http://www.seavisionuk.org/facts_&_figures.cfm

119.   Any prolonged interruption of maritime transportation networks would undermine both industrial production and the government's ability to provide the basic welfare of the population. A key role for British maritime power is to support the international community in ensuring that the *just in time* economy, now so vital to a secure and resilient UK, is allowed continued unhindered access to the maritime superhighway free from friction, which can escalate the cost of goods to the consumer.

The British Shipping Industry

In recent decades Britain has continued to lead the world as a maritime services centre, based in the City of London. Since 2000 the UK-owned fleet has increased by some 200%, and the UK-flag fleet has grown by more than 6 times, making it once again a major player in the economy. In 2008 revenue went up from £2.38 billion to £13.2 billion, with £10 billion of this coming from overseas trading. This places sea transportation in third place in the league table of service sector export earners for the UK. The overall net contribution to Britain's balance of payments was also up at £7.1 billion. Shipping now earns well over £1 million every hour of every day for the UK economy.

Source: British Chamber of Shipping

---

120.   **Fish**. Approximately one billion people rely on fish as their main source of animal protein. The control of fishing and the management of fish stocks are problematic, with most fishing states deploying fleets to grounds within other states' EEZ. The scarcity of fish and over-fishing has significantly increased the potential for dispute between states. Despite the obligation on all states to manage fish stocks in their EEZ in a sustainable way, some states may have little or no capacity to do so. In 2010 illegal, unreported and unregulated fishing accounted for up to $24Bn in lost revenue in states that can ill afford it.[23] Looking to the future, it is likely that the industry will move from the current unsustainable *hunter-gatherer* means of exploiting fish stocks to planned farming of the open oceans. To enable this process, and to prevent disputes, equitable legal regimes must be developed, which will need to be policed.

121.   **Fossil Fuels and Minerals**. Nothing has motivated coastal states to extend their jurisdiction over the seas more than the prospect of finding new sources of oil and gas. This has led to tension, dispute and even conflict. As easily accessible carbon fuels become scarcer, such tensions are likely to increase. Furthermore, the continental shelf is increasingly being exploited to develop low-emission wind and tidal energy as a sustainable alternative, creating further potential for conflict. While maritime boundary disputes are

---

[23] According to Defra: http://www.defra.gov.uk/environment/marine/manage/iuu/, accessed July 2011.

generally resolved peacefully, there are some, such as the competing claims in respect of Islands in the East and South China Seas whose political, legal and economic complexities have so far defied negotiated resolution. Additionally, conflicting bids for control of Arctic and Antarctic sea areas and for the access of trade routes across the former escalate current political tensions in the future. Climate change will result in a reduction of Arctic ice enabling the exploitation of natural resources and the sea passages across the north coasts of Russia and Canada. While there is cooperation at present, boundaries are not clearly defined in the region and competition could potentially lead to tension or conflict.

The Political Dimension

122.   The modern political dimension of the maritime environment took shape largely during the 1970s. Initially the extension of national sovereignty out to sea was often a political act that happened to have some economic consequences; more recently it is frequently undertaken for objective, calculated economic benefit. Many states, especially but by no means exclusively small island territories, struggle to police their maritime domains and manage their increasingly important maritime resources effectively. The extension of coastal state jurisdiction has increased the likelihood of disputes both between bordering states and also between coastal states and flag states exercising freedom of navigation; maritime power plays a vital role in resisting further restrictions on high seas freedoms.

The Diplomatic Dimension

123.   States have used the seas as a point of interaction for millennia. Bilateral and multilateral engagements are still very much a routine element of international affairs with long-term benefits. States use the freedom of manoeuvre provided by the oceans as a conduit for building relationships, strengthening ties and providing assistance and reassurance to like-minded states. States also exploit the sea to exert influence upon those they wish to persuade, to deter and if necessary to compel.

Maritime Diplomacy

Throughout the conflicts in Sierra Leone, the UK used the presence of British warships and their actual, or indeed implied, capability to project power far inland to both reassure the legitimate government in Freetown and to deter, coerce and compel the rebel force in the hinterland. Individual demonstrations of capability were used when necessary; however, for the majority of the conflict, a minimal presence achieved significant effect.

The Legal Dimension

124.   In 1997 the UK ratified the 1982 UN Convention on the Law of the Sea (UNCLOS 1982). UNCLOS has transformed the maritime environment with its package of legal rights and obligations both for coastal states and flag states. All coastal states may claim maritime zones. That said, all vessels of any nation may access all of these maritime zones, enjoying the right of innocent passage in *territorial waters* (which can only be denied in very limited circumstances) and high seas freedom of navigation, including the rights of warships to exercise and operate in another nation's EEZ. Thus all national maritime zones seaward of the baseline (the beach) are international spaces in which UK flagged vessels, and UK nationals embarked in vessels of any other flag, have a right to be present. All states, even landlocked states, may operate flag vessels and where they do, they will have exclusive jurisdiction over them. In return for very limited scope for warships of other states to legally interfere with them (e.g. if they are suspected of piracy or slavery) they are expected to be effectively administrated by their flag states. By understanding and adhering to these freedoms and obligations, maritime forces are able to take full advantage of the sea as a medium to exercise maritime power projection in pursuit of the national interest.

125.   International crime often uses the same oceans that allow legitimate trade. Illicit activities can threaten UK interests, both at home and abroad, not least because organised crime and terrorist organisations are increasingly relying on the sea for movement of people and materiel, including, potentially, weapons of mass destruction. Trafficking in people and illegal narcotics are already problems and piracy remains unresolved in a number of regions around the world, a phenomenon from which the shipping industry is increasingly seeking protection.

The Financial Cost of Piracy

The estimated costs of piracy range from $7 - $12 billion per year. The most significant elements of these costs arise from increased insurance premiums, the cost of re-routing shipping around threat areas and lost trade and tourism revenues for states in affected regions. In 2008 Mombasa hosted 35 cruise ships, 8 in 2009, 3 in 2010, and this year has hosted none.

The Military Dimension

126.   The seas have had a military dimension to them for well over 2,500 years. There are over 150 navies world-wide, ranging from the single remaining superpower navy at one end of the spectrum to tiny, poorly-resourced coastal policing forces from the developing world at the other.

Increasingly, many rising and aspiring powers are opting to develop their navies. The emerging powers are equipping their navies with modern warships and submarines and have demonstrated nascent expeditionary capabilities. Even relatively minor maritime powers, or non-state actors, can pose a significant threat, especially in the context of lower intensity maritime operations in the littoral where they can conduct sea denial operations.[24] This can be done, for example, by using conventional submarines that are difficult to detect and can therefore challenge the local sea control of even well equipped navies. Many states already possess a credible submarine force and others are acquiring this capability. In 2011, 29 non-NATO countries had a submarine force, most within easy reach of a major maritime choke point.[25] Similarly, sea mines are widely available, relatively cheap and very effective.

The Proliferation of Sea Denial Capabilities

On 26 March 2010 the South Korean 1,200 tonne corvette Cheonan sank with the loss of 40 sailors in waters disputed between North and South Korea. It was later demonstrated that the ship had been hit by a torpedo almost certainly fired by a North Korean conventional submarine.

SECTION III – THE MARITIME CONTRIBUTION TO NATIONAL SECURITY

127.   The role of British maritime power is to support the government in promoting and protecting the national interest. British maritime forces are well placed to take a leading role both in the delivery of influence and combat power and in contributing to effective conflict prevention through diplomacy and deterrence. To focus military activity, the strategic objectives set out in the *National Security Strategy* are developed into 7 military tasks in the 2010 *Strategic Security and Defence Re*view.

128.   Britain's maritime forces contribute directly to all 7 of these military tasks, including a key role in delivering the first 3 tasks which are non-discretionary. The 3 core British maritime roles, war-fighting, maritime security and international engagement deliver effect across the full spectrum of military tasks, at sea and from the sea. They are the **ways** in which maritime power contributes to the **ends**, and are explored in detail in Chapter 2.

---

[24] DCDC *Global Strategic Trends – Out to 2040* (4th Edition).
[25] *The International Institute for Strategic Studies, The Military Balance 2010*, Routledge, February 2010.

The Seven Military Tasks:

- MT 1 – Providing strategic intelligence.

- MT 2 – Providing nuclear deterrence.

- MT 3 – Defending the UK and its Overseas Territories.

- MT 4 – Supporting civil emergency organisations in times of crisis.

- MT 5 – Providing a defence contribution to UK influence.

- MT 6 – Defending our interests by projecting power strategically and through expeditionary interventions.

- MT 7 – Providing security for stabilisation.

Defence Planning Assumptions 2011

The Attributes and Roles of British Maritime Power
'*No challenge is greater for a smallish island nation than ensuring that its voice is heard, its security protected and its trade safeguarded.*'

Lord Powell

CHAPTER 2 – THE WAYS

2-0

(INTENTIONALLY BLANK)

CHAPTER 2 – THE WAYS

THE ATTRIBUTES AND ROLES OF BRITISH MARITIME POWER

'*Great Sea powers or maritime coalitions have either won or, occasionally, drawn, every major war in modern history*'[1]

201.   Exercising maritime power involves directing military assets that operate on, under or over the sea, and ashore and is delivered primarily by the Royal Navy.[2] This chapter explains the enduring attributes of maritime forces and the 3 fundamental roles under which all maritime activity is brigaded. The use of the term *maritime* rather than *sea* is important since it embraces all the environments.

202.   British maritime forces are involved in an extremely wide range of operations in home waters and overseas, reflecting the utility of maritime power across all of the military tasks assigned to the Armed Forces. Operations are divided into standing commitments, intervention operations and stabilisation operations.[3] These operations are bounded by high intensity war fighting at one extreme and essentially humanitarian tasks at the other.

SECTION I – THE ATTRIBUTES OF MARITIME POWER

203.   Maritime forces have distinctive attributes which may be considered the inherent strengths of maritime power.

Access

204.   Over three quarters of all states have a coastline. Maritime forces exploit the oceans as a strategic medium for their deployment to the most significant areas of interest and threat. Such access provides the opportunity for maritime forces to intervene at a time and place of choosing. Pre-deployed to areas of interest, covertly or overtly as circumstances require, maritime forces are often closest to crises as they develop and are able to respond accordingly.

---

[1] Gray C, *The Leverage of Sea Power*, Free Press, 1992.
[2] This may include force elements from the Army, the Royal Air Force and other government agencies.
[3] Standing commitments are permanent operations essential to UK security, or to support key national interests around the world, for example the strategic nuclear deterrent. Intervention operations are short-term, high impact military operations such as the deployment to Sierra Leone in 2000. Stabilisation operations are longer term operations to stabilise and resolve conflict. *Securing Britain in an Age of Uncertainty: The Strategic Defence and Security Review* (SDSR)*,* October 2010, paragraph 2.12.

Mobility

205.   Exploiting the access afforded by the sea, maritime forces can move hundreds of miles per day. High Seas rights of navigation and unimpeded access obviates the requirement for any third party agreement to deploy a maritime force. Mobility, in conjunction with access and lift capacity, is a critical dimension of theatre entry to all joint operations. It enables maritime forces to respond from over the horizon, becoming selectively visible to potential adversaries and facilitates maritime manoeuvre.

Maritime Responsiveness

Typically a Task Group would plan to transit approximately 300 nautical miles per day. In November 1997 the Permanent Joint Headquarters required air power to be rapidly deployed over Sierra Leone. The available strike carrier, HMS INVINCIBLE, was operating in the Caribbean. When first alerted of the potential tasking the commanding officer, acting within the bounds of his extant orders, re-positioned with his supporting Royal Fleet Auxiliary tanker to mid Atlantic. When the executive order to re-deploy was received HMS INVINCIBLE moved across the Atlantic ocean in only 5 days, a distance of some 3,200 nautical miles, at an average speed of 27 knots.

Lift Capacity

206.   For the UK, all major operations need maritime support to deploy, sustain, withdraw, or re-deploy forces. Airpower can be used to achieve extremely rapid effect with light forces for short periods,[4] and provide an air bridge for more substantial operations. It can also be a more practicable method of moving personnel, even large numbers. However, sealift is the **only** practicable means of deploying equipment and logistic support and then sustaining them at anything other than very small scale, due simply to the sheer volume of equipment involved. Even when an operation is a landlocked state,[5] the majority of lift required to deploy and sustain a joint force will be achieved from the sea. Sealift permits land and amphibious forces to transit to theatre, poise offshore if required, and then enables joint power to be brought to bear ashore. It also may be the only means available for gaining initial theatre entry if access basing and overflight permissions are not forthcoming from other states. The Royal Navy and Royal Fleet Auxiliary are the only force able to provide sealift in a threat environment. In a benign environment, with maritime force protection teams embarked, the strategic Roll-on/Roll-off ships

---

[4] Air Publication (AP) 3000 *British Air and Space Doctrine* (4th Edition), page 41 (Air Power Studies 2009).
[5] Over 85% of the materiel required to support British operations in Afghanistan is moved to theatre by sea.

(RO/ROs)[6] provide the major MOD contribution; larger operations[7] generally utilise commercial chartered shipping. Protecting the unhindered passage of sealift is an important duty for maritime forces.

Sustained Reach

207.   Maritime forces have integral logistical support that allows them to operate independently, at range without external support for protracted periods. Sustained reach is optimised when individual units or the task force is supported by specialist organic tankers and supply ships, which can operate in the same threat environment as combat units. This includes an afloat Role 3[8] medical facility. Only a maritime force so equipped can exploit the full potential of maritime power. A roulement may be conducted if the maritime force is to be sustained at range for an extended period.

Maritime Endurance

In 2003 HMS EDINBURGH remained continuously at sea for 125 consecutive days over the period of the invasion of Iraq sustained entirely by afloat support vessels.

