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Capital Influence

The Capital Ship in U.S. Naval Strategy

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As a naval officer with a profound interest in naval strategy, naval history and international relations I consider myself lucky to have been given the chance to study a combination of topics close to my heart.

My supervisor Dr. Ian Bowers deserves special appreciation for honest and comprehensive feedback and for sharing his deep understanding of the field of naval strategy with me. He showed me, several times, how to stay on track in stead of wandering off in interesting, yet irrelevant directions.

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Abstract

The purpose of this study is to explore the role of capital ships in U.S. naval strategy from the end of the Cold War until this day.

The study analyses the capital ships' role within U.S. naval strategy and how this has developed over time. Furthermore the study discusses the future of the supercarrier as the U.S. capital ship.

An unambiguous definition of what a capital ship actually is does not exist. The study has therefore used a comparative historic approach in order to define the capital ship.

The definition is: *They are the most important ships of their time, they ensure conditions that permit other forces or functions to perform their respective role. In wartime, capital ships secure the use of the sea.*

The study is explorative and answers the research question through a qualitative approach and uses theory of naval strategy and Ken Booth's Naval Trinity as the analytical framework.

The results show, that the supercarrier has been elevated to almost mythological status in the U.S. Navy and institutions, and it will probably take a major war to challenge this status.

The supercarrier has become a symbol of U.S. supremacy, and the pillar on which all U.S. naval strategic thinking is done.

However, with the advent of near peer competition on the world's oceans the Navy is now struggling to define its military role.

Its role as a tool of diplomacy on the other hand is very well defined and value-laden.

It was once stated, "capital ships are built to prevent war", and the U.S. is certainly placing a lot of faith on this approach.

Danish Abstract

Formålet med denne masteropgave er at studere *the capital ships* rolle i amerikansk flådestrategi siden den Kolde Krig.

Opgaven analyserer *the capital ships* rolle i indenfor amerikansk flådestrategi samt, hvordan denne har udviklet sig over tid. Derudover, diskuteres *supercarrier*'ens fremtid som amerikansk *capital ship*.

Der findes ikke en entydig definition på hvad et capital ship egentlig er. Opgaven har derfor gennem en historisk komparativ tilgang udarbejdet en definition.

Definitionen lyder: *De er deres samtids vigtigste skibe, de sikrer tilstande, som tillader andre styrker at gennemføre deres roller. I krigstid, er det capital ships der sikrer evnen til at benytte havet.*

Studien undersøger problemformuleringen gennem en kvalitativ tilgang og benytter maritim teori og Ken Booths maritime treenighed som analytisk rammeværk.

Resultaterne viser, at supercarrier'en er blevet ophøjet til nærmest mytologisk status i den amerikanske flåde og i amerikanske institutioner. Det vil givetvis kræve en større krig hvis dette paradigme skal udfordres for alvor.

Supercarrier'en er blevet symbolet på amerikansk overlegenhed og grundlaget for al amerikansk maritim strategisk tænkning.

Det faktum at andre magter nu er trådt ind på den globale scene har medført, at den amerikanske flåde nu har vanskeligt ved at beskrive dette skibs militære rolle.

Som et diplomatisk redskab er skibets rolle med veldefineret og værdiladet.

Dr. Tim Benbow har en gang udtrykt, at "capital ships bliver bygget med det formål at undgå krig". Denne tilgang tillægger USA utvivlsomt stor betydning.

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Abbreviations

A2/AD	Anti-access, area denial
AAD	Area Air Defence
AAW	Anti Air Warfare
AOR	Area Of Responsibility
ARG	Amphibious Ready Group
ASBM	Anti-Ship Ballistic Missile
ASuW	Anti Surface Warfare
ASW	Anti Submarine Warfare
BMD	Ballistic Missile Defence
CBG	Carrier Battle Group
CNO	Chief of Naval Operations
CSBA	Center for Strategic and Budgetary Analysis
CSG	Carrier Strike Group
CV	Carrier Vehicle (conventionally powered aircraft carrier)
CVN	Carrier Vehicle Nuclear (nuclear powered aircraft carrier)
HA/DR	Humanitarian Assistance, Disaster Relief operations
ESG	Expeditionary Strike Group
GWOT	Global War On Terror
IISS	International Institute for Strategic Studies
ISR	Intelligence Surveillance Reconnaissance
LCS	Littoral Combat Ship
LHD	Landing platform, Helicopter, Dock (amphibious assault ship)
MEU	Marine Expeditionary Unit
NEO	Non-combatant Evacuation Operation
NM	Nautical Mile
ONI	Office of Naval Intelligence
QDR	Quadrennial Defence Report
RMA	Revolution in Military Affairs
SAG	Surface Action Group
SM-2	Standard Missile 2
SLOC	Sea Lines Of Communication
SSBN	Sub Surface Ballistic Nuclear (ballistic missile submarine)
SSN	Sub Surface Nuclear (attack submarine)
UAV	Unmanned Aerial Vehicle

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1 Introduction

“The Master of the sea must inevitably be Master of the empire”

Cicero (Vego, 2016, p. 18)

It has been an existing paradigm for more than 2000 years that he who masters the sea will also master the empire, or even the world. The point being that mastery of the sea enables the master to influence the world.

Navies of course are, the toolbox with which one gains this empowering mastery.

Historically, there has been one tool in this box that mattered more than the others. This was the capital ship. From Nelson’s *HMS Victory* of the wooden world, to *HMS Warrior* and *HMS Dreadnought* of the newly industrialised world, to the aircraft carriers during the Second World War, capital ships have been the one tool in the great navies’ toolbox that gave them the edge in peacetime and in war. Immensely prestigious and powerful they represented the pinnacle of fleet design. Capital ships had significant strategic value as well, they could both deter wars or be the centrepiece in an arms race that could lead to war.

The term *the capital ship* has never been fully defined and different writers and thinkers have used it in different ways. In 1922 the term was formally used in the Washington Naval Treaty, but this was related to size, and it was specifically mentioned that aircraft carriers were not capital ships.

In 2004 the British military historian John Keegan offered his definition, and declared the term obsolete¹ (Keegan, 2004, p. 276). Nevertheless, the term is still frequently used today and usually in connection with the U.S. aircraft carriers, although there are some that argue that it is the submarine or something completely different (Hart & Lind, 1986, p. 90).

Technology has always been an important part of great navies and the capital ships were traditionally the pinnacle of technology. Today other ships, like the U.S. Aegis fitted cruisers

¹ Keegan did not offer any explanation as to why the term in his opinion was obsolete.

and destroyers are the only ships with anti-ballistic missile technology. A characteristic that has led to these ships becoming strategic significant in their own right as well.

Regardless of these discussions, capital ships have historically been an important part the most powerful navies and therefore also an important part of their naval strategies.

As the Cold War ended, the United States was the world's only superpower. The U.S. Navy were now presented with the challenge of formulating naval strategy in a security environment where there were no significant adversaries and consequently no opponents for its capital ships to counter.

In the following decades the U.S. capital ship – the supercarrier – became the symbol of American supremacy as these ships were used around the world to project American Power. September 11th 2001, an adversary appeared and the United States went to war, but the U.S. Navy was still presented with the challenge of formulating strategy without having an enemy at sea.

Then came a time where great power competition returned to world politics and with this followed the prospect of near-peer adversaries at sea.

The decades following the Cold War present significant changes in the security situation and thus very different challenges when formulating naval strategy. The principles behind the nuclear powered aircraft carrier has not changed significantly since the first *Nimitz-class* supercarrier was launched in 1975. The navy around the carrier and the strategic circumstances in which it operates, however, have changed significantly several times.

1.1. Topic and Research Questions

The purpose of this thesis is to investigate the role of capital ships within U.S. naval strategy since the end of the Cold War. The thesis will explore how this role developed over this period and will discuss the future role of the aircraft carrier as the U.S. capital ship.

Most discussions involving capital ships often revolve around the question of what the capital ship is? Is it the ballistic missile submarine or is perhaps some new technological feature that has now made the aircraft carrier's status as capital ship obsolete? These questions will be addressed in the thesis, but it is a general assumption that the aircraft carrier is the capital ship of the U.S. Navy.

The research question is as follows:

- What is the role of the capital ship within U.S. naval strategy?

The secondary research questions are:

- What are the characteristics of the capital ship?
- Has the role of the capital ship in U.S. naval strategy changed over time?
- Is the role of the capital ship in U.S. naval strategy likely to change in the future?

Limitations

The thesis will investigate U.S. naval strategies from 1992 to 2018.

This limitation is partly due to the framework of the thesis, partly because the capital ship pre-1945 is considered uncontroversial and well covered in literature. The Cold War is also well addressed in available literature.

The thesis will furthermore be limited to examining strategies and doctrines from the United States. The United States Navy (USN) is a rank one navy², and is currently the only rank navy in the world.

² Rank 1 – Global reach power projection
Rank 2 – Limited global-reach power projection

For comparison The Royal Navy (RN) second ranked and the Russian Navy (RFN) is a 3rd ranked navy (Till, 2018, p. 148). This is obtained by using the Lindberg-Todd classification system, where navies are divided in bluewater and non-bluewater navies. A navy's size of ships and its power projection capabilities are the decisive factors when determining its rank. This thesis will only focus on the U.S. Navy although there are other relevant navies to discuss as well.

The Royal Navy is of particular relevance because they have accepted a period without carriers.

Strategic or nuclear deterrence and its assigned forces will be considered a part of a nation's grand strategy and not a part of naval strategy as such. The ballistic missile submarine (SSBN) will therefore not be considered as part of the equation when discussing the role of the capital ship in naval strategy.

The empirical data will be limited to official naval strategies and strategic documents from the U.S. Navy or the U.S. Government.

Theories within the research areas of seapower theory and naval strategy will be used to develop a research framework.

1.2. Disposition

The study consists of an introduction, three parts and a conclusion. Part I sets the analytical framework and begins with chapter two, which covers the research methodology. Chapter three describes the theoretical framework used in the study; naval strategy and underlying missions.

Part II sets the context for the study and will include two parts. Part one uses a historical approach to discuss and identify characteristics of the capital ship. Identifying these is one of the secondary research questions and a necessary step toward answering the main research question.

The second part will place these characteristics in relation to the theoretical framework – naval strategy.

Part III is the main part of the study and will analyse the empirical data, U.S. naval strategy, with the purpose of identifying the capital ship's role. This will answer the main research question, and it consists of three chapters. Chapter five discusses the capital ships role within naval strategies in a unipolar world (1992-2001). Chapter six discusses its role in a collaborative world (2002-2014). Chapter seven addresses the capital ship in a competitive world (2014 and beyond). Additionally, chapter seven includes a section that addresses the future of the supercarrier as the capital ship in U.S. naval strategy.

Each chapter includes a summary, which lists the key findings of each chapter.

Chapter eight is the final chapter of part III and is a comparative discussion of the capital ship's role in U.S. naval strategy since 1992. The three periods are compared and contrasted and the chapter serves as a transition to chapter nine, which offers conclusions and suggestions for further research.

Part I – Design and Analytical Framework

2. Research Methodology and Sources

This chapter describes the research methodology and sources used to answer the research questions.

The study's primary focus is identifying the role of the capital ship in U.S. naval strategy since the end of the Cold War through a qualitative approach. Official U.S. documents are the focal point of the study.

The thesis is mainly a case study, where the role of capital ships is analysed in U.S. Naval strategy. Theories of seapower and naval strategy are therefore used as the study's theoretical framework.

Since there exists no definite definition of what a capital ship is, it is necessary to conduct an extensive literature review and explore how the term is used within naval thinking. This is the purpose of the first part of chapter three where the term is discussed and a definition is laid out. The second part of chapter three explains basic naval strategy, which provides the theoretic framework for the analysis in part III.

It is, however, also necessary to analyse the term within naval history and identify capital ship commonalities. This is done using a comparative historic approach, which develops a set of characteristics that characterises the capital ship. Using a historic approach to identify capital ship characteristics may lead to the danger of constructing an analytical framework based on what the capital ships was rather than what it is in modern times. Two steps are taken in order to counter this inadequateness. The first is in the literature review in chapter three where new trends within capital ship thinking are included. The second step is in chapter seven, which includes a section discussing the future of the supercarrier in U.S. naval strategy, the methodology of that section is free from the hallmarks that form the foundation of the preceding chapters.

The study uses naval strategic and seapower theory as a framework. It is however not the purpose to validate theory. There is a lot of academic research available on U.S. naval strategy since the Cold War and correspondingly a significant amount of literature of capital

ships and their use in the past available. Additionally, there are many articles and books available that argue for an alternative to the carrier based fleet structure in the U.S. Navy. This study does not try to argue against this fact, nor is it proposing an alternative. It is explorative in that it analyses the role of capital ships within U.S. naval strategy, and how this has developed over a period of time. There exists no work, which explores the role of the capital ship role in modern naval strategy – this thesis will contribute to filling that gap in the case of the United States.

The structure of the study is visualised in the figure below.

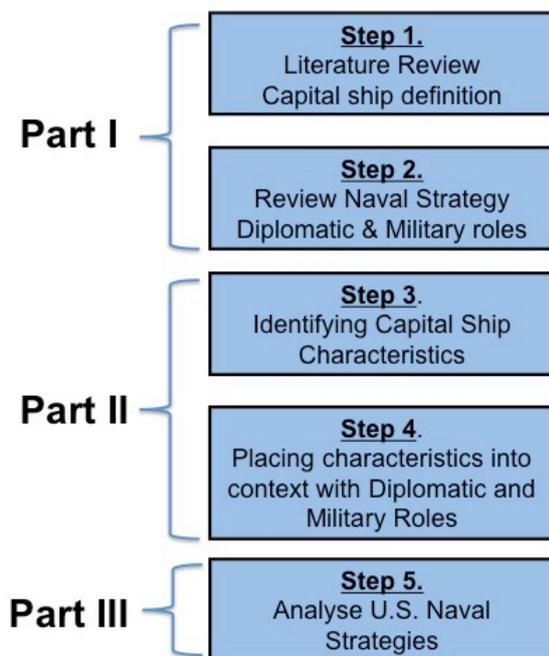


Figure 1 – Structure.

The actual case studies in step five are divided into four chapters. The first three chapters (5-7) analyse the role of the capital ship in U.S. naval strategy. These chapters are divided in time as illustrated below:

- Chapter 5, Capital Influence in a Unipolar World (1992-2001)
- Chapter 6, Capital Influence in a Collaborative World (2002-2014)
- Chapter 7, Capital Influence in a Competitive World (2014-)

The chapters use the same methodology; they all have sections on fleet structure that describes the structural and technologic circumstances of the period in question. The capital ship's place within fleet structure is, also discussed.

Each chapter has a diplomatic and a military section that analyses the capital ship's role within the diplomatic and military roles as described in naval strategy.

Chapter seven also has a section that discusses the future of the supercarrier in U.S. naval strategy. All chapters conclude with a summary that lists the key findings.

Chapter eight compares and contrasts the findings of the analysis, using the same structure and serves as a lead in to the conclusions in chapter nine. In addition to this, chapter nine offers some interesting areas for further research.

Empirical Data

The selection of sources was purposeful, and the study combines primary and secondary sources. The primary sources are official U.S. Government documents and publications by U.S. officials, e.g. the Chief of Naval Operations (CNO). The U.S. do not publish naval strategies at pre-determined intervals, in order to determine what is U.S. naval strategy it has therefore been necessary to include articles or similar publications from government officials³. Secondary sources consist of scholarly articles and books.

The United States has the National Security Strategy and National Strategy for Maritime security published by the President. The National Defence strategy is published by the Secretary of Defence and the National Military Strategy is published by the Chairman of the Joint Chiefs of Staff (USN, 2010, p. 95). These strategies are not used directly since all underlying documents are published according to guidelines of higher strategy.

The U.S. Navy has not published many named strategies, but there are many documents published in the form of articles or concepts that describe how the Navy sees seapower being used in order to achieve the ends set forward by higher authorities.

³ Government officials are individuals from the U.S. military or the executive branch. A white paper published by former senator and chairman of the Senate's armed forces committee, John McCain is therefore not considered U.S. naval strategy, or a primary source as such.

The Quadrennial Defence Review⁴ (QDR) is a document published by the Department of Defence every four years, it describes and assesses the strategic situation and provide guidance to the Armed Forces.

The QDR and data from the International Institute of Strategic Studies (IISS) yearly journal of the World's military balance will be basis for the sections on fleet structure.

The IISS data provide information about how the navies were actually composed in the chosen period. This will provide valuable input to the capital ship's role within fleet structure and it will provide background information for the discussions in the diplomatic and military sections. The strategic guidance and decisions on procurement from the QDR provides valuable information on what direction the Navy was headed at the time.

⁴ The Quadrennial Defence Review (QDR) was a Department of Defence study conducted every four years from 1996-2018. It analysed strategic objectives and military threats. The first QDR was issued in 1996; five have been issued in total. Today the National Defence Strategy has replaced the report (Gould, 2016).

3. Theory

This chapter constitutes the analytical framework for the thesis by first conducting an extensive literature review of where and how the capital ship has been used in historic and contemporary literature on seapower. The different elements will be discussed and a conclusion will offer a definition of what a capital ship is. A section with terms and definitions follows the review. The final part of the chapter is a presentation of naval strategy and missions. This forms the basis for part II where the capital ship is placed within generic naval strategy and part III that analyses its role in U.S. naval strategy.

3.1. Literature Review – What is said about the Capital Ship

As mentioned above, there is no common definition of the capital ship. In the past, however, most agree that it was the ship of the line, the battleship and eventually, during the Second World War the aircraft carrier. In contemporary literature there are some that argue that the SSBN has taken the place or that capital ship thinking is no longer relevant.

