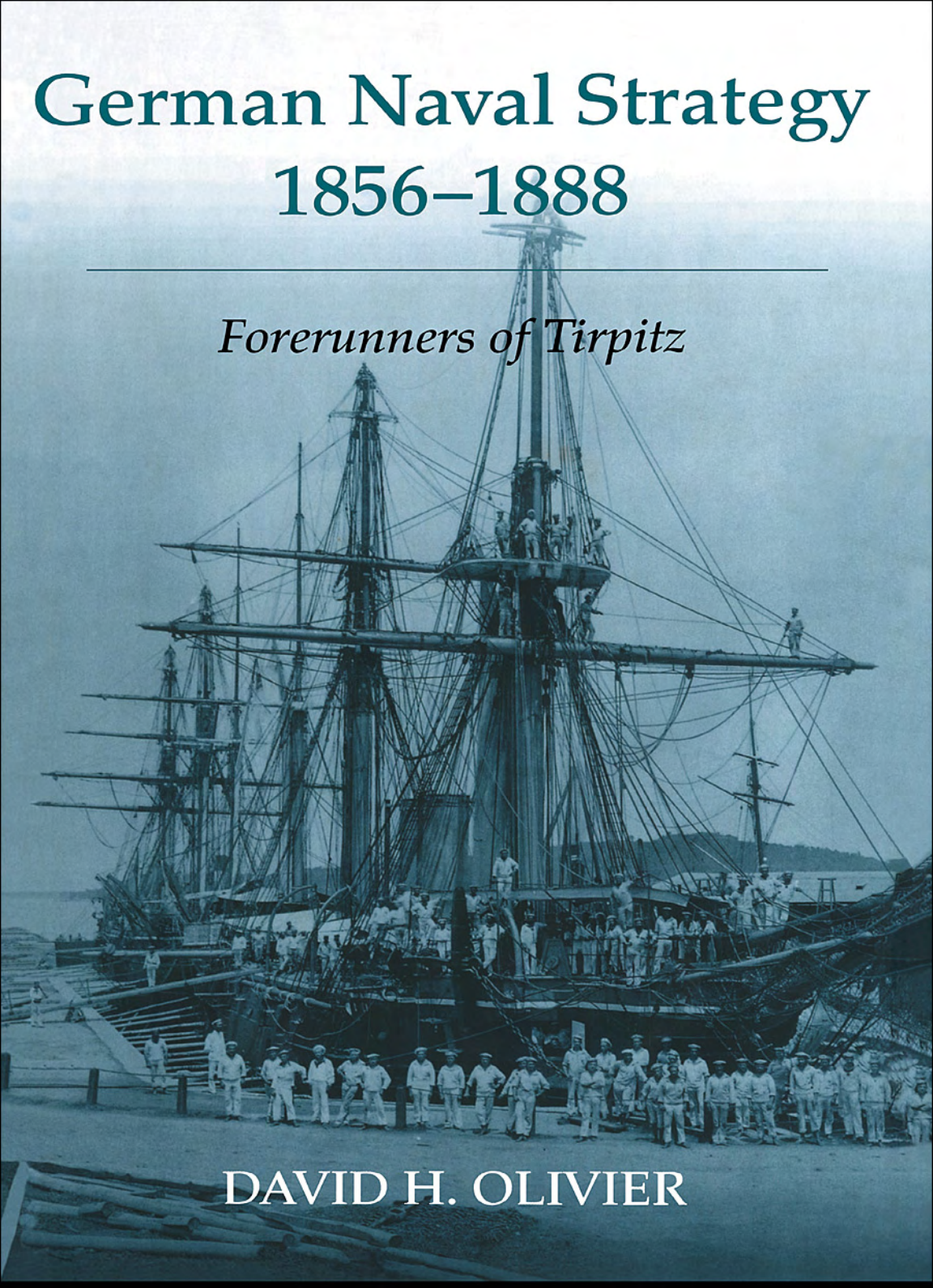
German Naval Strategy 1856–1888

Forerunners of Tirpitz



DAVID H. OLIVIER

GERMAN NAVAL STRATEGY 1856±1888

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SERIES EDITOR'S PREFACE

One major focus of the Naval series to which *German Naval Strategy* is the latest addition is to explore the sources of naval conduct. Here the fundamental question is what navies are for. Contemporary answers to this deceptively simple question help determine a navy's construction policy, its size and shape, its operational functions and success, and the way it is seen by other navies and states.

This book provides a unique case study of a very new navy at the earliest stage of its development. It tracks the contending ideas about what purposes the new German Navy should serve. Should it concentrate on coastal defence and army support as the generals wanted? Should it, alternatively, adopt the sweeping and radical ideas of the French *Jeune Ecole* and focus on attacking the merchant shipping of putative adversaries? And what should it do about protecting German shipping?

David Olivier shows how the external environment helped shape answers to this question. The transformation in naval technology of the time, which affected everything from concepts of battle and naval doctrine to the traditional concepts of maritime law, was one such influence. The primacy of the army in German defence was another. Germany's strategic outlook and, particularly, its acquisition of an overseas empire that had to be sustained and defended were especially important in framing the way that German naval policy evolved. In essence, if Germany wanted a place in the sun, if it wanted to be more than a regional superpower, it would need to build a navy capable of operating at the appropriate level and in more distant places. The answer would reflect a classic balancing act between land power and seapower, and so would act as a window into Germany's concept of its place in the world.

In the end, of course, the German Navy adopted some very Mahanian ideas under the influence of Admiral Tirpitz. Within a few decades, it was to emerge as the world's second most powerful navy, completely upsetting the comfortable naval assumptions of the nineteenth century. This was an extraordinary development but it did not spring from nowhere. David Olivier explores the early days of this process and his perceptive analysis helps us really to understand one of the most remarkable and important aspects of twentieth-century naval history.

In so doing, he also throws light on the much more general phenomenon of navalism. Through an exercise in contrast and comparison, his analysis should provide us with helpful insights into the world's other navies as well.

Geoffrey Till

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My wife, Elizabeth, has lived with this manuscript as long as I have, and probably can still quote whole sections of it. She has always acted as my able first line of defence against faulty logic, poor grammar, and misused commas. Any faults in this book are there probably because I did not pay enough attention to her advice. This work is dedicated to her.

INTRODUCTION

The German navy's orthodox here sy

On 25 July 1877, the corvette SMS *Bismarck* was launched at the Norddeutsche Schiffbau A.G. in Kiel. She was the embodiment of current naval technology, of a strategic philosophy, and of diplomatic concerns. Like the five sister-ships of her class, and like many other cruising warships of this period, the *Bismarck* had an iron hull but was sheathed in wood, and was equipped with two forms of propulsion: a steam engine and full rigging for sails. Throughout her career, the *Bismarck* was constantly on duty overseas, serving as the presence of the German Empire in distant waters. Her tasks included the protection of German commercial interests and German citizens abroad, the gathering of scientific data, and the enforcing of foreign policy and diplomacy as determined by the Foreign Office in Berlin. Such a warship symbolized an era of industry and empire, but, more specifically, she exemplified the conflicted doctrine and identity of a modern armed force projecting on a global scale the power of an ambitious state.

SMS *Bismarck* never took part in wartime activities, and her armaments were used only in the establishment of the German colonial empire in the 1880s. However, had there been a war between Germany and another European power, the *Bismarck's* role would have changed considerably. One faction in the German naval officer corps looked forward avidly to the unique kind of warfare it believed would ensue. The *Bismarck,* and all the other cruising warships the German navy had stationed overseas, was expected at the commencement of hostilities to attack the enemy's unarmed merchant fleet and destroy precious cargoes and ships. Such cruiser warfare was not the preferred approach of Germany's military establishment. It was, rather, a radical and modern alternative, advanced by those who saw global commerce and industry, and speed and technology, as the concerns of a new era of warfare.

During the so-called `transition era', from roughly 1860 to 1890, there existed a unique opportunity for navies to engage in a successful *guerre de course,* a war on enemy commerce. This opportunity was created by two factors: changes in both maritime law and technology. By outlawing privateering in 1856, the world's seafaring states forced the war on maritime shipping out of the control of private interests and into the hands of the navies. This meant that the motive for interdicting commercial trade changed from one of profit to one of denying

the enemy the means to wage war. In turn, this made pursuit of the *guerre de course* more ruthless than privateering.

Furthermore, the introduction of steam power to shipping fleets was a laborious and expensive process, one which took effectively half a century. Meanwhile, warships could be built from scratch with steam power, and could chase down slower or becalmed merchantmen. This fact was amply illustrated during the American Civil War, and led a number of theorists to speculate on the possibilities of a war on commerce.

This was watched with great interest by all the world's naval powers, but was of immense significance to the new and growing naval service developing in first Prussia and later the German Empire. Without the encumbrance of centuries of tradition, and without an equally impressive array of obsolete sailing vessels, the Prussian and German navies were free to implement policies which made use of new technology. In fact, their need to establish their importance and legitimacy drove them to do so. This is a fact little credited by most historians of the German navy: the general impression is that German theories on cruiser warfare were merely symptomatic of the overall confusion in strategic thought endemic to all navies at this time, or at best an adjunct of the French school of thought, the *Jeune Ecole,* which came into being in the mid-1880s. These impressions are false. There was a distinct emphasis in the 1870s and 1880s on planning for cruiser warfare. When the German advocates of a *guerre de course* adopted the language of the *Jeune Ecole,* they did so for its clarity and boldness, not because they were merely aping its methodology. German cruiser warfare doctrine was shaped by a distinctive mix of strategic, imperial, commercial and technological imperatives.

However, an important point must be made regarding this German school of cruiser warfare. The primary strategy assigned to the Prussian and German navies during this period was always some form of coastal defence, whether passive or aggressive. Army officers led the navy until 1888, and commerce-raiding was not their priority. The advances in and preparations for cruiser warfare often took place in spite of that leadership. Nevertheless, it is significant that the senior levels of the naval hierarchy, despite their army bias, never explicitly rejected cruiser warfare. In the face of enthusiasts among the officers, imperial interests and parliamentary factions, they often reconciled themselves to the fact that the overseas elements of the German navy would have to fight a cruiser war. The construction and operations policies of the German navy during this period cannot be understood unless this tacit acceptance of cruiser warfare is recognized for what it was.

Was cruiser warfare a viable strategy for the German navy? This question was of great importance after the First World War, when opponents of the prewar German policy of battleship construction pointed to the successes of the submarine fleet as proof that the navy had erred in its strategic calculations. The arguments of the 1870s and 1880s were the same debate, only 30 years earlier, and geared towards surface, not underwater, warfare. Showing that cruiser

warfare was viable meant proving that battleship-building was wrong, and vice versa; that was why this debate, kept within the navy and the government in the 1870s and 1880s, became such a public matter once the Tirpitz programme became policy, and even more so after the failure of the navy in the First World War.

With no past history of its own in the era of sailing-ship navies, the German navy had no tradition and, hence, no orthodoxy. Within the scope of the German navy's limited history, the cruiser and the single-ship action had a longer and prouder tradition. This book is a study of how what was heresy elsewhereÐ cruiser warfareÐwas, to all intents and purposes, an accepted orthodoxy in the German navyÐa navy that felt itself inferior to its chief foes, France and Russia.

When the topic of commerce-raiding is discussed in connection with the history of the German navy, it is usually linked directly to the French school of commerce warfare theories in the mid-1880s, namely the *Jeune Ecole*.[1] The German navy considered the possibilities of commerce-raiding as a philosophy of naval warfare for two decades prior to the advent of the French theories. The initial influence was the American Civil War and the actions of the Confederate commerce-raiders. Unfortunately, the methods used by the Southern states were best suited to the specific time period of that war; by the late 1880s, both legal and technological conditions had changed sufficiently that the unique set of circumstances in the mid-1860s for commerce warfare no longer existed. Thereafter, the German navy had to grapple with rapid technological advances that likely made such a philosophy obsolete. Yet, in spite of all doubts, cruiser warfare remained a compelling possibility.

This work is meant to contribute towards improving on that general scarcity of studies of the pre-1888 German navy, and more specifically, to fill a gap in the examination of cruiser-warfare doctrines and their significance. The argument is that elements of the German navy recognized the effects of the legal and technological changes on the nature of warfare at sea and, coupled with the navy's dispersement of warships around the globe, sought to take advantage of this situation in the event of war by pursuing its own worldwide war on enemy shipping. This was not something that began with the opponents of Tirpitz's battleship-building policy, nor with the rise of a German *Jeune Ecole,* but can be traced at least to the beginning of the Imperial German Navy in 1871.

The first two chapters examine the underlying forces that changed the strategic situation up to the conclusion of the American Civil War. Chapter 1 is an examination of the changes in maritime law regarding attacks on merchant trade, and uses the memoirs of the most successful Confederate commerce-raider as illustration of how the ways of war at sea were changing.

Chapter 2 looks at the technological changes in warships and weapons, and the writings of two noted naval theorists of the period, to see how war at sea was about to change. These works were widely read by naval officers, and were often printed versions of speeches and lectures given to fellow professionals and

interested amateurs. This interaction advanced what debate there was through the constant clash and disagreement between various authors.

The remaining six chapters trace the development of doctrine, specifically on cruiser warfare, in German naval history from 1848 to 1888. They analyse the construction policies, operations planning, strategic thought and the navy's tactical development, with a view to highlighting the way in which strategic ideas revolved around commerce-raiding. Prior to 1871, the Prussian navy was a comparatively weak instrument, and did little to improve its stature or self-esteem in the Wars of Unification. The post-unification Imperial German Navy had to cope with the psychological burden of being a second-class service led by army officers as a legacy of the navy's poor showing in the Franco-Prussian War. However, the events of the Franco-Prussian War gave a new encouragement to believers in the strategy of commerce warfare. The ability of the French navy to stop German merchantmen, coupled with the inability of the Germans to put any dent in the flow of arms from Great Britain and the United States to France, provided them with proof that the war on land could have been shortened if only the navy had done its part. It was impossible for the first two leaders of the Imperial German Navy, Albrecht von Stosch and Leo von Caprivi, to avoid some reference to the idea of a war on enemy commercial maritime trade. The parliamentarians were caught up in the possibilities, and the majority of naval officers believed such warfare offered the navy its best means of contributing to the war effort. Commerce-raiding was, in effect, the first effort of a new and modern service to define its role in global power politics. The opposition to battleships lay not with the adoption of some foreign theory of naval warfare, but with a theory created within the navy itself. This theory of cruiser warfare was the first means devised by naval officers to take the battle to the foe, to legitimate the navy by offensive action and to uphold the honour of the junior branch of the German military.

Note

1. Holger H.Herwig, *`Luxury' Fleet: The Imperial German Navy 1888±1918*(London: Allen & Unwin, 1973), p. 15; Ivo N.Lambi, *The Navy and German Power Politics, 1862±1914* (Boston, MA: Allen & Unwin, 1984), p. 9. Lawrence Sondhaus, *Preparing for Weltpolitik: German Sea Power before the Tirpitz Era* (Annapolis, MD: Naval Institute Press, 1997), pp. 138±9, at least notes a scheme of Alfred Krupp in 1879 to sell the German navy a number of small gunboats and considers this a foreshadowing of the *Jeune Ecole's* use of torpedo-boats, but does not examine any other ideas in the navy on commerce-raiding as a method of war without attributing it to the *Jeune Ecole*.

Part I

CHANGE IN A CHANGING WORLD

Naval law and technology in the nineteenth century

1
THE ROOTS OF PLUNDER
Privateering and the laws of war at sea to 1865

As the art of shipbuilding became increasingly advanced, and as the horizons of world trade expanded in the fifteenth and sixteenth centuries, cargoes became more and more valuable. Furthermore, as nations began to trade with far-distant realms, the cargoes became of ever greater importance. Cutting off that trade could conceivably do great harm to the economic well-being of the affected state.

The application of laws to the right of free passage on the seas usually breaks down when a state of lawlessness occurs, such as in war. Belligerents deliberately seek to cause as much harm as possible to their foes, and, if cutting or denying ocean traffic will hurt the enemy, then all suddenly becomes fair. The only true restraint on a belligerent's action is the possibility of causing other, non-involved, nations to become involved because of the harm they have suffered.[1]

This has meant that the slow development of maritime law has always walked a careful line when dealing with those laws in effect during times of war: on the one hand, there is a recognition of the right of a belligerent to pursue a policy designed to bring maximum advantage to itself, and on the other hand, there is also a recognition of neutral rights, the freedom of non-involved states to enjoy unhindered and uninterrupted use of the seas. Until 1856, those laws developed depending upon current circumstances. The balance of who was favoured by those laws went back and forth between belligerents and neutrals, but by the middle of the nineteenth century world opinion seemed very much in favour of neutral rights and the limitation of war.

One of the most important sources of evolution in nineteenth-century naval doctrine lay in thought and opinion on the laws of the sea. This was made explicit in 1856. The Declaration of Paris was a significant concession by those powers, notably Great Britain, who had previously placed less restraint on the conduct of war at sea. In theory, the terms of the Declaration should have eliminated attacks on maritime commerce during war. In practice, it merely shifted the conduct of such a war from private investors and speculators to navies. This created a new element for states in the waging of war at sea.

Furthermore, this change altered the very motive for attacking an enemy's maritime commerce. Before 1856, the primary reason was profit; hence,

privateering was a lucrative business practice. After 1856, maritime trade was merely another cog in the enemy's war machine. Stopping that trade meant damaging the foe's war effort. Therefore, the fate of the cargo and of the captured merchantman became of less importance than preventing its safe passage. Destruction became an acceptable alternative to capture. The events of the American Civil War were a stark demonstration of that new reality.

Although the events covered in this chapter did not affect the German states significantly at first, they had a much greater bearing once a German navy had to consider its place in maritime law. The question of attacking enemy trade came up frequently in discussions of German naval policy. For instance, in January 1884, the Admiralty Council came to the conclusion that it was not worth going outside the boundaries laid down by the Declaration of Paris merely to interdict enemy trade, even after the events of the Franco-Prussian War, when German trade had been ruthlessly suppressed by the French.[2] This reflects the standard German policy of this era: a willingness to abide by the laws of the sea, provided the enemy was equally willing to do so. Ultimately, German wishes, that private property on the seas be respected in times of war, did not change over this period. This was another development of the freer trade of the nineteenth century.