Versatility

208.   Warships can easily change their military posture, undertake several tasks concurrently and be available for rapid re-tasking using organically held resources. They can present a range of flexible and well calibrated signals enabling a spectrum of political response. Furthermore, maritime command, control and information systems at the strategic, operational and tactical levels offer very flexible opportunities to co-ordinate maritime activity with diplomacy. They can also gather intelligence and establish situational awareness. British maritime forces routinely operate with those of other states, providing a flexibility of force packaging that transcends any limits of our own capabilities. The elements of versatility can be summarised as:

> a.   **Flexibility in Response**. Maritime forces at high readiness are always manned and provisioned for hostilities. The crews will have

---

[6] The MOD lease 6 strategic lift RO/RO ships that can each carry more than 2,600 linear metres (the equivalent of over 200 ISO containers or 50 C17 aircraft loads) over a distance of over 400 nautical miles per day.

[7] SDSR, paragraph 2.15, '*all our effort to a one-off intervention of up to 3 brigades with maritime and air support*'.

[8] Role 3 medical support is secondary health care and includes primary surgery, intensive therapy unit, surgical and medical beds with nursing and diagnostic support. Role 3 can include mission tailored clinical specialties (specialist surgery (neurosurgery, burns, oral, maxillo-facial surgery, etc), advanced and specialist diagnostic capabilities to support clinical specialists (CT scan, sophisticated laboratory tests, etc) and major medical and nursing specialties (internal medicine, neurology, etc). Joint Doctrine Publication (JDP) 4-03 (3rd Edition) *Joint Medical Doctrine*, Table 2B.1.

completed individual and collective training before being declared fit for deployment. As a result, their systems and crews can respond rapidly to contingencies by progressing quickly from routine operations, through enhanced readiness, to a more combative posture. Similarly, bringing together a task force from ships originally on disparate tasking is a relatively easy evolution; to be effective, however, requires dedicated and consistent training investment – operating as a task force is a complex business involving much more than simply grouping individual units together geographically.

Maritime Versatility

In October 2001 HMS ILLUSTRIOUS was part of a major UK Maritime Task Group deployed East of Suez for Exercise SAIF SAREEA and performing a strike carrier role in the Gulf of Oman. In 48 hours, at sea off the Omani island of Masirah, the ship disembarked her *Harrier* air group and embarked 6 *Chinook* helicopters with their associated personnel and support and then redeployed to support the opening phases of Operation VERITAS, the UK's contribution to the US-led Operation ENDURING FREEDOM. Operations began on 7 October 2001 when US and British forces commenced military action against al-Qaeda and Taliban targets within Afghanistan.

---

b.   **Adaptability**. At the tactical level an individual warship of frigate size and above will have offensive and defensive capabilities in all dimensions (air, surface, subsurface and the electromagnetic spectrum). It can, therefore, operate in a variety of operational settings. Warships can be formed into task groups and task forces in which their individual characteristics combine to provide a mutually supportive, powerful and versatile combinations of offensive and defensive capabilities. This, in turn, allows the group to operate at higher threat levels where conditions might be beyond the capability of a single ship. These attributes also allow maritime forces to change between roles very quickly or even perform different roles.

c.   **Joint and Multinational Attributes**. Maritime forces participate in operations involving other Services and across environmental boundaries. Maritime forces are joint by design, typified by balanced naval forces comprising air, land (in the form of amphibious elements) and integrated naval power under a composite command structure. Beyond this, joint sea-basing can provide headquarters afloat for other force elements, especially during deployment and in the early stages of

a campaign when there is a significant threat ashore. Similarly they provide another option to commanders for holding a reserve or when drawing down an operation. In addition, sea-basing can provide logistics, area surveillance and denial platforms and facilities for joint forces offering advantages in flexibility, sustainability and access with organic force protection. Forces delivered into theatre by sea as part of an amphibious task force are configured tactically and deployed ready for use; they are not merely transported. Their integral combat power, supported by organic air power and naval fires, can be decisive in shaping and sustaining operations. British maritime forces comprise discrete units well practised in operating in multinational groups. Inherent mobility allows maritime forces to assemble easily and the use of NATO and multinational doctrine and procedures, frequently exercised, allows multinational groups to co-operate and combine with the minimum of planning and preparation.

Poise

209.   Once in theatre, maritime forces can remain on station for prolonged periods, either covertly or overtly, as long as required and are able to rapidly adapt to the tempo of the operation. They can signal political resolve and act as a force for deterrence or coercion. The ability of maritime forces to poise in international waters allows the *footprint* ashore to be minimised or avoided altogether; that is to say the political complications and military risks of committing forces and their logistic support on land can be minimised, if required or desirable. Poise exploits mobility, sustained reach, lift capacity and versatility to enable both military and political choice.

Resilience

On 21 March 2007, HMS TIRELESS was operating under the Arctic ice when an oxygen generator exploded in the forward escape compartment killing 2 crew members, injuring a third and causing a fire. Unable to immediately surface the crew tackled and extinguished the fire and recovered the compartment. The boat was then able to complete its tasking.

210.   Warships and naval auxiliaries operate forward in the highest threat environments, especially in task groups, and all vessels are designed to absorb significant damage before they become non-operational. While a loss of capability through damage will degrade operational performance, a ship's company is trained to restore systems to use, or to operate in an alternative mode, as quickly as possible. The resilience of maritime forces is significantly enhanced by the inclusion of dedicated forward repair assets.

Leverage

211.   Those attributes of maritime power explained above combine to provide leverage of events ashore. Leverage is both a strategic and an operational concept, whose effects can be directly political or primarily military. Leverage is achieved by using the attributes of maritime power to provide decision makers with options; this can range from an overt demonstration of resolve, but without any particular commitment, through to the coercion and, ultimately, the destruction of enemies. At the strategic level, a maritime state or coalition can use maritime forces to shape and exploit the battle space and expose an enemy's flank and rear. At the operational level, joint forces on a seaward front or flank can provide manoeuvre from the sea to attack, distract and fix much larger forces ashore, envelop or otherwise achieve the disruption of an enemy.

Operation PALLISER – Maritime Leverage

Operation PALLISER was the largest UK national operation since the Falklands war. It involved a non-combatant evacuation operation, stabilisation and deterrence to prevent further deterioration in the security situation in Sierra Leone. The MOD Director of Operational Capability assessed it as being a highly successful operation that illustrated the leverage exercised by naval forces. Initial intervention was by the spearhead land element (1st Battalion, The Parachute Regiment battlegroup) and special forces deployed by air, followed by an aircraft carrier carrying Royal Navy FA2 and Royal Air Force GR7 Harriers which made available fixed wing support to the deployed Joint Commander within 4 days of being tasked during an exercise in the Bay of Biscay. Thereafter surface combatants and support ships, and an amphibious task group was moved directly from the Mediterranean to the operation. *Harriers* flew successful reconnaissance sorties, providing near real-time intelligence to the Joint Commander and show-of-force sorties as part of the larger deterrence programme. Naval helicopters conducted psychological operations by repositioning small groups of troops to create the impression of a larger land force. Since the operation, almost 72,500 former combatants have been disarmed and the country has re-established a functioning democracy.

SECTION II – THE ROLES OF BRITISH MARITIME POWER

212.   The principles of British maritime power apply across the full spectrum of maritime activity which deliver the *military tasks* detailed by the government. Using Alfred T Mahan and Julian Corbett's works,[9] Ken Booth described a 'trinity' of '3 characteristic modes of action by which navies carry out their purposes: namely the military, the diplomatic and the policing functions'.[10] This trinity was later developed by Eric Grove[11] when he considered the degree to which actions threatening, or actually using, force should be included in the diplomatic or policing functions. In doing so, he defined the functions of navies as military constabulary and diplomatic. These functions have evolved into the following doctrinal roles:

- **War-fighting**

- **Maritime Security**

- **International Engagement**

213.   These 3 roles fulfil the maritime contribution to security across all 7 of the specified military tasks. In practice, most operations undertaken by maritime forces will incorporate aspects of each of these roles. They are intimately inter-related and may be conducted concurrently or consecutively with little or no physical change to the force structure. The difference between maritime security and war-fighting, for example, may, on occasion, be extremely difficult to distinguish and will invariably also involve international engagement as well. This broad utility is one of the most valuable features of maritime forces; they offer options to decision-makers for escalation or de-escalation simply by altering posture.

214.   The primary objective of maritime power is to *prevent* conflict, although this is not always possible. In subtly different ways, each of the 3 roles contribute towards conflict prevention. But the product of each of the roles is more than simply preventing conflict, it is to help shape a more stable international community in the broadest sense. The 3 roles, collectively or individually depending upon the specific circumstances, seek to stabilise the strategic maritime environment as well as help ensure a secure and resilient UK.

---

[9] Mahan A T, *The Influence of Sea Power Upon History: 1660-1783,* 1890. Corbett J S, *Some Principles of Maritime Strategy*, 1911.
[10] Booth K, *Navies and Foreign Policy*,1977.
[11] Grove E, *The Future of Sea Power*, 1990.

The ARMILLA Patrol

Operation ARMILLA and its successors comprised graduated maritime deployments in the Arabian Gulf, which commenced in 1980 at the beginning of the Iran-Iraq war following a strategic-level request from the US President to the Prime Minister. They were intended to prevent disruption to trade, particularly during the 'Tanker War' (1987-1988), to build local capacity and to prevent the outbreak or escalation of conflict in the region. Over the course of a decade, the steady stream of warships and associated auxiliaries reassured British shipping and friendly governments in the area,[12] promoting cooperation and cohesion through numerous port visits and providing assistance to ships attacked. Operation ARMILLA also enforced UN sanctions and was key not only in influencing the Gulf states but also for enhanced engagement with significant allies in the area, particularly the US and Australia, bringing considerable benefits including access, information, and interoperability. For over 30 years it acted as a deterrent to both Iraqi and Iranian forces, and had some harder elements in that the British government reserved the right for the patrol to defend itself and, if necessary, act to punish and coerce an aggressor.[13] What it lacked in numbers it made up for in persistence and continuity, and was thus able to have a significant influence in the region. It is credited with the ease with which access, basing and overflight rights were obtained prior to both Gulf Wars, and formed the basis for surges of tailored task groups, ranging from mine countermeasures (1987-1989) to the Operation TELIC 1 Amphibious Task Group in 2003. ARMILLA enabled the Royal Navy, to work perform its subsequent stabilisation mission in the Northern Arabian Gulf, protecting Iraqi waters and critical offshore oil infrastructure, and providing training and capacity building for the Iraqi Navy.

ROLE 1 – WARFIGHTING

Ultimately, the role of British maritime forces is to conduct war-fighting in support of national objectives

'The Armed Forces are at the core of our nation's security. They make a vital and unique contribution. Above all, they give us the means to threaten or use force when other levers of power are unable to protect our vital national interests.'

SDSR 2010

---

[12] House of Commons Defence Committee, 13th Report, HC 453, 2 August 2000.
[13] Chin W, *Operations in a War Zone,* in *The Royal Navy and Maritime Power in the 20th Century,* Spellar I (ed), Frank Cass, page 195, 2005.

215.   The ability to conduct war-fighting under-writes the ability to deliver maritime security and international engagement and this role has primacy. War-fighting may be used for a variety of reasons, but the physical protection of the UK's territorial integrity, national security in a very literal sense, is the irreducible minimum requirement. Although there has been no threat of invasion for a long time, and neither is there one on the immediate horizon, this is not the case for some of the UK's overseas territories. Therefore, British armed forces have a non-discretionary military task to provide '*an independent ability to defend the overseas territories*'.[14]

216.   The primary focus of the *National Security Strategy* is the prevention of conflict, to deal with the causes rather than the consequences of international tension by de-escalation. However, in the event that conflict cannot be prevented, military forces must have the ability to coerce or confront aggressors. Power is the ability to influence the behaviour of people or the course of events; it comes in different forms, from wealth, attraction, emulation and incentives through to military strength generally and lethal force specifically. *In extremis*, maritime forces may be called upon to use their combat power to defeat an opponent militarily. Even if lethal combat power is not applied, the credible threat of its use forms the basis of the military contribution to conflict prevention.

217.   The conduct of war-fighting demands that the commander and his subordinates should be endowed with an offensive (or aggressive) mentality: a determination to win whatever the difficulties, a trait in ample evidence in the characters of all the great commanders through history that is captured in *British Defence Doctrine* (BDD). But this attitude of mind has nothing whatever to do with the actual method of warfare being employed and should never be confused with an offensive (vice defensive) course of action. Indeed, the offensive *mentality* is as necessary in defensive operations as it is when conducting an offensive; it is about seizing and maintaining the initiative.

> "*No Captain can do very wrong if he places his ship alongside that of the enemy*"

> Admiral Lord Nelson

218.   The execution of operations in the maritime environment is governed by a number of strategic principles. They centre upon the tenets of sea control and maritime manoeuvre, which together enable the delivery of effect *at sea* and *from the sea*. As with other aspects of maritime power, they are intimately inter-related and each relies upon the other for success. Maritime operational and upper tactical level doctrine describes how policy is delivered through

---

[14] SDSR, page 12.

capabilities in the maritime domain while following these enduring and governing principles.

PRINCIPLES GOVERNING THE USE OF MARITIME POWER *AT SEA*

219.   As an island nation, for all but the most limited of operations, the UK must use the sea to deploy, operate, sustain and then recover her armed forces wherever they are required. The ability to project national power relies upon our maritime forces being able to exploit the sea to our own advantage, while at the same time denying its use to a potential rival or enemy. To traditional theorists of maritime strategy such as Mahan, this was *command of the sea,* which was an exceptionally ambitious aspiration that involved controlling the entire ocean all of the time. Ironically it was the very success of Mahan's writings which helped undo the theories that he expounded; his book encouraged more and more nations to build large navies which made command of the sea by any single nation impossible. The world-wide growth in navies, some large, some small, continues today as does the sheer volume of activity in the maritime environment. *Command of the sea*, therefore, has long since been tempered to *sea control* which is limited in both time and space to what is actually necessary for a given operation i.e. it is a temporary condition.