Despite the ambiguity over the definition of the term capital ship, a number of commonalities can be found in the literature. The first commonality to be explored is what I call “Big ships and power politics” – it will review some of the thinkers that argue in favour of big ships and their relation to diplomacy. The next is simply called “submarines” and will address some of the arguments in favour of the SSBN as the capital ship. The last commonality to be explored is “The case for reform” – this section will cover some alternative, and contemporary, views of the capital ship. The so-called commonalities are not formally recognized but simply a loose thematic classification of the different approaches to capital ship thinking.

Definitions of the Capital Ship

Before I address the three commonalities, I will provide a historic overview of how the term has developed throughout history, and when it first appeared.

In his book *Battle at Sea*, the renowned British military historian John Keegan offers the following definition on the capital ship: “term first coined in 1909 denoting the largest fighting ships in the fleet -battleships and battlecruisers; now obsolete” (Keegan, 2004, p. 276).

Keegan does not suggest what this definition is based on, who actually coined the term in 1909 nor why the term is now obsolete. But his definition does betray the difficulty in explicitly defining the term.

In the Washington Naval Treaty of 1922, the term was formally used in an international and legally binding context. It defined a capital ship as a ship of war, not an aircraft carrier, whose displacement exceeds 10,160 tons or which carries a gun exceeding 8 inches. The treaty furthermore placed restrictions on the participating nations, that a capital ship was not allowed to exceed a displacement 35,560 tons or carry guns with calibre exceeding 16 inches. Both definitions focus on size and firepower to characterize the capital ship, attributes that may not be valid today.

According to Dr. Tim Benbow, the role of the capital ships in naval strategy before the 20th century was relatively simple. They were the fighting heart of the navy with the mission of countering the enemy's big ships, through engagement or blockade.

This was necessary in order to secure the ability to use the sea for one's use and prevent the enemy from using it (Benbow, 2016a, pp. 169-171).

Capital ships are thus a means to a broader objective, which is to use the sea for whatever national strategy might require.

Benbow offers a summarized description of the capital ships:

“However, their key purpose is much the same today as it was in Nelson's time and in the two world wars: they ensure conditions that permit other naval (and, indeed, land and air) forces to perform their respective roles. Capital ships secure the use of the sea, other forces exploit it”

(Benbow, 2016b, p. 4).

This definition suggests that capital ships were, and are, the great enabler for all forces in operations where the sea is a factor.

Benbow does not explicitly mention size and firepower as a prerequisite for capital ships. It can be argued however, that these are results of certain technological developments and the fact that he *does not* mention these characteristics makes his description durable and able to comprehend alternative views such the network as the capital ship of the future.

The Falklands War, however, can be used to challenge Benbow's description, which contains two different missions, one is to secure the sea, and the second is to shape the operational theatre.

Actively securing the use of the sea has not been required on a large scale since World War 2. In the case of the Falklands War, it can be argued, that it was the submarine *HMS Conqueror* through sinking the Argentine cruiser, the *ARA Belgrano* that secured the use of the sea. This fact should, however, be seen as the result of tactical dispositions during that particular time of the war. The British carriers were actively engaged in countering the Argentine carrier, the latter was however not able to launch its aircraft due to lack of wind. The British submarine shadowed the Argentine cruiser, and it was eventually considered a threat to the British Task Force. The *Belgrano* was a former American World War 2 cruiser, it was heavily armoured and the British assessed that it could only be neutralized by torpedoes or the 1000-pound bombs, carried by the Sea Harriers. Admiral Woodward decided to use the former, since the submarine was already within engagement range (Brown, 1989, pp. 133-134).

The carriers, furthermore, with their airpower ensured conditions, in this case a favourable air situation, that allowed the amphibious landing to take place and the subsequent war on land to succeed. The Falkland example illustrates, that with modern naval combat technology, tactical considerations can lead to tasks being solved differently.

Another scholar, Geoffrey Till describes capital ships as "the most important ships of their time. They are expensive, individually powerful and immensely prestigious" (Till, 2018, p. 154). This description does not say anything about their role, although prestige may be seen in relation to their role in naval diplomacy.

In an article Steve Wills suggests that changes to capital ship concepts stems from a combination of new technology, changes in the strategic situation and changes in the financial resources available for warship construction. Wills uses several examples from history to support his case. In his conclusion, he argues that any future capital ship that succeeds the current, must at least deliver a heavier sustained combat punch and greater ordnance over time (Wills, 2017, pp. 1-11).

Big ships and power politics

This section will deal with “Big ship and power politics” within capital ship thinking. The prevailing idea is that size and firepower are key features of capital ships and this can be used politically. Additionally the big ships were needed to secure sea control in times of hostilities. Sea control was the great enabler within naval strategy, it was what nations needed to secure in order to do other things. A method of obtaining it was by engaging the enemy’s fleet. This required big ships and massive firepower. There is therefore a distinct connection between the big ship, sea control and the capital ship designation.

The American naval officer Alfred Thayer Mahan (1840-1914) is mostly known for his thoughts on seapower, a term he coined, although he never actually defined it.

In Mahan’s view, the primary mission for a navy was to win the struggle for sea control. Although he does not use the term itself, the literature suggests that Mahan sees the battleship as the capital ship (Till, 2018, pp. 73-74).

Mahan published a lot during his lifetime and although he never used the term capital ship some of his work dealt with fleet structure and how he saw the employment of ships and fleets. In 1899, Mahan published an article called *Distinguishing qualities of ships of war*. In this article, Mahan argues in favour of the battleship, or the armoured fleet. He writes that the armoured fleet is the most interesting part of the fleet, and the part that should receive most attention (Mahan, 1899, p. 273). He distinguishes between the armoured ships like the battleship and the ships without armour like the cruiser.

He refers to the armoured cruiser as a 2nd class battleship (Mahan, 1899, p. 271). In his view, the term, armoured cruiser is a contradiction in terms because a cruiser needs to be fast and perform various supporting functions, which becomes a challenge if it is armoured and thus very heavy. His main argument is that if a navy wants to have decisive effect on the maritime war it must be composed of heavy ships possessing the fullest extent of fighting power (Mahan, 1899, p. 265).

A Mahanian capital ship was thus a ship that, as part of a larger fleet of capital ships, would win the battle for sea control. With sea control secured, one’s own commerce can move freely and the fleet can begin destroying the enemy’s commerce.

The objective of naval strategy is thus sea control initially and ultimately secure sea lines of communication (SLOCs). Therefore, for Mahan, the capital ship served as a means to securing sea control (or command of the sea as he called it) through the destruction of the enemy's fleet⁵.

Another of the classic naval strategists, the Briton Sir Julian Stafford Corbett (1854-1922) too offered some views of fleet structure and ship employment. In Corbett's view: "The object of naval warfare must always be directly or indirectly either to secure the command of the sea or to prevent the enemy from securing it" (Corbett, 1911, p. 54). According to Corbett securing that control was a task for the battle fleet (a fleet composed of battleships), and the primary mean to secure this control would be to defeat the enemy's battle fleet. Exercising this control was also important to Corbett, this was a job for the cruiser which led him to argue, that the true function of the battle fleet was the protection of the cruisers and flotillas – preferably through destroying the enemy's power of interference (Corbett, 1911, pp. 72-74).

Corbett, like Mahan, was a proponent of the biggest and most powerful ship, the battleship, as the capital ship. It was this type of ship, which was able to secure the ultimate object of naval warfare – sea control.

Joseph Moretz offers a very comprehensive overview of the British discussions on fleet structure in the interwar period. The British considered their battleships and battlecruisers as their capital ships and this was used to measure relative strength to other navies (Moretz, 2014, pp. 32-65). The British used capital ships specifically as a mean of diplomacy, both as a deterrence and assurance measure.

As a preface to Moretz' book, the series editor, Geoffrey Till, writes:

"The point is that the battleship needs to be put into context, to be seen more as the most important part of a balanced battlefleet, and less as a weapon system in its own right, than has often been the case in previous analyses" (Moretz, 2014, p. vii).

Till's point supports the views of Mahan and Corbett. Both are proponents of the battleship, and Mahan has in particular been lamented with a one sided focus on the big ships. Both of

⁵ Mahan did not spend much effort on discussing how a relatively weaker navy should operate (Cable, 1998, p. 44).

them, however, argued in favour of a balanced fleet. Moretz demonstrates how capital ships had a place as an instrument of diplomacy as well. In his book *Seapower*, Till refers to the Lindberg-Todd classification system of navies. According to this system, the highest ranked navies are those with the greatest reach within power projection (Till, 2018, p. 148). This suggests, that it is the size of a navy's ships and the ability to support them far from home that determines how high it is ranked.

In essence this trend can be summed up with "size matters", capital ships are inherently connected with relative size, firepower and being a visible tool for diplomacy. Ships of the line, battleships and aircraft carriers all fit into this line of thinking.

Submarines

Another side to the "capital ship argument" is the case of the submarine as the capital ship. Today it is often discussed whether the capital ship is the aircraft carrier or the submarine. This segment will present some of the views in favour of the submarine. This thesis does not take a side in this debate, although a remark from Benbow is worth mentioning; "that in order to secure control of the sea a navy needs surface warships" (Benbow, 2008, pp. 222-223). It can be argued that submarines can not exploit sea control, but they should be able to create it.

In 1986, Gary Hart and William S. Lind argue that the submarine is today's capital ship. They define the capital ship in the following manner: "if the capital ships are beaten, the rest of the navy is beaten. But if the rest of the navy is beaten, the capital ships can still operate". They continue and argue that another characteristic that defines the capital ships is that their main opponent is each other, which appears to be true of submarines of today. They recognize that this position is not tested in actual combat since wartime engagements between submarines are somewhat limited. But, the U.S. submarine fleet (except for the SSBNs) is built on this notion (Hart & Lind, 1986, p. 90).

The book's main author, Gary Hart, was a U.S. senator and co-founder of the Military Reform Caucus at the time of its publication in 1986. Hart wanted to reform the US military and the book should be seen in this light.

A Soviet approach to the subject comes from the former commander of the Soviet Navy, Admiral Gorshkov (1910-1988). In 1979, he published *The Seapower of the State*; in this he

discusses the purpose of fleet vs. fleet and fleet vs. shore engagements. In his opinion, the advent of missiles and nuclear weapons have led to the fact that naval forces are now capable of strategic strikes – in the past, battleships only engaged at the tactical level of war (Gorshkov, 1979, p. 224). The outcome of these engagements could of course have strategic consequences. Gorshkov further states that the struggle for dominance at sea has become even tougher in the nuclear and missile age, and the timeframe in which one can expect to have control has become equally shorter. He consequently concludes: “that submarines has become the main branch of the forces of modern fleets” (Gorshkov, 1979, p. 233). However, when addressing local wars of imperialism, he concludes that the aircraft carriers ability to strike at targets at great distances have led these ships to be the most important forces in a local war (Gorshkov, 1979, p. 236).

In the 1974 Naval War College review, Vice Admiral Stansfield Turner (1923-2018) presents a detailed view of missions of the U.S. Navy. Turner refers to four mission areas established by the CNO; strategic deterrence, sea control, naval presence and projection of power ashore (Turner, 1974, p. 2). According to Turner there is very little overlap between strategic deterrence and the other (traditional) naval missions. The strategic deterrence missions are carried out by the SSBN, which operate independently from the rest of the navy. Furthermore, the SSBNs are almost exclusively operating within this mission area (Turner, 1974, p. 5). Turner clearly distinguishes between strategic deterrence forces and general purpose forces (Turner, 1974, p. 15). This supports the decision of not considering the SSBN as a capital ship and therefore its place within naval strategy will not be discussed.

The case for an alternative approach

In the preceding sections, two different views on capital ships have been presented. This paragraph will present three additional. Some of these views go further than suggesting a specific hull or type of ship as the capital ship. These views are relevant because they contribute to the discussion of the role of capital ships and indeed navies.

In an article, Professor Robert Rubel describes the capital ship as the ship capable of defeating all others. In agreement with some of the other authors mentioned above, he argues that the capital ship historically was the biggest and most expensive ship in the fleet. The ship that held the biggest guns or carried the most aircrafts. It was the least numerous type of ship in a

navy and a measurement of relative strength between navies. With this ship, a nation could contend for command of the sea, globally or regionally. If a nation's maritime commerce were at risk, the capital ship would be deployed (Rubel, 2017, pp. 1-2).

Rubel states, that the limited number of capital ships in a navy would often mean, that leaders would be wary about risking them in combat, since losses could mean shifts in the relative balance of power. Rubel declares that in the contemporary age, the missile is the most dominant and decisive weapon at sea, and that many nations now have advanced surface to air missile systems. These facts are challenging the aircraft carriers status as capital ship. Furthermore, he suggests, that if the missile are now the key weapon, carriers of missiles could therefore be considered capital ships (Rubel, 2017, pp. 4-5).

Ultimately, Rubel argues that one should look beyond the hull and start considering the network as the future equivalent to the capital ship. Rubel imagines a large network of sensors, processing decision-making being the pivot of fleet design (Rubel, 2017, pp. 6-7).

In another article, Harry Bennett argues in a somewhat similar fashion. He proposes the Mission Command Vessel (MCV) as the capital ship of 2035. According to Bennett, the MCV would be the centrepiece in a larger network, the gathering point of all information from various unmanned vehicles and other sensors. (Bennett, 2017, pp. 1-5).

One can suggest that the MCV might be the physical materialisation of Rubel's network suggestion.

Retired Navy captain Pete Pagano takes an entirely different standpoint. In his opinion, a 21st century capital ship must still be a hull in the water able to conduct combat operations. He refers to U.S. Navy doctrine that highlights the importance of sea control as a prerequisite for all other naval operations. Sea control operations are, but not limited to, destroying the enemy's naval forces, suppress his sea commerce, protect vital SLOCs and establish local military superiority. Pagano suggests a revival of the sea control ship, a concept contemplated in the seventies by then CNO Admiral Zumwalt. The concept featured smaller aircraft carriers to supplement the large carrier strike groups.

Pagano suggests using the *Wasp* or *America* class to test the concept today⁶. He argues, that in a high intensity conflict, a supercarrier will be preoccupied with strike oriented power projection or seeing to its own defence. A smaller carrier, the sea control ship, could therefore fulfil the supporting mission of establishing and maintaining sea control around the supercarrier (Pagano, 2017, pp. 1-10).

Summary

This literature review has offered an overview on how some scholars, practitioners and even one politician view the capital ship and its role. As mentioned, there exists no conclusive definition on the subject. However, the two descriptions from Till and Benbow describes the ship and the function well. They are both born from the original capital ship thinking, which was relatively uncontroversial up until the advent of airpower. The role of navies and capital ships was at least not questioned in the same way that it was after airpower entered the scene.

Different strategic circumstances, context, strategy and more may all lead to differences in opinion about what constitutes the capital ship. In a search for a definition, I will however look to Benbow and Till.

The capital ship definition used in this thesis will be; *They are the most important ships of their time, they ensure conditions that permit other forces or functions to perform their respective role. In wartime, capital ships secure the use of the sea.*

This definition is derived from the descriptions offered by Till and Benbow. It includes the importance of their time factor from Till which can be interpreted in different ways in different navies and in different strategic circumstances. The segment from Benbow's description is used to include capital ships in a joint context, in peace through crisis and war. The part about securing the sea, is the classic capital ship function.

⁶ According to Pagano, this smaller carrier should not be fitted with catapults and arresting gear. The air wing should therefor consist of F-35B, MV-22 Osprey and Seahawk helicopters – all capable of vertical take-off and landing (VTOL). In the seventies the concept was tested and abandoned because the Harrier aircraft at the time did not have the required capabilities.

3.2. Terms and definitions

Capital ship: They are the most important ships of their time, they ensure conditions that permit other forces or functions to perform their respective role. In wartime, capital ships secure the use of the sea.

Gunboat diplomacy: “the use or threat of limited naval force, otherwise than as an act of war, in order to secure advantage or to avert loss, either in the furtherance of an international dispute or else against foreign nationals within the territory or the jurisdiction of their own state” (Cable, 1994, p. 14).

Maritime strategy: Maritime strategy is the plan for how a nation exercises its non-military power at sea in order to meet the ends of a larger strategy.

Naval diplomacy: The use of naval forces in support of diplomacy to support, persuade or coerce (Till, 2018, p. 48)

Naval strategy: Naval strategy is the plan for how a nation exercises its military power at sea in order to meet the ends of a larger strategy.

Power projection: A nation’s capability to exert influence in peacetime and to secure and exercise sea control in a time of hostilities (Vego, 2016, pp. 24-25).

Sea control: An offensive objective, which refers to the ability to use a given part of a body of water and its associated air space for military and non-military purposes in a time of open hostilities. In a war at sea between two strong opponents, it is not possible, except in the most limited sense, to completely control the seas for one’s use or to completely deny an opponent’s use. (Vego, 2013, pp. 1-2).

Sea denial: A defensive objective at the strategic level and is the principal objective of the weaker side. It aims to deny in part or full an adversary’s use of the sea for military and commercial purposes. The weaker side, however, may transition to the offensive at the operational and tactical levels (Vego, 2013, p. 2).

Seapower: is comprised of maritime capabilities both military and civilian, naval operations and commercial operations (Till, 2018, pp. 24-25)

Strategy: The link between military means and political ends. (Bekkevold, Bowers, & Raska, 2015, p. 7).

Supercarrier: U.S. nuclear powered aircraft carrier. (Today the *Nimitz-* and *Ford-class* aircraft carriers)

Surface combatants: are major surface warships that are not capital ships. In the U.S. Navy these are mainly the cruisers and destroyers.