Profit motive: the development of privateering

Long before there were attempts to codify and enshrine maritime law in treaties or conventions, there was a gradual evolution of a common law of the sea. This process took place in the give-and-take environment of the oceans in the early days of travel, when might made the only right. Slowly but surely, states grew to realize their best interests were served in a more even-handed application of laws by themselves, a naval version of the Golden Rule. Practice taught painful lessons; while sovereignty could be enforced over immediate territorial waters, not even the strongest of powers could yet make its will supreme on the high seas.[3]

It took a long time, however, before the idea of war at sea against an enemy's commerce was considered a feasible and justifiable action. Before then, actions were fought at sea, but they were rarely the actions of state vs state. Piracy had always been a thorn in the side of traders. Merchants sought the means to revenge themselves upon those who unlawfully plundered their goods. If the territorial origins of the pirates could be determined, a state could force another to deal with its unruly subjects. Thus was invented the concept of the `letter of marque and reprisal'.[4] Such a letter was granted, during peacetime only, to a merchant or syndicate that had suffered loss of cargo at sea. The letter was specifically granted against the particular state of origin of the culprit, and was set at the estimated value of the goods lost. It allowed the holders of the letter of marque and reprisal to attack a ship, or ships, of that state and seize cargoes until the value of the lost goods had been recovered in kind. The first such letter was issued in England in 1295.[5]

Roads and land thoroughfares may be subject to many external influences such as destruction, conquest, blockage and brigandage. All of these elements played a crucial role in war. The same is not as true of the high seas, however; while temporary restraint may be placed on passage in narrows or near ports, and some waters may be dangerous to the unarmed and unwary, the seas cannot be held by right of conquest, nor can they be made physically impassable, even by the most powerful of states: `But a state which possesses a navy will not necessarily possess sea powerÐpower, that is to say, consisting in the ability to exercise control over the maritime routes to the markets of the world, and thereby of influencing the course of world events.'[6] Thus, every nation that has access to the sea may make use of it freely for passage of both goods and persons.[7] These were basic rights that were first made explicit in the sixteenth century by the Dutch jurist, Hugo Grotius. The ocean, Grotius wrote, `cannot be reduced to a state of private property'.[8]

Consequently, when the idea of attacking trade came to warfare, it was viewed as a matter for private enterprise with its strong desire for profit. The increase in the value of goods transported by ship, which had taken place by the sixteenth century, made commerce-raiding a potentially profitable enterprise.[9] The growth of privateering, the wartime counterpart to the letters of marque, was directly attributable to its lucrative nature. Many merchantmen, armed with no more than one or two guns, would combine trade with privateering, ensuring a profit on each and every voyage.[10]

The best-known examples of early instances of privateering were the frequent attempts by the English and Dutch navies to capture or sink the Spanish treasure fleet in their wars of the late sixteenth and early seventeenth centuries. It was believed by the attackers that great harm would be wreaked on the Spanish economy if they succeeded in capturing the gold and silver shipped from the Spanish colonies in the Americas. This was an attempt at trade interdiction: to deny the enemy his goods, not necessarily in order to add them to one's own, though this would have been a welcome result to the English or Dutch.[11]

While the earliest attempts at trade interdiction were directed at revenue, the more likely target would be supplies needed for navies. With limited timber resources in the major seafaring powers' territories, supplies had to be imported, especially the tall timber required to make masts. These goods normally came from the Baltic states. Over time, these items came to be considered by some states as contraband: specialized goods specifically destined for the war-making capacities of an enemy state.[12]

As the supplies required to conduct war became more specialized, importation of these prohibited goods by the enemy power could only lead to their use in war. By 1780, goods considered contraband included `cannons, mortars, muskets, pistols, bombs, grenades, bullets or balls suitable for shooting, guns, gun-flints, fuses, powder, saltpetre, sulphur, breastplates, pikes, swords, scabbards, cartridge-boxes, saddles, and bridles'.[13] This allowed a state to declare a vessel carrying such goods to be liable to seizure and confiscation. By the late

seventeenth century, the concept of trade interdiction had expanded into a philosophy of war, that of the *guerre de course,* or commerce-raiding.[14]

What set the *guerre de course* apart from the parallel developments taking place in naval warfare? As directed by the course of the three Anglo-Dutch wars of the mid-seventeenth century, true navies were evolving into fleets of relatively large men-of-war fighting in rigid, parallel lines. Building such a fleet was an expensive and time-consuming proposition, and required a large and capable body of officers and sailors. The only organization capable of raising such a fleet was the state itself. As shown by events in England under the reign of Charles I, the enormous expense of funding a navy could bring about both financial and political crises. The reverse could also be true: financial or political crises could adversely affect the ability to finance a navy, as was evident in Prussia in the 1860s.

The chief attraction of the *guerre de course,* and what would always attract many politicians and businessmen to its successor theories, was its relative cheapness. All the state needed to do was issue privateer licences and let individuals and syndicates with a few armed ships do all the dirty work of trade interdiction. The Crown could sit back and earn revenue, both through the issuing of letters for privateers and through receiving a share of the confiscated goods captured by the privateers.

However, the chief drawback of allowing privateering was the consequent loss of control over the course of war at sea. First, as privately owned vessels, the privateers were under the orders of their backers, not the government: the concern of the privateer was profit, not victory. The second problem was the extreme diffusion of force that took place: hundreds of tiny vessels scattered as best they could along the sea-lanes, each intent on its own share of the proceeds. Nevertheless, this flotilla of privateers needed to be able to return to secure bases, have access to supplies and make use of trained seamen who could otherwise be serving in the navy or on merchant vessels.

Despite these drawbacks, the use of privateers and the pursuit of a *guerre de course* were prominent features of the great conflicts between Great Britain and France in that period from 1689 to 1815 referred to by some historians as the `Second Hundred Years' War'. The overall superiority of Britain's Royal Navy often forced the inferior French *Marine* to abandon the traditional approach of fleet-to-fleet battle in favour of the *guerre de course* not for the motive of prize money, but to deny Britain its overseas trade. This meant that the navy became a competitor to the privateers already operating from French ports. Meanwhile, the strength of the Royal Navy provided security for the hordes of privateers operating from the British Isles or the colonies. Privateering was such a lucrative proposition in Britain that it was seen by many as a worthwhile financial investment; during the Seven Years' War, the Duchess of Nottingham and some court ladies equipped three large ships for privateering, intent on making their own profit.[15]

Privateering was effective in halting the merchant trade of a belligerent, but trade was never carried on solely by one country's vessels. Many ships conducting trade flew the flags of countries not involved in the war. It was the friction caused by encounters between privateers of a belligerent state and merchant vessels of neutral countries trading with the other belligerent that shaped the creation of the common law of the sea.

War vs profit: belligerents' rights and neutrals' rights

> The interest of the belligerent must be to deny, to the very utmost possible, the use of the sea to the opponent. The interest of the neutral must be to contrive to conduct the normal trade he has been in the habit of conducting with both belligerents, and, human nature being what it is, to take advantage of the abnormal situation which war brings into existence to extend his own commerce of all kinds.[16]

In the thorny and complex world of war at sea, the question of trade during war has always been a source of great friction between states not at war with one another. Belligerents, concerned with shutting off their foe's flow of supply and revenue, developed strategies to complement the open sea's *guerre de course,* and specifically, the blockade. Stationing ships off an enemy's port to halt inbound and outbound vessels was an effective means of controlling trade. The challenge was creating a circumstance under which certain vessels could legally be stopped and certain cargoes seized.

Two different schools sprang up, each at odds with the other over what constituted fair trade practices in war. On the one hand, the traditional position of continental European states, such as France and Prussia, was that `free ships made free goods', that no cargoes found in neutral vessels could be seized, even if owned by or destined for a belligerent. The corollary to that, `unfree ships, unfree goods', meant that all cargoes carried on enemy merchantmen were liable to seizure, even if the cargoes were owned by neutrals. On the other hand, the traditional English position was that belligerent cargoes, even on neutral vessels, were liable to confiscation as the enemy's goods. However, neutral goods in a belligerent's ship, once rightful ownership had been duly established, were to be returned to those owners, provided the goods were not contraband, and the English normally used a very wide definition of `contraband'.

These opposing interpretations reflected the different states' relative strengths at sea. During the seventeenth century, Holland took a strong stance towards limiting the enemy's maritime trade as much as possible; in the eighteenth century, Holland became much more relaxed in its attitudes towards neutral trade.[17] This paralleled the significant decline in Dutch naval power, but also reflected the mentality of any nation where naval power was less important than land power. To a continental state, the ability to receive goods was paramount

regardless of which vessel carried it. Furthermore, with smaller merchant fleets than the British, the seizure of neutral cargoes mattered less to the continental states, so long as the British merchant fleet suffered financial damage. As well, with inferior navies, continental states cared only for attacking British vessels and not those of other continental states, which could lead to land war. British interests were best served by cutting off all seaborne commerce to the enemy, but not in harming neutral trade in its own merchantmen.

While this may seem to be a development best suited to the growing strength of the Royal Navy in the eighteenth century, it was a position enforced as far back as the Elizabethan wars with Spain. In June 1589, a fleet of 60 ships from the German Hanseatic ports was captured by the English while conveying naval stores from the Baltic to the Spanish. The English issued a proclamation regarding the matter:

> Her Majesty thynketh and knoweth it by the rules of the law as well of nature as of men, and specially by the law civil, that whenever any doth directly help her enemy with succours of eny victell, armor, or any kynd of munition to enhable his shippes to maintain themselves, she may lawfully interrupt the same; and this agreeth with the law of God, the law of nature, the laws of nations, and hath been in all tymes practised and in all countries betwyxt prynce and prynce, and country and country.[18]

The position of England did not change over the years, but was rendered more or less flexible by the circumstances of the time. The enforcement of the Rule of 1756, that neutrals lost their protection if they undertook trade usually carried on by enemy vessels in peacetime (such as the normally exclusive trade in the French West Indies), reflected the overwhelming strength of the Royal Navy and a scarcity of neutral opposition, allowing for the greatest possible definition of contraband; conversely, the united front of the League of Armed Neutrality during the War of American Independence was sufficient to force a much more flexible definition of contraband on the British. To neutrals, there was no general acceptance of what constituted contraband, nor that there should be an interdiction of trade for economic reasons.[19]

Blockade, therefore, was usually the weapon of choice of the stronger naval power. Commerce-raiding, which was less efficient, was used by both sides, but was more often the means of a weaker naval power to bring what strength it did possess to bear on the enemy's trade. Thus, many traditional navalists have scorned commerce-raiding as `the strategy of the weak at sea'.[20] Probably the most famous condemnation of the strategy of commerce-raiding comes from the American naval theorist Alfred Thayer Mahan. A proponent of large navies of powerful battleships preparing to fight decisive encounters for command of the sea, Mahan thus had little patience for the nibbling and harassing strategy of the *guerre de course:*

> Commerce-destroying by independent cruisers depends upon wide dissemination of force. Commerce-destroying through control of a strategic centre by a great fleet depends on concentration of force. Regarded as a primary, not as a secondary, operation, the former is condemned, the latter justified, by the experience of centuries.[21]

Mahan's condemnation of commerce-raiding notwithstanding, attacks on merchantmen still produced results beyond the meagre financial expenditure by governments. The *guerre de course* remained a weapon, both of choice and of necessity, in the arsenal of the *Marine*. With bases throughout the world, and especially from their home ports which were so close to vital British trade routes, the French privateers made it impossible for British trade to escape their predatory attacks.

The Royal Navy experimented with several methods of dealing with this annoying foe. Defensively, the solution of convoy was discovered fairly early, and it became standard practice to group most large merchant vessels in convoys with few exceptions permitted. Offensively, however, the British were not content to remain passive in the face of any threat. Warships were dispatched to patrol the sea-lanes, looking for enemy raiders. However, the only truly effective means of eliminating commerce-raiders was to deny them the use of their bases, something that could be done in the West Indies and other distant points by capturing them, but not to Metropolitan France. The *guerre de course* remained a thorn in the British side until the end of the Napoleonic War in 1815.

The Declaration of Paris and the end of privateering

In the first half of the nineteenth century, several circumstances came to the fore which effected a change in thought on naval matters pertaining to belligerent and neutral rights, and profoundly affected British attitudes towards what actions were just in a war at sea. The first was the growth of free trade and the benefits it brought to the economic well-being of Great Britain. The second was the permanent presence of a strong advocate of neutrals' rights, namely the United States of America. The third stemmed from legal and philosophical debates over the rights of private property and whether the property of individuals should be subject to the same treatment in war as that given to state property clearly intended for war use.

In the preceding centuries, privateering had been part of a vast system of fighting a war not to win, but to make as much money as possible from it. In a world with an economic system based on mercantilism and the belief that there was only so much trade and wealth to go around, this appeared to be a sound strategy. The British Crown sold licences to privateers and, for a time, collected a share of the spoils. The ships were owned by individuals or syndicates who saw profit in the confiscation and resale of captured cargoes or, before it was outlawed, in accepting ransoms from captured ships in lieu of taking the cargoes.

As well, French merchants insured their vessels and cargoes often through firms in London. To cover the costs of their claims, insurance companies raised the rates they charged French customers. Finally, a surplus of captured merchant ships could always be relieved by selling some back to the French shippers from whom they had been confiscated: `Mercantilist trade war was clearly a strategy rooted in the instincts of people who had not yet learned to find value in injuring an enemy unless the result was at the same time of direct profit.'[22]

Such a system was all to the good in an era when British commercial interests were as protective as they were in the eighteenth century. However, with the adoption of free trade and open markets in the early nineteenth century, the attitude of the British underwent a remarkable transformation. It was much more economically advantageous to conduct trade in as widespread a manner as possible. Of course, the enforcement of free trade was made much easier by the unquestioned primacy of the Royal Navy; this was truly the era of *Pax Britannica*.[23]

The emergence of the United States as a trading nation created difficulties for the British war effort during the Revolutionary and Napoleonic Wars. American commerce was interdicted by both the French and British; meanwhile, the Americans refused to accept any restraints on their right to trade with either party. France and the United States nearly went to war in 1798 over, among other causes, the vicious *guerre de course* waged by French privateers. The British policy of seizing enemy goods on neutral vessels was one of the causes of the War of 1812 between Great Britain and the United States. It was believed that the Treaty of Ghent, which ended the war, was more in the nature of a truce between the two sides, and that their disputes over maritime law would lead to conflict again in the near future. No further Anglo-American wars broke out simply because the British did not establish any blockade opposed to American trading interests in the nineteenth century.[24]

The third issue concerned the concept of contraband. Neutrals and belligerents had never come to an agreement on what constituted contraband goods; the effectiveness of enforcing contraband lists always lay in the relative strength of the belligerent *vis-à-vis* neutrals. Some items were always easy to declare as contraband such as, for instance, a cargo of muskets destined for the enemy government's arsenals. However, the great majority of cargoes were not so clearly determined. Was a shipment of canvas contraband? Was it contraband if it was destined for a private shipbuilder instead of a royal dockyard? The *philosophe* Jean-Jacques Rousseau, in his work *The Social Contract* (1762), argued that war was a condition that existed between states, `in which individuals are only enemies accidentally, not as men, or as citizens, but as soldiers; not as members of a country, but as its defenders'.[25] More and more jurists began to see a distinction between state property and private property, the former being subject to confiscation in times of war but the latter being sacrosanct.

What made the matter of private property at sea so pressing was the increasingly sharp distinction between practice at sea and practice on land. Pillaging and looting no longer being considered a part of modern war on land, the confiscation of privately owned cargo at sea, a still common occurrence, was considered tantamount to looting.[26]

It was frequently argued that the capture of private property should be considered an unnecessary exercise of belligerent rights. What harm had the individual done to the belligerent state? Rousseau argued that it was the responsibility of a `just prince' to respect `the persons and property of private people, because he respects the right by which he holds his own'.[27] Increasingly, capture of private property in war was seen as an archaic practice.

By the middle of the nineteenth century, it was apparent that a major concern of many nations was to be able to conduct a war at sea without incurring the wrath of neutrals. The outbreak of the Crimean War in 1854 saw the unusual coalition of the Royal Navy and *la Marine* apply a fairly relaxed blockade of Russia's Baltic and Black Sea ports, while the Admiralty issued no licences to privateers. This was a means of avoiding a settlement of the differing codes between the two navies, as there was still no agreement over the treatment of neutral ships and cargoes.

At the conclusion of the war in 1856, it was decided to adopt some codification of maritime laws towards belligerents and neutrals. The result was the Declaration of Paris, a four-point programme designed to clarify issues raised in past conflicts. The preamble to the declaration made it clear that the purpose of the agreement was to put an end to the kind of neutral-belligerent disagreements that had led to `serious differences, and even conflicts'. The four points of the declaration were:

1. Privateering is, and remains, abolished.
2. The neutral flag covers the enemy's goods, with the exception of contraband.
3. Neutral goods, with the exception of contraband of war, are not liable to capture under the enemy's flag.
4. Blockades, in order to be binding, must be effective, that is to say, maintained by a force sufficient really to prevent access to the coast of the enemy.[28]

In theory, these four points were supposed to revolutionize warfare at sea, to bring it to the same legal standard used in land warfare. Unfortunately, the declaration failed to define the word `contraband', making it subject to future squabbles between belligerents and neutrals. As well, while the declaration outlawed privateering, it did not ban the use of force against merchant shipping. Instead, it took war at sea out of the realm of private enterprise.[29] Without a profit motive to stimulate attacks on enemy merchantmen, the incentive for attacking trade changed from seizure of goods to denial of goods, ultimately by

any means possible, including destruction. Commerce-raiding slowly made the transition to commerce-destroying.[30]

The declaration was eagerly subscribed to by many European states, especially the smaller German states, as it fitted in with their belief in the free and unrestricted movement of commerce. The Hanseatic city of Bremen, for instance, passed a resolution regarding the immunity of private property at sea: `The inviolability of persons and property in wartime at sea, extended to the subjects of belligerent states, so far as it is not necessary to restrict it for the purpose of the war, *is an irrefutable principle of the legal mentality of our time*.'[31]

Three states, however, refused to ratify the declaration, namely Mexico, Spain and the United States. These countries contended that privateering should not be abolished, that the declaration was merely a means for the major naval powers to deny second-rate powers the ability to raise a large navy in times of war. Furthermore, the United States argued that the declaration did not go far enough; only if the declaration was amended to abolish the seizure of all private property at sea would any American government consider adhering to its provisions.[32] This demand was not met and the Americans withdrew, holding fast to their refusal to ratify the declaration. Thus, the one power that had steadfastly and unceasingly championed the rights of neutrals and the right to trade without impediment declined to adhere to the single greatest step forward in neutrals' rights.

The Declaration of Paris created problems for Prussia and other states that would only become apparent in later years. In the nineteenth century, warfare had become a carefully restrained and legalistic action, as the ultimate expression of state vs state. However, war was also passing from the conditional or limited conflict it had once been and was now becoming absolute in nature, as the concept of the nation in arms took hold. As jurists and diplomats sought to reduce war to its purest form while leaving full freedom of action for the private individual, the demands of total war were preparing to exempt no one from duty to the state. Formal agreements, such as the Declaration of Paris, were attempts to reconcile the traditional limited war to the new technologies of warfare which were inherently much more destructive in nature, and to the ever-increasing demands for raw materials of industrializing states.[33] However, the abolition of privateering had another effect, perhaps one of an unintended nature: by taking the costs of one aspect of naval warfare out of the hands of private individuals or corporate entities, it placed the full onus of funding such a war on the state treasury. Navies became responsible for designing, building and operating their own commerce-raiding vessels. Furthermore, as the technology required to construct such a warship increased the cost of each ship built, it became more useful for such types of ships to serve a valid purpose in both war and peace. In peace, cruisers could enforce an overseas presence for political or economic *raison d'état;* in war, they could pursue a *guerre de course*.[34]

From seizure to destruction: the new style of commerce warfare

Ironically, the next major naval war was the American Civil War, which saw the American government aggressively assert belligerent rights it had so steadfastly opposed other nations assuming, especially Great Britain. The United States found itself facing its secessionist southern states completely unprepared for the attacks on its merchant shipping which the fledgling Confederate navy carried out through ruthless commerce-raiding. The American government attempted to indicate its acceptance of the Declaration of Paris and the provisions against privateering to the other signatories, provided that the acceptance could be backdated to 1856. This would have meant the Confederacy would have been bound to the provisions without its consent, and naturally the major European powers refused to agree to such an underhanded tactic.

While the Confederate States practised privateering on the high seas, the United States set about establishing a blockade of the South's coasts. This blockade, especially for the first two years of the war, was in direct contravention of Article 4 of the Declaration of Paris, which stated that a blockade had to be `effective' and `maintained by a force sufficient really to prevent access to the coast of the enemy'. Nevertheless, the Americans pursued the enforcement of the blockade with what few naval resources were at their call, while vigorously hunting down the Confederate commerce-raiders.

The results of the naval campaigns of the American Civil War affected naval thought for the rest of the nineteenth century in various fields, including war on enemy commerce. First, blockade had been shown still to be effective in modern times: the South's inability to import manufactured goods and to export cotton and earn revenue to pay for what few imports were brought in crippled the Confederate war effort. The handful of blockade-runners that had made it through underscored this point even further.[35]

Second, the unprecedented success of the CSS *Alabama* and her sister commerce-raiders showed that the possibility of fighting a *guerre de course* against enemy merchantmen was equally feasible. The *Alabama* was an unarmoured ship equipped with a steam engine; the majority of her prey consisted of sail-powered merchant vessels. The commerce-raider made use of her sails for long-range cruising, resorting to her engine to overhaul becalmed or slow-moving merchantmen.[36] This demonstration that ships could operate effectively far from home captured the imagination of several naval thinkers in the succeeding years, especially those in the Prussian and German navies.[37]

Legally, however, vessels such as the *Alabama* posed a number of problems, the greatest questions all revolving around the rights, obligations and duties of neutral nations towards belligerents. Several Confederate commerce-raiders were built by or purchased from European shipbuilders during the war. Were the countries that sold these ships and permitted them to be outfitted as men-of-war going beyond the bounds of neutrality in providing aid to a belligerent? This

became a test case after the war, as the American government sought compensation from the British government for having permitted the construction, equipping and crewing of the *Alabama*. Furthermore, the wide-ranging operations of these commerce-raiders made it necessary for them to put in at neutral ports for supplies, repairs and communication. How much use of neutral ports could commerce-raiders make without a clear favouritism being shown that extended beyond even a benevolent neutrality?