Sea Control

220.   Sea control is the condition that exists when there is freedom of action to use an area of the sea for one's own purpose for a period of time and, if necessary, deny its use to an opponent. '*Sea control depends upon control of the surface and sub-surface environments (including the sea-bed) and the air above the area in which sea control is required*'.[15] At the lower end of the conflict spectrum, maritime forces may be used to ensure freedom of the seas by being directed to assert high seas freedoms in the Exclusive Economic Zone (EEZ), or the right of innocent passage in a state's territorial waters in areas where illegal acts or constraints are being threatened or applied to merchant shipping. At the highest end it may be necessary to use maritime power to eliminate an enemy's ability to challenge sea control over significant areas of ocean. The need for sea control is not dependent upon the existence of a substantial threat. If there is any risk to freedom of action, sea control is necessary; however, if the risk is small, the capabilities that will be needed can be correspondingly modest.

221.   While sea control is unlikely to be an end in itself, it is a necessary condition to allow use of the sea for further purposes, including protection of the sea lines of communication and to enable maritime manoeuvre. Gaining

---

[15] Allied Joint Publication (AJP)-3.3.3 *Air Maritime Coordination*, paragraph 0303.

the necessary level of sea control early, and retaining it, will be a major component of any maritime or expeditionary operation. There can be no absolute guarantee of protection from attack at sea and the level of control required must be related to acceptable risk. Understanding this risk will be essential in deciding the working level of control required to provide sufficient freedom of action. If sea control remains in dispute, each side will be operating in the face of considerable risk.

222.   The geographical extent of sea control may vary from local control of a strategic choke point or concentration of forces, to domination of very large sea areas, and may, or may not, be contested. In many cases, such as the protection of ports and anchorages, amphibious operations and providing support to the land battle, it must be achieved and maintained up to the shoreline. *Control of the air*[16] may then be required across the shoreline and some distance inshore. Because of confinement and congestion, attaining sea control is a more complex task in littoral regions than it is in open ocean and demands battle-space dominance over all the environments, including the environmental seams.

223.   The level of sea control required, and indeed achievable, will depend upon the threat and the mission. Sea control can be achieved in essentially 2 ways: annihilation of the enemy through decisive battle (which is potentially the quickest but most risky method); or containment of the enemy's naval forces through blockade, which may be distant or close (not to be confused with a commercial blockade, although this may be concurrent activity).[17] Alternatively, adversaries can be contained through deterrence.

Sea Denial

224.   Sea denial is exercised when one party *prevents an adversary from controlling a maritime area without being able to control that area oneself*.[18] Classic means of achieving sea denial include laying a minefield or deploying submarines to threaten enemy surface forces. A more recent method, particularly appropriate in littoral operations, is to mount surface-to-surface missile batteries along the coast to pose an unacceptable level of risk to enemy surface units. Sea denial and sea control operations are not mutually exclusive. The denial of the enemy's freedom of action is a consequence of

---

[16] Control of the air is '*the freedom, bound by time, to use a volume of airspace for one's own purposes while, if necessary, denying its use to an opponent*'. AP3000 (4th Edition), page 38 (Air Power Studies 2009).
[17] Royal Navy Fighting Instructions provides greater detail on the various tasks and effects required for the Maritime Component Commander to achieve Sea Control.
[18] A maritime theatre of operations can be divided for the purposes of decentralisation of command into maritime areas and sub-areas e.g. Atlantic Theatre, which is divided into maritime area and sub-area commands. (JDP 0-01.1 *UK Glossary of Joint and Multinational Terms and Definitions* (7th Edition)).

effective control and denial operations in one element or area of the maritime battle space and may be necessary to achieve sea control elsewhere.

Sea Denial in the Levant

During the 2006 Lebanon War a C802 missile fired by Hezbollah caused significant damage to the Israeli naval ship *Hanit*, killing 4 crew members and making it necessary for the ship to withdrawn for repair.

Fleet-in-Being

225.   A state deprived of maritime superiority might choose, or be forced, to adopt a strategy of *fleet-in-being*. By avoiding confrontation with a superior enemy a nation can hold back its own maritime forces while continuing to threaten those of the enemy. The *risk* of attack complicates the opposition's options and prevents them from taking the initiative elsewhere. The threat from a fleet-in-being can prevent superior opposing forces from establishing their desired levels of sea control by diverting forces to other tasks, such as blockade or containment, and, as such, is a method of sea denial. A fleet-in-being can compel the enemy to concentrate his forces in a valuable area, or around valuable units, cause him to route his passage to his disadvantage or to amend his operational plans. Although the UK does not currently face a large conventional maritime challenge that would necessitate a wholesale fleet-in being strategy, the theory may be applied more locally; the submarine is an excellent contemporary example of a fleet-in-being. The strategy is also important as it may be used against British maritime forces in the future, as it was in the Second World War by German heavy units holed up in the Norwegian fjords.

Cover

226.   Cover is an important function for the major elements of a maritime force to provide; it is the provision of support, if required, to vulnerable units or detached elements of the force that are engaged in operations of their own, taking advantage of the wider sea control that the main force has achieved. Examples of cover could be conducting convoy operations, and air defence for mine countermeasure units operating independently.

Decisive Battle

227.   While there are many similarities between the principles governing land and maritime strategy, the most glaring difference is the *concentration of force for a decisive battle*; in the maritime environment this would be in order to establish sea control. Corbett did not believe that the concentration of naval

forces at sea was the highest and simplest law of strategy. Instead he argued that the attributes of maritime power enabled a weaker opponent to evade a superior's concentration of force; indeed the greater the concentration the easier it could be to evade. Sometimes dispersion, or the pretence of dispersion, was a better way of luring a weaker opponent into battle. Concentration of force may have other unwanted effects:

> a.   **Cohesion versus Reach**. The more that a navy concentrates, the greater is its ability to exert sea control and battlespace dominance in its vicinity – as Nelson showed at Trafalgar. But this will inevitably be at the expense of other campaign defining tasks, such as providing cover for sea lines of communication. Therefore, by concentrating a maritime force, you not only deter a weaker opponent from seeking battle, but also provide him with a weak underbelly to attack elsewhere.

> b.   **Deception**. The greater the concentration the more difficult it becomes to maintain an element of surprise.

Unlike the land environment, where Clausewitz and Jomini would argue that winning the decisive battle was worth the cost, in the maritime environment Corbett, while still seeing control of the sea as an essential prerequisite, did not consider it to be an end in itself; instead it is about what you do once you have sea control. For British maritime power the real focus of maritime strategy is on what you do once you have control of the sea; the essence of maritime power is the ability to influence events on land.

PRINCIPLES GOVERNING THE USE OF MARITIME POWER *FROM THE SEA*

228.   Predictions of the future strategic environment indicate that our national interests will continue to be located around the periphery of land masses, where centres of population, resources, industrial production, political control and trade are concentrated.[19] The ability to operate in these littoral areas will be of crucial importance, either as the main effort or as the staging area for deploying and sustaining ground forces. Therefore, as well as the central requirement to be capable of controlling events *at* sea, British maritime power must also be capable of influencing events *from* the sea.

Maritime Manoeuvre

229.   The same legal framework which allows unrestricted access and presence to within 12 nautical miles in peacetime, is a key enabler for

---

[19] DCDC Global Strategic Trends Programme *Global Strategic Trends – Out to 2040* (4th Edition) and *The Future Character of Conflict* (FCOC).

maritime manoeuvre, allowing navies to apply force or influence at a time or place of choice. In international armed conflict, only the territorial seas of neutrals are not available to belligerents. Mobility can gain the initiative and allow vulnerabilities to be attacked. The sea is a three-dimensional space in which and from which maritime forces can manoeuvre at a time of choosing to demonstrate political will, apply influence or, if required, use force. Largely opaque to most sensors, the sea offers an excellent hiding place for submarines; and even surface ships are hard to locate and identify if they are not radiating any electromagnetic or acoustic signature. However, maritime manoeuvre must not be confused with the *manoeuvrist approach* to operations,[20] which is a philosophy that seeks to defeat an enemy by shattering his moral and physical cohesion – his ability to fight as an effective, co-ordinated whole – rather than destroying him through incremental attrition.

230.   While these principles are distinct, they are nevertheless both relevant when applying maritime power. The attributes of British maritime power allow movement to enable concentration of fire-power, surprise or overt presence or to gain an advantageous position, the central precepts of the *manoeuvrist* approach.

Maritime Power Projection

231.   British maritime power projection is the threat, or use, of national power at range from the UK mainland to influence events *from* the sea. It exploits sea control and maritime manoeuvre to achieve access in order to threaten or project force, ashore using a combination of amphibious forces, embarked aircraft, land attack weapons and special forces. There are numerous ways in which maritime power projection can contribute to a joint operation:

Shape	The sea is a highway free from boundaries and frontiers providing a valuable arena for joint force manoeuvre. In preparation for subsequent operations, maritime forces can, for example, be employed to gather intelligence and/or mount non-combatant evacuation operations, withdrawing civilians from a potential combat zone. Equally, they may be used to insert special forces or to conduct amphibious operations.
Reassure	Before the build up of friendly joint forces in theatre, the presence of maritime forces can be used to reassure a friendly state. A state reassured by the presence of maritime forces is more likely to provide access, basing and overflight.
Deter	Maritime forces can be used to deter an aggressor by deploying into a region at an early stage, at relatively low political risk and, if

---

[20] *British Defence Doctrine* (BDD) (3rd Edition), paragraphs 521-523.

	necessary, in considerable strength. This is the principal reason why Britain has always been able to deploy its navy globally.
Coerce[21]	As forces build up in theatre, they can demonstrate further resolve by launching discrete amounts of mixed land, air or sea force against key enemy targets, to prevent or impede a potential aggressor from using force. Importantly, they can do this while having some measure of control over escalation.
Disrupt.	Prior to the main offensive, maritime forces can help to shift the emphasis from defensive to offensive operations by disrupting enemy activity, especially by the use of raids into enemy territory.
Project	Land manoeuvre seeks a position of advantage with respect to the enemy from which force can be threatened or applied. An important role of maritime power projection forces, particularly amphibious forces, is to provide manoeuvre from the sea in that sense. Speed of manoeuvre at sea will often surprise opponents ashore; a maritime force can move in the order of 400 miles a day.
Support	During the main combat phase of an operation the maritime component's full range of capabilities, in particular its ability to engage in precision attack, can support friendly forces ashore or in the air. Additionally the sea-base may be used to flexibly and securely hold a reserve force or serve as a command platform; these functions have equal utility at both the start and the end of a conflict or crises.
Limit	For an island nation like the UK, as long as the navy is strong enough to protect the nation from invasion then it is at a unique advantage. In this strong position a maritime power can, at its discretion, project its power globally, while preventing the enemy from doing the same. To Corbett, this was the secret of British power and explained how a small country was able to claim the most desirable regions of the globe at the expense of the greatest military powers. For Britain today, it is the ability of maritime power to project a relativity small land force around the globe, without risking escalation or total defeat that is still enabling a small state to maintain ambitious national objectives.
Recover	Finally, when it comes to withdrawal, the ability of maritime forces to transport large numbers of personnel and heavy items of equipment out of theatre, and protect them in the process, has often been a vital function. Equally the sea-base may be used to recover land forces but remain in theatre, acting as a strategic reserve.

---

[21] Coerce: *the use or threat of force to persuade an opponent to adopt a certain pattern of behaviour against his wishes.* (JDP 01-1.1)

Proactive and Reactive Choices

232.   Maritime force projection is, by definition, a proactive operation in that it involves seizing the initiative by forward operations. However, force projection is not necessarily offensive. The mission may be to withdraw forces ashore or to evacuate civilians. The task of achieving sea control will present the commander with both proactive and reactive options.

233.   The offensive is a course of action that forces the enemy to fight, if only to defend his own position; the defensive, in contrast, is a posture which forces the enemy to attack if he wishes to fight. Both the offensive and the defensive are relevant at every level of warfare. The classic example is that of the convoy. At the tactical level a convoy is defensive; ships form close formation and seek protection from escorts, a task that would be much more difficult if they were dispersed widely. At the operational level it is offensive in that it obliges the enemy to fight in circumstances of our own choosing; the enemy submarines must close on the convoy where they can be more readily located and attacked, with the only alternative being to abandon his objective.

ROLE 2 – MARITIME SECURITY

British maritime forces, working with international partners, provide global maritime security where UK interests need protection.

'Ensuring a secure and resilient UK – protecting our people, economy, infrastructure, territory and way of life from all major risks that can affect us directly.'

National Security Strategy 2010

234.   Maritime security operations span a wide range of operations from defence (short of war-fighting) through to security to development and relieving human suffering by utilising the full spectrum of maritime forces and their attributes. Exploiting powers under international, national and co-operating partner states law, maritime security operations are mounted against a wide range of activities such as: piracy, slavery, people smuggling, illegal immigration, drug smuggling, arms smuggling, terrorism and the proliferation of weapons of mass destruction; as well the protection of the maritime environment, including fisheries.

Integrity of the UK and Overseas Territories

235.   Maritime security includes the protection of our sovereign rights, political, economic and legal. In home waters maritime forces contribute alongside other government departments and may be the lead agency

depending upon the nature of the threat. The growth in sovereign rights at sea over recent decades has made this an increasingly complex task as resources become scarcer.

236. In 1964 the UK established jurisdiction over its continental shelf and passed legislation creating safety zones around offshore oil and gas installations. In 1976, a 200 nautical mile *exclusive fisheries zone* was established[22] and, in 1987, the UK extended its territorial jurisdiction from 3 nautical miles (established in 1878) to 12 nautical miles. In 1997 the UK became a party to the United Nations Convention on the Law of the Sea (UNCLOS),[23] enabling legislation for a 200 nautical mile EEZ with exclusive rights for commercial exploitation of the sea areas claimed.[24] British maritime forces are committed to the policing and enforcement of this legislation.