3.3. Naval Strategy

This chapter serves as the thesis' theoretical framework on naval strategy. It consists of two main sections. The first section explains naval strategy, what missions navies have. When placed in context with the literature review and capital ship definition above it will set the scene for analysing and identifying capital ship characteristics in the next part as well placing these within the context of naval strategy.

This section will explain the theoretic side of naval strategy in detail. However, one must first be able to place naval strategy among the other strategies a nation will have.

Defining strategy however, is like defining the capital ship, not a simple task. There are no exact definitions of strategy nor is there one literary work that covers all approaches to the subject.

Beatrice Heuser sees strategy as the link between political aims and the use of force or its threats. This broad definition is typical in the field of security studies (Heuser, 2010, p. 3).

Bekkevold, Bowers and Raska describe grand strategy as “the highest level of direction in which military power and strategy is linked with political, economic, demographic and other national resources to form a coherent direction for the employment of state power”. Strategy is simply defined as “the link between military means and political ends” (Bekkevold et al., 2015, p. 7).

The overall concept can thus be expressed very simple through the definition offered by Bekkevold, Bowers and Raska, and grand strategy is the overarching strategy to which all other strategies are subjected.

Maritime strategy is “the science and art of using both naval and non-naval sources of power at sea” whereas naval strategy is “the science and art of using all naval sources of power in support of the national military strategy” (Vego, 2016, p. 3).

Naval strategy is therefore the military part of the maritime strategy, which in turn is a part of a nation's grand strategy. Naval strategy is however also a part of the nation's military strategy, which of course also is subject to the grand strategy.

Seapower⁷ is a very wide term for the capabilities that can be fed into a naval or maritime strategy.

It is worth noting, that there are some nuances to this break down into different strategies. Not all researchers and commentators make the same distinction between naval and maritime strategy and the terms are used rather inconsistently.

Naval strategy is about *how* a country applies its navy to meet its ends or how the country chooses to exercise its power at sea. The definition used in this thesis will be: Naval strategy is the plan for how a nation exercises its military power at sea in order to meet the ends of a larger strategy⁸. In other words, naval strategy is about how a nation uses the military part of its seapower.

Different Naval Strategies

The Danish naval historian, H.C. Bjerg distinguishes between three different schools within seapower⁹. The offensive (global), the defensive (continental) and the negative schools. According to Bjerg, all thoughts and theories on seapower falls within one of these schools (Bjerg, 2016, p. 167).

The negative school believes that seapower does not have any significant influence on world affairs. Notable proponents of this line of thinking were Mackinder with his theory of Euraisa as the “world island” or the Italian officer Douhet, who was a strong proponent of airpower (Bjerg, 2016, p. 167).

The offensive school argues the opposite, that seapower has indeed influenced history and world affairs. Two known thinkers within this line of thinking are Mahan and the Corbett. The defensive school was in many ways born out of necessity. France had long tried to match

⁷ Seapower is a commonly used term. It is an instrument of state policy containing activities, expertise and weapons (Gray, 1992, p. 3). More specifically it can be expressed as a state’s maritime capabilities both military and civilian (Till, 2018, pp. 24-25). Seapower is therefore not limited to military capabilities, but it also includes a nation’s merchant fleet and its expertise within this area.

⁸ Maritime strategy is thus defined as the plan for how a nation uses its non-military power at sea in order to meet the ends of a larger strategy.

⁹ Bjerg’s understanding of seapower is in conjunction with the one offered in this study. The three schools have different views on how to use seapower. The primary focus of this thesis is the military part of seapower in the offensive school.

the Royal Navy's big ships on the world's oceans but after her catastrophic defeat to Prussia in 1871, France turned much of her resources to land warfare instead. This led to a new line of thinking, at first made to fit French circumstances at the time but later adopted outside of France. The defensive school argued, that a nation should not try to secure sea control (as opposed to the offensive school), instead one should take advantage of the new self-propelled torpedo and fit it to smaller, and faster warships, which should then serve as a sort of anti-invasion force. This focus on smaller ships rather than the expensive big ships is also referred to as *la jeune école*. Furthermore, one should have fast cruisers operating on the open seas attacking the enemy's commerce – this was also known as the *guerre de course* (Bjerg, 2016, pp. 164-165).

Mahan's most famous work, *The Influence of Seapower upon History 1660-1783* does not engage with the concept of *la jeune école*. His work was an advocacy for the operation of big ships and the necessity of sea control. It was studied all over the world and it was hugely influential in countries like Germany, Japan and the United States in the early 20th century. His work was a study of the history of the British Empire, from which he drew his conclusions. His thoughts do not constitute actual theory but were, as mentioned, influential in their own right. Another thinker of the offensive school, Corbett, did put an effort into connecting naval strategy into a larger framework.

According to Corbett the object of naval war is to directly or indirectly secure control of the sea, or prevent the enemy from securing it. Control of the sea is important because it gives a nation the ability to use the sea for whatever purpose it might have, transport an invading army or simply the transportation of goods (Corbett, 1911, pp. 54-56). In order to do this you must have the appropriate degree of sea control, and thus make sure that the enemy is not able to interfere.

Corbett sees the destruction of the enemy's fleet as sensible; however, if opportunities to attack his commerce arises they should have priority as well (Corbett, 1911, p. 63).

According to Corbett, control of the sea is not absolute; it should be regarded in relative terms e.g. time and space (Corbett, 1911, pp. 54-68).

The battleships are able to defeat the enemy in an actual fleet vs. fleet action. However, this is not always possible since the enemy's fleet might be trying to avoid direct confrontation. The

real object, Corbett argues, is to be able to use the sea according to national strategies, and not necessarily the destruction of the enemy's battle fleet, (Corbett, 1911, pp. 72-77).

3.3.1. Missions

This section will explore what navies actually do at sea or in other words – their missions. There are many ways to describe and classify the various missions a navy can have. The basis will be Ken Booth's triangle (The Naval Trinity) that presents the three main roles and the subsequent missions that navies will undertake. The views of Professor Geoffrey Till, U.S. Vice admiral Stansfield Turner and Soviet admiral Sergei Gorshkov are also included to illustrate how the trinity is an entirely applicable model and a valid framework for this thesis.

Booth argued that nations would use the sea for three different reasons. The first is for the passage of goods and people. The second is for the passage of military force for diplomatic purposes or for use against targets at sea or ashore and third for the exploitation of resources (Booth, 1977, p. 15).

Booth, like Corbett, sees naval warfare as part of a larger picture. If you are capable of doing what you want at sea, transporting commerce, troops or something different, it allows you to something else ashore – and that is what is decisive.

In order to achieve a state's objectives, Booth argues, navies must be able to operate within three different roles, diplomatic, military and policing. All naval functions and missions will be subordinate to any of these roles (Booth, 1977, pp. 15-16). The three roles are illustrated in the form of a trinity. The trinity has been interpreted over time by other thinkers (e.g. Eric Grove), some subordinate roles and missions have been discussed. In 2014 Ian Speller's book, *Understanding Naval Warfare*, investigated whether this trinity based approach to naval roles were still valid. Speller concludes that these roles still apply today. The missions may have changed, but the roles and the trinity can still be used to illustrate the functions of today's navies (Speller, 2014, pp. 194-195). The Australian maritime doctrine uses a Booth inspired trinity, it is currently the most publically advanced version of this framework and I will therefore be using it here.



Figure 2 (RAN, 2010, p. 100)

The sides illustrate the three roles of navies, diplomatic, constabulary and military. Each role has a list of subordinate functions or missions. The top of the triangle represents the most benign missions the degree of force used increases towards the bottom that represents the exclusive military role. Some of the missions will later be discussed and connected to capital ship characteristics.

In the following the thoughts of three alternative thinkers will be presented, the purpose is to demonstrate the applicability of Booth's trinity as a framework for analysis.

Turner mentions the three traditional missions of the U.S. Navy as sea control, naval presence and projection of power ashore. Each mission has its subordinate "tactics". According to Turner, some of the possible tactics of sea control could be sortie control (barrier operations) or chokepoint control (Turner, 1974, pp. 2-3). The three traditional missions put forward by Turner, are all encompassed in Booth's trinity. The mission of sea control and its subordinate tactics can be placed under combat operations at sea. Preventive and reactive deployments are mentioned as the two tactics of the naval presence mission (Turner, 1974, p. 14). The

diplomatic side of the trinity covers this mission and its tactics. Finally, Turner speaks of projection of power ashore, this contains amphibious assault, naval bombardment and the use of tactical air operations (Turner, 1974, p. 13). These capabilities are mostly covered by the combat operations from the sea.

In his book, Gorshkov also offers some views on which missions a navy can undertake. He distinguishes between nuclear war and non-nuclear war (which he calls local wars of imperialism). Some of Gorshkov's most distinctive views on how to use a state's seapower is covered by the trinity.

He is very focused on a navy's ability to perform strike operations ashore. He remarks, that this capability has given a navy the possibility to directly influence or even decide a war (Gorshkov, 1979, p. 221). This view is of course covered by combat operations from the sea. Gorshkov also mentions that it is "a favourite technique of the imperialists is to apply military-political pressure through show of strength by the fleet on democratic governments not to their liking" (Gorshkov, 1979, p. 237). The use of fleets as an instrument of diplomacy is constantly expanding in peacetime (Gorshkov, 1979, p. 247). These missions fit within the diplomatic role.

Neither Turner nor Gorshkov consider navies in a constabulary role. Both men published their work at the height of the Cold War, where the diplomatic and military side of the triangle were most relevant. Although Booth's original publication of the trinity was from the Cold War as well. In Booth's version, that side is not named constabulary but policing and the subordinate missions are coastguard responsibilities and nation building (Booth, 1977, p. 9). For both men, coastguard missions were not relevant to discuss since both the United States and the Soviet Union had separate coastguards and nation building was perhaps not that interesting to discuss in relation to naval strategy at the time.

Following the Cold War, Till distinguished between a modern and a post-modern navy¹⁰. Some of the modern navy's missions are sea control, nuclear deterrence, maritime power

¹⁰ According to Till globalisation has created a new paradigm in the international system. A paradigm in which nations and their navies should be focused on collaborative rather than competitive action (Till, 2018, pp. 36-37). Consequently, he distinguishes between a modern and a post-modern navy. These are navies from nations with a realistic and liberal view on the international system respectively. Till acknowledges that a navy is not entirely modern or post-modern, but there will probably be elements of both within a navy. In

projection and gunboat diplomacy. Whereas some of the post-modern missions are sea control, expeditionary, stability and humanitarian operations, ensuring good order at sea and finally collaborative diplomacy. (Till, 2018, pp. 46-49).

Collaborative as well as competitive naval diplomacy can be covered through the diplomatic role and through missions such as assistance to allied and friendly nations, presence and preventive diplomacy and coercion. Till's approach also demonstrates how missions can change over time, in this case depending on the global strategic context. As mentioned, naval strategy and thus naval missions are subordinate to other strategies, which *are* affected by this development. One must therefore consider world events when discussing changes in strategies, missions and fleet structure.

As demonstrated, the Australian trinity is capable of encompassing a wide variety of views toward the roles and missions that navies can undertake. The model will therefore form the basis for further discussion in part II where the capital ships' place within a navy's roles and missions will be discussed further.

the current world of great power competition this distinction is probably not that fitting, but they are included here to demonstrate a variety in naval missions.

Part II – The Capital Ship in Naval Strategy

4. Characteristics of the Capital Ship

This section will define some of the characteristics of a capital ship. It will use a comparative historical approach, starting with the ship of the line in the age of sail and ending with the modern-day supercarrier.

In the contemporary world the aircraft carrier is considered as today's capital ship in western navies.

These characteristics are first defined then they will be put into context within the diplomatic and military role. This establishes the analytical framework that will be used during the work with the actual case study.

This paragraph will show that some characteristics are timeless; they can be applied to the ship of the line as well as the aircraft carrier.

Table 1 presents capital ships throughout history beginning with the ship of the line. It lists features, vulnerabilities and the certain roles and missions that the respective capital ship undertook.

The different ships and their characteristics are discussed below the figure.

Time	Capital Ship	Features	Vulnerabilities	Roles Diplomatic – D Military - M
1600-1850	Ship of the line	size, firepower (broadside),	Other ships of the line No armour, explosive shells	Power projection (D), engaging the enemy fleet in line of battle, Blockading enemy ports (M)
1850-1880	Ironclads/ships of steel	Armour, steam powered, screw driven	Mines, quickly obsolete	Relative balance of power (UK-FR) (D)
1880-1906	Pre-dreadnoughts (battleships)	Armour, steam powered, screw driven	Mines, submarines, required screen of escorts,	Power projection, status symbol, relative balance of power (D)(more global), ship to ship combat (M)

1906-1922	Post-dreadnoughts (WW1 era battleships)	Speed, size, armour, firepower, survivability, navies vary of risking them in battle	Mines, submarines, required screen of escorts,	Power projection, status symbol (D), countering the enemy's battle fleet (M)
1922-1941	WW2 era Battleships	Speed, size, armour, firepower, survivability,	Airpower, mines, submarines, required screen of escorts, Risk of loosing them is great - tied to national prestige.	Power projection (D), countering the enemy's battle fleet (M), could be used for strikes ashore (M)
1941-1961	Aircraft carriers	Firepower over long distances through airpower	Airpower, missiles, submarines requires some escorts	Some degree of power projection (D), delivering airpower (M), strikes ashore (M)
1961-	Nuclear powered super carriers (Carrier Battle Group/Carrier Strike Group)	Size, strike, airpower, navies wary of risking them, unlimited range	Missiles, littorals, submarines, requires screen of escorts, cyber warfare	Power projection (D), extremely flexible, symbolic value (D), Strike (M)
1992-	Amphibious assault ship (Amphibious Ready Group)	Symbol of increased jointness	Missiles, littorals, submarines, requires a screen of escorts	Power projection (D), amphibious operations (M)

Table 1. Characteristics of the Capital Ship over time.

Table Analysis

The table demonstrates that some characteristics have remained largely unchanged throughout time and others have changed.

The diplomatic role is relatively unchanged. HMS *Victory* was a ship of war and a very visible tool for diplomacy in much the same way that the U.S. Navy's newest supercarrier the *USS Gerald R. Ford* is today. Both the *Victory* and the *Gerald R. Ford* are ships that were and are in relative terms immensely powerful. Capital ships' diplomatic role, it can be argued, comes from their latent military power. Capital ships are not just for warfighting, they can be used to deter war as well, which is a key reason to why states invest in them in the first place (Sondhaus, 2001, pp. 225-228). As Benbow points out "The role of capital ships is often to

prevent something unfavourable happening, which makes it easy to overlook their importance” (Benbow, 2016b, p. 4).

In the case of the military role, a continuous task throughout is securing sea control.

An important feature of capital ships of the past was the fact that their main opponents were each other, and their primary mission was to secure the sea either by battle or blockade (Benbow, 2016b, pp. 1-2).

The task of securing sea control in the contemporary world has perhaps not been perceived as important as in the past as there have been a lack of peer conflict.

In the age of globalisation, everyone benefits from open SLOCS so who is going to attack it and with what purpose? (Till, 2018, pp. 36-37). Nevertheless actively securing sea control remains a key naval task in wartime, as it is still a prerequisite for all other operations at sea.

Also within the military role, it seems clear that combat operations from the sea have grown increasingly important. If we return to the thoughts of Corbett, influencing events ashore is important, naval warfare can influence what happens on land. The *Gerald R. Ford* can certainly influence events ashore far more directly than *Victory* ever could. This has happened simultaneously with the technological development. bigger guns, fire control that is more precise, airpower and missiles have made it possible to exert this influence. A ship of the line’s maximum weapon range was 8-900 yards (Hughes Jr. & Girrier, 2018, p. 36) compared to the 2000 kilometres of a F-18 (Freidman, 2006, p. 565).

Another feature that seems to be more contemporary is the ability to fulfil more missions. As mentioned the *Victory*’s primary task was to counter the enemy’s capital ship and ensure sea control.

During the Second World War, battleships provided fire support to troops on land and an aircraft carrier’s air wing can contribute to military operations in various ways. Ensuring a favourable air situation over fighting armies ashore is just one example. This was the case in the Korean War, the Vietnam War and the Falklands War.

The historical trend is therefore increasing multi-functionality and this is reflected in the multiple number of missions a modern supercarrier can undertake.

Technological developments have also led to capital ships becoming increasingly vulnerable. Today a carrier can be neutralised in various ways, and some nations work actively on missiles or systems designed specifically to target carriers.

China has apparently practiced counter-intervention operations or what the Americans call Anti-Access/Area-Denial (A2/AD). This is countering an adversary's capabilities to enter and operate in a specific area. One of the weapons is the so called "carrier killer" the DF-21D, a land based anti-ship ballistic missile (ASBM) (Till, 2012, pp. 68-69).

These threats, however have also led to the development of defensive measures in the form of escorts and/or systems.

It seems to be certain, that while the diplomatic role in the trinity has remained largely unchanged the military missions have changed as technology allowed engineers to build bigger and increasingly more powerful ships capable of delivering bigger punches and further inland than *Victory* ever could. Technology also led to new threats in the form of torpedoes and missiles, which in turn led to counter actions.

4.1. The Aircraft Carrier as the Capital Ship in the U.S. Navy

This section will provide a short overview of how the U.S. Navy was organised and operated throughout the period investigated in this study. The supercarrier is considered the U.S. capital ship. As will be demonstrated the amphibious assault ship is considered a capital ship also, especially during the unipolar period. As great power competition returned there is a tendency toward the aircraft carrier occupying the throne alone.