The traditional methods of commerce-raiding had to be changed in the American Civil War because of the worldwide scope of the Confederate raiders' action and the introduction of steam technology. In prior wars, the normal action of privateers was to stop, search and seize; if necessary, a prize crew would be placed on board the captured ship and it would be taken to the nearest friendly port. Soon, a fourth `s' had to be added to the list: sink. Previously, prizes were sunk solely because they were unseaworthy or the captor was unable to form a prize crew; enemy merchantmen were not to be attacked, captured or destroyed without at least first being visited by an officer of the commerce-raider.[38] The increasing size and complexity of merchantmen made it more difficult to properly inspect and evaluate cargoes on the high seas; since there were no available Confederate ports for the prize to be taken to, the only remaining recourse was to sink the merchantman. This would, in time, lead to further problems of both a moral and a legal nature, namely what to do with the captured crew?[39]

The man most experienced at high-seas commerce-raiding was Commander Raphael Semmes, the captain of the Confederate navy's first raider, the CSS *Sumter,* and subsequently captain of her best, the CSS *Alabama*. Commander Semmes was forced to improvise his solutions while at sea. Forbidden by neutral states to leave captured ships in neutral ports to await adjudication by a Confederate prize court, Semmes instead found himself acting as prize court *pro tem,* condemning cargoes and ships based solely on the papers of the captured ships, testimony of their captains, and his own judgement. His decisions were swift and final; when unable or unwilling to spare a prize crew, he would evacuate the merchantman's crew, take what cargo would be of use to his ship and set the abandoned prize on fire.[40]

This still left the other problem of supply. Not only did the Confederate commerce-raiders require the traditional victual re-stocking, but they also needed coal for their steam-engines. After only a week at sea in the Caribbean, a small vessel like CSS *Sumter* (a 437-ton barque-rigged steamer) needed to replenish 100 tons of coal and 5,000 gallons of water.[41] Again, how much aid was too much aid? The United States protested against any favours shown the Confederacy, but did not pursue the matter far enough to declare war, unlike its response to similar transgressions by France and Great Britain during the Revolutionary and Napoleonic Wars.

The rules of war regarding neutral ports had developed over the years, but the events of the last half of the nineteenth century brought them into a position of

particular importance. Regular supplies of coal and water had become necessities of life for the steam-driven commerce-raider: `The use of neutral ports by belligerent warships can amount to their becoming in fact bases of naval operations. For this reason customary law developed the rule that access to neutral ports is limited in period and to maintenance of seaworthiness.' Furthermore, to preclude the taking of unfair advantage, and to avoid clashes in neutral territorial waters, the departure of enemy warships from neutral ports had to be at least 24 hours apart. Finally, belligerents were permitted to refuel in a neutral state only once in a three-month span.[42] This was a provision which would have the greatest effect on states which did not possess a chain of overseas bases or a number of colonies, such as Germany. This was later recognized by the German theorist Curt von Maltzahn, when he argued that the freedom of the seas would belong only to those states with sufficient sea power to protect their overseas interests.[43]

Some states, due to their experiences in the American Civil War, placed more stringent controls on their citizens' involvement as neutrals in a war. The British government, forced to pay compensation to the Americans for its complicity in Confederate naval actions, especially over the sale of the *Alabama* to the Confederacy by a shipbuilder fully aware she was destined to be used for commerce-raiding, passed the Foreign Enlistment Act in 1870. The Act forbade British subjects from furnishing munitions, stores and fuel to belligerents. British colliers could not be chartered by belligerents, nor could they supply coal. The worldwide network of British ports was now closed to belligerents in war. This posed a significant problem to many states as it was the British who, thanks to both their global positioning and their supplies of the world's best steaming coal, had secured a near-monopoly on overseas coal sales. As always, the rules had been changed to benefit those who stood the most to gain from the changes.[44]

Conclusion

The concept of freedom of the seas changed during the nineteenth century, with the explosion of worldwide trade and commerce after the Napoleonic Wars. Fuelled by both the legalistic desires of philosophers and jurists and by the dreams of *laissez-faire* free-traders, the idea of commerce as near-sacrosanct began to assume greater importance. The protection of commerce, either by force or by treaty, became paramount in the movements of mid-century. Besides, it seemed that the protection of the omnipresent Royal Navy would be sufficient for all who sailed the seas.

Where, then, did the situation stand by 1865? Privateering had been abolished, but this merely put the potential for attacking enemy trade in the hands of governments and their instrument of maritime policy, the navy. Belligerents were limited as to what ships they could stop and what cargoes they could seize, but there had been no agreement on what cargoes comprised contraband and what should be permitted free passage. As well, destruction of prizes was now

becoming an accepted alternative to capture, thanks to the spread of commerce and commerce-raiding to points far distant from friendly harbours. There was general agreement that private property should be exempt from seizure, but with private firms becoming more and more involved in manufacturing the sinews of war, and with the list of goods that were necessary for that war effort increasing, that rule seemed equally difficult to enforce. Finally, neutrals were supposed to have the right to engage in fair trade with all belligerents and were, under strict conditions, to provide limited assistance to belligerent vessels calling at neutral ports.

All of these points conflicted with one another: belligerents still sought the widest use of their power and authority; neutrals sought to profit from wartime conditions; and some neutrals even displayed an open bias for one belligerent over another by limiting or granting use of facilities and supplies beyond those specified by international agreement. Conventions and treaties were designed to limit the spread and damage of war as much as possible, to confine the struggle between distinctly defined identities, the belligerent states.[45] However, this situation was further compounded as new technology threatened to revolutionize all aspects of war, including that against trade at sea. Restraints were no longer possible as war moved from conditional to absolute.

Notes

1. John W.Coogan, *The End of Neutrality: The United States, Britain, and Maritime Rights 1899±1915*(Ithaca, NY: Cornell University Press, 1981), p. 18.
2. BA-MA, RM1/2795, `Gutachten über die Frage', 21 January 1884. See Chapter 7, pp. 139ff.
3. John B.Hattendorf, `Maritime Conflict', in Michael Howard, George J.Andreopoulos and Mack R.Shulman, eds, *The Laws of War: Constraints on Warfare in the Western World* (New Haven, CT: Yale University Press, 1994), p. 99.
4. There are many spelling variations for the word `marque'; this is the version that will be used, excepting only in direct quotations.
5. Nicholas Tracy, *Attack on Maritime Trade* (Toronto: University of Toronto Press, 1991), p. 11.
6. Admiral Sir Herbert Richmond, *Sea Power in the Modern World* (London: G.Bell, 1934), p. 30.
7. Hattendorf, `Maritime Conflict', p. 98.
8. Hugo Grotius, *De Jure Belli ac Pacis,* trans. Louise R.Loomis (Roslyn, NY: Walter J. Black, 1949), pp. 80±1.
9. Tracy, *Attack on Maritime Trade,* p. 25.
10. Kenneth R.Andrews, *Elizabethan Privateering: English Privateering during the Spanish War 1585±1603*(Cambridge: Cambridge University Press, 1964), p. 135.
11. Tracy, *Attack on Maritime Trade,* p. 27.
12. Ibid., p. 31.

13. `Russian Ordinance concerning Commerce and Navigation, May 19, 1780', as reproduced in James Brown Scott, ed., *The Armed Neutralities of 1780 and 1800* (New York: Oxford University Press, 1918), p. 291. Note that the Ordinance specifically excludes such items as masts, tar, pitch and canvas, items that could be used in the manufacture of warships.
14. Geoffrey Symcox, *The Crisis of French Sea Power 1688±1697: From the Guerre d'Escadre to the Guerre de Course* (The Hague: Martinus Nijhoff, 1974), pp. 4±6.
15. Francis R.Stark, *The Abolition of Privateering and the Declaration of Paris* (New York: AMS Press, 1967; originally published, 1897), p. 72.
16. Richmond, *Sea Power in the Modern World,* p. 63.
17. Carl J.Kulsrud, *Maritime Neutrality to 1780: A History of the Main Principles Governing Neutrality and Belligerency to 1780* (Boston, MA: Little, Brown, 1936), p. 4.
18. As quoted in Tracy, *Attack on Maritime Trade,* p. 32.
19. Ibid., p. 32.
20. Colin S.Gray, *The Leverage of Sea Power: The Strategic Advantage of Navies in War* (New York: The Free Press, 1992), p. 9. Also see James R.Thursfield, *Naval Warfare* (Cambridge: Cambridge University Press, 1913), pp. 108±10.
21. Alfred Thayer Mahan, *The Influence of Sea Power upon History 1660±1783* (Boston, MA: Little, Brown, 1890), p. 540.
22. Tracy, *Attack on Maritime Trade,* pp. 54±7.
23. Paul M.Kennedy, *The Rise and Fall of British Naval Mastery* (London: Allen Lane, 1976), p. 21.
24. Coogan, *The End of Neutrality,* pp. 19±21.
25. Jean-Jacques Rousseau, *The Social Contract,* rev. and ed. trans. Charles Frankel (New York: Hafner Press, 1947), p. 11.
26. Tracy, *Attack on Maritime Trade,* p. 82; Stark, *Abolition of Privateering,* pp. 21±2.
27. Rousseau, *The Social Contract,* p. 12.
28. Leon Friedman, ed., *The Law of War: A Documentary History,* Vol. 1 (New York: Random House, 1972), p. 156.
29. Stark, *Abolition of Privateering,* pp. 142±3. Stark's contention is that points 1 and 2 were trade-offs: the British agreed to the continental doctrine of `free ships, free goods' in exchange for the abolition of privateering, to which its vast merchant fleet was so vulnerable.
30. Theodore Ropp, *The Development of a Modern Navy: French Naval Policy 1871± 1904,* ed. Stephen S.Roberts (Annapolis, MD: Naval Institute Press, 1987), p. 88.
31. Cited by Stark, *Abolition of Privateering,* p. 30; italics in original. It is unclear from the text whether the resolution was passed in connection with the Austro-Prussian War of 1866 or the Franco-Prussian War of 1870±71.
32. Nils Ørvik, *The Decline of Neutrality 1914±1941: With Special Reference to the United States and the Northern Neutrals,* 2nd edn (London: Frank Cass, 1971), p. 31.
33. Michael Howard, ed., `*Tempermenta Belli:* Can War be Controlled?', in *Restraints on War: Studies in the Limitation of Armed Conflict* (Oxford: Oxford University Press, 1979), pp. 5±9.
34. Tracy, *Attack on Maritime Trade,* p. 90.
35. Tracy, *Attack on Maritime Trade,* p. 95; Coogan, *The End of Neutrality,* p. 22.

36. John F.Beeler, *British Naval Policy in the Gladstone-Disraeli Era, 1866±1880* (Stanford, CA: Stanford University Press, 1997), p. 213; Bernard Brodie, *Sea Power in the Machine Age* (Princeton, NJ: Princeton University Press, 1941), p. 210.
37. See, for example, Alfred Stenzel, *Kriegsführung zur See. Lehre vom Seekrieg,* ed. Hermann Kirchoff (Hanover: Hahnsche Buchhandlung, 1913), p. 247.
38. Sir Frederick Smith (Earl of Birkenhead), *The Destruction of Merchant Ships under International Law* (London: J.M.Dent, 1917), pp. 15±16. There were numerous reasons why an enemy merchantman could not be attacked without warning; for example, it might belong to an exempt class of ship (e.g. hospital ship), or it might hold neutral-owned cargo.
39. Julian S.Corbett, *Some Principles of Maritime Strategy* (London: Longmans, Green, 1911), pp. 272±3: `The only escape from this difficulty [fewer men available as stokers in engine-rooms through the formation of prize crews] is to sink the captured ship. But this course has objections scarcely less weighty than the other. No Power will incur the odium of sinking a prize with all hands, and their removal to the captor's ship takes time, especially in bad weather, and the presence of such prisoners in a cruiser in any number soon becomes a serious check on her fighting power.'
40. Raphael Semmes, *The Cruise of the Alabama and the Sumter* (New York: Carleton, 1864), p. 124. Numerous extracts are quoted verbatim from the logs of the *Sumter* and *Alabama* to justify Semmes's deci sions on prizes.
41. Semmes, *Cruise of the Alabama and the Sumter,* p. 21; *Conway's All the World's Fighting Ships 1860±1905* (London: Conway Maritime Press, 1979), p. 135.
42. D.P.O'Connell, *The International Law of the Sea,* Vol. 2, ed. I.A.Shearer (Oxford: Clarendon Press, 1988), p. 1126.
43. Curt von Maltzahn, *Der Seekrieg. Seine geschichtliche Entwickelung vom Zeitalter der Entdeckungen bis zur Gegenwart* (Leipzig: B.G.Teubner, 1906), p. 111.
44. O'Connell, *The International Law of the Sea,* Vol. 2, pp. 1128±9; Brodie, *Sea Power in the Machine Age,* p. 116.
45. Howard, ed., `*Tempermenta Belli:* Can War be Controlled?', p. 5.

2
MEANS AND METHODS
Naval technology and theory in the mid-nineteenth century

The technological advances that were introduced in the nineteenth century affected many aspects of life, including culture, economics and the role of the state. The world's navies were no less affected by the changes in technology brought about by the Industrial Revolution. Aside from minor innovations and improvements, the basic principles of naval warships—propulsion, materials of construction and armament—had remained unchanged for the past three centuries. Monk and de Reuyter would have felt at home on a man-of-war of the Napoleonic era; even Drake would have found little difference between the ships of that time and his.

However, there was no resemblance whatsoever between the warships that had begun the century and those that finished it. Wind power and canvas sails were superseded by steam power, fuelled by coal; the `heart of oak' had given way to iron and steel; and muzzle-loaded bronze cannon had been replaced by a wide array of deadly weapons that struck above, at and below the waterline. New ships needed new construction methods, new sources of raw materials and new technical skills. This chapter illustrates how these advances affected both the weapons of war and the possibilities open to their employment.

Even before this technological revolution, naval theorists realized that changes in the weapons of naval warfare would produce a corresponding change in how war at sea would be fought. The French tactician, Admiral Sébastien François, vicomte Bigot de Morogues, writing in the latter half of the eighteenth century, stated that: `naval tactics are based upon conditions the chief causes of which, namely the arms, may change; which in turn causes necessarily a change in the construction of ships, in the manner of handling them, and so finally in the disposition and handling of fleets.'[1] While some navalists decried the rapid changes in the weapons of naval warfare, others attempted to make sense out of the ever-changing technology, to see how it could best be used in war. Strategy and tactics appropriate to the new era were hotly debated; the paucity of large-scale naval operations in this era made much of this work theoretical in nature. This was a factor recognized by German theorists as much as their international counterparts, and was one overcome by practical experience, in the case of Eduard Knorr, or through years of practice in the Torpedo Inspectorate by Tirpitz.

Two writers, in particular, were concerned with the flow of commerce around the world, but their views were affected by their own nation's position with regards to that flow. As an Englishman, J.C.R.Colomb was most interested in the movement of goods between the far-flung outposts of the British Empire, a movement both aided by and dependent upon the new technology of the Industrial Revolution. Colomb saw this as a vulnerability in the Empire, and sought to develop a means of defence which would secure this trade. Richild Grivel, a Frenchman, was interested in his nation's traditional rivalry with England, and studied the means of crippling the flow of British maritime commerce. It was Grivel who decided the future depended not merely on new strategy or tactics, but on how the new technology of naval warfare could make a difference in strategy and tactics. To both men, however, the key to victory at sea was the flow of commerceÐits protection or its destruction.

Grivel's theories were of particular interest to German naval thinkers: he was of influence on Alfred Stenzel, the first teacher of naval tactics at the German *navy's Marineakademie*.[2] In his examination of how a weaker power could challenge a stronger power at sea, Grivel had lessons the even weaker German navy could not ignore. Consequently, Grivel's theories were a part of the development of naval philosophy in Germany.

Technology and navies: new ships, new weapons

As the art of shipbuilding gave way to the science of naval construction,[3] many of the basic factors that influenced thinking about how to use warships also were forced to change. The first step must be to look at the whats and whys of the major changes in ships' construc tion, both naval and mercantile.[4]

Prior to the nineteenth century, ships were individually built, crafted by hand out of wood. This meant that building a ship was a laborious process which required much seasoned timber; using green wood which had not been thoroughly dried out resulted in vessels that suffered from premature rotting. The planks and spars that made up the craft were held together by carved wooden pegs, and the hull was caulked with a tar resin to improve the watertight capability of the ship. Finally, the hull below the waterline was sheathed in copper, which prevented excessive build-up of barnacles, mussels and other sea-life which made ships difficult to steer and reduced speed. Wooden vessels, due to the lengths of timber available and the natural strength of the material, could be built only to a certain size; this limited both the fighting ability and the carrying capacity.

With the introduction of iron shipbuilding (not to be confused with iron cladding, the use of armoured plating), many things began to change about the design of vessels. Iron and steel are capable of withstanding greater stresses than wood, and ships may be built in greater size in metal than wood. This meant that merchant ships could be constructed as huge cargo vessels or luxury transoceanic liners.

This would pose a problem for privateers or commerce-raiders, as the vast increase in cargo capacity would make it more difficult to check cargoes or to loot them on the high seas. Ships' manifests would have to be relied upon – or the captured merchantman would have to be directed to the nearest friendly port for a full inspection. This increased the complexity of cargo verification procedures.

Of course, the size increase possible for merchant ships applied equally to warships. In 1860, the largest ship in the Royal Navy, the 110-gun screw ship-of-the-line HMS *Howe,* had a displacement of 4,245 tons. By 1893, a comparable ship-of-the-line to HMS *Howe* would have been a first-class battleship of the *Royal Sovereign* class, which displaced 14,150 tons.[5] The change to all-metal construction allowed ships to be better built and better protected, and prepared more readily for sailing. The hulls of iron and steel ships could be divided into a series of watertight compartments, providing greater protection against flooding and sinking. Stronger construction allowed for the installation of weapons of greater mass and recoil. Providing a platform that was both sturdy and stable allowed for two particular areas of the technological revolution which continually developed in response to each other: armour and armament.

The greatest race in weapons of war during the mid- and late nineteenth century was the unending struggle for supremacy between the offensive power of the gun and the defensive power of armour plate. Such a situation had never occurred in years previous. While the wooden timbers of a ship's hull could absorb a large amount of punishment, it was still understood that some damage would be incurred, but this damage could in part be repaired during battle by carpenters. Also, it was possible to inflict serious damage to sailing ships by deliberately attempting to dismast them, thereby crippling their mobility. The development of internal combustion removed the means of propulsion to within the vessel, into areas that could be surrounded by armour plating.

The change from round solid shot to hollow explosives-filled shell as the ammunition for seagoing artillery produced the first `naval scare' over technological matters. In the late 1830s, the Paixhans shell gun threatened to make all naval ordinance obsolete and to render the sailing ships of the world's navies a waste of wood. The French marshal Auguste Frédéric Louis Viesse de Marmont, duc de Raguse, wrote in those dark times: `from that day¼that steamers, or even small sailing vessels, were armed with one or two [Paixhans] guns – one single shot from which is sufficient to destroy the largest ship – it became absurd to construct line-of-battle ships, which not only cost 1,500,000 francs, but which have become useless.'[6] This would not be the last time that the experts believed the capital ship to be rendered obsolete by the latest miracle weapon.

The introduction of armour plating was supposed to be an antidote to the ravages of shell-fire, but it created much more diversity in navies than ever before. Until then, although each warship was a unique creation, navies had remained fairly homogeneous in composition. Larger ships were built to serve in the line of battle, and thus possessed strength, size and stability as gun platforms.