237. In home waters there are standing commitments which include demonstrating sovereignty, ensuring the integrity of UK's territorial waters and airspace, protecting the UK's rights and interests in the surrounding seas (including maritime counter-terrorism), and protecting the nuclear deterrent ashore and afloat. In addition to providing security support to the civil authorities, maritime forces provide direct support for fishery protection, search and rescue and the protection of offshore gas and oil infrastructure. The support and assistance delivered in the UK itself are also extended to the UK's 14 Overseas Territories and 3 Crown Dependencies.[25]

UK National Interest in an Inter-connected World

'Globalisation in all its forms has made the world more interconnected both through technology, travel and migration and through the global trade in goods, services and capital. This means that it is much harder to isolate the UK from shocks occurring outside our own territory, whether they are economic or geopolitical.'

National Security Strategy 2010

---

[22] The Fishery Limits Act (1976) as amended by the Fishery Limits Order 1997 and the Fishery Limits order 1999.

[23] The United Nations Convention on the Law of the Sea 1982, in force 1994, ratified by UK 1997.

[24] The Marine and Coastal Access Act 2009: http://www.legislation.gov.uk/ukpga/2009/23/contents
Fishery, renewable energy, pollution, gas importation and storage. See www.ukho.gov.uk/los.

[25] Isle of Man, Bailiwicks of Jersey and Guernsey.

238.   **Maritime Trade Operations**. The statistics are compelling: over 90% of the UK's trade by volume is moved by sea;[26] a significant and growing proportion of the UK's energy is imported by sea;[27] and the prosperity of the City of London is dependent on the free movement of goods across the globe. As Till has stated, '*in a globalised world it is now less a question of securing the sea in the sense of appropriating it for one's own use, and more of making it secure for everyone but the enemies of the system to use*'.[28] As it has been for centuries, the UK's economic interests are global and protecting maritime trade is essential. Such protection requires the co-ordination and close co-operation of national military, civilian, commercial and government organisations. It must be present in peacetime if the benefits are to be realised in the event of an emergency, crisis or conflict. In certain situations UK maritime forces will be called upon to protect ships of other nationalities carrying cargoes of interest to the UK and its allies.

239.   **Countering Maritime and Transnational Crime**. The oceans are comprised of the high seas (*global commons*) and national maritime zones. UNCLOS sets out international legal powers and enables bilateral and multilateral arrangements to provide a framework of domestic powers to maximise international co-operation to enforce maritime security. Since maritime security deals with crimes this requires an interagency, as well as an international approach, in order to achieve the necessary powers to interdict, and when tasked, arrest suspect vessels and persons. These arrangements vary from the standing operations, such as support to the Joint Interagency Task Force South[29] to the completely *ad hoc*. Although Joint Interagency Task Force South is limited to the Caribbean, the Royal Navy may be tasked to support a number of UK agencies[30] and employ arrest powers held by Royal Naval officers or provide a platform for the exercise of such powers by officials of other government departments. While all Royal Navy assets must be prepared to respond to tasking to detect, monitor, interdict contacts of interest, the access and presence provided by the seas permits regional engagement and capacity building to improve governance of maritime zones, deter and disrupt maritime crime, and to improve the resilience of regional states. Thereby, enabling them to realise the economic potential of their maritime zones, and contribute to stabilisation and conflict prevention by countering threats at source.

---

[26] Maritime and Coastguard Agency Annual Report and Accounts 2008-09.
[27] SDSR, paragraph 4.E.1.
[28] Till G, *Seapower*, page 8, 2009.
[29] For details of the standing commitment to Atlantic Patrol North see:
http://www.royalnavy.mod.uk/operations-and-support/operations/joint-operations-rn-army-raf-nato/north-atlantic/
[30] Such as the UK Border Agency, Her Majesties Revenue and Customs, Serious Organised Crime Agency and the Department for Environment, Food and Rural Affairs.

240.   **Freedom of Navigation**. Freedom of navigation operations provide an enduring strategic benefit to UK security by protecting the UK's maritime rights and freedoms, encouraging lawful practice and preventing excessive geographical[31] and/or jurisdictional[32] claims gaining legal traction in international law. British maritime operations (particularly by warships) will themselves generate an audit trail of UK state practice. Freedom of navigation operations influence other states' governments and therefore constitute a form of naval diplomacy. They may be symbolic or coercive. Freedom of navigation operations in peacetime are one means by which maritime forces maintain the freedom of the seas for maritime trade, ensuring that the UNCLOS provisions are respected.

241.   **Military Data Gathering**. Hydrographic and oceanographic activity conducted by Royal Navy survey vessels is primarily used in support of maritime operations, including the nuclear deterrent. This is a key military enabler, which allows access, mobility and maritime manoeuvre to be exploited. Under UNCLOS military data gathering is permitted in the EEZ of any state without seeking prior permission from that state and the data need not be shared.

242.   **Humanitarian Assistance and Disaster Relief**. Governmental and non-governmental organisations conduct humanitarian assistance and disaster relief operations to relieve human suffering. Military activities may be delivered in conjunction, or be in support of civilian humanitarian efforts conducted by specialised organisations. Maritime forces can provide a comprehensive logistics base and refuge offshore for humanitarian assistance, with maritime helicopters providing a valuable means of transport. The flexibility of maritime forces makes them particularly effective in disaster relief, especially in the early stages, when they may well be the only means available to provide emergency assistance. A maritime force can provide a wide range of assistance such as fresh water, food, medical assistance (role 1 or 2),[33] temporary shelter, fuel and electric power, while other agencies and non-governmental organisations mobilise more long term assistance.

---

[31] For example a Territorial Sea claim of more than 12 nautical miles.
[32] For example an assertion that vessels must seek permission from, or notify the coastal state, before entering its Territorial Seas.
[33] Role 1 medical support includes Primary Health Care, specialist first aid, triage resuscitation and stabilisation. Role 2 includes triage, advanced resuscitation and Damage Control Surgery. JDP 4-03 (3rd Edition), *Joint Medical Doctrine*, Table 2B.1.

**Humanitarian Assistance and Disaster Relief –
HMS CHATHAM and the Indian Ocean Tsunami**

The Tsunami struck on 26 December 2004 when HMS CHATHAM was deployed on Operation CALASH in the Arabian Gulf and RFA DILIGENCE was on a Christmas stand-down at Cochin, Southern India. HMS CHATHAM arrived off Colombo on 31 December, hosting both the British High Commission and the Permanent Joint Headquarters Operation and Liaison Reconnaissance Team for briefings. It then provided mobile intelligence, surveillance and reconnaissance in co-operation with the Sri Lankan military, using helicopters and ship's boats around the island, to assess the level of destruction in hard-to-reach areas. Working closely with non-governmental organisations, the ship, supported by RFA DILIGENCE and later RFA BAYLEAF concentrated on restoring essential capabilities such as fresh water (17 wells restored), power (44 generators restored) and the ability to fish (42 fishing vessels repaired and/or re-floated) in both Sri Lanka and the Maldives. It also surveyed the entrance to the lagoon at the city of Batticaloa, marking out a useable channel through the newly-formed sandbars, enabling the delivery of aid and the resumption of trade and fishing. On 20 January HMS CHATHAM departed, after a stop in Colombo to host debriefs with key leaders from the government, military and non-governmental organisations together with Foreign and Commonwealth Office (FCO) and embassy staff.

---

243.   **Evacuation of UK Entitled Personnel Overseas**. Over 5.5 million UK passport holders live overseas[34] and there are many more entitled personnel.[35] The protection of UK citizens and those of our allies abroad is an important task which may require a military assisted non-combatant evacuation operation to move entitled civilian personnel to a place of safety. In addition to lift, maritime forces can land an amphibious force to afford protection to evacuees, personnel from other government departments and aid agencies.

---

[34] *A Strong Britain in an Age of Uncertainty: The National Security Strategy* (NSS), October 2010, paragraph 2.5.

[35] Entitled personnel are any UK or other national covered by the Civil Contingency Plan for a particular UK mission or post; this includes all British nationals, including dual nationals and, secondly, EU, Commonwealth and American nationals if their own national evacuation elements are unrepresented. Joint Warfare Publication 3-51 *Non-combatant Evacuation Operations*, paragraph 503.

ROLE 3 – INTERNATIONAL ENGAGEMENT

'*…the benign applications of seapower have particular salience in broader operations intended to defend the system through winning the hearts and minds of the populations on which it ultimately depends.*'[36]

British maritime forces, working with partners, exert power and influence in support of national political objectives with the aim to prevent conflict by deterring, coercing, stabilising and reassuring others in time of crisis.

Influence

National Security Tasks and Planning Guidelines

'We will exert influence to exploit opportunities and manage risks. To deliver this we require strategic military power projection to enhance security, deter or contain potential threats and support diplomacy.'

SDSR 2010

---

244.   The versatility and mobility of maritime forces provides a means for political and diplomatic leverage in international relations. Conflict prevention is a key tenet of the UK's overall security strategy. Such influence requires an investment in long-term habitual engagement that creates worthwhile connections that engenders trust. When executed effectively, conflict prevention promotes the development and maintenance of stable relationships between states and encourages co-operation and conciliation in the management of international affairs. It is a gradual and deliberate process that takes time, effort and persistence. Relationships need to be nurtured and encouraged through regular dialogue. Demonstrations of national intent involving all levers of national power,[37] including the employment of both soft and hard effects[38] by military forces, is central to the UK's security strategy.

"*The ... greatest value [of the Navy] will be found in events that fail to occur because of its influence*".

Professor Colin Gray

---

[36] *Seapower*, Till G, page 11, 2009
[37] Diplomatic, Military and Economic.
[38] For a description of hard and soft power see BDD paragraphs 129 and 130.

Conflict Prevention

245.   British maritime power is well suited to conflict prevention. Engagement across the maritime domain permits unobtrusive and cost-effective early engagement with other states. Continuous maritime presence in regions of strategic interest enables, *inter alia*, capacity building, capability development, diplomacy and trade. In so doing, the UK is able to contribute to global stability and security at arm's length and at the same time increase strategic situational awareness, with a minimal requirement for support from other states.

246.   Maritime power contributes significantly to international engagement, encompassing outreach, confidence and security building measures and the promotion of UK interest and influence abroad. Such diplomacy is designed to influence the will and decision-making apparatus of a state or group of states in peacetime and all situations short of full hostilities. It is a powerful tool that provides political choice. It can be used to support or reassure and can be a significant contributor to coalition building. It can sway the uncommitted and it can be used to deter and coerce trouble-makers.

247.   On those occasions when states resort to conflict, or when underlying tensions threaten to increase global instability, maritime forces can adapt quickly to provide immediate military support and reassurance to friends and allies. This also provides a clear message of national intent to neutrals and potential aggressors. Versatile and agile maritime forces, capable of delivering both soft and hard power, will be one of the essential building blocks upon which the state's response to an emerging crisis can be built.

248.   While the UK will always require the ability to act unilaterally in support of its own interests, international engagement builds the trust and understanding that underpins the success of coalitions and formal alliances. Mature international relationships, based on a common understanding of threats and their consequences for global stability, reinforced over time, encourage burden sharing and collective responsibility. Increasingly the UK will use these relationships in support of its security requirements. Maritime forces, routinely deployed in regions of concern, will often be in the vanguard of any national contribution to a coalition or alliance response.

Deterrence

249.   At the heart of the UK's defence posture is the notion of deterrence; its purpose is to dissuade a potential opponent from adopting a course of action that threatens national interests. It may be general or focused on achieving particular or immediate objectives, be broadly preventative, or intended to

address specific threats. However elaborate the intellectual framework, deterrence is a simple idea arising from enduring facts about human behaviour: that in decision-making, all people take account of the probable consequences of their actions; that we refrain from actions where adverse consequences might outweigh the potential gains; and that we exploit this to influence others from acting against our interests. The military contribution to inducing or sustaining co-operative behaviour can be active or passive. Coercion is active and in academic theory it is widely-accepted as the master principle of deterrence theory. It seeks a change of behaviour to 'persuade an unwilling person to do something by using force or threats'.

250.   **Strategic Deterrence**. The UK maintains a minimum credible independent nuclear deterrent in order to deter nuclear weapon states, or state sponsors of nuclear terrorism, from threatening our own and our NATO allies' national security or deterring us from taking action to maintain regional or global security. Deterrent effect depends on *credibility, capability* and *communication*. To be credible, a deterrent must be able to function regardless of any pre-emptive action. The UK achieves this by operating virtually invulnerable, undetectable nuclear powered ballistic missile submarines (SSBN) in a continuous at sea deterrence posture. This enduring operation has recently become known as Operation RELENTLESS. The Royal Navy has maintained a continuous at sea deterrent since 1969 and it is currently delivered by *Vanguard* class submarines carrying *Trident* II-D5 missile armed with UK warheads. This record of operational success, together with periodic demonstration firings after build or long overhaul, advertises the capability of the system in terms of readiness, stealth, reliability, range and accuracy. The credibility and capability of the ultimate military safeguard for our national security is what enables and underscores the communication of a deterrent message by the UK Government.

251.   **Conventional Deterrence**. Conventional deterrence has a number of elements. The purpose of conventional deterrence is to persuade an adversary not to do something by demonstrating that the likely costs will outweigh the benefits. It is based upon the potential rather than the actual use of force and it is essentially preventative. Maritime forces, alongside land and air, provide the collective capability that underpins conventional deterrence. Maritime forces are particularly well suited to the delivery of conventional deterrence exploiting all 8 of the maritime attributes. It is one of the UK Government's most versatile military means of increasing political pressure as a crisis develops. Unimpeded use of the high seas allows a maritime force to directly deliver either support to allies and partners, or military deterrence, coercion and containment.

252.   **Reassurance**. Reassurance entails providing or undertaking to provide support to friends. It seeks to work both on the minds of friends and allies as well as on potential or actual opponents. Such guarantees may well dissuade third parties from aggression and lessen the circumstance under which friendly state feel compelled to take pre-emptive action. If an adversary steps outside the bounds of acceptable behaviour then a stronger deterrent message entailing the threat or actual employment of force can be sent. Much of this cross-governmental activity is conducted by departments such as the Department for International Development; however, the military has an important role to play too. Exercise activity with a developing state's maritime forces, along with the diplomatic activity surrounding port visits provide an overt signal of the UK's support for the state's government that has an impact both internally and internationally. Beyond this activity, more sustained support can be provided in the form of mentoring and training.