The U.S. Navy surface fleet is designed around their capital ships. The deployed fleet was and is composed of a number of groups with a capital ship (an aircraft carrier or an amphibious assault ship) in the middle.

These groups are normally known as Carrier Strike Groups (CSG) or Amphibious Ready Groups (ARG). In addition to the capital ship in the centre, each group is augmented by surface combatants for air defence and ballistic missile defence (BMD) and submarines for intelligence, surveillance and reconnaissance (ISR) (Clark et al., 2017, p. 3).

These groups are then assigned to regional commanders, and operate in their respective area of responsibility (AOR). Here they will demonstrate naval presence and other operations. The U.S. Navy's role is therefore as force provider to the various regional commanders and its force structure is therefore designed around projected demands for naval presence by the regional commanders (Clark et al., 2017, p. 43).

4.2. The Capital Ship in Naval Strategy

In this section capital ship characteristics are placed into context with the diplomatic and military role of the naval trinity outlined in part I of this chapter. The result will be the methodological framework that will be used to conduct the case study.

The section will show what part capital ships play, or can play, within the different roles and missions a Navy is likely to undertake.

The characteristics need to be seen in close conjunction with the definition of the capital ship provided in chapter one. It should be noted that some characteristics are not necessarily unique to the capital ship, other ships can be used in diplomatic roles as well but their impact is not as overwhelming. An American destroyer moored in a Norwegian city is of course a form of presence, it can reassure an ally and it can send a signal to Russia. After all, a U.S. destroyer is usually armed with long-range Tomahawk missiles. But its visit is dwarfed by the presence of an American aircraft carrier in a Norwegian fjord¹¹.

The capital ship therefore fulfils the definition and *most* of the characteristics identified, and they do it better than any other ship.

I will not focus on the capital ship in relation to constabulary missions. This is not to say that capital ships do not have a constabulary role to play. In fact, British capital ships undertook several constabulary missions in the interwar period, some were in fact deployed when Britain experienced internal unrest such as protesting workers or Scottish nationalists. (Moretz, 2014, pp. 199-202). This was however not their missions according to naval strategy at the time, and as demonstrated in the previous paragraph it is not a significant role for these ships.

¹¹ The aircraft carrier *USS America* sailed through Vestfjorden in northern Norway in 1985 as part of a NATO exercise. Pictures of this are still being used in Norway this day.

Diplomatic

The diplomatic capacity of the capital ship is ultimately derived from its latent power projection capability. Power Projection¹² can take many forms, and become ever more aggressive as nation decides to travel up the “degree of force employed scale”, or in this case, the degree of force threatened to be employed. This is illustrated below:

- Presence
- Preventive diplomacy
- Coercion

The degree of force employed increases as the operation moves from benign to more coercive.

From the trinity I choose to focus on the missions presence, preventive diplomacy and coercion as they represent three missions in chronological order as the nation employs a higher degree of force.

Below the three missions are described and discussed in relation to the capital ship.

- Presence

Presence is the operation of naval forces in areas of strategic significance. Presence is intended to convey an interest and can take the form of a simple passage through another nation’s waters, port visits or exercises.

Presence is not a threat of force, but a demonstration of capability to reassure, impress or warn (RAN, 2010, p. 111). Humanitarian Assistance and Disaster Relief (HA/DR) operations are also a part of this headline. U.S. capital ships have been used in these operations, it provides presence and creates goodwill.

A recent example of presence is the participation of both a U.S. super carrier and an amphibious assault ship in exercise *Trident Juncture 2018* in northern Norway (Naval Today, 2018) or the routine sailing of aircraft carriers through the South China Sea.

¹² The definition of power projection in this study was; “A nation’s capability to exert influence in peacetime and to secure and exercise sea control in a time of hostilities” (Vego, 2016, pp. 24-25). Within the diplomatic role, power projection will primarily comprise of what is done in peacetime. The ability to secure control of the sea in times of hostilities will be discussed under the military role, as the ability to secure control of the sea.

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- Preventive diplomacy and Coercion

Preventive diplomacy aims to prevent disputes from developing or to prevent already on going disputes from escalating. A warship's ability to poise and be persistent is important while other parts of diplomacy works through other channels (RAN, 2010, p. 112).

Coercion is used in situations that require more direct action than the mission mentioned above. Navies can coerce a potential adversary by demonstrating readiness to deploy sufficient combat power to either make his aim unachievable or its consequences counterproductive (RAN, 2010, pp. 112-113).

The deployment of two U.S. carrier battle groups to the area around Taiwan in 1996 is an excellent example. The Chinese threat towards Taiwan apparently increased, and two carrier battle groups that were already present in the area moved closer to Taiwan (Till, 2018, p. 382). This is also an example of how a navy can decide to move up the "degree of force employed" scale.

Military

The previous section defined some characteristics of the capital ship and furthermore related them to the military role. The characteristics were:

- At sea, the ability to secure control of the sea.
- From the sea, the ability to support or influence operations and events ashore

These characteristics are perhaps not as easily translated into missions as were the case with the diplomatic role. The trinity distinguishes between two different types of missions, combat operations at sea and combat operations from the sea.

At Sea – The ability to secure sea control

Secure sea control in times of war, or if it is contested in any way has been the most significant capital ship mission throughout history. As mentioned in previous paragraphs, this was done either by engaging the enemy's capital ships or in other ways blockading them. The latent power of capital ships, that is their ability to be able to secure sea control if needed is

also seen as having significant value. Several of the modern trinity missions can contribute to this task, in this thesis three are selected.

- Maritime strike and interdiction

This involves combat operations against an adversary's combat or logistic forces with strategic, operational or tactical aims. The strategic aim can be preventing the enemy's ability to fight by preventing their use of the sea. Interdiction of an enemy's forces will be to prevent their use in sea control, sea denial or power projection operations. Interdiction operations will normally be conducted by submarines or attack aircraft (RAN, 2010, p. 102).

A decisive action at sea, is an attack at the enemy's bases, possible combined with weakening the enemy over time as a method to obtain sea control (Vego, 2016, p. 75).

Destroying an enemy fleet (in its bases or at sea) is the quickest and most effective way of establishing sea control, but also the most difficult. It can be carried out in both open ocean and littoral seas. There are two examples from the Second World War, where this was planned under the cover of an amphibious operation.

The Americans did it in the Battle of Leyte Gulf in 1944, and the Japanese tried this but failed during the Battle of Midway in 1942. Major operations of this scale is however, not likely today, because, there are no longer two or more major potential adversaries at sea. A conflict between a blue-water navy and a smaller navy in the littorals is therefore more likely. An attack on the smaller fleet's naval bases combined with attacks at sea is the most likely method to secure sea control by the larger navy. Long range missiles and carrier based aircraft are the likely weapons of choice (Vego, 2017, pp. 55-56).

In the littorals the principal objective of naval forces should be to secure the desired state of sea control. This helps create conditions for the accomplishment of other tasks, such as support to friendly forces ashore - a key prerequisite however is obtaining air superiority in the littoral in question (Vego, 2017, p. 57).

Securing sea control today also holds an element of engaging targets ashore. Land based aircraft and anti-ship missiles are two examples of weapons that can act as sea denial weapons. In order to secure the necessary degree of sea control, a capital ship needs to be able to counter these threats as well. Other targets can be the destruction or suppression of an

enemy's air defences, command posts and electronic surveillance will have priority (Vego, 2017, p. 57).

- Containment

Containment is the act of threat to an adversary's critical vulnerabilities thus forcing him to divert his maritime forces into a defensive role thereby preventing their use in offensive operations (RAN, 2010, p. 103). The possibility of using a strategic diversion should be emphasised as well (Vego, 2016, p. 76). The U.S. maritime strategy from 1986 described how the U.S. could threaten the Soviet Navy's northern waters and thus their submarine bastions. This would force the Soviets to deploy forces for their defence – forces that could have been used against NATO's Atlantic sea lines of communications (Speller, 2014, p. 106).

- Blockade

Blockade involves denying an enemy access to or from their ports (close blockade) or to a sea area (distant blockade). The term has long been connected to a legal definition and when it is used in this context (by the U.N.), it is typically associated with operations against an enemy's economy. In this context however, it is used in operations against the enemy's armed forces (RAN, 2010, p. 103).

During the Cold War the West attempted to blockade Soviet Naval forces from the North Atlantic during by closing the gap between Greenland-Iceland-United Kingdom and Svalbard-Norway – This was, in all but name a distant blockade (Till, 2018, pp. 227-228).

From the Sea

This is the other military characteristic of the capital ship. The supercarriers are extremely multirole, and they can play a significant part in all of the combat missions from the sea. In this case, the missions are generally seen as something that takes place once the required degree of sea control has been secured.

Land strike, amphibious operations and support to operations on land and in the air are the three that I will connect to the capital ship. Land strike and amphibious operations will be covered under one headline.

- Land Strike and amphibious operations

Land strike is simply the ability to strike directly at land targets, either by the use of guns, missiles or with embarked aircraft (RAN, 2010, p. 106).

Amphibious assault operations are the landing and establishment of a ground force on a hostile shore (Speller, 2014, p.137). Amphibious operations have been conducted a great number of times throughout history. The Allied landings in Normandy are the most known, but the British landings on the Falkland Islands in 1982 is another example (Speller, 2014, p. 137).

- Support to operations on land and in the air

Modern naval forces are able to offer considerable potential to contribute to combat operations on land and in the air. This can be in the form of fire support or in the form of support from air warfare sensors and weapons thus contributing to counter air operations (RAN, 2010, p. 107).

The U.S. carriers performed numerous supporting operations on land and in the air during the wars in Iraq and Afghanistan.

Part III – The Capital ship in U.S. Naval Strategy

5. Capital influence in a unipolar world (1992-2001)

This is the first of the analytical chapters, on the basis of the developed framework in part I and II it will analyse the role of the capital ship from 1992 to 2001, also referred to as the unipolar period.

A prevailing notion through the unipolar period is the notion of sea control being regarded as a truism. There were no potential competitors for sea control on the high seas, at least according to the United States. This is surely a result of the relative advantage in capital ships, which the U.S. enjoyed.

The U.S. dominance has perhaps created a sense of security, and it certainly meant that the U.S. Navy became focused on what it was possible to do from the sea rather than contemplating about securing sea control.

5.1. Fleet Structure

The role of capital ships was clear in the U.S. Navy fleet structure through the 1990s. The Navy was organised around its capital ships and this was not challenged or discussed in the documents or deployments of the 1990s. Technology and joint operations (or jointness) were perhaps more significant and they certainly received more attention in terms of fleet development, but they were not used to challenge the role of the capital ship in fleet structure.

The numbers from the 1990s show a Navy that became significantly smaller. From 1990 to 1997 the Navy's personnel was cut by one third and the carrier force went from 15 to 12 (11 operational). The cutbacks were greater within surface combatants and nuclear attack submarines. Their total number went from 287 to 166. In 1997, some of the planned procurements for the 1998-2003 period were 12 additional fast sealift vessels, eight ro-ro vessels and seven amphibious assault ships. Within the carrier force, one carrier was planned for an overhaul (IISS, 1997, pp. 2-7).

The basic premise for this reduction was the absence of a global peer competitor, and the previous paradigm of preparing for a total war at sea became a thing of the past (Garrett III,

Kelso II, & Gray, 1991, pp. 24-26). The Navy expected some warning time if a global threat should emerge (Garrett III et al., 1991, pp. 30-35). This understanding was embraced fully throughout the 90s, and in 2000 the assessment from the Navy remained that no peer competitor on a global scale was expected to rise prior to 2020 (USN, 2000, p. 181). However, the Navy in the post-Cold War world was still globally deployed. Instead of focusing on containing and deterring the Soviet Union the Navy now found itself in a situation where it would work toward maintaining global stability. Instead of a single major threat the Navy was now likely to face a number regional threats (Garrett III et al., 1991, p. 26). In essence, it was a case of a smaller navy that still had a large operational area.

In spite of the budgetary reductions and the fact that the U.S. was now the world's only superpower the carrier battle group and amphibious ready group were still the centrepieces of the U.S. Navy. In 1991 these groups were described as cornerstones of the Navy, but in the future, their composition would be more mission specific (Garrett III et al., 1991, p. 29).

The operating concept to address this new reality was named *Forward Presence*, and the idea was to have carrier battle groups and amphibious ready groups forward deployed throughout the world, to demonstrate U.S. capabilities and support U.S. interests. Carrier battle groups and amphibious ready groups were thus the primary tool in this concept (USN, 1997b, pp. 161-162).

Due to the cut in fleet size, the groups would become smaller, but because of technological advancements the individual ships would be more capable. The airpower provided by the carriers would therefore be complemented by the increased firepower distributed by modern surface combatants and attack submarines. Effective Tomahawk missile employment was an important precursor operation (Garrett III et al., 1991, pp. 33-35). This meant, that the smaller ships were no longer there just to protect the capital ships, they had important offensive missions of their own as well. These capabilities led to the recognition that the answer to every situation may not be a carrier battle group. However, the latent power of such a group was still described as *overwhelming* (USN, 1992, p. 89).

In 2000 the *Strategic Planning Guidance* reaffirmed the fact that the ability to deploy a combat ready carrier battle group (or alternatively an amphibious ready group) was the navy's

core combat force package (USN, 2000, p. 205). The carrier battle group was still the core of the navy and its air wing was still the Navy's primary force enabler (USN, 2000, pp. 227, 239). When addressing long range planning objectives within forward presence the two top priorities were the capability to deploy carrier battle groups (and amphibious ready groups) and for forward deployed forces to maintain survivability in the 21st century (USN, 2000, p. 229).

A major trend, that overlaps all the documents and that may explain the remark about the carrier battle group not being the answer to everything is jointness. The ability to land forces and sustain forces ashore is a significant area throughout all the documents. In 1992 the Navy stated that the force structure needed to be optimised for taking and holding objectives near or on the enemy's coastline (USN, 1992, p. 98). In support of this the ability to conduct sea lift and support operations ashore is also emphasised (USN, 1992, p. 94).

This is backed by procurement plans, as mentioned above the expected procurement from 1998-2003 was 12 sea lift vessels, 8 ro-ro vessels and an additional seven amphibious assault ships whereas one of the existing aircraft carriers were planned for an overhaul. Furthermore, reductions to the Marine Corps were almost insignificant. This suggests a deliberate turn toward a force structure designed to land and sustain forces and not one designed to fight at sea.

Technology

A Modernisation effort and full exploitation of the revolution in military affairs (RMA) were two important areas in order to maintain military superiority. A general increased investment in science and technology programs were therefore considered important (DOD, 1997, pp. 8-16). The CNO mentioned how technology may have changed the face of warfare and lead to new dimensions of seapower. Naval forces were now capable of projecting power further inland than Mahan could ever envision. The future Navy may have been smaller, but technology was seen as offsetting the reduction in numbers (USN, 1997a, pp. 172-174).

An example of how RMA was expressed in the navy was through the introduction of the term battlespace dominance. Capabilities within command, control and surveillance systems were highlighted. Integrated information and networked sensors along with the ability to deny this

to the enemy received specific attention, and these were seen as enablers for battlespace dominance (USN, 1992, pp. 93-94).

Technology needed to be embraced and incorporated as the Navy transformed from platform-centric to network-centric warfare (USN, 2000, pp. 205, 258). In fact, in order to conduct maritime power projection, the Navy needed forward presence and knowledge superiority. The Navy of the year 2000 did have an impressive striking force, but the improvements in information technology were used to enhance this (USN, 2000, p. 207).

Embracing and incorporating technology in fleet structure was clearly a major area of interest throughout this period but the Navy was not blind when it came to platform numbers. The concept of forward deployments, and deployments to more areas than during the Cold War would suggest that numbers matter as well. The documents mentioned how the various groups should be tailored to each assignment which was necessary because the Navy of the 90s had fewer assets than the Navy of the Cold War, but probably also because the perceived threat was smaller as well. After all, the capabilities of regional threats were far less significant than those posed by the Soviet Navy. Numbers were, however, still a reason for some concern. The QDR of 1997 proposed a 305-ship Navy, this was discussed in 2000 and it was noted, that this might not be sufficient to meet security challenges in the 21st century (USN, 2000, p. 217).

To sum up the carrier battle group and amphibious ready group were considered the cornerstones of the fleet throughout the unipolar period. The period was dominated by budgetary reductions and the military chose to use technology as a way to alleviate these cutbacks. Furthermore, the period was dominated by a thought of becoming increasingly joint. This meant that the Navy's role as an enabler became more noticeable, it can be argued that the Navy was redesigned to be an enabler for the Marine Corps rather than a Navy in its own right. A reason for this could very well be the fact that it was easier for the Marine Corps to "sell" and justify their purpose in the post Cold War and Gulf War 1990s. It was probably much more difficult to explain why one needed supercarriers in a world without major enemies. This aspect certainly also explains the amphibious assault ship as being seen as a capital ship as well.

A strategy of expeditionary operations and *forward presence* was therefore chosen; this essentially meant that naval forces were continuously forward deployed as a visible deterrence and ready to respond to crisis that may arise.

5.2. The Diplomatic Role

The diplomatic role was a very important role for the navy to promote its capital ships. The Cold War was over and with that the navy also lost its only significant enemy. The fact that there was no one left to fight on the high sea created an increased focus on diplomatic missions. This section will argue two things. The first is that the symbolic value, or the latent power of capital ships and how this could support U.S. foreign policy was very important.

The navy needed to visualise its *raison d'être* through this role.

The second is the fact that amphibious assault vessels were now considered close to capital ships as well. Jointness was a popular concept in the 90s. The Marine Corps did not experience the same “existential crisis” in this period, and the Naval strategies therefore had significant focus on presenting the Navy as an enabler for the Marine Corps (and other forces).