Smaller ships served as frigates designed to scout, relay messages, interdict trade and provide local assistance in waters too shallow or confined for the ship-of-the-line.[7] Building vessels clad in armour, which was constantly improving in stopping-power and increasing in cost, became a difficult and expensive decision for admiralties. Did a ship really need armour plating if it was going to serve in the tropics as a gunboat? The Royal Navy, more than any other, because of its global responsibilities and duties, had to confront this problem in the mid- and late nineteenth century.[8] Ironclads were reserved for service in home waters, facing technologically comparable European enemies; ships destined for overseas service were a much more varied collection of failures, one-offs and lightly built ships never intended to see battle against a European foe's first-rate men-of-war. Essentially, two separate navies were created, each with different needs, and each designed to face different foes.[9] This was an expensive proposition: one which was beyond the means of most continental governments, and nearly beyond the means of the Royal Navy itself.

Finally, this increasing diversity in the manufacture of warships did something that was even more effective than the Declaration of Paris in ending privateering: it became no longer possible to convert merchantmen cheaply and quickly into commerce-raiders. In the past, nearly any floating vessel could become a privateer with the installation of a gun or two. All it needed to do was lie in wait along the trade routes or, more frequently, attack coastal traffic. Now, most ships were not fast enough to overhaul merchant vessels freed from the vagaries of the trade winds by steam power. Furthermore, those same commerce-raiders were themselves tied to their coal supply, unable to range far afield in search of prey. Merchant vessels possessed much greater choice in what ports they could use in coaling, unlike belligerent warships. Many theorists and jurists came to the conclusion that there was no longer a place in naval strategy for commerce-raiding. Others saw it as an era of confusion, and cautioned against assuming too much in one direction or the other.[10] Either way, the construction of ships designed for commerce-raiding had become too expensive and too wasteful for the private sector; it was the world's navies that had to determine whether there was value in pursuing a war against enemy commerce.

Into the midst of these technological changes came, in the middle of the century, a new group of weapons that ultimately had a profound impact on how ships were designed, what roles they played and what strategies could best make use of these weapons. The concept of using an underwater exploding device to sink an enemy's vessel was not a new idea; during the War of American Independence, the American David Bushnell attempted to sink a British warship by attaching explosives to the vessel's hull.[11] Bushnell was merely attempting to strike at a warship's weakest point, below the waterline, where damage sustained is compounded by flooding and the immediate threat of sinking.

The torpedo[12] was a weapon to be feared by all mariners because it threatened to change the way naval warfare was fought. Previously, ships engaged in battle until one vessel was too severely damaged to continue or until a successful

boarding had been carried out. It was rare that ships actually sank in the course of battle, and that was often the result of a lucky hit on the powder magazine. (More French and Spanish ships sank in the storm following the battle of Trafalgar in 1805 than were sunk during the battle itself.) A weapon such as the torpedo which threatened vessels below the waterline dramatically increased the possibility of sinking the enemy's ships.

While a torpedo could be a formidable weapon, it first needed to be delivered to its target. Four main types of torpedoes were developed and used with varying degrees of success: the drifting or floating torpedo; the outrigger or spar torpedo; the towing torpedo; and the locomotive torpedo. Each possessed unique advantages, each too had significant drawbacks. Eventually, a standard consensus on the locomotive or self-propelled torpedo as the best design was reached by naval experts around the world.[13]

The development of the locomotive torpedo by Robert Whitehead, an expatriate Englishman who lived and worked in Austria-Hungary, was fraught with difficulties and failures. Many aspects of the torpedo's functioning needed to be improved before it could become a practical weapon, including range, speed, depth-keeping, size of warhead, stability, concealment of its wake and a reliable launching method. It was prone to breaking down in many a different fashion, and Whitehead jealously guarded the patents on his products; nevertheless, the locomotive torpedo possessed several key advantages over its rivals. First, its range was limited only by the power of its propulsion, and, as technology progressed, that increased significantly. It became possible to launch a torpedo attack without exposing the attacking vessels to suicidal odds; it was `a ram with a reach'. [14] Second, it was a weapon that did not require a highly skilled operator; in the best tradition of the military, it was a fire-and-forget weapon. Finally, it was easier to operate and transport than the towing torpedo, its main rival. Despite this, it was some time before the locomotive torpedo became an effective weapon: it was first used in combat in 1877, sank its first victim a year later and, by 1880, had an effective launching system.[15]

The greatest problem with the development of the torpedo as a weapon of war was the limited nature of testing and the unreliability of results. When Whitehead first conducted tests for the British Admiralty in the early 1870s, the torpedo failed to function properly. It was only upon realizing that the depth conditions of the North Sea were quite different from the calm shallows of the AdriaticÐ the location of Whitehead's factoryÐthatmodifications could be made. Even by 1888, experts in offensive torpedo warfare believed that their subject must still be `considered as if in its infancy':

> ¼any opinions expressed as to the merits and demerits of the various apparatus in connection therewith can but be based on the theoretical capabilities of each torpedo, and on the results of experiments carried out with them during peace time, which latter as a rule are conducted under far too favourable conditions to be relied upon.[16]

The new weapons of war, and the means to nullify their advantage, produced warships unlike any others ever before seen. More important, the rapid pace of technological advancement led to the creation of hybrid navies, or fleets filled with one-of-a-kind vessels. Each ship built could be improved upon in one form or another in propulsion, armour, armament or design. This led to confusion over the correct direction of the naval technological process, and also forced some experts in navies and governments alike to call for a halt to renewed construction until such time as stability returned to the science of naval architecture. The pace of development was frantic, but most navies continued to dabble in the new technologies as they became available and affordable.

The burden of empire: J.C.R.Colomb and imperial defence

The events of the American Civil War demonstrated to many naval observers that commerce-raiding did, indeed, have a future as a viable strategy in warfare in the industrial era.[17] Despite the final defeat of the Confederacy, the exploits of its long-range raiders, especially the *Alabama,* convinced some that trade remained vulnerable to a concerted attack on the high seas. The great distances away from home which made the Confederate attacks a chance proposition were considered to be symptomatic of the South's precarious position at home, especially in not having any harbours available for operations. It was assumed that a secure base of operations for the Confederate raiders would have led to far greater successes.

If one nation stood to lose more than any other by the prospect of a worldwide *guerre de course,* it was Great Britain. The *Alabama'*s method of cruising under sail and using its steam power to overtake and capture Union sail-powered merchantmen was a particularly ingenious application of the new technology. In 1861, the British merchant fleet consisted of nearly 10 times more sailing ships than steam-powered ships. By 1871, that ratio had been reduced to less than 3.5: 1, though the total tonnage under sail had actually increased.[18] If a single steam-driven commerce-raider could wreak havoc on a sail-powered merchant fleet, the possibilities for a squadron of commerce-raiders were endless.

A great empire built upon worldwide free trade might prove vulnerable to an all-out attack on its seaborne commerce, especially an empire that also relied on international markets for more of its food supplies. Great Britain had survived the commerce-raiding and the Continental System of the Napoleonic Wars because it had been largely self-sufficient in food production. By the mid-1860s, this was no longer the case. The repeal of the Corn Laws in 1846, which ended prohibitive tariffs on the importation of foreign grains, opened the British markets to cheaper grains from abroad. A decade after the Corn Laws were lifted, it was estimated that one-quarter of the wheat used in bread-making was imported.[19] It was only natural that minds would turn towards considering the best means of attacking this trade, and the best means of preventing such attacks. It was also perfectly natural that the two naval minds that would first consider

the problem would be those of an Englishman, John Charles Ready Colomb, and a Frenchman, Captain Baron Louis-Antoine-Richild Grivel.

Colomb, whose older brother Philip served in the Royal Navy, was a lieutenant in the Royal Marine Artillery until he retired in 1866 to pursue a career in politics. In 1867, he published a pamphlet entitled *The Protection of Our Commerce and Distribution of Our Naval Forces Considered*. The pamphlet received little notice from either the public or naval officials, amid the confusion of the current debate raging over the implementation of new technology in the Royal Navy.[20] Nevertheless, this pamphlet marked the first serious effort to consider how the new technology would affect what Colomb considered to be paramount to Great Britain's survival: the protection of the vital sea-lanes between Britain and her far-flung colonies.

While most of the pamphlet was concerned with a more practical distribution of military and naval manpower throughout the Empire, it was in the opening pages that Colomb made his case concerning the apparent vulnerability of Great Britain's strength and wealth. He recognized the uniqueness of his country's position: all the powers of continental Europe were protected solely by great armies, but Britain's security rested in the hands of its navy. He considered three tasks to be national obligations: first, the defence of Great Britain and Ireland; second, the protection of commerce; and third, the permanent occupation of India, source of much of the Empire's wealth.[21] These three elements were central to Colomb's ideas on defending Great Britain. Without securing the Home Islands, there was no means to carry on the struggle. Failure to protect overseas trade would shatter the economy of the nation and rob it of the means to fight a war. India's wealth in raw goods, treasure and people also made it vital.

Colomb's theories on the most effective means of protecting commerce did not include the idea of convoy; seagoing warships were to protect British merchantmen on the high seas more by patrolling the sea-lanes and by controlling the key narrowsÐ`perhaps' was Colomb's only concession to convoy.[22] Generally, Colomb argued that the most effective means of commanding the sea-lanes was through a two-fold approach, requiring a specific naval construction programme and a plan of deployment for both peace and war:

> In dealing with the general question, howeverÐ`the protection of our commerce abroad' Ðit may be laid down as a principle that our policy should be this: in times of peace to provide for the safety and welfare of our merchant fleets on the high sea, and at trading ports *not* in our possession, nor in that of any European power; and in time of war with any European power or America, our object should be, to ensure the safety of those ports *in* our possession, and to afford protection, not only to them, but to as great an area as possible around them.[23]

This necessitated the construction of two completely different fleets of vessels: the seagoing ships, able to command and control the high seas, and the coastal

and harbour defence ship, designed to repel assault, bombardment or invasion. However, Colomb was not interested in the details of types of vessels to be built, nor was he was interested in recreating a Cowper Coles vs E.J.Reed feud within the navy. For better or worse, his focus was on strategy, not tacticsÐDon ends, not means.[24]

Colomb saw England's wealth and ability to wage war resting on the flow of goods to and from her colonies. With the greatest amount of shipping passing through the English Channel, Colomb singled out that body of water as crucial to his country's survival. The problem was how best to combine the approaches to commerce-protection and to anti-invasion duties, his first and second points of importance. The Commission on National Defence of 1860 had cautioned against stationing too many ships in the Channel, lest this would allow foreign vessels on the high seas a much greater freedom of action against British commerce and colonial possessions.[25]

Colomb then evaluated Britain's prospects at sea in the event of war with its rivals. War with Russia would be a matter dictated more by weather than by the opposing fleets; with the Baltic Sea frozen over from October to May, action there would be limited to a few summer months. Even then, Colomb felt certain that the Russian Baltic fleet could be contained within that salt-water cul-de-sac. `Prussia is similarly circumstanced.'[26]

The other two opponents Colomb analysed, France and the United States, posed a greater threat to the security of Great Britain's links with its colonies. The presence of British interests in the Mediterranean posed a problem both for itself and for France, forcing the combatants to divide their fleets. However, Colomb still believed the greater threat to lie along the North Atlantic trade routes. As for America, its position at a great distance from the British Isles was both an advantage and a drawback; by the time an American squadron reached British territorial waters, its advance would be well-known. On the other hand, without sufficient ships stationed overseas, British trade routes would be imperiled by American attacks from closer bases.[27]

That was why Colomb called for two types of navies, a `seagoing' fleet and a `coastal defence' fleet. The coastal defence fleet would be responsible for guarding ports and key naval stations not only in the British Isles, but at major possessions around the globe. By stationing such ships in places like Malta and Gibraltar, the Royal Navy would free ocean-going warships for the tasks of protecting British commerce and hunting down enemy commerce-raiders.[28] Colomb also suggested that additional forces be stationed at the Cape of Good Hope and Cape Horn to prevent enemy cruisers from rounding these strategic gateways and attacking the virtually unprotected commerce of the Pacific and Indian Oceans.[29]

Colomb perceived two problems faced by Great (and Greater) Britain which seemed to affect both the mother country and the overseas dependencies: the overwhelming need for the importation of food to the Britain, and the equally pressing need to supply overseas stations with coal. The first was a problem

already noted by many observers, and Colomb believed it to be `one on which the whole question of a real national policy of defence turns'. [30]

The second was a point which few observers, then or now, have noted. Britain produced much of the world's coal, and Cardiff coal was highly prized as a naval fuel for its clean-burning properties. Nevertheless, it was necessary for this Welsh coal to be shipped from Britain to its overseas bases; without the regular supply of coal, British warships would be forced to reduce or eliminate patrols and British merchant vessels would lie idle. While coal consumption by merchant ships was a reasonably constant factor, consumption by warships could vary widely; a ship travelling at cruising speed for its entire patrol would take much longer to empty its coal bunkers than a ship required to move at full speed in battle or in pursuit of an enemy commerce-raider. Colomb feared the crippling effects of a disruption in the steady supply of coal to overseas bases.[31]

Britain's near-monopoly provided a distinct advantage for the Royal Navy, however. First, it could buy coal at much cheaper rates than could foreign navies. Second, it was always assured of the highest-quality coal. Third, it limited the ability of Britain's foes to obtain coal themselves at overseas stations. In peacetime, foreign navies relied a great deal on the chain of British bases and possessions for coaling, maintenance and supplies. In war, because of the Foreign Enlistment Act of 1870, it was not possible for British firms to supply coal to belligerents of either side, and if the British were one of the belligerents, it assuredly cut off the enemy from any reliable supplies.[32]

Colomb wrote many more pamphlets, gave many more speeches at clubs and institutions, and was not afraid to engage in debate with his critics. However, his basic tenets remained unchanged throughout his lengthy career. They were the first attempt by anyone to formulate what could be referred to as a theory of Imperial Defence, a unified approach to securing all British interests throughout the world. Colomb's fixation on the precarious state of his country's position, reliant as it was on both the physical goods that traded back and forth and on the delicate financial arrangements that held it all together, forced him to an assessment of Britain's chances in a war against trade, and eventually to the conclusion that the colonies and Dominions would have to assist in trade protection, for their own good as much as the mother country's. [33]

Colomb's the ories of imperial defence relied on two important factors: a chain of centrally located and well-defended bases, and a powerful seagoing fleet capable of asserting control along the sea-lanes. Like many later theorists, Colomb under-estimated the importance of convoy (a position taken by many in the Royal Navy even well up to the First World War), believing that regular patrols by warships would either deter or round up enemy raiders. This reflected naïve thinking on his part; the same theorists who maintained that steam-powered merchantmen, once freed from the rigid paths of trade winds, would be able to chart their own courses, neglected to apply the same principle to the raiders themselves. Furthermore, whether he wanted to or not, Colomb had to become involved in the technical debates over ship construction. By proposing coastal

defence ships, Colomb was creating a class of small and home-bound vessels. When proposing a seagoing fleet, Colomb failed to specify what kind of fleetÐ one that could do battle with the enemy fleet and would therefore require battleships, or one that could steam the long distances of the trade routes and hunt down the fast commerce-raiding cruisers?

Regardless, Colomb sought to integrate British defence planning into a wider panorama of responsibilities and requirements. Caught up in the previous decade's invasion scares, many people in Britain viewed home defence as protecting it from invasion by fast steam-powered French troop carriers. The `brick and mortar' school of defence had convinced the politicians to spend money on coastal fortresses to safeguard against the unexpected invasion, the `bolt from the blue'.[34] Colomb tried to return the navy to prominence in the British defence scheme, reminding the public that Britain's survival depended on commerce, and commerce could not be protected by fortresses. However, Colomb's work also made it clear that Great Britain was vulnerable. This was a weakness that perhaps could be exploited by others.

Prophet of the new *guerre de course:* Richild Grivel

Richild Grivel, a captain in the *Marine* who had served in the Crimean War, was heavily steeped in the tradition of naval thought. His father, Vice-Admiral Baron Jean Grivel, had published an analysis of the French navy in 1837, and the younger Grivel ardently followed in his father's tradition.[35] In 1869, Grivel published his own study, *De la guerre maritime avant et depuis les nouvelles inventions,* an examination of how the Industrial Revolution was threatening to change the way war at sea would be fought.

While Grivel was the first to attempt to synthesize technology with tactics, he was not a firm believer that all such progress was for the better.[36] In many ways, his analysis reflected the fact that he stood on the threshold of a new way of warfare, and for his own sake as much as his readers', he tried to ground as much of his analysis as possible in simple terms. Grivel divided naval action into three types: coastal attack and defence; `la grande guerre', exemplified by squadron and fleet action; and cruiser warfare or commerce-raiding.[37] The question he then posed was this: which type of naval warfare is appropriate? The answer to this question would, therefore, clarify two important factors: who would the war be fought against, and what types of vessel should be constructed? Grivel was making a distinction between a war with the North German Confederation, a weaker naval power, and a war with Great Britain, a superior naval power.

It was not Grivel's intention, however, to give a specific answer to the question as applied to France's own needs. He preferred to emphasize the importance of what Colomb called `command of the sea'. In anticipation of Mahan, Grivel argued that victory over the enemy's battle fleet allowed the victor a choice of what further action to pursue: coastal raids, invasion or a war on the enemy's commercial trade, or all three: `As soon as one becomes preponderant

at sea, one's maritime strategy can, with relative security, give itself a sort of *carte blanche*¼to choose between the operations which constitute maritime warfare¼ blockade the littoral of [the enemy], sweep from the seas its foreign trade, and undertake a major diversion in its rear.'[38]

Grivel proposed that such command could be won by the French in a war with a continental foe, especially the North German Confederation. The *Marine* could easily deal with the minuscule threat of the *Bundesflotte* either through destruction in battle or by blockade, leaving the French free to sweep German merchant shipping from the seas and possibly engage in an amphibious assault on the Baltic or North Sea coastsÐa diversionary tactic that would lend support to the main armies on the Rhine frontier.[39]

However, such a method of naval warfare would not work against Great Britain. Even after nearly two decades of a great naval arms race with England, France found herself in an inferior position in both quality and quantity of ships. Grivel saw no need for the French to foolishly engage the superior Royal Navy in a contest that could, in his opinion, have only one outcome.

> Nothing is easier to explain, however. ÐThere is no effective *grand [sic] guerre* without the power of renewal! For, relatively speaking, and by comparison to the immense increase in the navies of England and the United States, our power of maritime expansion can only grow slowly. Ð In systematically renewing fleet war, that is to say, the expeditions and the squadron battles against a foe such as England, for example, would France not resemble the desperate player, who, in the face of an adversary four or five times richer, engages all his fortune in a single toss of the dice?
>
> The naval battles of 13 prairial [1 June 1794], Aboukir [1 August 1798], Santo-Domingo [12 April 1782], Cape Finisterre [22 July 1805], and Trafalgar [21 October 1805] provide incontestable historical proof of the danger of squadron battles for a fleet inferior in *quality* and *quantity*.[40]

Grivel considered it a waste of precious resources to engage in further naval arms races with Great Britain. Instead, he believed that France should strike where the British would be at their weakest, exhausting the resources of Britain by attacking the sinews of commerce, finance and industry. This would be the surest means of bringing about a peace favourable to France, unlike in past wars where the search for a great battle had only resulted in humiliating defeat.[41] Furthermore, Grivel believed France was best suited to conduct a war on British commerce at minimal cost while achieving peace as quickly as possible:

> With its normal resources, the French navy could support *indefinitely,* if it must, a war of cruisers at sea [against Britain]. ÐIt is, however, more than probable that our perseverance would never be submitted in such a case to a test of such long duration. ÐJust through the rise of the insurance rates on the London Exchange, two or three years of well-directed cruisers

> would suffice to take away the customers of the enemy's merchant flag, that is to say, dry up the principal source of the national wealth! ÐThe result: a commercial and financial distress that would with scarce delay wear out this phalanx of wise and calculating minds who have always directed the affairs of England.[42]

Grivel was always careful to emphasize the dual aspect and flexibility needed for France's maritime policy: the large ships-of-the-line against foes weaker at sea, the smaller *guerre de course* for nations greater at sea. It was the anticipation of the *Jeune Ecole's* doctrine of `shamelessly fly from the strong; shamelessly attack the weak'.[43] Grivel sought to impress this policy on his readers, ensuring it was repeated in the very last lines of his book:

> Definitely, we must not tire of repeating, according to whether it would have to cope with an *inferior* or *superior* power, (speaking navally), France remains in the presence of two strategies perfectly distinct and radically opposed in their means and in their consequences: ÐFleet warfare or cruiser warfare! ÐKnowing the enemy against which one must fight, according to which one would or would not be strongest on the sea, that is to say master or not of the great sea-lanes, the choice to make between these two strategies, is it not reduced to a simple question of good sense? Ð Acting thusly, is it not simply otherwise affirming this grand principle, common to all enlightened minds? Ð`In our days, all war must be conducted in such a manner as to restore peace as promptly as possible!'[44]

Although Grivel is acknowledged as the intellectual forerunner of the *Jeune Ecole,* he did not commit himself as fully to the ideas of commerce-raiding as the succeeding generation of French theorists did. This was primarily due to the state of technology at the time. Grivel wrote *De la guerre maritime* in 1869; Whitehead had only conducted the first successful test of his torpedo the year before: `Grivel's writings were too early to contain much more than a statement of faith in the new methods.'[45] However, the proposals Grivel made were ones which could be adopted by other navies faced with the prospect of fighting opponents superior to themselves.