253.   **Coercion**. Coercion involves inducing an action that would otherwise not occur - either forcing an adversary away from one course of action, or compelling him to take another. Coercion will only be successful if a combination of threats and incentives is credible, and their potential is communicated unequivocally to those in a position to assess it.

254.   **Containment**. Containment uses military force to inhibit some activity, preventing access, egress or expansion.

255.   Dispatching a maritime task group sends a message as soon as it is announced – it can also be deployed covertly at first, with the announcement held back for better timing. Once deployed the profile and posture of the force can be varied dependent on the message required. Of equal importance is maritime power's ability to easily disengage either to reduce the pressure on a subject state that is now complying with the UK's intent or, if the UK wishes to alter its stance. In this latter situation, the withdrawal of a forward committed land or air force will act as an overt signal, offering a binary there/gone choice, whereas a more carefully crafted and nuanced message might be preferable. The ability of maritime forces to quietly withdraw offers that choice.

> '*The fact that naval forces can 'loiter' and be minimally intrusive is an important and unique contribution to deterrence. The Army can loiter, but it cannot be minimally intrusive; the Air Force can be minimally intrusive (although, because it still needs some land-based infrastructure, it is more intrusive than maritime forces), but it cannot loiter. Only naval forces can do both simultaneously.*'[39]

---

[39] Gerson M and Whiteneck D, *Deterrence and Influence: The Navy's Role in Preventing War*, CRM D0019315.A4/1Rev, March 2009.

Belize/British Honduras January – February 1972: Conventional Deterrence

In early 1972 the FCO assessed that a Guatemalan invasion of Belize was imminent, and that the one infantry company garrison would be defeated within hours. The carrier HMS ARK ROYAL was in the Atlantic for combined exercises with the US Navy and offered the fastest and most feasible means of enhanced deterrence. Diverted on 26 January, 2,500 miles from Belize, she closed to 1,250 miles by the 28 January, when she used ship-based air-to-air refuelling to allow 2 of her Buccaneer aircraft to make prominent show-of-force flights over Belize City. The FCO assessed that this restrained, but potent, use of military strength was sufficient to deter invasion.

Presence

> "*Our presence in the first place: engagement without entanglement may be a sufficient demonstration of intent and deterrence to prevent the need for final engagement*"[40]

256. Maritime forces can alter the tempo of a crisis by their presence alone, creating opportunities for non-military solutions to be developed, without aggravating a situation (such as may occur with other defence capabilities if deployed into a sensitive region).[41] They can provide a clear demonstration of commitment to an ally and, at the same time, deter or coerce an adversary. Critically, maritime forces offer choice as events unfold and, with minimal or no change to their personnel or equipment, can provide decision-makers with options at the tactical, operational or strategic levels.

Sierra Leone, March 2003 - Presence

While the invasion of Iraq was in full swing, Operation KEELING was mounted at the request of the FCO to provide visible support to the Sierra Leone Government and prevent interference with the UN's indictment and arrest of suspected war criminals. The deployment of a Company Group of Royal Marines, the frigate HMS IRON DUKE, a Royal Fleet Auxiliary and 2 Royal Marine protection teams was later assessed by the FCO as having been highly effective in stabilising the situation and preventing further loss of life.

---

[40] The First Sea Lord, Admiral Sir Mark Stanhope, speaking at the International Institute for Strategic Studies, 24 February 2010.
[41] This is particularly the case when host-nation support and/or access basing and overflight are required to sustain and support other capabilities that might be deployed.

257.   Forward presence reflects a strategic decision to deploy forces into, or close to, theatres of interest or concern, to fulfil either standing commitments or in response to a particular situation. For example, the forward deployment of British forces contributes to the defence and security of the 14 overseas territories, where maritime forces have particular utility in view of the number of island territories involved. This is a non-discretionary military task.

258.   Such activities as foreign port visits to impress upon a nation's government and the local population the UK's interests and involvement in the region are also a form of forward presence. There is no underlying threat of force intended. The vessel and her ship's company act as ambassadors, projecting influence, promoting British values and trade and supporting wider diplomatic activity. Visits by warships are routine activity and their purpose is widely recognised by governments; sending a ship to visit a country sends a clear message, as does stopping visits to a particular country.

259.   In sum, the key tenet of forward presence is to shape and influence a situation to prevent conflict, projecting hard and soft power concurrently;[42] the presence alone of maritime forces provides a potent expression of national commitment and resolve.

Taurus 2009

The TAURUS 2009 Maritime Task Force consisted of 11 ships, a nuclear submarine, Merlin, Lynx and Chinook helicopters and Royal Marines from 40 Commando. It exercised and engaged with Malta, Turkey, Greece/Cyprus, Saudi Arabia, Yemen, The Maldives, India, Bangladesh, Malaysia, Thailand, Singapore, and Brunei. The deployment was assessed as:

> 'an excellent vehicle to involve multi-agency partners and encourage them to work together. It has been an effective and efficient way to achieve substantial maritime interaction with partners as well as land-based and counter-terrorism activity with a light footprint. It has provided good access for key leadership engagement, especially when supported by senior officer or ministerial visits. The task group level of engagement has provided greater opportunities and has drawn out larger local forces to balance contributions with greater involvement by more senior officers and their political counterparts.' [43]

---

[42] Hard power is the threat or use of military or economic coercion to influence or induce them to take a particular course of action. Soft power is the ability to attract, and hence persuade, others through cultural and ideological means or by encouraging emulation, without an explicit threat. BDD (3rd Edition)*, paragraphs 129-132.*
[43] Summary of feedback from Embassy/Foreign and Commonwealth Office sources, COMATG's 238/1, TAURUS 2009 Deployment – Regional Engagement Report, dated 6 July 2009.

260.   **Strategic Intelligence, Surveillance and Reconnaissance**. Maritime forces, by virtue of their forward deployment, covert nature and sensor capability can make a significant contribution to strategic intelligence, one of the non-discretionary military tasks. There is a constant requirement for such intelligence in peacetime to monitor activity in areas of potential instability and provide sufficient warning of developing crises. If a crisis occurs, the intelligence requirement increases at the operational and tactical levels, requiring a more focused employment of in-theatre assets. Maritime assets are frequently some of the first on the scene and can use the access provided by the sea and their sustainability to cover large areas with a degree of permanence, providing vital early situational awareness to UK and coalition commanders.

Security Sector Reform and Capacity Building

261.   If a country's capacity for facilitating and protecting its own economic maritime activities is compromised, either through conflict or natural disaster, British armed forces can be used to re-establish this capacity. *Security sector reform* may be employed to restructure a state's military force, instilling democratic principles, and disbanding paramilitary organisations. Beyond this, capacity building provides training support to the foreign state's forces to make them more effective and efficient. Although most security sector reform is land-based, the Royal Navy has a key part to play in this process.

Iraqi Navy – Capacity Building

In 2011, Royal Navy trained members of the Iraqi Navy conducted their first patrol of Iraqi territorial waters surrounding the Al Basrah oil terminal in their new *Swift* patrol boat. The Royal Navy had been training the Iraqi Navy in Umm Qasr as part of a coalition training team since 2004 and was responsible for delivering patrol boat training and mentoring the future Iraqi Navy training staff. The importance of the patrol to the Iraqi Navy was emphasised by it occurring on Iraqi National Army Day – 7 January.

Maritime Stabilisation Operations

262.   Some circumstances will not allow the UK to follow a preventative strategy. In contrast to a preventative approach, intervention to stabilise a fragile or failed state with an insurgency at its heart requires significant national commitment over an extended timescale. Where the environment is non-permissive, the main military task will be to create the security conditions that allow development and governance measures to be implemented. In extremis, this may mean that maritime forces deliver development activities

directly.[44] Maritime stabilisation has 2 key lines of development. First, building maritime capability in the subject state (described under security sector reform in paragraph 260); second, providing the security to enable the development of maritime trade infrastructure that enables industry and business. Beyond this, it is the task of maritime forces to create the security conditions in the littoral that allows other government departments, non-government organisations and the international industrial base to conduct the development that enables trade. This trade will be almost exclusively seaborne.[45]

SUMMARY

263.   The ability of the Royal Navy to exploit the unique access provided by the sea to apply force or pursue influence at a time and place of choice, underpins British maritime power. For the UK, a **balanced fleet with war-fighting at its core** provides the means to achieve this.

264.   The attributes and roles described above are the **ways** in which maritime forces contribute to the national security, defined in Chapter 1 as the **ends**. The **means**, the resources with which the **ways** are executed, are considered in Chapter 3.

---

[44] This activity is primarily the remit of non-military organisations, including other government departments, non-governmental organisations, industry and business.
[45] The UN Conference on Trade and Development statistics.

(INTENTIONALLY BLANK)

CHAPTER 3 – THE MEANS

Components of British Maritime Power

'*It is possible to imagine that the sea is ours by right of habit, and the rest of the world will somehow respect that indefinitely. But the right to use it at will demands constant reinvestment and recommitment.*'

Dr Andrew Gordon

(INTENTIONALLY BLANK)

CHAPTER 3 – THE MEANS

COMPONENTS OF BRITISH MARITIME FIGHTING POWER

301.   Having described the ends and ways of British maritime power, this chapter will describe the means – the components of fighting power that combine to deliver maritime capability.

302.   Fighting Power[1] is the ability to fight and achieve success in operations. It is made up of an essential mix of 3 inter-related components:

>   a.   **Conceptual**: the thought process providing the intellectual basis and theoretical justification for the provision and employment of armed forces.

>   b.   **Moral**: the ability to get people to fight, individually and collectively.

>   c.   **Physical**: the means to fight – balanced, agile maritime forces at readiness and with warfighting at their core.

303.   The conceptual component sits over the moral and physical components, not because it is necessarily more important, but because it defines the direction and shape of the others. Similarly there is no priority between the moral and physical, although it does not matter how good the platforms, weapons and sensors are if the people manning them lack motivation, training or adequate leadership. People are at the heart of present and future capability.

304.   The individual Service Chiefs of Staff are responsible, through the Chief of the Defence Staff, for delivering fighting power to the Secretary of State. While the Royal Navy will deliver the greater part of British maritime power, both the Army and the Royal Air Force also have to ensure that elements of their own forces can operate effectively in the maritime environment as part of a joint force. This requires common training and education in order to generate understanding and effectiveness.

---

[1] For more detail on fighting power see Joint Doctrine Publication (JDP) 0-01 *British Defence Doctrine* (BDD) (3rd Edition), Chapter 4.

SECTION I – THE CONCEPTUAL COMPONENT

'*With 2,000 years of examples there is no excuse for not fighting a war well*'

T E Lawrence (Lawrence of Arabia)

305.   The conceptual component provides the coherent intellectual basis and theoretical justification for the provision and employment of Armed Forces.[2] It provides the thought processes needed to develop the ability to fight and comprises both lessons from the past and thinking about how the armed forces can best operate today and in the future. It is the combination of the principles of war and doctrine, applied with imagination and initiative by their commanders, that provides the intellectual force driving the British Armed Forces' fighting power in current operations and how we aspire to operate in the future.

Understanding[3]

306.   Essential to the art of military leadership and command is the ability to learn from your, or others', experiences. While there can be no substitute for time on operations, it is the duty of all forces operating in the maritime environment to be well read and to understand the origins of strategy, its development and historic context. Since doctrine is about achieving a common level of understanding of strategy, operations and tactics, studying the Royal Navy, which has enjoyed success for many years, is a good place to start. There is clearly an onus on the individual to study doctrine, but equally it is critical that professional military practitioners receive formal education and training to develop their understanding and decision making abilities.

The Principles of War

307.   The principles of war are a distillation of experience and a simplification of complex and sometimes contradictory ideas. They are broad precepts for the conduct of armed conflict and should be used to inform all military strategic and operational decisions rather than as a planning checklist. The 10 principles recognised by the British Armed Forces are described in detail in Joint Doctrine Publication (JDP) 0-01 (3rd Edition) *British Defence Doctrine* (BDD). They are illustrated below, in the context of the campaign to regain the Falkland Islands in 1982, by Admiral Sir John 'Sandy' Woodward, the Commander of the Carrier Battle Group during the Falklands conflict:

---

[2] BDD, paragraph 405.
[3] Understanding: *In the context of decision-making, understanding is the perception and interpretation of a particular situation in order to provide the context, insight and foresight required for effective decision-making.* JDP 04 *Understanding*.

Operation CORPORATE – Principles of War in the Maritime Environment

'**The Selection and Maintenance of the Aim**. The initial aim was stated as 'Prepare to land with a view to repossessing the Falklands' about one week after the Argentineans invaded'. It was changed to 'Repossess the Falklands' on May 12th. While the first aim could, at least in theory, have been met without getting up from one's armchair, it was 42 days before a simple, clear aim was given. Events up to that time reflected the excessive vagueness of the first aim and the consequences of that vagueness. Events subsequent to 12th May reflected the importance of having a clearly stated aim as early as possible. However, it was not easy, mainly on political grounds, to be more definite much earlier.

Maintenance of Morale. Quite a problem, aggravated by 'war' never being declared or over. However, morale was maintained by all the usual means without making any special efforts. My own general theme was 'Don't concern yourselves too much about why we are going down, or even whether we will get away with it if it does come to war, just do the very best you each can, if nothing else that is your best chance of survival'.

Offensive Action. The very nature of the operation had perforce to be offensive. The difficulty was to know what offensive, or defensive, activities would be successful in a largely untried-in-war force essentially trained for a completely different kind of war.