Presence

Capital ships were central within this role in the unipolar period. The U.S. needed to take advantage of its new role as the sole superpower and keep it. This required presence of capital ships in areas of strategic interest.

One of the major concepts of the 1990s was the before mentioned *Forward Presence* which essentially meant having capital ships deployed to and based at areas of strategic interest.

Once deployed these vessels convey U.S. interests through presence and the demonstration of capability.

Naval forces can be used to shape the future, strengthen alliances and preclude threats. U.S. Naval Forces provided powerful and unobtrusive presence. Forward deployed forces could, enhance diplomacy and demonstrate U.S. power and resolve (USN, 1992, pp. 89-92).

In other words, the very visual latent power of an amphibious ready group or carrier battle group was the centrepiece of *Forward Presence*.

The significance of *Forward Presence* was highlighted through all the documents of this period. It was mentioned how this supported U.S. diplomacy, and how it projected the nation's influence and power through signalling. "Deterrence could be achieved by using highly visible symbols of overwhelming U.S. force" (USN, 1997b, pp. 161-163). A carrier battle group or an amphibious ready group were emphasized as tools that send powerful signals (USN, 1994b, p. 114).

An obvious way of combining presence with building goodwill is by using capital ships in HA/DR missions. Several of these were conducted in the 90s, and they were communicated in the naval strategy as well¹³ (USN, 1994, p. 155). This of course helped the Navy presenting a flexible force.

These are clear examples of how the symbolic value of the capital ships and how they are employed.

Preventive Diplomacy and Coercion

Preventive Diplomacy and coercion are also two capital ship characteristics that are present in the U.S. Naval strategies of the 1990s. The ability to contain a crisis was mentioned as a trademark of forward deployed forces in 1992 (USN, 1992, pp. 89-92).

Forward Presence was used to demonstrate intent, capability and to conduct preventive diplomacy. If deterrence failed, naval forces should be able to conduct forcible entry, strikes and lay the ground for follow on forces. The capital ships were the building blocks of *Forward Presence*, while surface combatants contributed to deterrence through their ballistic missile defence capabilities (USN, 1994a, pp. 151-153).

The technologic development has expanded the operational capabilities of surface combatants. They were no longer "just" escorts for the capital ships, they had become a strategic capacity in their own right. In the "missile age" that capacity is increasingly on demand.

A nation with a significant number of capital ships is certainly and attractive ally, but now the attractiveness also embraces the surface combatants.

¹³ Forward...From the Sea mentions four missions from 1992-1994, where 10 capital ships were deployed as part of HA/DR operations (USN, 1994, p. 155).

Several examples of successful coercion with naval forces, and in particular amphibious forces are mentioned, Desert Shield most notably¹⁴. In addition to this, the advantages and flexibility provided by amphibious forces are given a significant amount of attention in the first formulation of strategy after the Cold War (Garrett III et al., 1991, pp. 31-33).

As mentioned in part II, amphibious forces can be of particular value within coercion missions. With that in mind, it can be argued that the coercive side of the U.S. Navy have been thoroughly expanded through the 1990s with the investments in amphibious assault vessels and the fact that the Navy in general shifted its focus from fighting at sea towards being an enabler for the Marine Corps and forces ashore.

Turning toward the Marine Corps and their role, shortly after the Gulf War can also be seen as a way of defining a role for the Navy in this new strategic environment.

5.3. The Military Role

This section will argue three main points. The first is that the concept of sea control of the high sea is a truism in the U.S. Navy, and this has been the case since the Second World War. This is because of the substantial relative advantage in capital ships. The fact that sea control will not be challenged is an underlying condition in naval strategic thinking. The capital ships are therefore the pillar of U.S. naval strategy.

The second point is that strike warfare is increasingly the weapon of choice. The littorals are mentioned as a potential challenge. But the strategy does not contemplate on how to address this challenge. It is implicit that strike warfare is the solution.

The last point is part of the operations from the sea, but it supports the case of the littoral challenge somewhat. Strike warfare is a cornerstone in the 90s' power projection navy, and the capital ships are the main instrument of this – and the most visible.

The 1990s is perhaps the first decade in modern times where the capital ships of a world power did not have a defined adversary. Capital ships did play a role within the tasks of securing sea control, but the contribution from technology seems to be appearing as a somewhat equal contributor.

¹⁴ When Iraq invaded Kuwait and considered continuing into Saudi Arabia, the U.S. responded by deploying six aircraft carriers, 30-plus amphibious ships, dozens of surface combatants, several attack submarines and more than 90,000 active-duty and reserve Marines to the region (Garrett III et al., 1991, p. 29)

Within its secondary role, combat operations from the sea, the role of capital ships was significant throughout the 1990s.

At Sea – Securing Sea Control

Sea control and maritime supremacy were mentioned as one of the Navy's five fundamental roles – the others being projection of power from land to sea, strategic deterrence, strategic sealift and forward presence (USN, 1994a, p. 158).

Despite the fact that the concept of sea control and its importance was given attention, it was usually referred to as something the U.S. Navy already had.

The Navy had sailed the high seas “virtually unchallenged since the end of World War 2” and maintaining this maritime superiority into the 21st century was an important goal (Garrett III et al., 1991, pp. 24-25).

Furthermore, it was highlighted how the U.S. Navy's ability to command the seas allowed them to focus more on the complex littorals of the earth. It was proclaimed, that after the “demise of the Soviet Union the free nations of the world claim preeminent control of the seas and ensure freedom of commercial maritime passage.” (USN, 1992, p. 89).

These examples from the official documents clearly demonstrates, that the U.S. did not expect to find itself in a struggle for sea control against a peer adversary in the foreseeable future, focus was now shifting toward the littorals.

But the examples also hint that this view was perhaps not only a result of the Soviet Union's demise. The Soviet Navy does not seem to have been a serious competitor on the high seas, or at least they were not perceived as this, since it was noted that the U.S. had sailed the seas virtually unchallenged since World War 2. This can of course be a matter of discussion, and it needs to be noted that the Soviet Navy most likely had another view on what mattered at sea. As mentioned in part II, Gorshkov saw the aircraft carriers as a useful tool in America's local wars of imperialism (Gorshkov, 1979, p. 221). This is of course a way of subtly implying that the Soviet Union did not practise this type of global intervention, and therefore their fleet structure was different.

Despite the fact that it was not something that was expected, war at sea was discussed, and the overall purpose was to achieve sea control. The Navy did however not vision a prolonged battle at sea. The range and accuracy of modern weapon systems favoured the side that first detected the enemy. This meant that engagements over sea control were likely to be short, and probably preceded by a period of increased diplomatic tension (USN, 1994b, p. 119).

This suggests, that if the Navy for some reason had to fight for sea control, the side that was most technologically developed and was able to strike hardest and quickest, was likely to win.

These examples and their context supports the notion that sea control on the high seas was not considered as something that would become a challenge. It is not said explicitly, but that kind of view must surely rest on the centrepiece of the U.S. Navy – the capital ships. This advantage of unrivalled power and therefore broad freedom of action informed how the naval strategists framed future operations.

Singaporean Professor Mahbubani backs this approach when he argues that the U.S. Navy is the guarantor of freedom on the High Seas (Mahbubani, 2008, p. 108). This notion of an implicit degree of sea control can therefore be directly linked to the significant advantage in capital ships enjoyed by the U.S. Navy.

The combination of sea control on the high seas being considered as a truism and the fact that the U.S. now expected more regional adversaries meant that sea control in the littorals were given noteworthy attention.

This is closely related to another concept, the anti-access and area denial (A2/AD) concept that also emerges as a challenge in the 1990s. Another reason for this interest was also because of technological developments, which made area denial capabilities more accessible (Garrett III et al., 1991, p. 26; USN, 1992, p. 93).

Securing sea control in the littorals and consequently dealing with area denial systems can therefore be regarded as the “new sea control” concept of the 1990s. The Navy expected that it was likely to face increasing limitations on access and that smaller nations would be increasingly better technologically equipped (Garrett III et al., 1991, p. 25).

Mastery of the littorals should therefore not be presumed. Many nations were likely to have weapon systems that could hamper access and operations in and from the littorals (USN, 1992, p. 93).

Additionally, The Office of Naval Intelligence (ONI) expected potential regional adversaries to pursue area-denial strategies. The purpose of this was to present a scenario in which entry into a region would inflict unacceptable losses on U.S. forces and thereby limiting American involvement and influence. (USN, 2000, pp. 181-184). The adversaries are not mentioned by name, but it is stated that the U.S. had vital national interests in the Middle East and Korea (USN, 2000, p. 184). It is therefore safe to assume that the adversaries in question are countries like Iran, North Korea and probably also China.

The Navy does not present a detailed solution or a concept to address these potential challenges. The Navy's role was described, and prioritised as assuring access and projecting power (USN, 2000, p. 207).

It must therefore be assumed, that the organisation rest on its unrivalled striking power, of which the capital ships of course holds the most.

From the Sea.

Within their secondary military role, combat operations from the sea, the role of capital ships appeared to be substantial in the 1990s. This is undoubtedly due to the fact that the period was mainly about conducting power projection in a relatively benign environment.

As demonstrated in the previous section, the U.S. Navy did not have to contemplate too much about fighting other navies and could therefore focus on projecting its power ashore – through the concepts of *Forward Presence* and battlespace attack. The concept of battlespace attack included the ability to strike from the sea, and this mere capability alone was seen as having a deterrent effect.

The operational concept behind this component was the firepower of a carrier battle group. The group's ability to conduct day and night and all weather strike and combat air support operations was highlighted (USN, 2000, pp. 202-203, 248). However, this was not an area the

capital ships had to themselves as the tomahawk cruise missile gave the surface combatants a capability to strike as well.

This is just one, but there are several examples in the documents through the 90s that emphasises the ability to conduct strikes and amphibious assaults ashore.

This is a very clear example of how the U.S. Navy could make itself relevant in the 90s thorough its striking capabilities and by being the Marine Corps' primary enabler. The capital ships (the aircraft carrier and the amphibious assault ship) were the primary tools in this "statement of purpose".

5.4. Summary Capital Influence in a unipolar world

The latent power of the capital ships were the heart of U.S. Naval strategies in the 1990s.

They were the building blocks of *Forward Presence*, which was the dominating concept throughout the decade. *Forward Presence* was the means to conducting power projection in a benign environment.

Without the capital ships, there could be no *Forward Presence* and hence no world influence.

The relative advantage in capital ships, and their power, creates the truism of sea control, and this has most likely been the case ever since the Second World War. This perception is the foundation for all U.S. naval strategic thinking.

The littorals are given attention, and it was noted that this could be a challenging area, but the only countermeasure seems to the navy's striking capability. This capability is along with the role as the great enabler for forces ashore, are greatly appreciated.

6. Capital influence in a collaborative world (2002-2014)

The influence of capital ships was still significant in U.S. naval strategy throughout the first decade of the new millennium. The role was however not as outspoken as it was through the 1990s, where the capital ships were mentioned as the as the backbone of the dominant concept of *Forward Presence*. The documents that represent U.S. naval strategy 2002 to 2014 is heavily occupied with the Global War on Terror (GWOT), international collaboration and technology.

The role of technology was quite dominant through the 12 years that are examined here, but to attribute it to the role of capital ships would not be appropriate. U.S. naval strategy was still based on *Forward Presence* and power projection or in other words being able to exert their influence across the globe – and it was the huge relative advantage of capital ships in their favour that made this kind of strategic thinking possible. If the U.S. had not enjoyed this advantage in capital ships, being technologic superior would have had little influence. Whereas an advantage in capital ships, but without *the network* would still give the U.S. significant global influence.

Another example that demonstrates the importance of capital ships in U.S. strategy and thus U.S. policy in general can be found in the QDR of 2014. Capital ships were used as a means of exerting pressure between the executive and legislative branches of government.

It is probably a well-known fact that the relationship between the Obama Administration and Congress, the body that approves funding, was often difficult (Everett & Sherman, 2016).

In the QDR, which was published by the administration, it was made clear, that if sequestration level cuts were imposed in fiscal year 2016, the aircraft carrier *USS George Washington* would be retired instead of proceeding with its scheduled refuelling and overhaul (DOD, 2014, p. 30).

Capital ships were held in high regard by a Republican controlled Congress (Gady, 2015), and the fact that the President was using the threat of retiring a supercarrier if he does not get his will is a powerful example of the supercarriers symbolic value¹⁵.

¹⁵ There were other examples where capital ships were taken hostage in the negotiations between Obama and Congress. In 2013 the planned deployment of a supercarrier was used as leverage from the Obama administration (Sherwell, 2013).

6.1. Fleet Structure

Although the Navy's carrier force decreased from 12 in 2002 to 10 in 2014, the role of capital ships in naval strategies were still quite significant. In 2014 all carriers were nuclear powered as opposed to only nine in 2002 (IISS, 2002, 2014). This of course suggests a deliberate choice toward the supercarrier as the capital ships.

Their significance was re-emphasised in 2006, when it was stipulated by law, that the (U.S. Navy was required to maintain a force of no less than 11 operational aircraft carriers (Government, 2006).

Additionally, funding for the incoming *Gerald R. Ford*-class supercarrier was approved in the latter half of this period (O'Rourke, 2018, p. 3).

The total number of major surface combatants also went down from 129 to 107 (IISS, 2002, 2014).

These numbers suggest, that the trend from the 1990s with fewer but more capable ships continued into the new century. It was most likely a combination of budget cuts and technology that drove this development.

These facts of course signals a significant role of capital ships within fleet structure, but there were other assets rising within the hierarchy, the surface combatant and the role of technology were given significant attention.

“Innovative concepts and technology would mark the beginning of a new era of joint operational effectiveness and integrating sea, air, land, cyberspace and space. In this unified battlespace the sea would be an area for manoeuvre from where to project decisive power” (USN, 2002, p. 1).

“Information gathering and management was the heart of this revolution of striking power” (USN, 2002, p. 5). Distributed networked operations was described as the overarching global Navy concept (USN, 2006b, p. 17)

The gains of technology were described in very remarkable ways with the *beginning of a new era* and a *revolution of striking power*. The actual hulls that deliver this striking power is not mentioned as a factor. These new achievements were notable but they did not represent a new

Dreadnought-type revolution in capital ship thinking. Without the power of the capital ships the network would be meaningless.

It is however remarkable, that the U.S. Navy uses technology to emphasise and support their superiority and not their advantage in capital ships. The focus on the advantage through technology was persistent throughout the period, even when the strategic focus shifted from pursuing terrorists toward other states.

It was mentioned in the previous chapter how surface combatants were becoming increasingly capable, and this trend certainly continued through this period. This example illustrates how technologic progress in the form of hardware (Aegis and missiles) became strategically important and these capabilities were not placed on capital ships.

There is little doubt that the role of technology was quite significant, and it was definitely more outspoken than the role of capital ships – at least in the naval strategies. The investment in the new *Ford*-class could of course be used to argue against this, but this decision was strangely enough not mentioned in any of the documents that constitute naval strategy.

The general level of ambition was not exactly consistent throughout the period. In 2002, the CNO described how the global concept of operations required a flexible force structure that consisted of different groups; the Carrier Strike Group, Expeditionary Strike Group and the Missile defence Surface Action Group¹⁶ (USN, 2002, p. 11).

This outline required a force structure of 375 ships (USN, 2002, p. 11).

In the 2006 it was noticed that the Navy would remain committed to resourcing a fleet of about 313 ships (USN, 2006b, p. 11).

The same year the Navy was directed to increase SEAL team manning and develop a capacity within riverine warfare (DOD, 2006, p. 5).

Navy and Marine Corps tactical aircraft squadrons were integrated thus saving potential \$35 billion and reducing future Navy procurement by almost 500 tactical aircraft (DOD, 2006, p. 46).

¹⁶ The Missile defence Surface Action Group would increase stability by providing security to allies and joint forces ashore (USN, 2002, p. 11)

The tendency away from the War on Terror and toward state versus state competition became clear in the 2014 QDR. The report described that the Department was rebalancing towards greater emphasis on full spectrum operations, but should maintain superior power projection capabilities. A photo of a Carrier Strike Group was placed next to this text (DOD, 2014, p. 19). The selection of this specific photo was hardly a coincidence. As great power competition and the prospect of facing another capable adversary at sea, the symbolic value of capital ships was reemphasised.

The capital ships did indeed have a role in U.S. fleet structure from 2002-2014. The role was, however, less prominent in the first half of the period than in the latter. This was surely because of a focus on the War on Terror in the first half. This led to an increased focus on special forces, operating in a low threat littoral environment and in general to stretching the resources and supporting the troops on the ground. The Navy was however organised around its capital ships, although the increased capability of the surface combatants led them to play their own part in naval strategy as well.

In the latter half of the period, the role of capital ships became more evident. The shift happened somewhere between the 2006 QDR and the 2010 Naval Operations Concept, which did speak of the World becoming multipolar (USN, 2010, p. 27).

Full spectrum warfare was again the centre of attention. It led to the Littoral Combat Ship (LCS) being questioned for not being able to fight a capable adversary and it led to capital ships reappearing as the centre of naval strategy.

6.2. The Diplomatic Role

Despite the fact that the U.S. for the most part of the collaborative period was pre-occupied with the GWOT, a war in which the diplomatic role of navies was less pronounced this section will argue, that the capital ships still had great importance, and that these are the first to be rolled out whenever the U.S. wanted to demonstrate their power or impose their will on other nations.

Presence

This section on presence will demonstrate, that although other ships were given significance the capital ships were still the primary tool, if the U.S. wanted to convey an interest.