If Grivel can be faulted, it is perhaps for his lack of specifics in the relative proportions of the two types of navies he proposed France should build. This was a sign of the difficulty in agreeing on such an allocation of resources. As the infighting of the remaining 30 years of the century would amply illustrate, advocates of commerce-raiding and partisans of traditional fleets would frequently do battle over this very point, leading to extreme positions being taken on both sides. Furthermore, Grivel's two-tiered approach did not take into account the needs of overseas naval duties. France would not be creating two navies, but three! If the creation of a single navy was an expensive proposition, the creation of two would be doubly so. If the vessels built for *la grande guerre*

or for the *guerre de course* were not suitable for colonial duties, then a third navy would have to be built—impossible to justify to politicians and the public at any price. Finally, Grivel's theory of a dual fleet policy rested on the assumption that France's potential enemy would be known far enough in advance to assemble the correct style of fleet. What if the approach of war was too swift for such preparations? What if France faced a coalition? Grivel failed to answer these questions, and as a result, his suggestions were left open to criticism.

However, Grivel put his finger on the nub of Great Britain's supposed weak point—its need to keep the lines of overseas trade open during war. Grivel summed up his philosophy in a neat four-line epigram at the beginning of his chapter on `La Guerre du Large' [`War on the Open Sea']:

> Who commands at sea
> Commands trade,
> Who commands trade
> Commands the world![46]

Grivel took the ideas of war at sea and began to look at them in the light of how much damage could be done to an economy. By so doing, he began to examine the possibility that a decisive victory could be won rapidly, without the need for massive military expenditures or concentration of force. In Grivel's world, it was the needs of commerce which dictated foreign policy. This was one point those who followed him would seize on most eagerly.

Conclusion

> The success of all operations depends upon the disposition of the forces in such a manner, as will but secure the base of operations and ensure safety and freedom of communications.[47]
>
> One will understand without effort if one reflects carefully on war: it is the force of resistance or, in other words, the duration or the solidity of the *defence* which, alone, allows the attacking force or the offence to appear and to last long enough to make a serious impression on the enemy.[48]

Colomb and Grivel seemed to be working from opposite ends towards the same conclusion: that British maritime commerce was valuable to the well-being of Great Britain, and that such commerce was also vulnerable to attack by enemy forces. Colomb was interested in devising effective means of protecting that trade; Grivel, however, was too preoccupied with the general principles of naval warfare to determine the specifics of how to attack that commerce. It was a fault of both writers that they examined the general prospects of war at sea but were deliberately vague on specifics as to strategy and tactics.

De la guerre maritime was Grivel's only publication of note on naval strategy;[49] Colomb was far more prolific. He made a number of presentations to the Royal Colonial Institute and the Royal United Services Institute. These papers were originally published as individual pamphlets, later collected in a single volume, *The Defence of Great and Greater Britain: Sketches of its Naval, Military, and Political Aspects*.[50] While Colomb often veered off on to a pet topic, the need of the Dominions and colonies to contribute to imperial defence, he still retained a great interest in the protection of commerce.

This, then, was where a new theory of naval warfare waited to overcome the problems of supply-lines for both friend and foe. Regardless of the lucrative nature of British overseas trade and its vulnerability because its chief protection would be provided by a second-class fleet of older, weaker cruisers and gunboats, it made far more sense to wait for that trade to come closer to Britain's ports before attacking it. This was a condition ideally suited to France's geographical proximity to the sea-lanes converging on Britain.

Also, the momentous developments in technology had rendered obsolete the mass of wooden sailing ships. It was possible for a naval arms race to begin anew, with victory going to the nation which could build the most, the fastest.[51] Even size was no longer a guarantee of security, since the torpedo acted as a levelling agent. Did the future of the command of the sea belong to the large ironclad warship or the small torpedo-boat?

Finally, was commerce-raiding to be the sole preserve of France? Did it not also provide a viable means of waging war at sea to other countries' smaller navies, namely those of the second or third rank? Similar conditions to those in France applied to the growing naval power in Prussia, where these new ideas were about to be explored.

Notes

1. *Tactique navale* (Paris: H.L.Guerin and L.F.Delatour, 1763), as quoted in A.T.Mahan, *The Influence of Sea Power upon History 1660±1783* (Boston, MA: Little, Brown, 1890), p. 10. Morogues wrote his work under the auspices of the French Royal Academy of Sciences; see Azar Gat, *The Development of Military Thought: The Nineteenth Century* (Oxford: Oxford University Press, 1992), p. 194.
2. Stenzel's copy of Grivel's seminal work, *De la guerre maritime avant et depuis les nouvelles inventions* (Paris: Arthus Bertrand/J.Dumaine, 1869), still resides in the library of the Marineschule Mürwik.
3. Although shipbuilding techniques were highly sophisticated in the eighteenth century, it is nevertheless true that each vessel was a unique creation. The adoption of the Industrial Revolution to shipbuilding gave rise to the technique of building several ships to the same design and specifications, allowing for interchangeable replacement parts.

4. Much of the section that follows is based on the dated, but still useful, reference by Bernard Brodie, *Sea Power in the Machine Age* (Princeton, NJ: Princeton University Press, 1941).
5. *Conway's All the World's Fighting Ships 1860±1905* (London: Conway Maritime Press, 1979), pp. 3, 32. In 1893, a ship as small as the second-class cruiser HMS *Astraea* displaced 4,360 tons: ibid., p. 77. By way of comparison, the largest ship in the Prussian navy in 1860 was SMS *Arcona,* a 2,353-ton wooden screw frigate. Oddly enough, Prussian and German naval construction documents rarely specified suggested displacements, but were quite explicit in other dimensions. See, for example, the projected 1861 Flottenplan in BA-MA, RM1/2795, n.d., but possibly 6 December 1861; BA-MA, RM4/121, `Schiffs-Neubauten', February 1892; and BA-MA, RM4/ 21, `Flottenweiterungsprogramm für 1908', 23 May 1896.
6. As quoted in Brodie, *Sea Power in the Machine Age,* p. 31.
7. Readers requiring a summary of warship types should consult Appendix I: `Terminology of Warship Types', p. 190.
8. See Antony Preston and John Major, *Send a Gunboat! A Study of the Gunboat and its Role in British Policy, 1854±1904* (London: Longman, 1967), esp. ch. 3.
9. John F.Beeler, *British Naval Policy in the Gladstone-Disraeli Era, 1866±1880* (Stanford, CA: Stanford University Press, 1997), p. 6.
10. Julian S.Corbett, *Some Principles of Maritime Strategy* (London: Longmans, Green, 1911), pp. 269±70.
11. Herbert C.Fyfe, *Submarine Warfare: Past, Present, and Future* (London: Grant Richards, 1902), ch. 11.
12. All categories of underwater exploding devices were originally referred to as `torpedoes', regardless of whether they were fixed in a set location, allowed to drift or were propelled by internal or external means. It was not until the locomotive torpedo became a prominent weapon that the different terms of `mine' for fixed explosive device and `torpedo' for mobile explosive device were used.
13. C.W.Sleeman, *Torpedoes and Torpedo Warfare* (Portsmouth: Griffin, 1888), *passim*. Sleeman was in favour of the spar torpedo, considering it to be the torpedo of the future because of its proven track record. However, he chose to ignore the danger the spar torpedo posed to its user, as the weapon was little more than an explosive charge on the end of a long pole; in order to use it, one had to touch it to the target. Spar torpedo attacks were often as fatal to the attacker as to the victim.
14. Wayne P.Hughes, *Fleet TacticsÐTheory and Practice* (Annapolis, MD: Naval Institute Press, 1986), p. 62.
15. Sleeman, *Torpedoes and Torpedo Warfare,* p. 133; Theodore Ropp, *The Development of a Modern Navy: French Naval Policy 1871±1904,* ed. Stephen S.Roberts (Annapolis, MD: Naval Institute Press, 1987), p. 128.
16. Sleeman, *Torpedoes and Torpedo Warfare,* p. 115.
17. The Earl of Carnarvon, a longtime advocate of British sea power, noted in a speech in the House of Lords on 4 May 1883 that `the amount of mischief that was done by [the Confederate commerce-raiders]¼wouldbe nothing compared to that which might be done to our shipping in a time of war'. Quoted in *The Defence of the Empire: A Selection from the Letters and Speeches of Henry Howard Molyneux, Fourth Earl of Carnarvon,* ed. Sir George Syndenham Clarke (London: John Murray, 1897), p. 6.

18. Beeler, *British Naval Policy,* p. 314, n. 9. In 1861, there were 3,918,511 tons of British merchant tonnage under sail, and 411,184 tons under steam. In 1871, sail tonnage had risen to 4,343,588 tons, while steam tonnage had increased to 1,290, 003 tons. It was not until 1883 that the British merchant fleet had more of its tonnage under steam than under sail.
19. R.K.Webb, *Modern England: From the Eighteenth Century to the Present,* 2nd edn (Cambridge, MA: Harper & Row, 1980), p. 287; Rolf Hobson, *The German School of Naval Thought and the Origins of the Tirpitz Plan 1875±1900* (Oslo: Institutt for Forsvarsstudier, 1996), p. 7.
20. D.M.Schurman, *The Education of a Navy: The Development of British Naval Strategic Thought, 1867±1914* (London: Cassell, 1965), p. 16. It was at this time that a furious debate was raging between the Admiralty's chief constructor, E.J.Reed, and Captain Cowper Coles over the use of turrets in battleships. This and other technical matters were viewed as more important than obscure strategic concerns. See Stanley Sandler, *The Emergence of the Modern Capital Ship* (Newark, NJ: University of Delaware Press, 1979), ch. 7.
21. John Charles Ready (J.C.R.) Colomb, *The Protection of Our Commerce and Distribution of Our Naval Forces Considered* (London: Harrison, 1867), pp. v±vi.
22. Ibid., p. 18. This apparent lack of regard for the tried-and-true method of convoy seems uncharacteristically short-sighted, especially given the events of the two world wars. However, it was the general view that steam propulsion made convoy obsolete. See Julian S.Corbett, *Some Principles of Maritime Strategy* (London: Longmans, Green, 1911), pp. 263±84.
23. J.C.R.Colomb, *Protection,* p. 17.
24. Schurman, *Education of a Navy,* p. 20.
25. As quoted in J.C.R.Colomb, *Protection,* p. 4.
26. Ibid., pp. 8±9. Colomb did not take into account the formation of the North German Confederation in the year of publication, nor did he say anything about Wilhelmshaven, which was not officially opened as a naval base until 1869.
27. Ibid., pp. 9±10.
28. Ibid., pp. 12±14.
29. Ibid., p. 31.
30. J.C.R.Colomb, *The Naval and Military Resources of the Colonies* (London: Harrison, 1879), p. 8 (also ch. 5 of *The Defence of Great and Greater Britain: Sketches of its Naval, Military, and Political Aspects* (London: Edward Stanford, 1880)). Also see Donald M.Schurman, *Imperial Defence, 1868±1887,* ed. John F.Beeler (London: Frank Cass, 2000).
31. Colomb, *Naval and Military Resources,* pp. 9±10. Also see Brodie, *Sea Power in the Machine Age,* ch. 7.
32. Brodie, *Sea Power in the Machine Age,* p. 116. As an example of German dependence on British bases, there is a map in the Wehrgeschichtliches Ausbildungszentrum at Marineschule Mürwik that depicts the use of overseas harbours by the Prussian, North German and Imperial German navies between 1851 and 1888. See Appendix II: `Use of Overseas Ports by the Prussian and German navies, 1851±1888', p. 192, for details.
33. Schurman, *Education of a Navy,* p. 21.
34. Preston and Major, p. 36, recount how the fortress mania reached such extremes that one project suggested fortifying the entire north-west coast of Scotland!

35. Ropp, *Development of a Modern Navy,* p. 370, n. 28. Ropp describes Jean Grivel's work, *De la Marine militaire considérée dans ses rapports avec le commerce et avec la défense du pays* (Paris: n.p., 1837), as `a remarkable examination of the position of France in the maritime world, of the importance colonies and sea power would have in the economic development of the Old World, and of the way in which command of the sea was necessary in order to be able to choose the theatre of strategic operations'.
36. Ibid., p. 370, n. 23.
37. Richild Grivel, *De la guerre maritime avant et depuis les novvelles inventions,* p. 249.
38. Ibid., p. 278 (as translated and quoted in Ropp, *Development of a Modern Navy,* p. 19).
39. Ibid., p. 277 (as translated and quoted in Ropp, *Development of a Modern Navy,* p. 20).
40. Ibid., p. 253; italics in original.
41. Ibid., p. 254.
42. Ibid., p. 264; italics in original.
43. See Chapter 7, p. 132.
44. Ibid., pp. 281±2; italics in original. The quotation contained in the last line is an `Extract de la *Revue maritime et coloniale,* 2 mai 1869' by Grivel.
45. Ropp, *Development of a Modern Navy,* p. 21.
46. Grivel, *De la guerre maritime avant et depuis les nouvelles inventions,* p. 182. The sentiment is remarkably similar to one expressed by Sir Walter Raleigh some three centuries earlier. The Elizabethan explorer and naval captain wrote: `Whosoever commands the sea commands the trade; whosoever commands the trade of the world commands the riches of the world, and consequently the world itself.' Quoted in Daniel A.Baugh, `Great Britain's ªBlue-Waterº Policy, 1689±1815', *International History Review,* 10 (February 1988), p. 33.
47. J.C.R.Colomb, *Protection,* p. 1.
48. Grivel, *De la guerre maritime avant et depuis les nouvelles inventions,* p. 183.
49. Grivel did write a smaller work on coastal attack and defence (*La guerre des côtes, attaque et défense des frontières maritime,* n.p.) which was translated into German as *Marine beim Angriff auf Küsten Befestigungen* in 1856.
50. London: Edward Stanford, 1880.
51. The same philosophy was expressed by the American Civil War Confederate general Nathan Bedford Forrest, who reportedly said `Get there first with the most men', or as it is most commonly rendered, `Git thar fustest with the mostest': *Bartlett's Familiar Quotation,* 16th edn (Boston, MA: Little, Brown, 1992), p. 496.

Part II

EARLY DAYS, EARLY DREAMS

The navies of Prussia and the North German Confederation, 1856±71

3
PRECURSOR TO EMPIRE
The Prussian navy to 1864

Until the middle of the nineteenth century, German interest in maritime affairs limited itself to questions of trade.[1] The great struggles of the Western European powers for naval supremacy took place with minimal German involvement. The German states were more concerned with the trading advantages they could gain in times of war, which meant, more often than not, a leaning towards a greater freedom of the seas for neutral vessels. Consequently, the German states with maritime interests frequently sided with continental European powers on matters regarding freedom of the seas, often at variance with the aims of the strongest naval power in the world, Great Britain.

From its beginning, the navy was bound up with German nationalism. It was as Prussia took its first steps towards leadership of a German nation that the navy began to emerge, at first in an extremely modest way, as a tool and projection of national power. However, the chief motivation for the original establishment of a German sea power was trade. The humiliation of the Danish naval blockades in 1848 and 1849 convinced some of the need for a more significant German presence at sea. Possessing control of most of the German coasts and several harbours, it fell to Prussia to represent German interests at sea. However, the natural leanings of Prussia towards events in continental Europe, coupled with the central position held in government, court and society by the army, made expansion of the Prussian navy a painfully slow process. Furthermore, the army budget crisis of 1862±66 eliminated support from the navy's traditional parliamentary allies, the liberals, who chose party solidarity and parliamentary principle over support for the navy's needs. The navy, always the junior service in Prussia, therefore received even less attention and funding than it might have under a more normal relationship between Crown and Parliament.

The difficulties over funding for the nascent Prussian navy came at the worst possible time in terms of naval technology. With the introduction of steam-propelled, armour-clad warships, the large fleets of traditional, broadside-firing sailing ships-of-the-line possessed by other navies became obsolete. An opportunity existed here that was not to occur again for another 55 years: the chance to build a battle fleet on the basis of a brand-new technology, a fleet comparable to those of Great Britain and France, the leading naval powers.

Unfortunately, the lack of funds severely crippled any hopes the Prussian navy might have entertained of such a quantum leap into the rank of first-class navies. Faced with the primitive state of German ironworking and shipbuilding, all such vessels would have to be purchased abroad, preferably in England. The cost would be far beyond anything the Prussian government could afford, given its military complex and constitutional controversy.

With the improvements in building both warships and merchant vessels, it became increasingly likely that the Prussian navy would have to prepare itself for two completely different roles: commerce protection and fighting power, even though it could barely afford to perform either of those tasks. Whether that commerce protection would be asserted against another blockade of the North and Baltic sea-coasts or against foreign elements overseas, it would become a matter of both economic well-being and political sovereignty that the navy be able to perform to the government's expe ctations.

Prussia and the sea to 1856: the land power takes to the water

It is pointless to talk of any true German naval tradition prior to 1848.[2] Aside from coastal fishermen and the trading fleets of the Hansa, there was no chance for the creation of a German navy, especially with the territorial and political divisions of the Holy Roman Empire and, later, the German Confederation. Thus, while the great naval wars from the sixteenth through the beginning of the nineteenth century were fought among Spain, France, Holland and England, there was no participation by any of the German states in these actions except as merchantmen, either belligerent or neutral. The creation of prize laws, the development of strategies and tactics for a *guerre de course,* and the technological innovations in naval warfare all occurred without the direct involvement of the German states.[3]

The only true exception to this occurred during the War of American Independence, when Frederick the Great allied Prussia with the League of Armed Neutrality in 1781. The original Russian declaration stating the principles of armed neutrality was never sent to the Prussian government because the Prussians did not possess a war fleet. However, Frederick had two very pressing reasons for aligning himself with the League: he wanted the expanding commerce of his subjects protected (and the Prussian merchant fleet gained even more commerce from the entry of Holland into the war), and he wanted to establish closer diplomatic ties to Catherine the Great to counteract the Russian alliance with Austria.[4]

On 30 April 1781, the Prussians issued a declaration of their stance on maritime commerce, and on 19 May formally announced their adherence to the doctrines of the League. The League was set up ostensibly as a deterrent to all unfair belligerent practices, but in reality it became an anti-British weapon. Chief among the points at issue was whether naval stores constituted contraband

material; the Prussian government's declaration made it clear that it did not consider naval stores to be contraband:

> ¼and His Majesty expects from the sense of justice and of friendship of the belligerent Powers that they will not permit their armed ships to molest or to seize Prussian ships carrying masts, timber, hemp, tar, corn and other like articles, not real war necessities, but which may subsequently be used to such ends, and which constitute the foremost and almost the only articles of Prussian trade; otherwise, Prussian maritime commerce would be destroyed¼. [5]

Lacking sea power of their own to enforce their stand, the Prussians accepted Russia's offer to protect Prussian merchantmen. The League remained in effect throughout the remainder of the war, but did not survive to the next conflict. However, Prussia's participation in the League was an indication of its attitude towards the status of neutral merchantmen, that war was not to be regarded as an impediment to the flow of trade.