Security. The main problem was the media, who with cameras on the spot were initially slow to understand the requirements. This was also a major problem in press releases at home. The Argentineans had no way of knowing whether their first Exocet attack had worked until the information about HMS SHEFFIELD was released in London. As for force protection, it is clear that we had enough, just. HERMES, then INVINCIBLE stayed well out at sea at nearly all times including the months after the land battle finished. It should be remembered that not only was no war declared at the beginning, no peace was ever declared after the main fighting was over. That said, lack of security must not allow you to be 'frozen' in your plans and operations.

Surprise. Surprise, often an important part of effective offensive action, was impossible to achieve in strategic terms. The enemy knew exactly what we hoped to do. At the tactical level, a degree of surprise was achieved in almost every area, usually preceded by substantial deception. Deception was used during the approach to the area (18th-30th April) to convince the Argentineans that we were coming straight in to the Stanley area for landing on May 1st/2nd. This was successful, drawing out the Argentinean navy and, less successfully their air force for two days, to attack us. Surprise was

achieved in the main landing itself in San Carlos Water, in the Pebble Island raid, and in most land force attacks.

Concentration of Force. This was kept constantly in mind but was extremely difficult to achieve during the passage South as units were detached for other operations throughout the approach phase.

Economy of Effort. This was always a battle requiring the maximum economy of effort. The battle hung in the balance throughout, whatever it may have seemed at home. Assets were invariably in short supply. Time and weather were against us. Re-supply routes were long. 'Paucity' was more the word than 'economy'.

Flexibility. Bearing in mind that the Royal Navy had been training and equipping itself solely for an anti-submarine battle against the Warsaw Pact forces in the North Atlantic for over a decade and that it had not envisaged a supported amphibious operation for 20 years at least, switching to an anti-air, anti-surface battle in support of an offensive amphibious operation the other side of the world does imply a substantial degree of flexibility.

Co-operation. Commodore Amphibious Warfare (COMAW) would say that he got little co-operation from the Battle Group Commander. The Battle Group Commander would say that he gave COMAW absolutely everything he could possibly spare and then some. Viewed more objectively, co-operation was force-wide but not without occasional and natural angst.

Sustainability. Sustainability was critically reviewed on 17th April. From that assessment, the operational plan was laid out for the next 2 months. It assumed that fleet sustainability for war operations should last adequately until mid-June, although there were several major unknowns. Thereafter, we expected to be on an uncomfortably sharp downward trend. Events proved the assumption correct, to the day.'

Doctrine

> '*At the very heart of war lies doctrine. It represents the central beliefs for waging war in order to achieve victory…It is fundamental to sound judgement*'

> *General Curtis E LeMay (USAF, 1968)*

308.   Doctrine is a part of that body of professional knowledge that, in part, defines any true profession. It captures the principles by which military forces guide their activity, based upon past experience, in terms of both planning and execution. The hierarchy of doctrine spans all the level of warfare (tactical, operational and strategic). At the higher levels, doctrine establishes the theories and templates from which initiative grows and activity is shaped – it is

authoritative, but it requires judgement in its application and is more about how to think rather than what to do. Lower level doctrine addresses the practices and procedures that support the decisions made at the higher level. Each level of doctrine draws provenance from the level above or higher level policy.

309.   In the Royal Navy, *British Maritime Doctrine* is the highest level of environmental doctrine. It sits between *British Defence Doctrine*, which is an entirely strategic document at the apex of the hierarchy, and key joint functional and thematic[4] doctrine that address the principles of joint operational military activity, most notably JDP 01 *Campaigning.*

310.   Below *British Maritime Doctrine* sit key publications such as Allied Joint Publication-3.1 *Allied Joint Maritime Operations* which start to focus in more detail on the execution of maritime operations. One of the strengths of maritime forces has already been identified as the ability to integrate easily with other navies. Certainly in the NATO context, this is partly due to shared doctrine. Wherever possible UK armed forces use NATO doctrine and only produce national doctrine where there is a gap or significantly different approach. At the lower operational and tactical levels, *Fighting Instructions* and *Fleet Operational Tactical Instructions* provide guidance on the conduct of operations.

311.   Doctrine is intended as a tool to be used in the conduct of routine military business, not just in times of crisis. Neither is it only for operational level commanders in higher headquarters – it is for everyone, at every level; only the context changes. Its utility stems from familiarity and this in turn requires dedicated, formal education and training, as well as individual effort.

Concepts

312.   In the defence context, a concept is an idea, notion, theory or hypothesis about the way we will conduct operations or employ specific capabilities in the future. Concepts are the result of robust research by both the military and academia, contain a combination of innovative thinking and informed judgement, and are subjected to rigorous analysis, systematic evaluation, practical testing and experimentation. The intention is to inform or influence policy by translating creative, informed thought into credible, effective ways of operating or well defined capability requirements. Concepts also provide stimulation for further specialist research.

---

[4] Functional doctrine addresses activity in a specific field, e.g. intelligence, logistics, planning etc. Thematic doctrine overlays functional doctrine and provides the context and operating environment to which it is applied. Examples of thematic doctrine include peace support operations and non-combatant evacuation operations.

313. In practical terms, concepts are about developing capability in order to maintain a lead in an unpredictable world. They are an extension of doctrine, which deals with the *here and now*, and forecast what we may need to do differently in the future to enjoy the same success. Like doctrine, concepts exist within a hierarchy, within which they are split between analytical concepts and applied concepts.

   a. **Analytical Concepts** are the higher level ideas which assist with the *formulation* of Defence strategy by describing, in broad terms, the principles and characteristics of future ways of operating out to a 20 year horizon. Analytical concepts have latitude for more innovative thought but are policy and resource aware and so must remain within the bounds of feasibility.

   b. **Applied Concepts** assist with the *execution* of Defence strategy by describing the specific ways of operating within existing policy and resource constraints out to a 10 year horizon. Applied concepts provide the detail required to support capability development and delivery and are embodied in Concepts of Employment (CONEMP) and Concepts of Use (CONUSE). CONEMP and CONUSE describe the specific employment of capabilities in the joint environment, across a spectrum of activities and scenarios. CONEMP reference capabilities in more generic terms; CONUSE are subsequently developed when a preferred solution for delivering a capability has been decided.

SECTION II – THE MORAL COMPONENT – THE WILL TO FIGHT AND WIN

The enduring spirit derived from our people's loyalty to their ship, unit or team sustained by high professional standards and strong leadership, that gives us courage in adversity and the determination to fight and win.

Royal Navy Ethos

314. The Royal Navy is a fighting force with an enviable and unrivalled record of operational success during both peace and war. While capable platforms, weapons and sensors are important, success depends on the moral component and the ethos that underpins sailors' and marines' will to fight and win. The preceding chapters of this doctrine have addressed issues from a joint maritime perspective; the moral component is equally applicable across all components of a maritime force, but the Royal Navy has a specific set of values that are a product of their natural environment. For the other Services who contribute to British maritime power, it is important to understand these

values for effective integration. Equally, it is incumbent on members of the Royal Navy to understand the ethos of land and air forces that may fight with a maritime force.

315.   The Royal Navy is expected to be available at any time, to go anywhere and to carry out a wide variety of often dangerous activities. Its business is the application of military force, to fight and, if necessary, risk injury or death in support of political objectives. Being a member of the Royal Navy and maintaining a fighting spirit has unusually high demands. The requirement to fight sets Royal Navy personnel apart from most civilian colleagues. It requires the subordination of individual rights to those of the team and the higher purpose of winning. This will be achieved through good leadership, discipline and morale.

'*But the men are the stars of this story. The only heroines are the ships: and the only villain the cruel sea itself*'

From *The Cruel Sea* by Nicholas Monsarrat

316.   **Life at Sea**. Large numbers of sailors, marines, airmen, soldiers and, indeed, civilians have to live and work in very close proximity to each other. The ship or submarine, which is their home for extended periods in peace and conflict, is a cramped and often uncomfortable space. The maritime environment is featureless, tiring and demanding. Patterns of life during peacetime exercises differ little from those during hostilities. Historically, maritime warfare has been characterised by long periods of surveillance and search followed by short bursts of intense combat. Concentration and alertness must not be allowed to drop during quieter periods. People, weapon systems and sensors must be integrated into a composite team, always ready to change focus and tempo as the mission demands.

Leadership

"*Duty is the great business of a sea officer: all private considerations must give way to it however painful it may be*"

Admiral Lord Nelson

317.   Military leadership is the projection of personality and character to get subordinates to do what is required of them and to engender within them the confidence that breeds initiative and the acceptance of risk and responsibility. Born leaders are rare, but leadership potential can be developed by training, experience, study of the methods of great leaders in the past, and a sound knowledge of the military profession. Through these, individuals develop their own style of leadership and no 2 people will necessarily lead in exactly the

same way. Leadership starts with self-discipline. It is a continuous process throughout training and daily life. Leaders promote this amongst their subordinates by: decisive action; clear direction and guidance; precept and example; advice, encouragement and admonishment; and by giving subordinates every opportunity of contributing to mission success through sensible delegation of responsibility. The commanding officer, be that of a ship, commando unit or higher headquarters, sets the benchmark and is responsible for inspiring his people to do their job to the best of their ability during peace, through adversity and in war. Leadership is a key tenet of Naval ethos, as detailed below.

318. **Commanding Officer**. Command embraces not only the responsibility for one of HM units, but the power to mould, or mar, the characters of a large body of individuals. It also carries with it a historic tradition of duty, dignity and privilege. In return, it makes immense demands on the commanding officers' skill and endurance. Once appointed *in command*, commanding officers in the Royal Navy, regardless of rank, are known as the Captain – and the Captain *is* the ship. When the helicopter ditches, it is the captain's helicopter; when a classified document is mislaid by a junior officer, it is still the captain's document; it is the captain's bilge that is oily and the captain's equipment that is not tuned to peak performance; and when the submarine fails to hit the target, it is the captain's torpedo that is wrong. The tradition by which a captain is called by the name of the ship sums up the practice and is crucial to the Royal Navy's ethos. While this is very specific to commanding officers in the Royal Navy, the principal tenets of *individual responsibility* are nevertheless entirely applicable to the Royal Marines both at unit and higher command levels and indeed other military forces who work in the maritime environment.

Morale

319. The maintenance of good morale is one of the principles of war. It is based on recognition of the needs of the individuals who collectively form the team, and it manifests itself in the will to win. Morale promotes the offensive spirit and determination to achieve the aim. Good morale is based on: a shared sense of purpose; clear understanding of, and belief in, the aim; discipline and self-respect; confidence in equipment; training; and well merited mutual trust and respect between those in and under command. The naval systems of command and its long standing *divisional system* provide a clear framework for effective leadership and support for the individual within the ship, or unit. Supportive public opinion at home is also vital to the maintenance of morale. The presentation, by the media, of the conduct of an operation and of the personalities involved, can assume great significance. The ability of the operational commander to provide a clear, confident and

credible message to those at home is crucial, but he must balance the need for security with that of accurate reporting from the operational area. Operational success provides the quickest and most effective boost to morale for those at war but outstanding leadership will sustain high morale when all other factors are against it.

Management

320.   Management is no substitute for leadership but is a vital element of the moral component nevertheless. It is about making the best use of resources. It is an attribute of command that cannot be overlooked because it is fundamental to effectiveness and, of course, relates to 2 principles of war, economy of effort and sustainability. Every commander must know how hard to drive his force; he must not be spurred beyond the limits at which people lose their powers of recovery. This is achieved through a combination of effective management of resources (people and equipment) and good leadership. Management is regarded as an element of the moral component, rather than the physical, because without good management of resources and the provision of sufficient administrative support, the maintenance of morale and the motivation of the force would be rendered considerably more difficult. The measure of good management is the achievement of the right balance – neither over-abundance nor a shortage of resources, either of which would undermine the concentration of effort on the main objective.

Ethos

321.   The business of fighting is essentially a group activity and at odds with society's increasing deference to the individual. As the Royal Navy is recruited from a wide cross-section of society, new recruits may not intuitively share, or understand, the sense of duty, self sacrifice and service that is required, particularly in the context of extreme violence. Ethos, the values, standards and shared experience that give an organisation its distinct character and identity, provides the moral cohesion that binds individuals together into a team; it motivates ordinary people to overcome fear or adversity and do extraordinary things. It is fundamental to operational effectiveness that the components of ethos are understood, upheld and passed on, since once they are lost they will be difficult to recover.

322.   The factors below are the components of the Royal Navy's ethos – individual fighting arms also have their own specific values reflecting their unique environmental operating areas.

a. **Leadership**. Leadership pervades all aspects of ethos and is absolutely fundamental to its maintenance. Good leadership underpins everything the Royal Navy does. It is the glue which holds the service together and is crucial in times of conflict, when fear, fatigue, discomfort and uncertainty need to be overcome, or at least controlled. In doing so, the duty of all leaders, at every level, is to maintain the morale and cohesion of the team. High morale is absolutely pivotal to the fighting efficiency of any unit and depends on every individual playing their part and contributing to cohesion. No matter what their task is, every individual must believe that what they do really does matter.

b. **High Professional Standards**. Continued success in future operations will be founded on high professional standards, sustained by a desire for continued improvement and innovation to ensure a fighting edge over potential adversaries. To that end, the Royal Navy must be structured to fight and not structured for the convenience of administration in peace.

c. **Courage in Adversity**. Courage, both physical and moral, forms the foundation upon which bravery, fighting spirit and success depends:

(1) Physical courage means being prepared for tasks that, either directly or indirectly, involve the use of lethal force while being in harm's way. During these periods of heightened danger, it is likely that an individual's faith will become increasingly important. Whenever possible, chaplains should be available for support.