The Navy planned to maintain a carrier strike group and an amphibious ready group forward stationed in the Western Pacific¹⁷. It would maintain a forward deployed carrier strike group and amphibious ready group in the Arabian Gulf/Indian Ocean and seek to deploy an additional amphibious ready group or marine expeditionary unit (MEU) to shift between the regions¹⁸ (USN, 2010, p. 30).

These examples clearly demonstrate, that the strategically most important areas were reserved for the capital ships.

There were, however, also examples of how the surface combatants were beginning to rise within the hierarchy.

In 2010 it was noted that Combatant Commander's demand for naval forces particularly carrier strike groups, amphibious ready groups, and surface action groups (SAG) had exceeded forecast of naval capabilities. Since 2006, requests had grown 29% for carrier strike groups, 76% for surface combatants in general and 86% for amphibious ready groups (USN, 2010, p. 28).

This led to more tailoring and a conclusion of that in many missions the best solution was to deploy units independently (USN, 2010, p. 29).

Furthermore, to further support requests for presence cutters from the U.S. Coast Guard was rotationally deployed (USN, 2010, p. 32).

These numbers suggest a Navy that is overstretched and in need of units to deploy. This coincided with operations in Iraq and Afghanistan, increased tensions with North Korea and in general a more competitive international system.

It is interesting to notice that the requests for surface combatants were higher than the requests for carrier strike groups.

¹⁷ This was actually not new as these groups had been stationed in Japan for some time, but they were still used as examples in the strategies.

¹⁸ Forward stationed means that the unit has its home base overseas, e.g. Japan. Forward deployed means that the unit is based in the United States, but deployed to the mentioned area.

It may seem paradoxical, but perhaps the strategic significance of capital ships could explain this. A request from a Combatant Commander for a carrier strike group would certainly create more attention in Washington than a request for additional surface combatants. This could imply that the surface combatants, with its new capabilities, had become a tool that was more sought after by military commanders simply because this creates less commotion on the strategic level than a request for capital ships. This would also support the tendency toward capital ships become a strategic symbol rather than a military tool.

The fact that amphibious ready groups were in such high demand is surely because of the troops they bring with them – something that was in very high regard during the GWOT.

Global terrorism did not venture out to sea, for the most part, but there was still a need for countering illegal activity at sea.

It was recognised that policing the maritime commons¹⁹ required substantially more capability than the United States or any other nation could deliver. The answer was the 1000-ship navy, “a global maritime network that tied together the capabilities of free nations and established and maintained international security in the maritime domain” (USN, 2006b, p. 20). This was reaffirmed in the Strategy from 2007, where it was noted that the U.S. Navy protected the system in company with partners (USN, 2007, p. 4).

The 2007 strategy was probably the closest the U.S. Navy has ever been to resembling Geoffrey Till’s *post-modern navy*, where collaboration and the global commons are key. Engaging threats to maritime security did not require powerful warships, and capital ships did therefore not play a role at all in addressing this challenge.

Presence was a significant mission in U.S. naval strategy through this period. The strategic most important areas were reserved to capital ships. But, there was a need for other ships as well, and the collaborative approach to maritime security is an example of this. The capability nor the symbolic value of capital ships where therefor not always required.

Furthermore, an increased demand for *Forward Presence* led to a more widely distributed fleet where other ships were given significance as well – like the surface action groups.

¹⁹ The mission of policing the maritime commons is a mission with great resemblance to the constabulary missions of Ken Booth’s naval trinity, an area that is not included in this study. However, the mission is included as it serves as an example of the missions that the U.S. was pre-occupied with.

Preventive Diplomacy and Coercion

Deterrence may have had little value against the likes of Al Qaeda, but in spite of this, these operations were still important and the capital ships were widely used within these missions, as this section will argue. In addition, it will argue, that as the world became more competitive the prominence of capital ships rose in the naval strategies.

Even though the War on Terror may have left the Navy somewhat side-lined through the first half of this period, it was still policy that the country required a Navy strong enough to deter any adversary and support diplomacy around the world (USN, 2006a, pp. 3-4; 2006b, p. 7). A force that had enormous symbolic value and was capable of doing just that was the expeditionary strike group (ESG).

An amphibious ready group and a carrier strike group would periodically be aggregated into an expeditionary strike group, which would serve to demonstrate and sustain the ability to operate a force of this size. These forces protected U.S. interests, assured friends and deterred and dissuaded potential adversaries (USN, 2010, p. 30).

The presence of a fleet of this scale was surely the most powerful way of conveying an interest, which of course serves to reaffirm the role of capital ships.

The strategy from 2007 mentioned how maritime BMD would enhance deterrence by providing an umbrella of protection to forward deployed forces (USN, 2007, p. 13). This is a capability that is delivered by the surface combatants, and there is little doubt that it was important, but there is a tendency toward increased focus on capital ship capabilities as the collaborative period moved toward the competitive period.

The capital ships represented the most versatile and lethal tool in the Navy's arsenal. A carrier strike group was described as mobile, lethal and it could be applied across the full range of military operations. It was described how an aircraft carrier and its embarked air wing were capable of dominating key aspects of the maritime domain for hundreds of miles. The carrier strike group's surface combatants and submarines could conduct land attack missile strikes and protect the force from surface, subsurface and air threats including ballistic missiles (USN, 2010, p. 60). This is basically a presentation of a full-spectrum capable force from 2010, capable of addressing a lot more capable adversaries than Al Qaeda.

6.3. The Military Role

The military role of naval forces became more complex in this period as sea control and power projection against peer and non-peer competitors became more difficult. This section will argue that although the link between capital ships and sea control became weaker, it was still there. The littorals were still the centre of attention, but the Navy was beginning to consider more limited threats on a global scale. The Navy did say that the world was becoming multi-polar, but this did not lead to a perceived peer challenger on the high seas. Instead it was the increased A2/AD threats, most certainly from China, that was considered the greatest challenge – and the capital ships did have a key role in countering this.

At Sea – Securing sea control Ability to secure sea control

Sea control and the ability to use the sea as a place for manoeuvre, received much attention throughout the period. Capital ships did play a significant role within this mission, however sea control and access were no longer exclusively connected with capital ships.

The big difference between this period and the 1990s appear to be the recognition of the fact that the operating environment was not as benign as it was during the 1990s – especially in the littorals.

Sea control was important in the years from 2002 to 2014. The CNO referred to it as an “enduring mission”, but stressed that it was necessary to develop “transformational ways of fulfilling it” (USN, 2002, pp. 2-3).

These transformational ways are made a bit more specific in 2010 when it was stated that “naval forces achieved sea control by neutralizing or destroying threats in the maritime, space and cyberspace domains” (USN, 2010, p. 53).

Anti-access capabilities were able to hold naval forces hundreds of miles away at risk, thus reducing U.S. ability to accomplish military objectives with minimal losses. It was however concluded that U.S. naval forces possessed the capability to mitigate the risks to an acceptable level (USN, 2010, p. 55)

The Operations Concept from 2010 offers the most comprehensive approach to the “how” when discussing missions of sea control in an A2/AD environment.

Like the 1990s the concept of *Forward Presence* facilitated all other naval missions, most importantly sea control (USN, 2010, pp. 25-26). However, unlike the strategies of the 1990s the carrier strike group or the amphibious ready group were no longer specifically mentioned as the core of *Forward Presence*. In fact, because of the need for more widely distributed forces it was noted that in some cases it could be necessary to deploy units independently (USN, 2010, p. 29). This was described by the Navy as increased tailoring, which should probably be seen as another word for stretching the resources.

The goal was to conduct effective regional and local sea control operations. Against a capable adversary, this required assistance from land based aircraft for ISR.

Sea control operations were specifically defined as:

“The employment of naval forces, supported by land and air forces as appropriate, in order to achieve military objectives in vital sea areas. Such operations include destruction of enemy naval forces, suppression of enemy sea commerce, protection of vital sea-lanes, and establishment of local military superiority in areas of naval operations” (USN, 2010, pp. 51-52).

This section is very interesting, because it effectively states that the Navy required the assistance of other services if it was to secure sea control in a hostile environment and it defined sea control, as a joint operation where the Navy was the supported branch. The capital ship’s historically strong attachment to mission of securing sea control was gradually being diluted.

On the other hand, the role of technology appeared to increase as it was stated that “superior warfare systems provided robust air and missile defence, effective undersea warfare and flexible network-centric attack options, in general through superiority in technology” (USN, 2010, pp. 56-57). These systems are of course also fitted on capital ships, but they are not exclusively on the capital ship. In addition to this, the increasing capabilities of A2/AD weapons coupled with an aversion to risking the capital ships could lead to the ships being placed even longer from the fight. Risk aversion is not new within capital ship thinking. Historically nations have been cautious about risking their capital ships because losses could lead to instant change in the international balance of power. This is not exactly the case in this

period; the U.S. advantage in capital ships was substantial. The potential loss of a capital ship to enemy fire would not have shifted the balance of power in the world but it would certainly have been a huge loss in prestige and probably even more so than 9/11 was. There would probably be an expectation of similar reactions or more.

Establishing sea control in a hostile littoral environment included advanced networked space-based sensors, long range UAV, locally deployable air, surface and subsurface multi spectrum ISR systems. Carrier air wings would provide air superiority over the area (USN, 2010, p. 65). Strike operations, executed primarily by the aircraft carrier's embarked air wing and surface and sub-surface launched land attack missiles, were identified as the principal means of gaining and maintaining operational access (USN, 2010, p. 70).

This approach is an example of the connection between capital ships and sea control. Access was gained through strike, with the carrier air wing in a central role. Once the fleet reached the littoral the air wing was again central, this time by providing air superiority. The versatility of the capital ships was still distinctively superior, although surface combatants and strike submarines could perform many of these functions. These descriptions on how to address A2/AD capabilities demonstrate that this is very complex and a variety of forces and capabilities are required. The capital ship is arguably the one asset that can do most through the air wing's versatility, but to leave the mission of securing sea control, or in this case countering A2/AD, to capital ships alone is indeed a thing of the past.

From the Sea

Operations from the sea, is not as easy when it can be necessary first to fight for sea control in the adjoining waters, as the rise of A2/AD threats resulted in.

This fact led to operations from the sea receiving less attention in this period, though it was not completely forgotten.

The capital ships were the major provider of capabilities in this area, but again, other assets were becoming relevant as well.

The carrier strike group was described as the core of the warfighting strength, and that it provided the full range of operational capabilities. No other was able to match its power projection capabilities and combat survivability (USN, 2002, pp. 10-11). There is little doubt

that like the 1990s, the carrier strike group, and its ability to conduct strikes from the sea is attributed great significance. It seems that mentioning capital ships, have become a reflex movement when discussing power projection.

Sea Basing was mentioned as a concept that provided the foundation for power projection. In essence, *Sea Basing* was not that different from *Forward Presence*. The main idea behind *Sea Basing* was to deliver firepower and influence from the sea. *Forward presence* was the concept that got the ships there; *Sea Basing* was the concept that put them into action when events ashore needed attention.

Sea Basing had three pillars; aircraft carriers, multi-mission destroyers and submarines (USN, 2002, pp. 7-8). The capital ships were therefore not the sole provider of these capabilities, but it was the only ship that was somewhat indispensable because its air wing gave it stronger mission flexibility.

In addition to these missions, the capital ships were able to perform additional functions. They were used immediately post 9/11 to conduct Non-combatant Evacuation Operations (NEO) and presence in the north Arabian Sea (USN, 2006a, pp. 28-29). It was also mentioned how the capabilities that allowed naval forces to project and sustain combat power were the same that allowed them to overcome limited local infrastructure, e.g. command and control capabilities, flight decks, well decks and (USN, 2010, p. 63). Finally the carrier strike group was described as mobile, lethal and it could be applied across the full range of military operations. An example from Operation Enduring Freedom was highlighted when an expeditionary strike group was formed from four carrier strike groups and two amphibious ready groups. The aircraft carriers provided the strike sorties, while the surface combatants employed precision guided cruise missiles and interdiction operations. The embarked marines were the first conventional forces ashore in Afghanistan. Projected and supported from the North Arabian Sea (USN, 2010, pp. 61-62).

These last examples clearly illustrates a significant role for capital ships within military missions that are not related with sea control.

6.4. Summary Capital influence in a collaborative world (2002-2014)

The capital ships were not as explicitly dominant in naval strategies of the period. They did however, have important roles to play within the most important missions. This suggests that their role was more implicit.

The long-standing connection between sea control and capital ships are no longer as strong. Achieving sea control in a littoral environment is what occupied U.S. naval strategy 2002-2014. The capital ship's role in this was gaining access from the open ocean and subsequently to provide air superiority over the littoral environment. These tasks were of course prerequisites for further operations, and on that notion it can be stressed that the capital ships role were significant.

Capital ships were very important as a means of diplomacy as well, a carrier strike group was in itself presented as powerful and capable on several occasions. This was taken to new levels when they aggregated into expeditionary strike groups.

The prominence attributed to amphibious assault ships that we saw in the 90s was not as strong in this period.

The status and importance of capital ships were not confined to the Navy. Through the period Congress passed a law, which ordered the Navy to have a minimum number of aircraft carriers available at any given time. Furthermore, aircraft carriers were used as a means of exerting pressure between the different branches of Government. This suggests that the aircraft carrier have grown into something more than just a big ship. It certainly supports the notion from the previous chapter, that capital ships were the pillar around which all other strategic thinking was done.

7. Capital influence in a competitive world and beyond (2014-)

In the 2015 naval strategy, then CNO Admiral Greenert declared:

“The centrepiece of naval capability remains the Carrier Strike Group and Amphibious Ready Group... These ships, aircrafts, Sailors and Marines have deterred and defeated aggression since World War II and will continue to do so well into the future” (USN, 2015, p. 23).

This statement is a clear indicator of the continued significance of the role of capital ships. However, the time after 2014 was, in reality, a bit more nuanced than what the CNO expresses in the strategy. The part about defeating aggression does not seem to include these ships in the future as it is laid out in the strategic documents.

7.1. Fleet Structure

If the role of capital ships had been significant in U.S. naval fleet structure up until 2014 it became more disputed after 2014 – even though the return of great power competition could have suggested otherwise.

Alternatives to the supercarrier were investigated and at the same time the role of other major surface combatants continued to grow, even sparking a new concept called *Distributed Lethality* with the entire fleet of surface combatants as the distributors.

Despite these debates, the capital ship’s central role within the U.S. Navy remained

Numbers

The numbers of the fleet inventory pr. 2018 are not considerably different from the numbers of 2014. In fact, the only real difference is an extra aircraft carrier (IISS, 2014, p. 45; 2018, p. 50).

With the extra aircraft carrier, the Navy was back at 11 carriers, which they were legally required to have (O’Rourke, 2018, p. 1)²⁰.

The extra aircraft carrier was certainly needed, as the Navy struggled to meet operational requirements with its carrier force. In late 2016 and early 2017, there was a gap in aircraft carrier presence in the Arabian Gulf (IISS, 2018, p. 33).

²⁰ The Navy operated with only 10 carriers between the inactivation of the aged *USS Enterprise* and the commissioning of the *USS Gerald R. Ford*, because Congress provided a waiver that allowed the Navy to operate with just 10 carriers in this time period (O’Rourke, 2018, p. 1)

Additionally, the Navy had other concerns. From 1987 to 1997 the Navy lost 40% of their number of ships while the budget decreased by 35%. From 1997 to 2015 the number of ships further decreased by 20% only this time the base budget grew by nearly 50% (Larter, 2017). These numbers suggest that operating a technologically advanced navy is very expensive. Furthermore, the CNO did not expect budgets to increase significantly in the future (Richardson, 2016, p. 13-14).

For the first time in the post Cold War era the future of capital ships were now discussed, which perhaps was somewhat paradoxical given the return of great power competition. It can be argued that the competition manifested in direct threats to capital ships, and this led to the discussions.

It was, however, decided to continue with the *Ford-class* carrier programme, which essentially meant that capital ships remained in their current form²¹. But their role in a Navy that became increasingly preoccupied with near peer competition became more complexly defined.

In 2017, the then chairman of the Senate's armed services committee, Senator John McCain, published a report with his recommendations for future U.S. military force structure. He had two major points regarding the future navy force structure.

McCain suggested that the Navy pursued a so-called high/low mix of its aircraft carrier fleet. He saw the traditional supercarriers as necessary to deter and defeat near-peer adversaries, but other missions such as power projection, sea lane control, close air support or counterterrorism could be achieved with smaller, cheaper and conventionally powered aircraft carriers. He suggested that the Navy began a transition from large deck amphibious ships into smaller aircraft carriers²² (McCain, 2017, p. 10).

McCain was often seen as someone that went against the flow, also within the defence discourse. However, he was not alone in suggesting an alternative fleet structure.

In 2018 the U.S. Senate's defence bill, decided to allocate 30 million dollars to the investigation of a preliminary design effort to create a light carrier (Mizokami, 2017, p. 2).

²¹ It was of course too late to change plans for the first two *Ford-class* carriers, as the first the *USS Gerald R. Ford* was launched in 2013 and the second the *USS John F. Kennedy* was already under construction and scheduled to be launched in 2019.

²² This idea actually shares many ideas with the Sea Control Ship proposed by Pete Pagano, who suggested using the Wasp or America-class amphibious assault ships as a test bed for light carriers (Pagano, 2017, pp. 1-10)

The problem was that supercarriers were growing unaffordable. The *USS Gerald R. Ford*, which is the only supercarrier, built in this decade was two years behind schedule and 22% over budget. A light carrier could be an ideal alternative to super carriers for less dangerous conflict zones that still require airpower. During wartime a light carrier could escort convoys or augment a supercarrier's firepower against a peer adversary (Mizokami, 2017, p. 3). And independent and nonpartisan CSBA²³ report proposed a high/low mix as well, specifically it suggested 12 nuclear powered carriers and 10 light conventionally powered carriers (Clark et al., 2017, p. 45).