In the early stages of the French Revolutionary War, all belligerents adopted rules regarding commerce that were most favourable to themselves. The 1794 Prussian Code *(Allgemeines Landrecht)* thus contained provisions for privateering and ownership of capture. Both neutral goods on enemy ships and enemy goods on neutral ships were exempted from capture. The list of contraband consisted of heavy guns and their ammunition, shells, bayonets, muskets, carbines, pistols, bullets, flintstones, slow matches, powder, nitrates, sulphur, picks, swords, sabres, saddles, head stalls and tents. However, the Code specifically declared that the following goods were not prohibited: ship masts, ship timbers, ropes, sailcloths, hemp, pitch and grain, `and other articles susceptible of both warlike and peaceful uses'. [6] Even with this set list and a general leaning towards favouring belligerent action, the Prussian government still resisted putting naval goods on the prohibited list, primarily because these were vital exports of the kingdom. Although making provisions for a belligerent attitude at sea, the list of Prussian goods exempted from contraband status was no different from those specified on Prussia's entry into the League of Armed Neutrality. Accordingly, Prussia did not need to modify its stance in order to resume a more neutral posture at sea when it withdrew from the fighting on the continent.

However, when the Scandinavian states and Russia attempted to re-found the League of Armed Neutrality in 1800, their efforts were halted by the Royal Navy sinking the Danish fleet at Copenhagen and by the assassination of the Russian Tsar Paul. Prussia was not considered to be a serious threat by the British and warranted no action, even though she was considering joining the revived League. Prussia played no further role of significance at sea throughout the rest of the Napoleonic Wars, either in terms of neutrality or as a privateering state. Prussia's continental position precluded any significant interest in maritime matters, and little, if any, attention was paid to warfare at sea.[7]

The potential of sea power became painfully apparent to the Germans, however, with the events of the war of 1848±49 between the Frankfurt Parliament and Denmark. Feeble though the naval strength of the Danish Crown was in comparison with the major countries of Europe, it was more than enough to institute an effective blockade of the North and Baltic sea-coasts of the German states. Strictly observing the rules of `free ships, free goods' and `unfree ships, unfree goods', the Danes were able to keep German ships bottled up in port, but allowed British merchantmen to pass through unhindered.[8] The only northern German power with any naval resources was Prussia, and the Royal Prussian Navy in 1848 consisted of a total strength of three officers (all lieutenants), no full-time sailors and one seagoing training corvette armed with 12 light cannon that doubled as the training vessel for Prussia's merchant marine.[9] During the war, three separate fleets took action against the Danes: a patchwork Prussian navy, the hastily assembled *Reichsflotte* of the Frankfurt Parliament and a fledgling fleet of the duchies of Schleswig-Holstein. None of these navies was strong enough to overcome the Danish blockade.[10] It was the realization of this vulnerability to blockade that prompted the Frankfurt Parliament to create a navy: this realization also lay behind the gradual movement of Prussia towards establishing a more permanent navy for itself.

As the Danes' stranglehold on German sea-commerce continued, thoughts were entertained of retaliating in kind. Some members of the Frankfurt Parliament proposed that letters of marque should be issued to Admiral Rudolf Brommy, commander of the *Reichsflotte*. There was little support for the idea, however, and no letters were ever issued. Given the relative weakness of the Federal fleet vs the Danish blockade, and given world government reaction towards vessels flying the Frankfurt Parliament's black, gold and red standard (Lord Palmerston, the British Foreign Secretary, referred to the ensign as a `ªpirateº flag'), it was probably for the best that the *Reichsflotte* did not attempt to mount a war on commerce.[11]

The one man truly identified with the possibility of Prussian sea power was Prince Adalbert of Prussia, a cousin to King Friedrich Wilhelm IV. Adalbert's interest in coastal artillery, coupled with a number of sea-voyages he made in the 1830s and 1840s (including a state visit to Brazil in 1842±43) left him with a lifelong interest in all things nautical. As a Hohenzollern, he had the ear of Prussian royalty; as a navalist, he was important to the Frankfurt Parliament. Adalbert's observant nature led him to make several key pronouncements on the state of a `German' navy.[12]

In May 1848, Adalbert wrote a *Denkschrift* (memorandum) on the best means of building a navy that would be capable of looking after German interests. He saw the task as a three-step process: coastal defence; offensive defence and trade protection; and eventually the rise to independent naval power.[13] With the passage of time, Germany could become a nation capable of determining its own future on the seas.

Later that year, Adalbert turned his analysis towards the Danish blockade. If nothing else, he found the Danes' methods an insult to an otherwise powerful state such as Prussia:

> ¼witha few individual cruisers the Danes block our extensive coasts, and succeed in striking the most sensitive wounds to our flowering trade. We cannot prevent it; no, we are not even able to disturb those Danish warships from their leisureliness for one instant, while they assume the right to come and go as free masters of our roadsteads![14]

Adalbert thought on a grander scale for the *Reichsflotte;* even at this early juncture, he was convinced of the importance of stationing vessels overseas. However, his rationale for so doing was not purposes of war, but the needs of Germany in peace:

> In peacetime Germany shall be, in a word, everywhereÐin the Mediterranean Sea, in the West Indies and North America, in South America and the Pacific Ocean, in Chinese and East Indian waters, and on the coasts of Africa, wherever the sea powers maintain stationsÐ alternately showing an individual frigate or, as circumstances dictate, combining several into a small squadron.[15]

Little thought was applied to the question of a *guerre de course* or any other type of war at sea in Germany after the end of the Danish war and the revival of the German Confederation, although there appeared an emphasis, even this early, on the need for long-range cruising vessels possessing speed, endurance and the ability to perform different duties. The *Reichsflotte* was sold off, and the Prussian navy retreated into semi-decline until 1854, when it slowly began to revive itself under the direction of Prince Adalbert, whose title of `Admiral of the Prussian Coasts' bestowed by the king ironically underscored the pitiful state of the navy at this time.[16]

Prussia was one of the original signatories of the Declaration of Paris in 1856, and most of the other German states also eagerly subscribed to its tenets.[17] It was felt that Prussia and the other states stood only to gain from the provisions of the Declaration; merchant vessels would be undisturbed in the course of normal trade, and the still-tiny Prussian navy could neither prevent nor institute a blockade.[18] Without the ability to protect their own trade, it made sense for the German states, Prussia included, to approve of a scheme that would favour commerce protection as the new law of the seas in times of war.

At this time, the focus of the German states was still on the protection of trade in time of war. Fighting a war on the high seas remained a far-distant prospect. Indeed, in order to conduct such a fight, there needed to be a navy. That was not yet a reality, mainly due to the same political considerations that had worked against the creation of such a fleet for the previous several hundred years.

However, economic and political considerations would soon change those conditions.

The beginnings of Prussian naval power: expansion of overseas trade and obligations

The gradual emergence of Prussia on to the world stage of trade was spurred by the beginnings of the Industrial Revolution in Central Europe. However, Prussian firms and individuals had been involved in trade in the far reaches of the globe well before mid-century. The first overseas cruise of a vessel flying the flag of Prussia occurred in 1822.[19] As early as 1831, the Prussian whaler *Princess Louisa* had put in at Honolulu, giving portraits of the King of Prussia and Field Marshal Blücher (the hero of the battle of Waterloo) to the King of Hawaii as a thank you for the gift of a feather cloak. German whalers frequented the waters of the Pacific Ocean even more often in the 1840s, with 19 ships from Bremen alone putting in at the Hawaiian Islands during the decade.[20] The post-revolutionary period in Germany was the `great age' of free trade and freedom of enterprise. By adopting British economic policies, German businesses and trading firms began to prosper.[21]

What was lacking more than anything else was a naval tradition for Prussia. Without it, Prussia had never developed much in the way of dockyards, shipbuilding and skilled shipbuilders, not to mention seamen.[22] Prussia's only port of significance was Danzig, buried deep in a Baltic Sea long dominated by the Russians and Swedes, with access to the world controlled by Denmark. In order to develop such a naval tradition, Prussia needed a port on to the Atlantic Ocean free of foreign control.

The first step was taken in this direction in 1854, when Prussia purchased territory from Oldenburg on the North Sea at the mouth of the River Jade. Although it would take over 15 years for work to commence in earnest on a naval facility on that siteÐthe future WilhelmshavenÐit was the beginning of Prussia's concerted effort to e nter into the world of naval power.

The spread of German trade on the high seas in the 1850s left the nascent Prussian navy as the primary guarantor of the interests of German nationals abroad. This increase in German trade had been facilitated by the efforts of Great Britain, both in its free-trade policy and through the might of the Royal Navy. This was very much a *quid pro quo* relationship between Britain and the German states; since British exports to Central Europe arrived through the ports of the Hansa, it made sense for the British to facilitate Hanseatic activities elsewhere. Thus, at no cost, German traders gained the shelter of British consuls.[23] Consequently, most Hanseatic cities were opposed to the idea of German colonial ventures, in order to avoid any possible friction with their trading partner and protector, Great Britain.[24]

Beneficial though this state of affairs was, it began to change in the late 1850s. For one thing, the balance of power in Europe was shifting. The France of Louis

Napoleon increased its involvement in the affairs of Europe, while at the same time challenging Great Britain's naval supremacy. This led to a frantic naval arms race between the two states. It also occasioned an unusual proposal from Napoleon to Prussia in 1857. In exchange for Prussia gaining the duchies of Schleswig-Holstein and the kingdom of Hanover, the Prussians were to use this foothold on the North Sea to build a second-class navy capable of operating in alliance with the French in order to challenge the might of the Royal Navy. The Prussian government declined the offer of such a partnership.[25]

Also, an economic crisis in 1857 caused by `financial panic and overproduction' spurred greater interest in tapping the potential of markets around the world, with particular interest paid to trade in the Far East in order to relieve problems at home.[26] The Prussian navy was forced to begin considering how it would conduct operations, both in peace and in war, in tropical regions far from home. This meant considering whether it was worthwhile to obtain *Stützpunkte* (bases). Private concerns operating their shipping overseas were already finding it necessary to arrange coaling facilities for their steamships; a navy needing to maintain a full-time presence in overseas waters would also require facilities of its own.[27]

At this point, it might be useful to differentiate among the options open to Prussia, in order to clear any future confusion over terminology. Essentially, three different possibilities existed for European states to create overseas bases for their naval forces. The first, the most common practice, was to obtain a lease from the local governing authority permitting the establishment of a coaling-station. The advantages of this were its relative cheapness and the lack of need for a governmental presence beyond a consul. However, as the harbour would remain in the possession of the local governing authority, that meant it would be neutral territory in time of war, and thus the rules of war regarding belligerent warships in neutral ports would apply. Furthermore, it was likely that the local facilities would be rudimentary, ill-suited for major repairs to damaged or broken-down ships.

The second alternative was to purchase, lease or conquer territory from the local governing authority in order to establish a base. The facilities at this *Stützpunkt* could be constructed to European standards, and would remain accessible during a war. However, this method also possessed several drawbacks. First, as belligerent territory, the base was vulnerable to attack in time of war; the only means of counteracting this threat was through the erection of costly fortifications garrisoned by troops detached from the army. Considering the conditions of life in such far-flung tropical outposts, disease and privation would be common hardships for the garrison. Second, construction and maintenance of facilities would have to be funded by the European power itself, taking both time and money. Third, the local populace and possibly the local governing authority might object to the presence of the base. Finally, administration would have to be provided by the European power.

The third alternative was to obtain a colonial possession with a natural harbour on its coast. This would have both the same advantages and drawbacks as the *Stützpunkt* option, only involving a greater expanse of territory and a larger local population.

There were two tiny yet distinct pro-colonial ideologies in Germany competing for support, each espousing its own ideas as to why the German states should possess colonies. Some saw a colonial possession as an outlet for German emigration, a means of keeping the *Auswanderung,* the mass emigration of Germans in the nineteenth century, still living in German territories. A second group portrayed German colonies as sources of raw materials and as markets for German manufactured goods; this theory combined protectionist policies with the template of British imperialism.[28] With some of the best locations already in the hands of other European statesÐGreat Britain, France, Spain, Portugal and The NetherlandsÐit was felt to be of paramount importance by these expansionists that Prussia should act quickly to secure bases for itself.[29] However, the colonial movement at this time was a negligible factor, both for the two competing groups of pro-colonialists and for the navy itself.[30]

Alongside thoughts on overseas bases came the realization that Prussian naval duties would have an effect on the type of ships to be built. The launching of the first armour-clad seagoing warships, the French *Gloire* in 1859 and HMS *Warrior* in 1860, marked a revolution in naval construction no less significant than that of HMS *Dreadnought* 55 years later.[31] With a single stroke, unarmoured battle fleets were rendered obsolete, and the Prussian navy could begin construction of a navy on a near-equal footing with any other state. Needless to say, such a possibility attracted the leaders of the navy.[32]

With these various scenarios available to the Prussian navy, it was essential that priorities be established in the event of war. This decision would affect every aspect of the navy's development, from construction policies to operations planning. However, with the sudden emphasis on the need for overseas trade, it became clear that commerce would have to come first in the navy's planning. Thus, in 1858 the navy decided to make commerce protection more important than the construction of a battle fleet.[33] This was not a decision that sat well with everyone in the navy, but was seen as a more realistic goal, given the limited nature of Prussian shipbuilding and the resources necessary for such construction.

The first duties of Prussian warships overseas were economic in nature: protection of foreign trade and the maintenance of open doors to free trade. Only later did political, military-strategic and colonial considerations begin to come into play in the use of the navy. This set the stage for the navy's chief role during the Bismarckian eraÐbeing on call for diplomatic duties. The navy was less a military instrument than an instrument of foreign policy. Naval considerations were not permitted to affect the performance of duties, and if there was a conflict between the navy's best interests and the Foreign Office's best interests, the navy was expected to obey its orders. In essence, the navy became the executor of the diplomats' decisions, right or wrong.[34]

Naval attention soon focused on the waters of East Asia. The fear of a trade rivalry with Austria, coupled with the economic downturn of 1857, caused Prussia to send an expedition to Japan and China in 1859.[35] While the purpose of this voyage was to seek trade agreements with Japan and China for the members of the *Zollverein,* the German trading alliance headed by Prussia, it also served to instill a sense of pride in the navy. Writing many years later, Tirpitz noted that: `the expedition to Eastern Asia still stood out as a kind of famous deed.'[36]

Overseas travels led to the desire for overseas possessions, whether the full-blown dreams of the colonialist factions or the more modest wants of naval men. By 1860, the northern German statesÐprimarily due to the Hanseatic citiesÐ ranked third in the world in merchant vessel tonnage behind Great Britain and the United States.[37] Such trade needed to be protected, and that protection rested on two necessities: ships and bases.

As early as 1856, some consideration had been given to the annexation of territory in Morocco; this was prompted by a punitive expedition led by Prince Adalbert against Arab pirates operating in the western Mediterranean.[38] If Adalbert was not directly pushing for colonial acquisitions, he was at least supportive of the expansion of German overseas interests. Over the next few years, ideas were put forward for the establishment of Prussian naval stations in Formosa (Taiwan), the Solomon Islands and Eastern Patagonia.[39]

In April 1861, a reorganization of the naval command structure saw the Minister of War, General Albrecht von Roon, also assume the new position of the Minister of the Navy in the Prussian government. Throughout the summer and fall, the navy drafted a proposal for a fleet construction plan, an ambitious programme that would in one step raise Prussia to the rank of a naval power. One concern that permeated the decisions on vessels to be built was the need to show the flag in foreign waters and to sail on longer cruises.[40] The final plan called for a staggering 118 steam-powered vessels to be constructed; for a navy that currently possessed a grand total of five steam-powered ships, this was to be a quantum leap in technological and military capability. The largest ships to be built, a pair of iron-hulled armoured frigates, would have been comparable in size to HMS *Warrior* and would have been slightly better armed.[41] Four additional smaller armoured iron-hulled frigates and a wide range of other vessels made up a construction programme estimated to cost some 29,260,000 thalers.[42] This marked a return to consideration for European affairs, as these warships were suited to service in home waters, not overseas.

Barely a month after the drafting of the fleet construction plan, another memorandum discussed the possibility of another war with Denmark, and what steps needed to be taken against the Danes, so that `in the shortest time necessary superiority can be obtained at sea'.[43] Negotiations between Prussia and the other coastal North German states had failed to lead to any unified naval planning or construction policies, but had at least spurred Prussian construction of coastal defence gunboats.[44]

Unfortunately, the onset of the budget crisis over the army bill in 1862 adversely affected the naval budgets during this period. King Wilhelm I's attempt to extend the term of compulsory military service from two to three years, and the opposition of most parliamentarians, has been well documented.[45] Those liberal members of the Landtag, the Prussian lower house of assembly, who traditionally would have supported naval expenditures, were forced to choose between voting for the navy or remaining intractably opposed to the actions of the new Minister-President, Otto von Bismarck. Worse still, with Roon both the naval minister and the war minister members refused to make the distinction between his two positions.[46] `Our fleet is a great good; our constitution is a still greater good', said one delegate, illustrating where liberal sentiments lay.[47] Consequently, the great building plans of December 1861 were abandoned; the navy received enough funding to continue to operate through royal decree, but not enough for new construction. The impasse in the Landtag came at the worst possible moment, for the navy was woefully unprepared for resumption of hostilities with Denmark.

Conclusion

The early period of the Prussian navy was not marked by any spectacular growth. Indeed, the first decade of the Prussian navy saw its fortunes dip after the end of the Danish war in 1849, with a recovery beginning only in 1854 with the appointment of Prince Adalbert to head the navy. Ten years later, the navy, despite the grandiose construction plan proposed in 1861, was still a weak and motley collection of smaller ships.

The impetus to build the navy, however, stemmed from reasons of commerce more than of Great Power prestige or an embryonic *Weltmachtpolitik*. German merchant vessels needed to be protected from blockade in war and from the unwanted attentions of foreigners in peacetime overseas trading. There was no coherent planning evident in either operations or in construction beyond the simple desire to have more of everything. At this point in the history of the Prussian navy, it would have been impossible to expect much more.

The decision on how best to protect commerce in time of war was soon to be put to the test as Prussia and the German states became involved in three wars within seven years. For now, the key concern was how best to protect that maritime trade in peace. Previously, Germans overseas had looked to the ships of the Royal Navy for protection. That this situation would persist in the face of the upheavals of European power politics, exacerbated by the strains of the American Civil War, seemed unlikely. It was now time for Germans to find a German solution.