(2) Moral courage is equally important. This is the courage to do what is right even though it may be unpopular and the personal cost high. It is also the courage that allows one to admit mistakes, to accept blame and responsibility, thereby improving effectiveness for the whole.

d. **Determination**. Determination is the will power to succeed and the driving force that sees a task through to its conclusion. It is the mental and physical stamina to hold course despite obstacles and setbacks, to overcome the tendency to give up due to pressures such as fatigue and fear. This is directly attributable to motivation, which implies a determination for getting things done. It derives from a personal commitment to an idea, a sense of purpose and a feeling of belonging.

e.   **Loyalty**. Loyalty to one's ship or unit is fundamental to success. It encourages pride, which often inspires individuals to the greatest heights of valour, particularly when based on reputation and historic victories in battle. Loyalty works in all directions. Leaders must be loyal to their subordinates. Conversely, subordinates must be loyal to their leaders and to each other. While loyalty is expected, it must also be earned through commitment, self-sacrifice, courage, professional ability, decency and integrity.

f.   **Mutual Respect**. Like loyalty, respect for others goes both up and down the chain of command as well as sideways amongst peers. It means treating each other with fairness and dignity and acknowledging every individual's contribution to the full. As operating conditions become more demanding respect for each other is doubly important, as is the forging of those close bonds of professional and personal trust that will withstand the stress of battle. Mutual respect grows from trust.

g.   **Discipline**. Good discipline cannot be turned on and off; it must be applied consistently and is essential for war fighting. During periods of danger, good discipline is a powerful antidote for fear and, along with loyalty and trust it helps to hold a team together when threatened. The best type of discipline is self-discipline. This comes from a sense of commitment and the readiness to put the needs of others and the mission ahead of self interest.

h.   **A Sense of Humour**. Maintaining the unique British sense of humour is a vital component of ethos and to the naval way of life. It helps in adversity, whether it is physical hardship, fear or uncertainty; it breaks down tensions, allowing events to be seen in a more balanced perspective. The ability to exchange anecdotes, or 'spin dits', about all aspects of naval life is a crucial means by which ethos is both sustained and instilled into successors.

i.   **Teamwork**. Strong teamwork is fundamental to success and is the component that brings all our individual efforts together. It is the understanding and commitment to work with each other, whatever the function, to provide maximum unity of effort at all levels. Shared pride in success comes from good teamwork.

j.   ***Can Do* Attitude**. The components of Naval ethos are captured neatly in the expression *can do*. The Royal Navy has a legendary reputation for sticking to a task whatever the constraints or changes in circumstance.

Naval Ethos

Admiral A B Cunningham (known as ABC) – Evacuation of Crete 1941

The rapid German advance through Greece required an exhausted Royal Navy to evacuate 50,000 troops from the next target, Crete. Badly organised and short of heavy equipment, the land forces were ill-prepared for the German invasion of Crete, which began on 20 May 1941. Five days later the battle for the island was lost. Forced to withdraw his 2 damaged aircraft carriers (HMS FORMIDABLE and HMS ILLUSTRIOUS), ABC began the evacuation without any form of air cover. Most of the troops were taken off a shallow beach on the south coast by worn-out destroyers and fragile crews. Suffering heavy losses on the passage to Egypt, even ABC questioned the wisdom of carrying on without air cover (Crete cost the Royal Navy 1,828 dead and the loss of 3 cruisers and 6 destroyers and serious damage to 2 battleships, a carrier, 2 cruisers and 2 destroyers). But despite serious losses of ships and men, ABC refused to give up: even when Wavell, head Land Forces, said he had done enough, he insisted on the Navy going back another night because the '*Navy had never yet failed the Army in such a situation, and was not going to do so now*'. As he told his staff when they advised him to call off the operation '*you can build a new ship in 3 years but you can't rebuild a reputation in under 300 years*'.

SECTION III – THE PHYSICAL COMPONENT – THE MEANS TO FIGHT

323.   **A Balanced Fleet**. The physical component of fighting power refers to the people and equipment (ships, submarines, aircraft, vehicles, weapons, systems and sensors) that deliver effect *at sea* and *from the sea*. These elements together are the military force structures by which the military tasks are fulfilled. Perceptive, dynamic and motivated *people* are critical but, people aside, fighting power, or operational capability, also depends on an appropriate qualitative and quantitative balance of equipment to deliver the tasks that maritime forces are required to meet. Therefore, within fiscal constraints there is an appropriate balance to be struck between the investment in both the quality and quantity of equipment. The decision on where the balance lies should be dependant upon the threats faced and risks carried – a *balanced fleet*.

324.   **A Full Spectrum Navy**. There are both national and multinational reasons for the UK to possess a spread of maritime assets with a range of combat capabilities. While coalition operations offer the opportunity to share the burden and contribute specialist capabilities, those who make the greatest contribution inevitably exercise most influence. Independent national

operations, however, require the complete suite of maritime warfare capabilities, at both the operational and tactical levels. A full spectrum navy – embracing the attributes of maritime power – is capable of conducting the full range of operations required of the 3 fundamental roles of maritime power to deliver effect at sea and from the sea in support of political ends.

Force Structure

325.   The *Strategic Defence and Security Review 2010* identifies the forces required over the next 10 years to deliver Future Force 2020 and has 3 broad elements:[5]

> a.   **The Committed Force** – this comprises those force elements required to meet the non-discretionary elements of the *National Security Strategy,* focused primarily on military tasks 1 to 4. For the Royal Navy this includes submarines, surface ships, aircraft, marines, and support units and ships that are globally deployed on operations throughout the year.

> b.   **The Responsive Force** – this comprises those force elements that are required to respond to the full range of demands for which the UK should be prepared. It provides a range of capabilities, across all environments, that allows the UK to: respond to non-enduring contingencies; conduct enduring deterrence, coercion and containment, principally in the air and maritime environments; and conduct enduring operations in the land environment, at up to brigade strength with supporting air and maritime assets. The Royal Navy is required to provide a maritime Response Force Task Group and one of the 2 specialist brigades in the form of 3 Commando Brigade, which also generates an all-arms battlegroup at very high readiness for contingent tasking.

> c.   **The Adaptive Force** – this comprises those force elements that routinely, are neither attributed to the *committed* nor *responsive force*. For the Royal Navy this is mainly those force elements that have recently returned from operations, are generating for operations or are in an extended maintenance period and are at a lower readiness. They will be subsequently tasked in either the committed or responsive force; however, due to their place in the regeneration cycle they may not be

---

[5] The *committed force*, *responsive force* and *adaptive force* are terms used in the classified Technical Instruction that supports the Strategic Defence and Security Review (SDSR); in SDSR the actual terms used are the *deployed force*, the *high readiness force* and the *lower readiness force*. They are articulated in terms of shaping the Future Force of 2020 but are equally as applicable today in terms of a framework for grouping forces. Force structures will be tailored between now and 2020 to deliver a balanced capability across the 3 groupings.

available for tasking without extended warning. Although, as long as the required resources are available, maritime forces can regenerate some, if not all of their capability relatively quickly.

326.   The apportionment of Royal Navy force elements to military tasks and their associated readiness is addressed in the Naval Plan, a classified document. However, a high proportion of the Royal Navy's force elements and the full-spectrum of British maritime capabilities are either in the committed or responsive force. Furthermore, the breadth of activity conducted across the 3 maritime roles described in the previous chapter means that virtually all ships at sea are on operations contributing to the assigned military tasks.

The Committed Force

327.   **The Nuclear Deterrent**. The provision of nuclear deterrence is a military task in its own right, known as Operation RELENTLESS. A force of 4 Vanguard class nuclear powered submarines (SSBN) with nuclear armed ballistic missiles is operated such that at least one is continually on deterrent patrol. The 2010 SDSR announced the intent to carry a maximum of eight operational missiles and 40 nuclear warheads in each SSBN. A successor SSBN, to enter service in the late 2020s, will be powered by a new design of nuclear propulsion plant. This forms the basis of a viable nuclear programme for the next 50 years.

328.   **Nuclear Powered Attack Submarines**. Nuclear powered attack submarines (SSNs) are capable of high transit speeds and sustained underwater operations. They constitute the principal up threat sea denial system having anti-submarine and anti-ship capability. When combined with land attack missiles, SSNs have a power projection capability of considerable range and penetrability, with important uses for deterrence and coercion. SSNs can also covertly gather intelligence, and insert and recover special forces. They can operate independently or in conjunction with surface forces and contribute to the protection of the strategic nuclear deterrent.

329.   **Frigates and Destroyers**. Frigates and Destroyers (FF/DD) are multi-purpose combatants with an emphasis on anti-submarine warfare or anti-air warfare, but with capabilities in many disciplines, including the ability to provide fire support and air defence to forces ashore. They are the smallest units[6] that are deployed autonomously for extended periods and their capabilities allow them individually to cover a wide range of military tasks across all 3 maritime roles, in particular establishing presence. They are

---

[6] Hydrographic vessels are also deployed singularly to conduct survey tasking and are available to conduct other tasking such as non-combatant evacuation of entitled personnel while deployed.

essential elements of any task group and an important contributor of maritime aviation assets.

330.   **Mine Countermeasures Vessels**. In home waters Mine Countermeasures Vessels (MCMVs) operate in the approaches to harbours and choke points where they are used to maintain the flow of both commercial and naval shipping. They are also tasked with ensuring access to the open ocean for SSBNs. When operating in support of force projection, they are an important element of task groups, particularly in advanced sea control operations and to clear the amphibious operating areas prior to an amphibious landing. MCMVs require a measure of forward support, a tasking authority and appropriate protection when operating in a surface, sub-surface or air threat environment.

331.   **Hydrographic and Oceanographic Survey Vessels**. Hydrographic and oceanographic survey vessels provide the capability to conduct specialist military data gathering in support of maritime and joint operations, including the nuclear deterrent. Hydrographic, oceanographic and meteorological information is used to inform campaign planning and to provide situational understanding. It is a vital precursor to theatre entry and littoral manoeuvre. Data gathered is also exploited to produce charts and other products which inform both safety of navigation and formulation of the recognised environmental picture for subsequent exploitation by maritime units. Survey vessels can also be used as a command platform for mine counter measure operations. Survey vessels require a measure of forward support and appropriate force protection when operating in a sub-surface, surface or air threat environment.

332.   **Patrol Vessels**. Specialised vessels are deployed routinely on patrol around the UK and overseas territories, chiefly on constabulary tasks, to protect sovereignty, economic interests and ensure the good order and security of the maritime domain. Their capabilities extend comfortably to the full extent of the UK's fishing and energy zones. For fishery protection, the ships are operated under contract to the Department for Environment, Food and Rural Affairs to patrol UK waters to protect UK fishing vessels and to enforce fisheries regulations but may be more widely tasked to support UK government departments as a contribution to the UK's comprehensive maritime security. An ice patrol ship makes annual deployments to Antarctic waters to demonstrate UK interest in the region, exercise sovereignty over the British Antarctic Territories and to provide assistance to the British Antarctic Survey; it also undertakes hydrographic survey and meteorological work.

333.   **Maritime Aviation**. The Fleet Air Arm is an essential element of British maritime power and will have a crucial role to play in ensuring the smooth re-

introduction of carrier strike, by supplying both pilots and ground crew for the *Lightning* II and key manpower for the *Queen Elizabeth* Class aircraft carrier. Operating individually, or in a group, maritime aviation conducts air operations at sea and from the sea, either integrated with land based air forces or independently when out of their reach. Maritime helicopters primary roles are anti-submarine warfare, anti-surface warfare, troop carrying, airborne surveillance and area control, and search and rescue. However, as helicopters are versatile platforms they can carry out a number of subsidiary roles.

334.   **Royal Marines**. The Royal Marines provide the British Armed Forces specialist amphibious landing force, specifically organised, trained and equipped for this role. Additionally they provide the Fleet Protection Group who deliver specialist boarding and force protection capabilities and 1 Assault Group who are the deep specialist landing craft and amphibious personnel.

335.   **Royal Fleet Auxiliary**. The ships of the Royal Fleet Auxiliary perform a number of roles and spend a significant proportion of their time at sea. Primarily they provide the fuel, food, stores and ordnance that can be transferred at sea to enable sustained reach, which sits at the heart of maritime operations. Furthermore, they can perform this function in both benign and hostile conditions, operating intimately with warships in all environments. Additionally, many of the Royal Fleet Auxiliary's platforms have the ability to support helicopters which make them an invaluable operational asset either as part of a task group or individually. The ships of the Royal Fleet Auxiliary are flexible, capable platforms in their own right and now often undertake many of the roles traditionally performed by warships. They have proved extremely effective in activities such as anti-piracy, disaster relief and intelligence gathering.

Royal Fleet Auxilliary – Flexible Tasking

In January 2011 RFA CARDIGAN BAY, a landing ship dock, returned to the UK after a 3 year deployment to the Gulf in support of coalition operations and the Iraqi Navy. During this period the ship travelled more than 71,500 nautical miles and undertook 24 patrols in the Gulf. The ship provided essential support to the development and training of the fledgling Iraqi Navy as well as providing support to British and US Navy units. The ship's versatility made her an ideal base for Iraqi Navy and Marines personnel as they were trained in tactical operations and basic seafaring. She also routinely hosted the US Navy's Maritime Expeditionary Security Force and their *cougar* patrol craft. In addition, the ship acted as the afloat forward support base for all stores, mail and personnel transiting in and out of theatre and the venue of choice for visiting VIPs.

The Responsive Force

336.   **3 Commando Brigade Royal Marines**. Held at high readiness, this specialist brigade consists of 3 commando units (40, 42 and 45 Commando) who each have a tracked, wheeled or dismounted capability; a light artillery regiment (29 Commando Regiment Royal Artillery); a combat engineer regiment (24 Commando Regiment Royal Engineers); the Commando Logistics Regiment; and an information exploitation group with air defence, an electronic warfare capability, strategic communications and a long range patrol capability (30 Commando).

337.   **Responsive Force Task Group**. While individual maritime force elements may be called upon to respond rapidly to emergent crises, quickly changing from one role to another, the headline maritime contribution is the Responsive Force Task Group. As a high readiness maritime response force it is able to respond and ready to fight as part of a UK-only force, offering strategic choice and operational flexibility. Under the direction of the Maritime Strategy Steering Group, the Response Force Task Group will regularly be deployed around the world in support of national objectives. Focused on delivering early effect including deterrence, strategic influence and information – at sea and from the sea - the force will be fully interoperable with allies and partners and capable of making a meaningful contribution to coalition operations, including command. This self-contained force is able to gain regional access while providing policy makers with the comparative advantage of scalability and choice; the ability to enlarge or contract the footprint as the situation dictates.