On the other hand a RAND study from the same time analysed future carrier options as well. It concluded that that in the end a *Ford-class* carrier or something very similar would be best (Martin & McMahon, 2017, pp. 63-65). There are however, a few central points to note from the RAND study. Firstly, its focus was analysing whether the *Nimitz-class* supercarrier should be replaced with something other than the *Ford-class*. It did not study the high/low concept. Secondly the study was focused on carrier performance in combat, where the larger carriers had more endurance, survivability and were able to generate more aircraft sorties (Martin & McMahon, 2017, pp. xvii-xviii).

Eventually Congress decided for fiscal year 2019 that the U.S. should expedite procurement of supercarriers, and a new *Ford-class* carrier should be authorized every three years as opposed to previously planned five years (O'Rourke, 2018, p. 29).

Developing an alternative design to the *Ford-class* was in the end not considered cost beneficial. A smaller design would incur significant design and engineering cost while reducing magazine size, carrier air wing and other vital factors. Additionally, a new design would delay the introduction of future aircraft carriers thus increasing existing carrier gap and threatening national security (O'Rourke, 2018, p. 29).

It was also decided, that from 2022 the Navy should be statutorily required to operate 12 operational aircraft carriers (O'Rourke, 2018, p. 29).

This debate is very revealing. It can be viewed as merely a discussion about aircraft carriers in the U.S. Navy. It is, however, much more than that. It is about the future role of capital ship

²³ Centre for Strategic and Budgetary Assessments

thinking. In this case, the *Ford-class* represents the next step within capital ship design. Because the U.S. has continued the *Ford-class* programme instead of rethinking the fleet structure or the capital ships place within this, the role of the capital ship appears to remain within the current paradigm. Adapting the high/low mix concept, should however not be seen as a challenge as such, this concept still requires supercarriers, but perhaps not the same number.

Congress' decision to proceed with the *Ford-class* was weighed against the alternatives illustrated in the RAND report, which were alternatives to replacing the *Ford-class* with something else. The high/low mix concept proposed by the CSBA report and McCain did *not* exclude supercarriers. This concept is still a possibility, as the Navy was directed to study various options for a light carrier.

The fact that these discussions took place (and are still taking place) is surely because the challenge to capital ships were now evident. Historically the same discussions took place when the invention of the submarine threatened the battleship.

The role of the capital ship within U.S. fleet structure is therefore still significant, and it will likely remain so. The previous chapter suggested, that supercarriers had been elevated to mythological status in the U.S., and so far the decision concerning the *Ford-class* supports this view.

Technologic advances continued their impact on naval operations, perhaps even changing the nature of those operations altogether.

McCain also suggested that the Navy accelerate its current unmanned aerial vehicle programme. Specifically he suggested that the Navy began developing an unmanned aerial vehicle (UAV) system for long-range strike and surveillance missions (McCain, 2017, p. 10).

This was actually also a part of CNO Richardson's design for maintaining maritime superiority. Exploring alternatives to fleet structure, such as unmanned systems, was one of his four lines of effort. The three others were, modernising the strategic nuclear submarines, to be prepared for "blue-water scenarios", and to move further within the realms of information warfare (Richardson, 2016, p. 15-16).

To sum up, the capital ships role within U.S. fleet structure post 2014 has not been smooth sailing or business as usual. Politicians have begun to raise questions, and options are being considered. But, it is however important to note, that no one was suggesting or seriously considering a move away from supercarriers as the capital ship. If a high/low mix becomes reality it will support the supercarriers not replace them.

The closest thing the Navy came to considering an alternative approach was the CNO stating the need to explore alternative fleet designs, manned and unmanned systems (Richardson, 2016, pp. 15-16).

Despite the questions, the U.S. Navy is for now continuing its path of a capital ship centred force structure.

7.2. The Diplomatic Role

The strategic documents published after 2014 clearly express a turn toward a competitive rather than collaborative navy. Geoffrey Till described the Strategy of 2015 as a turn toward war fighting and hard power thinking (Till, 2015, pp. 36-37).

Presence

The concept of *Forward Presence* was still central to U.S. strategic thinking, and this section will demonstrate how the capital ship was and still is the centrepiece although they were still supplemented by other ships.

An important focal point in the strategy of 2015 is the strong connection between *Forward Presence*, stability and therefore peace. The carrier strike group had an essential role in this, it was consequently referred to as either the centrepiece of naval capability (USN, 2015, p. 23), the crown jewel of *Forward Presence* (USN, 2017, p. 79) and possessing overwhelming combat power (USN, 2015, p. 22).

The concept of *Distributed Lethality* was introduced in 2016, as a strategy for the surface combatants. It will be further discussed in the next section. But, one of the principles in this concept was a more widely distributed surface fleet, which in turn helped create more presence (USN, 2016, pp. 4, 18).

Previous strategies did mention areas of strategic importance, and therefore areas where capital ship presence was prioritised. This is also the case with the 2015 strategy, but it is significantly more detailed.

The Indo-Asia-Pacific region was highlighted as an area of special interest (USN, 2015, p. 1). A carrier strike group and amphibious ready group would therefore remain permanently based in Japan. An attack submarine and smaller surface ships would be deployed to Guam and Singapore (USN, 2015, p. 11). In the Middle East they planned on an increased presence from 30 ships to 40 ships by 2020 and to continue the rotational deployment of carrier strike and amphibious ready groups (USN, 2015, p. 13).

In comparison, Africa can perhaps be regarded as an area of lesser strategic importance; there the Navy planned to provide presence with so-called adaptive force packages such as the Joint High Speed Vessel (USN, 2015, p. 16).

The 1000-ship navy was a concept to increase presence in the collaborative period, and this is not given much attention in the competitive period. However, the principle of generating presence through others remained.

It was important to be on good terms with allies that have capital ships of their own.

Two allies were mentioned by name, France and the United Kingdom (USN, 2015, pp. 5, 14). Royal Navy personnel were mentioned as being embarked in a carrier strike group's staff and France was highlighted in relation to combined carrier strike group cooperation. The interoperability with both Britain and France was emphasised as a priority (USN, 2015, p. 14). Whereas the four BMD capable destroyers permanently deployed to Spain was presented as U.S. contribution to NATO (USN, 2015, pp. 14-15). The choice of words is interesting, because it clearly implies that Britain and France were considered somewhat equal whereas NATO in general, was someone that is supported. This clearly suggests that only countries with capital ships of their own were considered peers.

A derivative effect of such good cooperation would certainly also lead to the fact that these nations' capital ships can, in some cases represent American/Western interests in their areas of operation.

Presence can be summed up very easily – it is important and ensures peace. The Navy is required to show presence in many areas and this leads to prioritisation. The capital ships are present in the most strategic important areas.

Preventive Diplomacy and Coercion

According to the Navy, changes in the security environment were among the reasons why the overarching strategy from 2007 needed an update (USN, 2015, p. 1). The assertiveness of Russia and China drove this change. The countries were specifically mentioned as sources of international instability (Pandolfe, 2016, p. 10).

Naval aviation was the “mailed fist” of the U.S. Navy’s striking power (USN, 2017, p. 1), and when discussing deterrence in the 2015 Strategy it is highlighted that this was provided by the overwhelming combat power of the carrier strike group. The strike capability of the surface combatants and the amphibious ready group are also prominent (USN, 2015, p. 22). An interesting circumstance, and certainly one that is different in this period compared with the 90s is that the role of the amphibious ready group is greatly diminishing. This is no doubt because of the fact, that with high-end threats at sea, the Navy had a lot of more classic naval tasks to perform.

It is therefore safe to say, that great power competition in the international system, and at sea, is back. However, even if top Navy officials, and the strategy itself, had not stated this fact directly it would still have been obvious from studying the documents. The deterrent value of naval forces is emphasised several places, and it is often highlighted as one of the qualities gained through *Forward Presence* (USN, 2015, p III), and the capital ships role in this concept has been described as both the centrepiece (USN, 2015, p. 23), and the crown jewel (USN, 2017, p. 79). This is a very powerful choice of words and the Navy seems determined in conveying a message. The strategy was eventually translated into several languages including Mandarin (Till, 2015, p. 41).

Capital ships are therefore the primary tool whenever, the U.S. Navy wants to demonstrate their power. The importance of keeping this tool and to be on the forefront compared to rising competitors was demonstrated by the procurement of additional *Ford-class* carriers.

Additionally, Congress decided to increase the number of aircraft carriers that the Navy is statutory required to operate (O'Rourke, 2018, p. 29). This is the first time in the post-Cold War era that the required number of capital ships is increased.

7.3. The Military Role At Sea – Sea Control

Operations at sea have certainly grown in importance since 2014. This is surely because of the return of great power competition.

This fact has led to the U.S. Navy to pay more attention to the ability to operate on the High Seas. In previous strategies, freedom of manoeuvre here was implicit. This is no longer the case, and one of the CNO's four lines of effort for maintaining superiority at sea was that combat at sea must address blue-water scenarios (Richardson, 2016, pp. 13-14). This was certainly new compared with previous strategies. Security in the global commons and countering A2/AD challenges were still important, but these were not among the CNO's four lines of effort.

So far this study has argued that the connection between capital ships and securing sea control was still there, although capital ships were no longer alone in this mission. Now it appears, that the link has become quite weak. This section argues, that while the capital ships are perhaps not excluded from the mission they are certainly no longer the prime assets. It will also argue, that a reason for this is that capital ships have in fact become more of an American symbol rather than a military tool – A symbol that the country is very unwilling to place in harms way.

The capability to operate from a sea base was seen as a “crown jewel” of *Forward Presence*, sea control, and power projection (USN, 2017, p. 79).

These statements of course support the notion of capital ships as being important in the U.S. Navy's military missions. However, the statements also appeared to be very value-laden and rooted in the psychological value of the capital ships and less in their actual combat role. The documents are very reluctant with describing their role in a near peer war.

In 2016, the Navy published the concept of *Distributed Lethality* as an operational and organisational principle for achieving and sustaining sea control at will (USN, 2016, p. 2).

This concept was interestingly enough not centred around capital ships but instead the surface combatants.

Distributed Lethality was to be achieved by “increasing offensive and defensive capabilities of individual warships and employing them dispersed across a wide expanse of geography” (USN, 2016, p. 9).

The Navy, however, neglected to say how this would be achieved. As discussed under force structure, the Navy, despite all intents, was not likely to become much bigger. Surface combatants were still required to perform their role as escorts in carrier strike groups and amphibious ready groups and they also had BMD missions of their own. The surface force is only so large, and it is therefore quite difficult to see, where these ships should come from. A concept like this also requires ships to be equipped differently. U.S. destroyers had for the most part been fitted to conduct strike and air defence roles. The last U.S. destroyer to be fitted with Harpoon anti-ship missiles was launched in 1997, all destroyers built since have been built around air defence. Their only anti-surface weapons are SM-2 missiles designed for air-defence, and their gun (Cummings, 2016, p. 2). Of the potential adversaries, China, have fitted every surface combatant built since 1990 with anti-ship cruise missiles.

Additionally, China apparently enjoys a significant advantage in fleet load and range of their anti-ship cruise missiles. The Harpoon has a range of 65 nm as opposed to the 100-290 nm, which is the assessed range of three of the Chinese missile types (YJ-18, YJ-62 and YJ-83). Furthermore, the Chinese warheads and numbers outmatch the Harpoon as well (Cummings, 2016, p. 4). U.S. procurement of new over the horizon anti-ship missiles has been complicated by the fact that most bidders have decided to withdraw from the competition (IISS, 2018, p. 33). There are plans in place to develop or procure new anti-ship capabilities, but it is safe to say that the U.S. Navy is firmly behind their Chinese counterparts in this area.

On this basis, it is very difficult to see neither the value nor the realistic prospects of *Distributed Lethality*. With the current capabilities in the fleet inventory, the U.S. Navy is simply not designed to fight another navy at sea with other means than strike warfare, of which the aircraft carrier is the largest weapon. This may be enough in a littoral environment, but this is not the case of blue-water combat.

Furthermore, it is quite interesting to discuss the concept in relation to capital ships. Should it be seen as a replacement, a supplement or was it a result of a more competitive environment. The capital ships military post-Cold War role were mainly assuring access and conducting strikes. *Distributed Lethality* is undoubtedly a result of the resurgent need for being able to secure sea control on the High Seas combined with the relative disadvantage in anti-ship capabilities from which the U.S. Navy suffered. Capabilities that constituted severe threats to capital ships. *Distributed Lethality* should therefore be seen as a result of the competitive environment. It is both a concept for securing sea control and it keeps the capital ships away from the frontline. However, if the concept is tested before the relative disadvantage in anti-ship capabilities are levelled, it is difficult to imagine the capital ships not being employed to fight at sea to cover the current weaknesses.

From the Sea

The prospect of facing other nations at sea did not lead to operations from the sea becoming insignificant. However, there are some interesting developments to be seen within this area post 2014. The capital ships were still essential. What is surprising however, is the fact that this mission now seems to be *reserved* for the capital ships – This will be the main point of this section.

The role of major surface combatants has been marginalised in comparison with earlier periods. This is especially interesting given the fact that the *USS Zumwalt*, the Navy's newest destroyer type was commissioned in late 2016 – a ship type that was supposedly tailored for land attack (USN, 2017, p. 37).

In the introduction to the cooperative strategy the benefits of naval power are explained: “Coming from the Sea, we get there sooner, stay there longer, bring everything we need with us and we do not have to ask anyone's permission” (USN, 2015, p. I). This is perhaps a relic from strategic thinking of the 1990s, where the environment was very benign. The strategy does, however, also use a post 9/11 example where capital ships made a difference. Two amphibious ready groups conducted amphibious assault operations 350 nm from the coast and created a bridgehead for further operations in Afghanistan (USN, 2015, p. 12).

Furthermore, the carrier air wing is highlighted as the Navy's preeminent strike capability (USN, 2015, p. 19).

Apart from these statements, conduct of operations from the sea are not given much attention in the official strategy. This trend is followed by the CNO in his design for maintaining maritime superiority.

The return to state versus state competition has certainly shifted the focus of U.S. strategic thinking within the military role.

Previous chapters have addressed the fact that the surface combatant has become a capability in its own right. Although this did not replace the capital ship's role it did present a challenge or a supplement depending on how it is viewed. This was certainly the case within operations from the sea, where its strike capabilities could be brought to effect. Post 2014 the surface combatant's part in this mission is less significant. This is no doubt because of their envisioned role within the *Distributed Lethality* concept. This can perhaps be viewed somewhat as a paradox since the surface combatants are still optimised in the strike role, as mentioned in the former paragraph.

When it comes to operations at sea, capital ships are important, but the strategies does not really tell why and how – except for their strike capabilities. This suggests that they are valued more for their psychological value than their combat value. Psychological value has always been a feature of capital ships. But how does the U.S. Navy envision employing them in a near peer fight? Have their psychological value perhaps become so high, that the thought of placing them at risk have become unattainable and the surface combatants have therefore been designated as the fighting force?

7.4. The future of the supercarrier as the capital ship in U.S. naval strategy

The purpose of this subchapter is to analyse the role of the supercarrier as the capital ship in U.S. naval strategy in the future. To answer this question one needs to discuss the nature of the current capital ship, the threats it will face and the sustainability of continuously introducing rapidly developing new technologies. An assumption behind this chapter is that capital ships, as long as it is a physical hull, will remain aviation platforms.

The role of unmanned vehicles will not be discussed explicitly in this subchapter. This is not to deny their role, which is likely to increase in future military options. At the current

technological state, these vehicles are, however, not seen as a direct challenger to the role of capital ships. UAVs may well be an alternative to manned aircrafts in the future. However, whether the aircraft in an air wing are manned or not is not relevant in relation to the aircraft carrier's strategic importance.

The chapter will primarily discuss the challenge from technology, or the network as the future capital ship, a view that has been put forward by some thinkers.

Lastly the chapter will discuss the ship itself and its role, eventually concluding that the current paradigm is not likely to change significantly in the near future.

Technology – The network.

The idea behind the network as the future equivalent to the capital ship rests on the notion of an entire fleet connected by a battle-force-network. The network consists of a number of nodes processing various information, orders, targeting etc. This should allow for a more effective distribution of fire over longer ranges (Rubel, 2017, pp. 6-9).

Rubel argues that the missile has probably become the most dominant and decisive weapon at sea, and this leads to the capital ship becoming vulnerable. Missile technology favours the tactical offensive, which means that if the U.S. Navy wants to secure access to an area where the adversary has capable A2/AD weapons the U.S. Navy has to strike first, but if the enemy's offensive power is hidden this can be very difficult which essentially places the aircraft carrier at risk (Rubel, 2017, pp. 6-7). There is however a role for the aircraft carriers in this concept. They should become escorts of the network, which of course requires physical nodes. The carriers would operate from behind, away from the anti-ship missile threat but still close enough to be able to provide air cover over *Distributed Lethality* forces (Rubel, 2017, pp. 7-9).

A concept like this can certainly be decisive in times of hostilities, but it too has its weaknesses. A network can (and will) be targeted as well. The concept rests on the exchange of data between each unit. Radio signals can very easily be either jammed or targeted, and this is also the case for signals traveling in outer space. Additionally, modern link systems today are already capable of doing much of what is described here. It is possible today for a surface

ship to receive the radar picture from a fighter aircraft and transmit engagement orders without ever speaking a word. These systems are certainly not limited to the U.S.