Notes

1. The term `German' is used throughout this work for the post-1871 unified *Kaiserreich* and its precursor states. For a treatment of Austria and its naval history during the period of this study, see the two works by Lawrence Sondhaus, *The Habsburg Empire and the Sea: Austrian Naval Policy, 1797±1866* (West Lafayette, ID: Purdue University Press, 1989), and *The Naval Policy of Austria-Hungary, 1867±1918: Navalism, Industrial Development, and the Politics of Dualism* (West Lafayette, ID: Purdue University Press, 1994).
2. Ivo N.Lambi, *The Navy and German Power Politics, 1862±1914* (Boston, MA: Allen & Unwin, 1984), p. 1.
3. The exploits of several privateers operating under letters of marque issued by the Prussian Minister in London in 1756 are more of a historical curiosity than a serious attempt by Frederick the Great to establish a naval presence. See Archibald Hurd and Henry Castle, *German Sea-Power: Its Rise, Progress, and Economic Basis* (London: John Murray, 1913), pp. 66±9.
4. Thorvald Boye, `De Vœbnede Neutralitetsforbund et Avsnit av Folkerettens Historie' (extract), in James Brown Scott, ed., *The Armed Neutralities of 1780 and 1800* (New York: Oxford University Press, 1918), pp. 57±8.
5. `Prussian Declaration and Ordinance concerning Navigation and Maritime Commerce, April 30, 1781', i n Scott, ed., *Armed Neutralities,* p. 395.
6. Charles Henry Huberich and Richard King, eds, *The Prize Code of the German Empire as in Force July 1, 1915* (New York: Baker, Voorhis, 1915), pp. vii±ix.
7. It is of interest to note that the greatest military work of the post-Napoleonic era, the Prussian general Carl von Clausewitz's *Vom Krieg,* fails to make even a single reference to naval warfare. Carl von Clausewitz, *On War,* ed. and trans. Michael Howard and Peter Paret (Princeton, NJ: Princeton University Press, 1976).
8. Hennig Matzen, `Forelœsninger over den Positive Folkeret' (extract), in Scott, ed., *Armed Neutralities,* pp. 170±1.
9. Lawrence Sondhaus, *Preparing for Weltpolitik: German Sea Power before the Tirpitz Era* (Annapolis, MD: Naval Institute Press, 1997), p. 1.
10. Ibid., ch. 2. Also see Hans Jürgen Hansen, *Die Schiffe der deutschen Flotten 1848± 1945* (Oldenburg: Bechtermünz Verlag, 1998), pp. 14±32.
11. Sondhaus, *Preparing for Weltpolitik,* pp. 26±7. Only Belgium and the United States recognized the legitimacy of the Frankfurt Parliament.
12. Ibid., pp. 14±15.
13. Wolfgang Petter, *Die überseeische Stützpunktpolitik der preußisch-deutschen Kriegsmarine 1859±1883* (Freiburg im Breisgau: University of Freiburg, 1975), p. 1. Petter sees these three goals as having been accomplished: the first by the Prussians under Adalbert, the second during the eras of Stosch and Caprivi, and the third under Tirpitz: ibid., pp. 1±2.
14. As quoted in ibid., pp. 2±3.
15. As quoted in ibid., p. 4.
16. Sondhaus, *Preparing for Weltpolitik,* p. 55; Ekkhard Verchau, `Von Jachmann über Stosch und Caprivi zu den Anfängen der Ära Tirpitz', in Herbert Schottelius and Wilhelm Deist, eds, *Marine und Marinepolitik im kaiserlichen Deutschland, 1871± 1914* (Düsseldorf: Droste Verlag, 1972), p. 54, who recounts Friedrich Wilhelm's

comment that he could not make Adalbert an Admiral of the Fleet because `we do not have a fleet'.

17. The original Declaration was signed by Great Britain, Austria, France, Prussia, Russia, Sardinia and the Ottoman Empire.
18. Francis R.Stark, *The Abolition of Privateering and the Declaration of Paris* (New York: AMS Press, 1967; originally published, 1897), p. 144.
19. Willi A.Boelcke, *So kam das Meer zu uns. Die preußisch-deutsche Kriegsmarine in Übersee 1822 bis 1914* (Frankfurt am Main: Ullstein, 1981), p. 17.
20. Jean Ingram Brookes, *International Rivalry in the Pacific Islands 1800±1875* (Berkeley, CA: University of California Press, 1941), p. 170.
21. James J.Sheehan, *German History 1770±1866* (Oxford: Clarendon Press, 1989), p. 734. Dieter Langewiesche argues that `free trade had never been one of the central tenets of German liberalism', but that the economic boom of the 1860s and 1870s saw German liberals as staunch defenders of the principles of free trade: Langewiesche, `German Liberalism in the Second Empire, 1871±1914', in Konrad H.Jarausch and Larry Eugene Jones, eds, *In Search of a Liberal Germany: Studies in the History of German Liberalism from 1789 to the Present* (New York: St Martin's Press, 1990), p. 225.
22. Holger H.Herwig, *`Luxury' Fleet: The Imperial German Navy 1888±1918* (London: Allen & Unwin, 1980), p. 12.
23. Helmuth Stoecker, `Germany and China, 1861±94', in John A.Moses and Paul M. Kennedy, eds, *Germany in the Pacific and Far East, 1870±1914* (St Lucia: University of Queensland Press, 1977), pp. 26±7.
24. Woodruff D.Smith, *The German Colonial Empire* (Chapel Hill, NC: University of North Carolina Press, 1978), p. 5.
25. Otto Pflanze, *Bismarck and the Development of Germany,* 3 vols (Princeton, NJ: Princeton University Press, 1990), Vol. 1, p. 161.
26. Sheehan, *German History 1770±1866,* p. 736.
27. Brookes, *International Rivalry in the Pacific Islands,* p. 257.
28. Woodruff D.Smith, *The Ideological Origins of Nazi Imperialism* (Oxford: Oxford University Press, 1986), pp. 21±32. Smith uses the terms `migrationist colonialism' and `economic imperialism' to describe the two movements.
29. `That [steam propulsion] influenced diplomacy goes without saying, particularly that diplomacy which seeks during peacetime victories of a sort scarcely to be hoped for during warÐthe occupation by purchase, treaty, or other means, of pieces of littoral or insular territory lying at strategic positions along some ªlifeline of empireº. Quietly and persistently the great sea Powers proceeded, with some mutual irritation and hostility, to acquire position after position along the seas into which their people and their ships penetrated. For the aim of naval strategy is to found, support, and increase in peacetime as well as in war a country's sea power. To recount the effects of the steamship from this point of view would be to retell much of the diplomatic history of the world since the middle of the nineteenth century': Bernard Brodie, *Sea Power in the Machine Age* (Princeton, NJ: Princeton University Press, 1941), p. 108.
30. Smith, *The German Colonial Empire,* pp. 6±7.
31. Keith W.Bird, *German Naval History: A Guide to the Literature* (New York: Garland Publishing, 1985), p. 259.
32. Petter, *Die überseeische Stützpunktpolitik,* p. 89.

33. Ibid., p. 34.
34. Boelcke, *So kam das Meer zu uns,* p. 23.
35. Stoecker, `Germany and China, 1861±94', p. 28.
36. Alfred von Tirpitz, *Erinnerungen* (Leipzig: K.F.Koehler, 1920), p. 9.
37. Salewski, ed., `Die Preußische Ostasienpolitik (1859±1862)', in *Die Deutschen und die See* (Stuttgart: Franz Steiner, 1998), p. 74.
38. Petter, *Die überseeische Stützpunktpolitik,* p. 43.
39. Petter, *Die überseeische Stützpunktpolitik,* p. 78; Stoecker, `Germany and China, 1861±94', p. 29. The interest in Taiwan was not shared by the government.
40. BA/MA, RM1/2795, `Votum ad 1075', 21 March 1861.
41. HMS *Warrior* was 380 feet long, had a depth of 26 feet and was armed with 36 various cannons; the `Eiserne Panzerfregatte' would also have been 380 feet long, drawn 26 feet and been armed with 42 cannon. However, the Prussian warship would have been grossly underpowered; its steam engine was to have produced 1,250 horsepower, while *Warrior's* machinery could produce 5,267 horsepower. Data on HMS *Warrior* from *Conway's All the World's Fight ing Ships 1860±1905* (London: Conway Maritime Press, 1979), p. 7; data for the Prussian ship from BA/MA, RM1/2795, `Nachweisung der nach dem beabsichtigten Flottenplans zu erbauenden Schiffe', not dated but possibly 6 December 1861.
42. BA/MA, RM1/2795, `Nachweisung der nach dem beabsichtigen Flottenplans zu erbauenden Schiffe'. The plan also called for the construction of 12 iron-decked corvettes, 8 armoured seagoing gunboats, 23 sailing gunboats, 57 small iron gunboats for coastal and harbour defence, 8 steam avisos, 4 steam transports and 2 new sailing training vessels. All construction was proposed to take place in England. The thaler was the Prussian currency until unification; the exchange rate was three marks to the thaler. At that rate, the plan would have cost some 87,780,000 marks.
43. As quoted in Petter, *Die überseeisch Stützpunktpolitik,* p. 90.
44. Sondhaus, *Preparing for Weltpolitik,* p. 65.
45. See, for instance, Pflanze, *Bismarck and the Development of Germany,* Vol. 1, pp. 166±77ff.
46. Ibid., p. 72.
47. Hans Hallmann, *Der Weg zum deutschen Schlachtflottenbau* (Stuttgart: W.Kolhhammer, 1933), p. 3.

4
THE WARS OF UNIFICATION AND GERMAN SEA POWER, 1864±71

The political stalemate which had thwarted the naval construction plans of 1861 continued to impede progress on expansion of the Prussian navy. The liberal parliamentarians continued to suppress their pro-naval attitudes in favour of their constitutional desires. It was only after the victorious wars against Denmark and Austria and the subsequent reconciliation between Crown and Parliament that the navy was able to begin an ambitious programme of construction. It was a reflection of the navy's paucity, however, that it was unable to contribute effectively in either campaign.

The questions that arose over this span of a decade reflected the navy's duty of peace-time commerce and trade protection and the uncertainty of its role in the event of war. Torn between the naval officers' understandable interest in sea power and the jurists' and merchants' desire for unimpeded commerce, the Prussian and North German governments tried several different methods of securing the maritime trade of their subjectsÐcommerce-raiding by overseas cruisers and commerce-protection through treaties or reciprocity of non-interference. These methods were incapable of succeeding in the face of severely restricted naval construction, and the unwillingness of other more powerful states to abide by such a legalistic fiction as freedom of the seas. Might still made right, and by 1871 the new Imperial German Navy had learned that lesson to its embarrassment, if not to its cost.

As overseas German trade continued to expand through the decade, it became apparent that an armed naval presence would facilitate mercantile interests in several regions of the globe. Thus began the restless and relentless campaign by colonial and business interests to pressure the Prussian government to adopt a *Stützpunktpolitik,* a coordinated policy designed to seize strategically located naval bases for Prussia, much along the lines of the great chain of stations controlled by Great Britain (Gibraltar, Singapore, Hong Kong, etc.). Although there was agreement in naval circles on the usefulness of possessing regional naval bases, there was less agreement on where such bases should be established, or whether the question of such bases should become entangled with the separate issue of colonial policy. Consequently, by 1871, the newly founded German Reich still lacked a single overseas naval base, in no small part through the deliberate inaction of Chancellor Otto von Bismarck.[1]

The wars of German unification are not generally noted for their naval actions, save the Austro-Italian battle of Lissa in 1866, mostly because of the navy's insignificance. Even with the grand design of 1867, the navy was too small to challenge the French navy in 1870. However, the Franco-Prussian War did give the North German Confederation Navy, the *Bundesflotte,* some experience in overseas naval warfare. The memoirs of Eduard Knorr, commander of the gunboat SMS *Meteor,* on duty in the Caribbean Sea, show how Germans learned to deal with the rules of naval warfare and neutrality. Knorr's experiences would help shape the way he and other senior officers of the post-unification *Kaiserliche Marine* perceived how future wars would be fought around the world. Indeed, this era marked the beginning of a gradual shift in German naval perspective, from being a champion of the rights of neutrals in times of war to becoming more pro-belligerents' right s.

However, the memoirs of a junior officer who also served during the war throw a completely different light on the navy. Alfred Tirpitz was a junior lieutenant on board the ironclad flagship SMS *König Wilhelm,* the navy's largest and most powerful vessel. There was no battle and glory for Tirpitz; instead he, with the majority of the fleet, spent the war at anchor, declining to challenge the superiority of the French battle fleet. Tirpitz's experiences would shape the way he perceived the navy's roles in time of war. To him, the solution was to be found in the creation of a battle fleet capable of wresting command of the sea from the French.

It was the difference between the solution advocated by Knorr and others and that proposed by Tirpitz which would map out the future of the German navy, in terms of both construction policy and operations planning. The fact that this argument would still be occurring a half-century later, and under much more bitter conditions, is essential to understanding any aspect of the history of the German navy.

The Danish and Austrian wars, 1864±66

In 1863, the Earl of Kingston Russell, John Russell, then British Foreign Minister, referred to the Prussian navy as `Bismarck's little joke'.[2] In spite of the 1861 building plans, the deadlock between the Landtag and the Minister-President kept the Prussian navy from expanding into second-rank strength. Thus, when tensions grew again with Denmark in 1863 over the duchies of Schleswig and Holstein, it appeared likely that the German sea-coasts would once more be subject to blockade.

When war came in early 1864, Denmark announced on 15 February a blockade of the Baltic coast of Prussia. Prussia took what steps it could to see that it conducted naval war by the new rules in place through the Declaration of Paris. Accordingly, a protest was issued by the Prussian government on 14 April against the Danish blockade, stating that the blockade could not be considered `effective' because it was not permanently in place.[3] Nevertheless, the Danish

blockade was powerful enough in the Baltic to keep the Prussian navy bottled up in its ports. Sorties were attempted in March and April from Danzig and Swinemünde, but on all such occasions the Prussian warships were forced back into harbour. In the North Sea the Danes acted quickly, seizing 15 prizes and four neutral blockade runners; Hamburg and Bremen were closed to German shipping. Only with the arrival in April of an Austrian fleet under the command of Captain Wilhelm von Tegethoff and an inconclusive battle near the island of Heligoland were the Danes forced back to the Skagerrak and the blockade lifted.[4]

While nearly the entire Prussian fleet lay at anchor helpless, the steam corvette SMS *Gazelle* was on station in the Far East. Alone among the entire navy, it saw useful if limited offensive action during the war.[5] Its orders were to return to the North Sea as quickly as possible, but if presented with the opportunity to capture Danish merchant ships, it was authorized to bring them either to German or, failing that, to neutral ports.[6] The *Gazelle* succeeded in capturing three ships of Schleswig-Holstein origins flying the Danish flag in April 1864, and added a fourth off Hong Kong in June.

The *Gazelle* was under a strict prize code in the conduct of its commerce-raiding activities. The Prize Regulations consisted of 28 articles, carefully spelling out which vessels were liable to capture: enemy vessels; all vessels carrying contraband to the enemy or an enemy-held port; vessels resisting visit, search or capture; and vessels without ships' papers, or with fraudulent ships' papers, or destroying ships' papers, or unable to prove nationality. Once again, the list of contraband included articles needed for a land army; however, the list did not specifically exclude naval stores, contenting itself with the caveat, `in general, all objects of direct use in war'. [7]

In spite of these detailed regulations, it is apparent that *Gazelle's* conduct of a *guerre de course* against Danish shipping in East Asian waters was more a fortuitous circumstance than part of a planned offensive operation. The *Gazelle's* orders emphasized her return to bolster the minimal strength of Prussian forces in the North Sea; attacks on Danish commerce deservedly received a lower priority. As well, the total capture of four ships was certainly not going to affect the Danish economy or war effort to any extent. The actions of SMS *Gazelle* and her crew may be seen more as upholding the honour of the Prussian navy than as dedicated war on shipping *à la* Confederate operations concurrently under way in the American Civil War.

While the question of ultimate possession of the duchies remained undecided after the conclusion of hostilities, some favoured outright Prussian annexation of the territory. Ironically, support for such a move came from an unlikely source: liberals who viewed it as a step towards creating German sea power through the development of a naval base at Kiel.[8] The question of possession of the duchies would have to wait for settlement at a later time.

The year 1865 was an important one for the development of the Prussian navy. Aside from the decision to move the fleet from Danzig to Kiel (which, as

part of Schleswig, had been mandated to Prussia, although the base was considered to be a part of the amorphous German Confederation), there was another attempt by the Minister of the Army and Navy, Roon, to present a new fleet construction bill. A total of 19 million thalers were to be used for harbour works in Kiel and Wilhelmshaven and for the purchasing of two armoured frigates. Another 34.5 million thalers, to be spent over 12 years, were to be used for the construction of new vessels: 10 small armoured corvettes, 10 monitors, 14 screw corvettes and various other minor craft. Roon pointed out that such a fleet would be capable of defeating Denmark in the event of future war. However, he also justified the build-up for other reasons: `for Prussia there are two important and urgent reasons to enter the ranks of the sea-powers: first, in order to protect the overseas trade of Prussia and Germany and defend the Baltic and North Sea coasts, and second, in order to maintain for the future its European influence against such lands as may only be reached by sea.'[9] Again, the importance of trade protection, not trade interdiction, was stressed in the navy's needs.

The introduction of the 1865 naval bill once more put many members of the Landtag politically in a difficult position. While their natural liberal inclination was towards strengthening German sea power, they also knew the naval bill was the thin edge of the wedge that Bismarck hoped to drive into their solidarity in the crisis over the army bills. Indeed, the members of the Finance Committee, who had voted to add an additional million thalers to the naval budget in committee, were now forced to defeat their own measure in the Landtag. None the less, monies were appropriated by the government for the fleet by the quasi-legal means of publishing the budget in the official gazette.[10] While this financed basic naval operations, it was certainly not enough for a construction plan the size of Roon's intentions.

Again, in 1866, during the war with Austria, the navy saw little service. This was not due to its inefficiency or weakness, but a reflection instead of geographical fact. The only state bordering the North Sea which opposed the Prussians was Hanover, which had no navy. The Austrian fleet was occupied with facing the Italian navy in the Adriatic, and even after Tegethoff s resounding victory at the battle of Lissa in July, there was no purpose in his continuing to northern waters, as the war had already been decided on land. Indeed, the battle of Lissa assumes a strange place in German naval history; Tirpitz recalled in his memoirs that Prussian naval officers celebrated the Austrian victory, even though Austria was the enemy and Italy the ally of Prussia: `In spite of the existing state of war we rejoiced at Tegethoff's sea victory at Lissa almost as though he were one of ourselves'; the Austrians' heroic actions on behalf of Prussia at the Battle of Heligoland in 1864 had not been forgotten, and it also helped that Austria was regarded as a `German brother-country'.[11]

What little chance there was for Prussian activity against the Austrians was eliminated by a royal decree of 19 May 1866 which granted immunity to Austrian merchant vessels, provided that reciprocal immunity was shown to

Prussian ships by the Austrian navy.[12] This illustrates an attempt to reconcile the ramifications of the Declaration of Paris, the liberal free-trade sympathies for unrestrained commercial activity, and the inability of the Prussian navy to provide adequate protection to merchant shipping. By appealing to a possible natural sympathy for the sentiments towards the rights of the individual, Prussia perhaps could avoid the debilitating effect of another blockade without the expense of building a navy. Granted, invoking such a concept during a war with Austria was a fairly feeble test; a surer measure of whether such an appeal would work could only come in the event of war with a major sea power.

The North German navy and the problems of world commerce protection, 1867±70

The Prussian victory in 1866 changed the face of Germany. Prussia annexed several of its rival northern German states and placed itself at the head of a new and powerful North German Confederation with the remaining northern states. Attention began to turn to the looming possibility of a war with France. This was a prospect which would prove daunting for the navy, as *la Marine* was certainly a larger and more powerful force than the Prussian navy, now the *Bundesflotte,* reflecting its new position as the navy of the Confederation.

In April 1867, it appeared that such a war was imminent. During a discussion with Louis Napoleon, Bismarck had made broad hints that the French might take territorial compensation in the Duchy of Luxembourg for the unexpected creation of a powerful German neighbour. Accordingly, the French government had attempted to negotiate the purchase of the Duchy from its owner, the king of The Netherlands. When word of the sale leaked to the German press, a public outcry demanded the French efforts be halted.

During the height of the so-called Luxembourg Crisis, Bismarck had the North German Confederation's ambassador in Washington, Carl Ferdinand von Gerolt, sound out the Americans for their support of German attacks on French shipping, coastlines and colonies in the event of war. Also, Bismarck requested that Gerolt investigate the possibility of the Confederation emulating the Southern states' practice of purchasing vessels and hiring crews, then arming them outside the three-mile territorial waters limit. In this manner, Bismarck hoped to offset the superiority in numbers possessed by the French, a move that would allow the Germans to escort convoys across the Atlantic. Gerolt's inquiries went nowhere; the only results were offers by American firms to sell half-finished warships lying around since the end of the American Civil War.