338.   The Response Force Task Group will be organised around a single maritime task group consisting of capital ships,[7] frigates and destroyers, afloat support and, potentially, a landing force, aviation, MCMVs and SSNs. It will spend most of its time dispersed, with units *rouled* into and out of the force, at readiness, in the normal course of programming. It will form fully only to conduct operations or to maintain capability and readiness through collective training. In the same way that frigates, destroyers, SSNs and other units in the task group may be duel tasked with standing commitments, so too may the larger ships that form its core.

339.   The 2 central capabilities that the Response Force Task Group will offer are littoral manoeuvre and carrier strike. Both capabilities seek to deliver considerable land effect from the maritime domain. While carrier strike will not be an option in the medium term, the generation of capability must continue, using allied platforms to ensure a smooth re-introduction at the end of the

---

[7] Capital ships are the *landing platform dock* and *landing platform helicopter* and eventually the *Queen Elizabeth* class aircraft carrier.

decade. In the meantime, the primary output of the Response Force Task Group is littoral manoeuvre at Commando Group level. The requirement for personnel and equipment deploying from the maritime domain to operate across the environmental seams was introduced in Chapter 2; nowhere is this requirement more apparent than when considering the Response Force Task Group capability. The particular and exacting demands of operating across the environmental seams require considerable planning, preparation and co-ordination of man and materiel if such operations are to be successful.

Littoral Manoeuvre

340. The UK's specialist amphibious forces represent a comprehensive range of capabilities, fully able to operate independently or alongside allies and partners. They comprise 3 essential components; specialist amphibious shipping, the landing force and the tailored air group, who contribute the helicopters essential to amphibious operations. In the future, carrier strike will be an additional key element. The Commander UK Task Group, working closely with the landing force commander, will likely command the Response Force Task Group at sea, before becoming the supporting commander once the landing force is ashore and established. The force is intrinsically joint and relies upon elements of all 3 services to function.

341. The landing force is provided by 3 Commando Brigade Royal Marines who have a standing commitment to the responsive force in the form of the *lead commando group*. The lead commando group comprises approx 1800 personnel who can be landed and sustained from the sea. This may be in support of a larger land campaign, exploiting the maritime flank, or to conduct discreet operations such a raid, a non-combatant evacuation or limited theatre entry. The lead commando group aims to be established ashore within 6 hours, using both landing craft and helicopters to conduct 2 concurrent company group assaults (one by surface and one by air). Aviation assets and landing craft can be regrouped to the landing force during ongoing operations to enable the amphibious shipping to be tasked elsewhere.

342. The Royal Navy's specialist amphibious shipping tactically offload, sustain and recover the landing force without recourse to harbours or airfields, in hostile, or potentially hostile environments.[8] They provide the launch platforms for assaults and raids by landing craft and support helicopters. *Landing platform docks* have the necessary command and control facilities for up to a brigade size operation, and are capable of landing a company group

---

[8] The Royal Navy has 2 landing platform dock ships (HMS ALBION and BULWARK), one held at extended readiness, 2 landing platform helicopter ships (HMS OCEAN and HMS ILLUSTRIOUS), and 3 *landing Ship dock (auxilliary)* (LSD(A)) of the Bay class, one held at extended readiness. The ships docks allow them to launch larger landing craft for transporting heavy equipment; the landing platform dock ships and HMS OCEAN also carry their own smaller landing craft, launched from the ships side, for transporting marines.

surface assault, and heavy equipment (such as armour) and landing force vehicles and equipment. The *landing platform helicopter* can accommodate a full commando; it generates and maintains all of the support helicopters required to lift the landing force. The *landing ship dock (auxiliary)* can lift large volumes of heavy equipment vehicles and personnel and then conduct concurrent surface and air offload at sea.

343.   Around this core specialist tasking, the Response Force Task Group employs frigates, destroyers, SSNs, MCMV and afloat support shipping to enable activity in the littoral and along the sea lines of communication, a complex and demanding command challenge.

The United Kingdom/Netherlands Amphibious Landing Force

The UK/NL Amphibious Landing force is a leading example of international military co-operation. Established in 1973, when the focus was on NATO's Northern Flank, there is no equivalent fully integrated, combined operational force in NATO, or indeed the World, under a single command. The close relationship is based on a very high level of interoperability, for instance a Dutch landing platform dock often substitutes for a UK landing platform dock in exercises.

Carrier Enabled Power Projection

344.   The Royal Navy's *Queen Elizabeth* Class aircraft carriers will provide a substantial contribution to sea control, power projection and to the overall command and control of maritime operations. The purpose of the aircraft carriers is to provide air power to support the operational commander.

345.   Carrier based airpower will provide the UK with the ability to project a multi-role combat air capability when and where the situation demands. This will generate choice across a wide range of operations and allow independent air operations without recourse to land basing, which may not be desirable even if available. Once in theatre, carriers have the mobility to find clear flying conditions, maximise time on task and react rapidly.

346.   In the carrier strike role the ships will routinely carry and fully support a minimum of 12 *Lighting* II aircraft. They will also embark the multi-role *Merlin* Mark 2 helicopter which will be used to deliver both intelligence, surveillance, target acquisition and reconnaissance, and air-space management. In the littoral manoeuvre, special forces or expeditionary roles, the *Queen Elizabeth* Class may carry a mixed air group comprising *Chinook* and *Merlin* support helicopters, *Wildcat* and *Apache* attack helicopters in support of a Lead Commando Group or other embarked landing force. This tailored air group

can be shaped to provide either a strike focus with the ship carrying up to 36 *Lighting* II aircraft, or to act more as a landing platform helicopter with greater numbers of support and attack helicopters. Transition between roles can be achieved when the ship is deployed; there is no need to return to the UK.

Manpower and Training

347.   Sufficient capable hardware is an essential aspect of maritime fighting power but without sufficient capable people to operate it effectively then it is worthless. Having attracted the right sort of individual through the recruiters' doors, individual, team (within a unit) and collective (within a Task Group) training generates cohesion and proficiency. The basics can be taught ashore in the classroom or using simulation. However, the maintenance and development of operational capability can *only* be achieved by training and exercising at sea.

348.   **Manning**. The Naval manning system provides sufficient, capable and motivated personnel to ensure maritime forces can fulfil their remit. The operating characteristics of the various components of the Royal Navy has resulted in a number of different manning regimes. However, the need for high quality and fully trained people able to perform in challenging conditions remains unchanged. The process of achieving this begins with recruiting the right calibre of person and is developed through training and attention to the moral component.

349.   **Individual Training**. The complexity of a warship's internal layout, its systems and procedures, in addition to the singular challenges of operating at sea, all create a demanding working environment. A ship is a closed system; there is no external help to deal with emergencies so all personnel need to be able to conduct not only their primary role but also several other secondary duties. To live and fight within this environment, individuals need to understand how the ship works and their place in it at all times and under all circumstances. The system is only as strong as its weakest component; therefore it is imperative that all personnel must inherently understand the risks and hazards. Familiarity and ethos address this in part, but only in conjunction with rigorous and consistent training to maintain standards and increase proficiency. This is a continuous process as there is no room on a warship for passengers although there must be capacity for trainees. Similarly, the specialised and independent nature of commando forces demands that Royal Marine training is tailored to meet the particular challenges of amphibious operations.

350.   **Collective Training**. Beyond standing commitments, the fundamental operational expression of British maritime power is the Responsive Force Task

Group. Centred on the Royal Navy's very high readiness major surface unit, either a landing platform helicopter or landing platform dock (or, in future, the *Queen Elizabeth* Class aircraft carrier), this task group will be established from an appropriate mix of very high readiness surface, sub-surface, air and amphibious forces. It is imperative that all elements of the force are programmed to conduct regular collective training in order to maintain operational capability and readiness. Task group operations are complex and require significant degrees of co-ordination, understanding and experience. Effective collective training will allow the Response Force Task Group to disperse and re-assemble to conduct operations quickly with minimum operational risk against mission success. Having concentrated for operations, the task group can conduct additional combat enhancement training and force integration training on passage without causing delay. This training can also serve as a demonstration of intent and capability to adversaries.

Information Superiority

351.   An enduring tenet of warfare is that success in combat is achieved by good decision-making which is enabled partly by doctrine but also by accurate and timely information. In today's high speed and networked global environment, delivering, managing and exploiting information and making good decisions faster than an adversary is critical to operational success. This is known as *information superiority*.[9]

352.   Achieving information superiority requires a complex mix of people, processes, equipment and infrastructure. In contrast to most other areas of capability, information superiority depends upon networks and technology external to the ship, submarine or aircraft. Fundamental to gaining information superiority is the intelligence, surveillance, target acquisition and reconnaissance process:

> a.   **Direction**. The intelligence cycle is a command-led process; the commander states his requirements based on his intelligence/ information gaps.

> b.   **Collection**. Gathering and formatting data for processing.

> c.   **Processing**. Collation, evaluation, analysis, integration and interpretation of information so that it can be exploited.

---

[9] Information superiority: '*possessing a greater degree of information about the battlespace, being able to exploit that information more rapidly and preventing the adversary from obtaining or exploiting information which would give combat advantage*'. JDP 0-01.1 *UK Glossary of Joint and Multinational Terms and Definitions* (7th Edition).

d.   **Disseminating**. Timely distribution of information for use or further processing, and distributing orders and instructions.

e.   **Displaying**. Presenting information to the user in the most effective and efficient manner.

f.   **Protecting**. Guarding information from an adversary's attempts to exploit, corrupt or destroy it.

353.   Once information has been processed and presented to the user, decisions can be made and a course of action decided and communicated through the command and control function. This must be done at the right tempo and unambiguously so that the information advantage is not lost. To achieve this, maritime forces must be equipped with suitably configured and compatible radios, satellite equipment, computers and software connected to robust and resilient worldwide communications networks.[10]

354.   Robust command and control, backed up by effective intelligence, surveillance and reconnaissance, is vital for planning, executing and sustaining a successful maritime, joint, or multinational operation, kinetic or otherwise. All aspects of maritime operations depend on it for responsive, integrated command and control.

355.   **Cyber**. The scope of cyber operations go beyond information systems, reaching into command and control, intelligence, surveillance and reconnaissance, as well as the physical control of equipment. All of these areas are vulnerable to attack which could result in slowing down the decision making process or lead to the wrong decisions being made.

Maritime Logistics

356.   Logistics is defined in the military context as '*the science of planning and carrying out the movement and maintenance of forces*'.[11] The purpose of logistic support is to ensure the provision, sustainment and recovery of forces, thus enabling the maintenance of combat capability and allowing the operational commander to deploy forces at the time and place of his choosing. Logistic planning must be integrated with all other aspects of the campaign plan or failure will almost inevitably follow. British military logistics is conducted on a joint and multinational basis with common practice across all disciplines. The fundamental difference with maritime logistics is the range and scale of materiel carried organically within a task group. While there is logistics resilience within individual platforms and force elements, no maritime

---

[10] This capability is often referred to as C4 – Command, Control, Communications, Computers.
[11] JDP 4-00 (3rd Edition) *Logistics for Joint Operations,* page 1-1.

force can operate to its potential without afloat support to provide fuel, ammunition, stores and other essential materiel; operational effectiveness demands that this support is delivered during war as well as peace. The ability of ships to carry and transfer stores and fuel allows maritime forces to conduct self-sustained operations at considerable distances from fixed bases with little or no host-nation support required.

357.   The Royal Fleet Auxiliary, supplemented when necessary by commercially chartered vessels or allied support shipping, gives British maritime forces the capability to carry out sustained operations at considerable distances from their home base.[12] This effort may be enhanced by in-theatre consolidation and access to the joint supply chain using either military or commercial lift.

358.   **Shore Support**. The most obvious shore support a maritime force receives is that from the naval bases and establishments that are used to prepare units for their operational roles. Once deployed, organic afloat support may be enhanced by shore support from the UK home base. When host nation support is available, it may supplement afloat support by providing useful forward airheads and seaports for logistic and personnel movements to and from the theatre of operations, and forward operating bases for replenishment, maintenance and repair. Host-nation support may help to economise on the need for logistics, but such support is not an essential feature of purely maritime operations. Indeed, a forward operating base may be no more than a sheltered anchorage for a support or repair ship.

359.   **Support to Joint Operations**. Maritime logistics support to joint operations offers 2 important advantages. Sea-basing is not exclusively about logistics but in this context it means reducing the logistical footprint ashore to the minimum, by retaining it within the joint force shipping. This allows equipment, personnel and support to be landed in sufficient quantities without placing it all in a vulnerable and essentially immobile location. By keeping the logistics afloat, the operational commander can exploit the attributes afforded to maritime forces that were described in the previous chapter, and keep his options open.

360.   **Medical Support**. Maritime medical support is delivered both afloat and ashore to the standards of care directed by the Surgeon General. Effective medical care contributes to both the moral and the physical components; ethically there is a duty of care for our people whose motivation is a part of operational effectiveness. Medical support includes indigenous role 1 at unit level, the provision of damage control surgery at role 2 afloat and

---

[12] This includes the 6 strategic RO/ROs that are commercially owned but MOD chartered.

role 2 light manoeuvre, and a comprehensive deployed hospital based capability (role 3) at sea in the *primary casualty receiving facility*.[13,14]

---

[13] Role 1 medical support includes primary health care, specialist first aid, triage resuscitation and stabilisation. Role 2 includes triage, advanced resuscitation and damage control surgery. JDP 4-03 (3rd Edition) *Joint Medical Doctrine*, Table 2B.1.
[14] The *primary casualty receiving facility*, HMS ARGUS, is a scalable hospital facility providing advanced operating theatres and wards with specialist medical teams to provide advanced treatment in a controlled environment.