The fact that capital ships can be sunk is nothing new, the torpedo, the submarine and airpower all had their respective soothsayers predicting the demise of capital ships. Each time however the nature of the capital ship developed, either by a counteraction or by another ship becoming the capital ship.

Lastly, a very important aspect that is left out of this discussion is the psychological function of the capital ships. The ships are essentially built to prevent war by their deterrence value. The network concept mainly relates to its functions once hostilities have broken out. The concept, however, as proposed by Rubel does not include abandoning the aircraft carrier it simply suggests placing the “capital ship title” somewhere else. In the end it may be a matter of semantics, but their deterrent value is a significant part of what makes the capital ships capital and on that basis the network can not be the next capital ship.

The ship

For now the future appears to be somewhat static and the capital ship will remain in the form of the *Ford*-class of which the U.S. have decided to buy additional ships.

In its current form the capital ship have some potential challenges in the near future.

The first challenge is economy. Acquisition costs for the *Ford*-class have become colossal (Mizokami, 2017, p. 3), and it has the potential to become unaffordable for all – including the United States. It may be cheaper to run than the *Nimitz*-class, but the same can probably not be said about its aircraft.

Costs can lead to a condition where it is not technology that determines the capital ship, because state of the art technology has become unobtainable.

The second challenge is the test of war. If the capital ships were put to the test in a war with another capable navy and fails – this would certainly lead to changing paradigms. No capital ship has fought a peer competitor since World War II, and according to U.S. naval strategy their actual role in war a war is very vaguely defined. What modern anti-ship missiles and

indeed anti-ship ballistic missiles are actually capable of is also an unknown factor. Therefore, the next war can be decisive in determining if the capital ship will continue to have relevance in its current form.

A third challenge could be a Dreadnought-type revolution. It is difficult, however, to predict what (if any) will become the next “all big gun” or turbine propulsion concept.

Within this discussion it is important to note, that the *Ford-class* has to some extent been future-proofed, as it is being built to accommodate future technologies in the form of sensors, weapons etc. (Keck, 2018).

An additional aspect of this is also the fact, that the next “all big gun concept” could be so expensive that no country will be able to afford it. But that is of course, based on the assumption that the development of capital ships will follow its until now linear history. Meaning, that each new capital ship so far has been bigger, more powerful and more expensive than the ship it replaced. If that is not the case, then some other asset, an autonomous vehicle or something similar might be able to challenge the supercarrier’s status. This would of course require that the deterrent value inherently connected with size and firepower be replaced by something else.

Steve Wills writes that changes in capital ship concepts historically stems from a combination of new technology and changes in the financial and/or strategic situation (Wills, 2017, p. 1). These points are addressed through the three challenges discussed above.

The so-called high/low mix, proposed by McCain and others, of having a fleet of supercarriers supplemented by a fleet of lighter carriers is not a challenger to contemporary capital ship thinking. The concept still retains a number of supercarriers in order to deter and defeat near peer adversaries.

Proceeding with the *Ford-class* may also be the simplest and cheapest solution. Designing a new and different type of ship would cost a lot of time, and money. The *Ford-class* is already here. It really is just a case of deciding on how many you want. These reasons, were also among the primary reasons that Congress decided to proceed with the *Ford-class* (O’Rourke, 2018, p. 29). Procuring supercarriers is a very long-term project. The second Ford-class

carrier was procured in fiscal year 2013, partially funded 2007-2012, fully funded 2013-2018 and scheduled for delivery to the Navy in 2024 (O'Rourke, 2018, p. 1).

Additionally there are a lot of other factors that supports choosing the path that is already laid. The U.S. Navy have worked with supercarriers since the *USS Enterprise* was launched in 1961. These ships have been the centrepieces for more than 50 years. Changing the direction and paradigms of an organisation like the U.S. Navy, and probably also most of the Military and policymakers in Washington is not something that is done overnight. There are certainly individuals that argue against a carrier centred navy, but most governmental organisations appear to be biased toward the supercarrier.

Furthermore, as this study has demonstrated, the supercarrier has a significant symbolic value within the U.S. and within the Navy in particular. This could lead to the fact that the ship needs to fail in a war or in another way become evidently obsolete before its status will even be considered.

As mentioned in the introduction to this paragraph, for now the U.S. Navy is determined to continue the *Ford-class* programme gradually replacing the fleet of *Nimitz-class* supercarriers. The Navy does however need a lot more *Ford-classes* if the *Nimitz* fleet is to be replaced 1:1. It is therefore not too late to change direction after the three or four first *Ford-classes* have been delivered. However, as things stands now, this does not appear to be likely – unless of course one of the three proposed challenges are realised.

7.5. Summary capital influence in a competitive world and beyond (2014-)

This chapter have demonstrated how the role of the capital ship is still very significant in the U.S. Navy, and that the aircraft carrier is likely to keep this status for the considerable future.

Navies are becoming increasingly expensive to run, and supercarriers are also becoming more and more expensive to build. Despite these facts, *Ford-class* procurements have been expedited, which was a very likely result of the increased great power competition. Officials in Washington considered alternatives to the *Ford-class*, but in the end they decided to continue with what they knew. A conclusion that was also proposed by a government funded RAND report.

There were voices arguing the case of a high/low mix fleet, and Congress has made funds available to developing a preliminary light carrier design.

The capital ships were very significant within the diplomatic role, and references to the capital ships were very value laden. They were referred to as the crown jewel and the air wing was described as the mailed fist of deterrence.

The diplomatic role rests entirely on the concept of *Forward Presence*. According to the U.S. Navy, this concept ensures peace and stability and capital ships are the centrepieces. In other words, capital ships ensure peace.

Within the military role, there have been interesting developments. The challenge of sea control on the high seas is now seen as a challenge for the first time in the post Cold War era. The historical strong link between capital ships and this mission appears to have been diluted. *Distributed Lethality* is the concept, with which the Navy addresses this classic naval mission. Surface combatants and not capital ships are the centrepieces of the concept. Whether the concept is realistic or not is an interesting question, but the fact remains that capital ships are not envisioned any role in this concept or within the sea control mission in general. Capital ships are however intended a significant role within strike warfare.

Despite this, the future of capital ships in the U.S. Navy appears to be set. The network is definitely coming, and it is probably already here. But, it is not a challenge to either the supercarrier or the capital ship term. It can not replace its symbolic value or non-wartime functions, which may one and the same.

It appears, that the only thing that is able to challenge the supercarrier as the capital ship is a major war, where it fails or a technological achievement that renders the supercarrier obsolete to everyone.

8. Understanding capital influence within U.S. naval strategy since 1992

This chapter will provide a short summary of the three periods covered in the preceding chapters. The periods will be compared and contrasted and thus serve as a transition to the conclusion in the next chapter. The chapter will follow the same methodology as the three preceding chapters, thus beginning with fleet structure before addressing the capital ship's proposed role within diplomatic and military mission.

Among the key findings is the fact that that the capital ship's role in U.S. naval strategy is significant, but rather psychological. In the study's first two periods, the capital ships were the centrepiece of U.S. peacetime power projection capabilities. This was a world where no one could challenge them militarily. In many ways, they were the symbols of U.S. supremacy.

Great power competition has so far not changed this psychological role, but it has changed their role in securing sea control in times of hostilities – a task that is a part of the capital ship definition. The study has demonstrated that when faced with a near peer competitor, the military role of capital ships is not clear.

8.1. Fleet Structure

The conceptual approach throughout the three periods has been a fleet structure designed around the capital ships.

The collaboration with the Marine Corps was very significant in 90s where the Navy saw itself as an enabler in relation to operations ashore – most certainly based on the lessons from the first Gulf War. Amphibious assault ships were widely regarded as capital ships as well. Arguably this was a period where the Navy struggled to define its purpose. With no one left to fight at sea it was therefore opportune to adopt the “*From the sea approach*” and articulate a strong link with the Marine Corps and supporting troops ashore in general.

The Global War on Terror did not do much to change this approach, as terrorism, for the most, part did not put to sea.

The threats from near peer competitors (e.g. the superior Chinese anti-ship capability) were among the reasons that *Ford-class* programme was reevaluated. These threats were also key reasons behind the *Distributed Lethality* concept, in which the capital ships does not have a

significant role, but this concept has not yet been backed up with significant changes in fleet structure.

This discussion and the somewhat competing concepts are seen as challengers and not as changes as such because the fleet is still structured in much the same way as it was in the 90s, but the envisioned employment has changed, which the next sections will address. Over time, this can perhaps lead to changes within fleet structure as well. These changes could be a significant increased number of surface combatants and/or introduction of light carriers.

8.2. The Diplomatic Role

Capital ships have had a significant part of this role throughout all three periods. However, as great power competition emerged the role became more outspoken and symbolical.

In the 1990s the capital ship became synonymous with the United States as the world's only superpower. Capital ships are, by their nature, very symbolic and this, along with their strike capability was what mattered in the 1990s and in the first half of the collaborative period. *Forward Presence* became the concept used to exert U.S. influence in the World. The capital ships were the centrepiece of this concept and have remained so to this day. Other ships have diplomatic value as well, and this has been a prevailing tendency throughout all three periods. Tomahawk missiles and BMD capabilities have given the surface combatants a diplomatic role as well. In addition to this, the role as the world's sole superpower required the U.S. to be present in many areas of the world – certainly more than they have capital ships. The capital ship's top spot have, however, not been questioned and the areas that were most important to the U.S. had capital ships, and this is still mostly the case today. The capital ships have a symbolic value that is unprecedented.

In 2010 a U.S. carrier was planned to take part in an exercise in the Yellow Sea with South Korean forces, but after several objections from China the exercise area was altered (Spegele, 2010). This is an example of how a potential adversary sees the presence of a capital ship in an area that they regard as vital. China hardly expected that this should be seen as an attack on China, whereby we return to the symbolic value of such a ship. The U.S. uses this symbolic value extensively. In early 2018, a carrier strike group conducted a port visit in Vietnam, in what was no doubt a clear message to China (Beech, 2018).

The return to great power competition was also very visible in U.S. naval strategy. The Cooperative Strategy for 21st Seapower was updated in 2015 because of this competition and it is therefore interesting to compare differences in how capital ships are portrayed in the two versions.

The capital ships were a more “visible” and featured tool in the new strategy. A carrier strike group is mentioned 11 times in the 2015 strategy but not even once in the 2007 version. This clearly supports that a world where great power politics have returned, a capital ship is a very important symbol.

Their diplomatic importance has undoubtedly increased as the competition increased. But, this is not exactly the case with their role within the military role, which the next section will address.

8.3. The Military Role

The capital ships were very important as the primary striking arm of a power projection Navy in the unipolar and collaborative periods. As other powers appeared on the world stage, and threats materialised capital ships’ military role became much more withdrawn.

A capital ship’s most important feature is of course its capability to perform strikes through its air wing, and this remained the same throughout. What changed is the context in which this was utilised. The context around the carrier changed and because of this it can be argued that its military value has decreased since 1992.

In the 90s and the first half of the collaborative period the Navy could, for the most, part deploy its carriers and amphibious ships to any part of the world from where they would project power without ever considering any significant threats. This changed during the collaborative period, when the rise of A2/AD began threatening U.S. access to certain areas of the world. The capital ships were a significant part in countering this, their envisioned task was to secure access and then provide air cover to the force that would be fighting in the littorals. This development corresponds, to a large extent, with the classical capital ship role of securing sea control.

When some of the A2/AD threats developed into near peer competitors the possibility of having to fight for sea control on the high sea, something that was considered implicit until now, the role of capital ships was reduced. Within the context of securing sea control on the high seas, the capital ship's role is not defined at all. Instead it is the surface combatants that are designated as the fighting force.

The capital ship's role within military mission is still there, their ability to strike from the sea is as important as ever but this ability is not incorporated at all within the sea control mission. In fact, within this context the capital ship's role is not described at all.

One of the very likely reasons behind this development is the threats that such a force is likely to face. It is no secret that China has developed their capabilities specifically to target aircraft carriers (Erickson, 2013, p. 27).

9. Conclusion

This thesis has investigated the role of the capital ship in U.S. Naval strategy since 1992. However, before such an analysis could take place it was first necessary to define a capital ship and subsequently identify some key characteristics and place them into context with the naval trinity. Within the diplomatic role these were the missions of presence and preventive diplomacy and coercion. Within the military role, it was the mission of securing sea control and the conduct of operations from the sea.

These characteristics helped create a methodology for investigating the capital ships' role within U.S. naval strategy.

Within U.S. fleet structure the capital ships role is very much implicit, and publically at least it is not close to being an object for discussion by the Navy itself. From the political side, however, discussions are present, especially as great power politics returned, but until now it has not changed the role of the capital ship. The only thing that is clear, is that the political side is at least considering a high/low mix since funds have been made available to investigate a light carrier design.

Within the diplomatic mission the capital ship has quite significant symbolic value, especially within missions of showing presence. This suggests a substantial symbolic role, which this thesis supports. This role became clearer and more expressed as great power competition appeared.

The military mission can be presented from two perspectives, and both would be true. The first will claim that the capital ship's central role in performing strike missions have been central throughout, perhaps even becoming more dominant since the surface combatants are not envisioned in this role in the latter part of the period in question. The second perspective will argue that as great power competition grew the military role of the capital ship did the exact opposite. This ship is referred to as the crown jewel in the U.S. Navy, and historically, in times of hostilities, crown jewels were kept safe far from the front.

If these findings are combined they tell the story of a U.S. Navy that places a significant amount of trust in the deterrent value of their capital ships. If deterrence fails and the Navy is

forced to secure sea control against peer adversary capital ships are not the preferred weapons. This fact essentially means that they are no longer capital ships – at least not according to the definition put forward in this thesis. There can however, be little doubt that the U.S. considers the supercarrier the most important ship of its time – its more than that, it is the *crown jewel*.

The future of the aircraft carrier as the U.S. Navy capital ship

For the near term, the future appears to be somewhat static. This is due to the fact that the U.S. has decided to continue with the plan of building *Ford-class* supercarriers to gradually replace the *Nimitz-class*. However, there are still a lot more hulls that needs to be approved by Congress before the *Nimitz-class* is replaced 1:1, which means that things can be turned around. However, at this point a change is not considered likely.

Furthermore, when discussing a replacement for the supercarrier as the capital ship, it is important to consider the findings of this thesis, which argues that the supercarrier is mostly valued for its psychological value, and this is hardly replaced by a system or an unmanned vehicle of some sort. A key question is therefore, what is that needs to be replaced? This question will be addressed later in the section.

Subchapter 7.4 discussed the future of the supercarrier as the capital ship, and some of the possibilities mentioned there can still materialise. The network will definitely materialise, to some extent it probably already has. It is, however, highly unlikely that it replaces the supercarrier or the capital ship paradigm. As this thesis has demonstrated, the psychological value of the supercarrier is very significant.

This psychological value is also connected to the size, prestige and power of such a ship. All this, is a case against replacing the supercarrier with something smaller.

Subchapter 7.4 also discussed possible challenges to the supercarriers' status as the capital ship. These where economy, a war or a Dreadnought-type-revolution. The first two does not appear likely in the near future, although some argue that U.S.-Sino relations have potential to develop into a clash at sea (Tunsjø, 2017, pp. 296-298). However, will it be of a magnitude with the potential to challenge current paradigms or will it be a limited clash?

Regarding the economy, it is not likely that the U.S. will decide to slow down on military investments in a time of great power competition. The dreadnought-type-revolution is therefore the most likely of the three, since technology does change warfare all the time.

I will now return to the question that I raised earlier, what is it that needs to be replaced? Is it even possible to replace something with a psychological value that has been built up since World War II? It is likely that the supercarrier as the U.S. capital ship has developed into something that is irreplaceable for the U.S. If that is the case, it will probably take nothing less than a major war to change this line of thinking.

The future of the capital ship in general

The United States is now again procuring capital ships. China has an aircraft carrier program of their own, and the Russian carrier has been on several very public deployments in recent years.

These are the nations that U.S. documents typically refers to in relation to great power competition. Other nations like France, Britain, and India are also either developing new carriers or operating their own. In Japan there is an on going debate about whether they should convert existing *helicopter destroyers* into aircraft carriers or not. It seems safe to say that all these nations, except for Japan have interests far beyond their borders and a desire to be able to influence these²⁴.

Capital ships are therefore what nations bring out when they want to exert their influence beyond their borders and when they want the rest of the world to take notice. With more great powers, logic would dictate that there is also likely to become more capital ships.

Further areas of research

The link between the task of securing sea control and the capital ship is an interesting area for further study. In the U.S. Navy this link has almost vanished. But is this a general trend within naval warfare or is just an American approach?

Major navies, and capital ships have not fought each other for more than 70 years. This raises many questions about what may happen in a major war at sea.

²⁴ The debate in Japan is specifically concerning the ability to defend the Senkaku Islands. Additionally, the Japanese constitution does not allow the country to possess offensive weapons. This all leads to the Japanese case being very complicated.

The weakened link between sea control and capital ships in U.S. naval strategy is certainly because of a fear of losing a capital ship. U.S. capital ships have become enormously expensive and their psychological value has grown so high, that the risk of losing such a ship seems incomprehensible, but how is this viewed in other navies? Of course other navies do not have ships of this size, but their relative value in terms of personnel, materiel and fighting power will be significant for the individual country.

A study like this is also relevant to conduct on other nations, both western and non-western. China is a very interesting case for any student of naval strategy. Their naval strategy is still being formulated, but it will be very interesting to see what approach they will be following. China has great interests at sea, and a logical consequence would be to follow the offensive school of seapower. They do have an aircraft carrier program of their own and they have begun to demonstrate presence on a more global scale in recent years.

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