Originally, Bismarck had not consulted with the Naval Ministry as to its plans in the event of a Franco-Prussian War, and whether the navy would attempt to pursue a war on French commerce, or whether it would simply have its ships abroad intern themselves in neutral ports. Regardless of the answer, Bismarck expected little from the navy in case of hostilities, even had the proposal for American support been received more favourably in Washington. When the

Naval Ministry was informed several days later of the government's communication with the American government, it was apparent that the proposal was of small importance in the ministry also. The Naval Ministry chose to set its priorities as: first, the protection of North German commerce; second, the protection of coasts and harbours; and third, offensive capabilities not only against enemy commerce, but against enemy warships, coasts and harbours. Roon chose to reject the offers of American ships for sale, instead hoping a convention could be negotiated for the protection of all maritime trade against attack.[13]

This concern on Roon's part was a valid expression of German unreadiness at sea, especially against such an overpowering adversary as France. The frigate SMS *Vineta,* while on overseas duties during 1867, was prohibited from conducting firing practice of its main armament. The reason given was that precious ammunition needed to be preserved for use in a possible war; the only other acceptable expenditure of ammunition was in firing salutes.[14]

Once the threat of war had subsided, the Naval Ministry could turn its attention to other important matters, namely the expansion of the fleet and adoption of a set policy towards overseas duties. In October 1867, the new director of the Prussian Naval Ministry, Rear-Admiral Eduard Jachmann, presented a new naval budget. One item that remained unchanged from the previous attempt in 1865 was the definition of the navy's tasks: trade protection in peace and war, coastal defence and the development of an offensive capability. The means of achieving these goals was spelled out in a long-term *Flottengründungsplan* (fleet construction programme), its ultimate goal being the ability to perform all three tasks: the navy `must be of such a strength and structure as to be able with one part to protect trade in the far seas, with the second to defend the coasts of its country, and with the most important and strongest part to attack the main force of the enemy in the high seas, throw it back into its harbours, and blockade it there'.[15] This was an ambitious goal, regardless of which potential enemy it was aimed againstÐa minor naval power such as Denmark, a second-rank naval power such as Russia or a first-rank naval power such as France or Great Britain.

However, the programme reflected the split mentalities of the navy's leaders, Roon in the Cabinet and Adalbert and Jachmann at the Naval Ministry. Although the plan called for the construction of 16 armoured warships, emphasis was first to be placed on smaller cruisers, with the creation of an offensive capability in European waters through the construction of armoured warships played down. The otherwise pro-colonial Adalbert disapproved of this, believing that the navy did not enjoy enough importance overseas to merit priority on cruisers; he warned that overseas duties would tax the limited resources of the navy and hinder the creation of a battle fleet, something he felt was a necessity. Jachmann, who was at this time ambivalent about colonies, was of the opinion that concentration on cruisers for overseas duties would attract the attention and support of pro-colonial advocates, possibly leading to increased funding.

Nevertheless, Jachmann also managed to have five large armoured warships built and purchased three more, his conversion to cruisers being political strategy, not military.[16]

The significance of the 1867 *Flottengründungsplan,* as opposed to its predecessors in 1862 and 1865, was that it passed through the Prussian Landtag with no reductions. The victory over Austria had also won the internal war for Bismarck against the liberals. It was a `tamed' body of parliamentarians who handed over some 8.5 million thalers to the navy for 1867.[17]

One matter that was not finalized in the 1867 *Flottengründungsplan* was the question of overseas bases. There was no concrete decision as to whether the *Bundesflotte* would pursue a policy of obtaining coaling-stations or *Stützpunkte*.[18] This would become a matter of concern as the needs of the Federal navy began to conflict with political and diplomatic considerations.

The 1867 plans had regarded five areas as important enough to merit stations: East Asia, the east coast of Africa, and the East Indies; the east coast of North America and the West Indies; the west coast of North and South America; the east coast of South America; and the Mediterranean Sea. However, it was still in dispute what kind of fleet stations would be established. While some members of the navy were in favour of bases along the lines of Hong Kong or Gibraltar, and a few were even colonial advocates, they faced a powerful foe in Bismarck. In late 1867, Jachmann wrote to the Chancellor, informing him that `fleet stations are only to be established where an object to be protected is already present'. [19] The list of where senior naval officers desired bases, however, was lengthy.

On 9 January 1868, Bismarck wrote to Roon, setting out his policy regarding overseas bases for the navy. To begin with, Bismarck was concerned about naval activity in the Caribbean. In the previous year, he had reluctantly agreed to dispatch SMS *Augusta* to the east coast of Mexico. This was a difficult assignment for the vessel, as it had to avoid being seen as involving itself in the final stages of the Mexican overthrow of the regime of the Emperor Maximilian. The wrong move could upset diplomatic relations with Mexico, France, Austria and the United States.[20]

However, Bismarck was willing to concede that German interests in the region were too important to be neglected by the navy:

> However, I do not want to refrain from steering your Excellency's [Roon's] attention at the same time towards a fleet station which, in my judgement, will have to be considered shortly above all the others. This is the station in the Gulf of Mexico. With the political circumstances in Mexico, Central America and Venezuela, and with the importance of the interests engaged there, German trade and navigation urgently require protection in those waters.[21]

The letter continued with Bismarck making his stance on colonial possessions very clear to Roon; he considered the benefits of colonies to trade and industry to be

`illusions' and pointed to the costs involved in administering colonial territory. Furthermore, he made it clear he opposed any colonial plans in Central America as prone to arousing the `jealousy of the United States'. [22]

Bismarck's opinion was not the only one on the matter of overseas fleet stations. On 18 February, Adalbert wrote to Roon with his own thoughts on the fleet and its best employment. He recognized the increasing duties the navy was assuming `in the interest of foreign relations and German trade', and reiterated his belief that there was a great need for a regular German naval presence in East Asian waters. However, he was concerned that these duties would interfere with `the uniform, arranged development of the navy as an armed force'. [23] For all Adalbert's support of colonial interests, at heart his first concern was with the navy's usefulness in the event of another European war. With expectations of a war with France, Adalbert was worried that the navy would not be able to assist the army in defence of the sea-coasts.

To that end, Adalbert wanted to see the creation of `a permanent manoeuvre squadron', a fleet of ships specifically tasked with preparing for war. This squadron would train together in peacetime in the North and Baltic Seas, and in the winter months would go to warmer climesÐLisbon‡he Mediterranean or the West Indies. The purpose of this was to give officers and men alike training in formation tactics: `In such a way service uniformity, unity in labour, and the spirit of unity in the navy would be created, which now are missing only too much.' [24] This was an early attempt to have the navy learn how to operate as a fleet, not as single ships or a small squadron. It would scarcely be repeated for another 15 years.

In addition to the manoeuvre squadron, Adalbert also wanted a permanent station in East Asian waters. As to duties in other areas of the world, Adalbert suggested dispatching ships only as necessary: `the navy is not in the situation to be everywhere it would be desirable to establish permanent squadrons.' [25] This would not be the last time that this sentiment would be expressed about the German navy.

The Prince also advocated giving the squadron commander a greater degree of latitude in dealing with situations that might arise overseas:

> I agree with the Royal Ministry of the Navy that a major task must be the elevation of the independence of the distant detached commander, but I do not share the fear of restraining influences which for him could arise from instructions which are given occasionally from here with a particular objective, and I can only see a very improper pressure on his independence, in the fact that his decision-making ability is subordinated *solely* to the needs of the diplomatic representatives. Certainly, however, it will always have to be a major task of the central authority, regarding details, to give latitude to such a commander concerning time, location, circumstances, for instance, and to pay appropriate consideration to the discretion of such a commander. Above all, I consider it urgently necessary, in sending the

> squadron to East Asia, not to lose sight of any opportunity for the establishment of a depot and the gaining of a suitable location for one. Still, even if no opportunity should for now exist for our own acquisition of such a location, perhaps then an agreement with one of the local powers might offer the opportunity.[26]

Finally, with regard to the sensitive area of the Caribbean, Adalbert believed that a regular appearance by the proposed manoeuvre squadron would have a greater effect than a single warship, especially one which it might prove difficult to maintain in the region.

The question of German naval activity in the waters of the West Indies assumed a greater degree of importance in 1868. The *Augusta,* still cruising in those waters, had put into the port town of Puerto Limón, Costa Rica. The Costa Rican government was touting a proposed railway project between the Atlantic and Pacific Oceans, and Puerto Limón had been suggested as the Atlantic terminus of the trans-isthmus railway. Rumours began to circulate that the North German Confederation had been offered Puerto Limón as a *Stützpunkt*. The captain of the *Augusta,* Franz Kinderling, entered into negotiations with the government of Costa Rica, with the approval of Adalbert. Bismarck, however, was not pleased with these developments. Wishing not to offend the United States, Bismarck ordered Kinderling to withdraw from negotiations over the offer of Puerto Limón as a base for the navy.[27]

It was evident that people both within and without the navy were more interested in the protection of German trade interests, in peace and war, than in the interdiction of enemy trade. In February 1868, an attempt was made by the North German government to seek a treaty with the United States which would recognize the freedom of the seas for each other's merchant vessels in time of war. The Americans responded with a friendly negative:

> for the reason that in the present condition of our relations with one of the European powers [Great Britain], any proposition to a foreign state for the inviolability of private persons and property on the high seas, could not be expected to find favour with the Senate of the United States, or with the country. The principle which [Benjamin] Franklin proposed[28] is widely cherished, and there exists an earnest desire among us to give it vitality, thus at once vindicating Franklin's philanthropic foresight, and securing to ourselves and to our country a new distinction for humanity and benevolence.
>
> It is not to be understood that the President thinks that the time has not arrived, but only that the immediate condition is unfavourable.[29]

If support for the idea of freedom of the seas was not immediately forthcoming from America, it remained a popular concept in Germany. On 18 April 1868, a debate was held in the North German Bundestag on the resolution:

> To request the Federal Chancellor, during the present peaceful amity with foreign powers, to arrange to initiate negotiations to the purpose to raise, by agreement between states, the liberty of private property at sea in times of war to a contractually recognized principle of international law.[30]

The mover of the resolution, Dr Ludwig Karl James Aegidi, was a Free Conservative member and a respected jurist. All members who spoke on the resolution were in favour of its spirit. The first speaker, Dr Theodor Wilhelm Lesse, a left-liberal from Danzig, claimed that the position in favour of freedom of the seas was `a reform of our naval law¼a reform in the sense of the traditional policy of the state'.[31] Evidently, Lesse had the conduct of Great Britain in mind when arguing his case and not that of the German states, since the more traditional policy of the German statesÐincluding PrussiaÐhad favoured freedom of the seas, not outright privateering, whether conducted by private concerns or a state with its own resources. Quoting the German jurist Johann Caspar Bluntschli, Lesse argued that:

> a truly civilized naval law will exist only when all sea-booty is forbidden in principle, like booty in war on land, when ships and goods of the neutral shipowners and traders are as secure at sea as the property of the inhabitants on land. The right to plunder that is practised against foreign ships and goods endangers and injures not merely the property of the enemy but equally the property of one's own nation, because trade and commerce are always mutual.[32]

The next speaker, Dr Rudolf Schleiden, an unaffiliated liberal and an expert on the British, French and American navies, warned against the possible transformation of sea-warfare from its pre-Declaration of Paris mode of privateering to a more sinister `*Staatskaperei',* a state-sanctioned, supplied and funded war on commerce. He also sought to rebut the idea that a war on enemy commerce would lead to victory more quickly by arguing that `the solidarity of international commercial interests and the principle of free trade' would work against such an attack on merchant shipping.[33] Furthermore, he contended that because the United States could remain neutral in a European conflict, unlike the other European states, war would be to America's financial advantage. He compared naval opposition to the freedom of the seas to the Post Office objecting to railways, or to the guilds' opposition to free tradeÐin other words, that it was obsolete.[34] Ultimately, Schleiden believed that the freedom of the seas would remove the source of many potential conflicts. It would also remove one of the great obstacles to German commerce in war, the blockade. Even the Danish blockade of 1848 had permitted the passage of postal steamers and emigrant-carrying ships; the free-traders believed that these first steps could be carried further to allow all private property the freedom of the seas.

The position of the government was stated by the President of the Chancellor's Office, Rudolf von Delbrück, the man responsible for government economic policy and personally committed to social and economic freedoms. He said that such a policy could not be agreed upon in a general congress, but instead would work better if negotiated by treaty with individual states.[35] This was the policy currently pursued by the North German government in its dealings with the United States. Consequently, the resolution was passed almost unanimously.

The policy of the North German government, therefore, seemed reasonably straightforward: as much free trade as possible in times of peace, and as limited a disruption of trade as possible in war. The role of the navy was to safeguard German interests, but it was not to be used to antagonize any country. German overseas bases were desirableÐprovided that they did not upset regional balances, cost as little as possible to maintain and were located in regions where German interests warranted such attention. In spite of the navy's increased responsibilities overseas, the government (and especially Bismarck) was unwilling to establish a major presence in foreign waters. This presence, even the expanded one the navy sought, was primarily intended for peacetime duties, and not as bases in the event of war.

While naval responsibilities grew in the Caribbean, interest in certain circles remained high in obtaining a naval base for the *Bundesflotte*. Again, Bismarck was forced to assert his opposition to the idea. When Roon pushed for the acquisition of the Dutch island of Curaçao off the coast of Venezuela, Bismarck reminded Roon of his long-standing concerns about the effect such a move would have on relations with the United States, especially in light of that nation's long-declared opposition to European involvement in the Americas, as expressed over four decades earlier in the Monroe Doctrine. He had no objections to the establishment of a naval depot, but the actual acquisition of the island as German territory was not acceptable.[36] Until the beginning of the war with France, and for many years afterwards, Bismarck remained unshaken in his opposition.

The Franco-Prussian War I: Knorr and the view from abroad

Despite Roon's and Adalbert's best efforts, the *Bundesflotte* was simply incapable of taking on the French *Marine* when war broke out in the summer of 1870. *La Marine* comprised 400 vessels, with 34 of them armoured; the *Bundesflotte* had a total of 34 vessels, only five of them armoured. Worse still, several German capital ships were in drydock in Britain at the beginning of July. Hastily recalled, they limped into Wilhelmshaven a mere three days before war was officially declared.[37]

Naturally, with command of the sea a foregone conclusion, the French adopted a strategy of blockade and interdiction of German trade. As the tide of war on land shifted dramatically in favour of the Germans, the blockade became

increasingly irrelevant to the French war effort, until with the onset of winter the warships were recalled and the marines were pressed into the defence of Paris during its siege. Indeed, the French attempts to blockade the North Sea coast dramatically pointed up the difficulties of such a strategy in these technologically advanced times. The engines of French ironclads frequently broke down; the ships were often driven from their stations by inclement weather and even coaling in the lee of Heligoland, a British possession (and therefore technically illegal by the rules of war as an abuse of neutrality), was a difficult task at best. The effectiveness of the blockade was debatable: while German merchantmen remained in harbour, most trade was carried by the British merchant fleet, as it had been in the Danish war of 1848±49. Although this had an effect on German overseas trade, it did not seriously hamper the efforts of the German armies. Economically speaking, however, it did have some effect on German merchants, since over 200 German merchant vessels were captured by French naval action.[38]

The imbalance between German and French naval forces was a concern in the early days of the war to Prussian military leaders, especially with the threat of Denmark allying itself with France.[39] To redress this inadequacy, serious consideration was given to the formation of an auxiliary fleet. On 24 July 1870, the Prussian king, Wilhelm I, issued a decree calling for the creation of a volunteer navy. This auxiliary arm would be a curious mixture of public and private interests: all German seamen and shipowners were to be at the disposal of the Confederation; all vessels would be hired by the government, with the government paying one-tenth of the ships' value as a deposit; the ships would be outfitted by the public purse and would fly the navy's flag. The shipowners would be responsible for hiring crews, but the sailors would be considered members of the *Bundesflotte* and required to wear the uniform, bear rank, swear oaths of loyalty and be subjected to *Bundesflotte* discipline. Commissions would be permitted. Finally, performance premiums would be paid by the government to the owners, who were then responsible for distribution to the crews.[40] The ambiguous legal status of auxiliary fleets only added to the confusion.[41]

The traditional land-based doctrine of the inviolability of private property was clearly established by the Germans at the outset of the war; Wilhelm called for his armed forces to respect French private property. On 18 July, an official ordinance was issued that French merchant vessels would be subject to capture and condemnation only in conditions where neutral vessels would be equally liable, and that no reciprocity was required.[42] Thus, French ships could be condemned only if found carrying contraband goods. As a further measure, on 11 August, a royal proclamation was issued by the king, stating: `I make war on French soldiers and not on French citizens.'[43]

Nevertheless, the French government immediately protested, claiming the auxiliary fleet plan was a violation of the Declaration of Paris. Two points in the decree were considered to be at issue: the fact that private shipowners were expected to hire crews, and the Confederation's performance premiums were to

be paid to the shipowners instead of directly to the sailors. To the French, this sounded like an attempt at circumnavigating the first article of the Declaration of Paris, which abolished privateering. To the Germans, there was no attempt to establish privateering fleets; the volunteer navy was only intended to supplement the insignificant strength of the *Bundesflotte*. When submitted to the British government for arbitration, the British declared the plan was acceptable.[44]

It appears likely, however, that the purpose of the auxiliary fleet was not for commerce-raiding, but to serve as `a suicide mission against the blockade'. Reference was made to the volunteer fleet as the *Offensiv-Torpedo-Dienst* (Offensive Torpedo Fleet); given that shipowners would be reluctant to expose their vessels to such ludicrous risks, it was only natural that there were few volunteers to step forward. Ultimately, those few who did serve wound up waiting in Wilhelmshaven harbour, along with the rest of the *Bundesflotte*.[45]

The decision not to engage in commerce destruction at the beginning of the war was one of the few things Bismarck had to do with the navy during the war. He hoped that reciprocity would be observed by the French towards German shipping. Otherwise, it was not possible to expect the *Bundesflotte* to be capable of protecting the German merchant fleets, as events in the war amply proved.[46] A cruiser war could have been commenced by the North German fleet as early as the end of September, with the withdrawal of the French blockade and with the increasing dependence of the new Republican government on imported British and American arms. However, Bismarck's consideration of relations with Great Britain and the United States limited his actions to protests against British arms shipments, and nothing more.[47]

Bismarck did have Gerolt make further inquiries on 12 July about the availability of warships for sale in the United States; two days later, Gerolt replied that only low-quality ships were available, and thus recommended that none be purchased. The Naval Ministry agreed with this assessment and did not pursue the matter further.[48]

The few warships that were overseas when the war began were barely capable of entering into action. However, this did not prevent some officers from desiring the opportunity to engage the enemy in whatever manner possible. Lieutenant-Commander Eduard Knorr, commander of the gunboat SMS *Meteor,* was one who expressed his views both at the time and for posterity. The *Meteor* was not a powerful man-of-war; she was only of 415-ton displacement, of all-wood construction and armed with a single 24-pounder and two 12-pounder cannons. Her top speed under steam was below 10 knots.[49] Nevertheless, she bears the distinction of having been the only overseas vessel in the *Bundesflotte* to engage in action against the French navy during the war. On 9 November, she battled the French sloop *Bouvet,* a vessel nearly twice her size and better-armed, to a draw.

The war started off well for the *Meteor*. Cruising the Caribbean, the crew discovered that they were encountering no difficulties in sailing from port to port and being resupplied. The Americans were most helpful: Knorr found that, at least for the first few months of the war, the American people were decidedly

pro-German, unlike the Spanish whose sympathies lay with the French.[50] What galled Knorr, however, was the unrestricted flow of French trade while German ships were holed up in neutral ports, afraid to run the risk of attack by roving French warships. A number of German fast mail steamers, for example, lay idle in the harbour of New York. Knorr hit upon the idea of turning these vessels into auxiliary cruisers, using the guns and crew from the *Meteor,* or purchasing additional armament from American firms. Since the ships could not be converted from merchantmen to auxiliary cruisers while anchored in a neutral harbour, Knorr proposed having the conversions take place outside the limits of American territorial waters. The eager officer put his ideas in writing and sent them to the *Bund* representative in the United States on 1 September.

He did not have to wait long for a response. On 14 September, a reply was sent by Gerolt. Knorr's plan was flatly rejected as being both a violation of American neutrality (it would not be possible to coal or supply the ships, knowing they were setting sail in order to convert to men-of-war) and because the representatives of the steamship companies were against undertaking the responsibility. Gerolt, convinced that the government would refuse Knorr' s plan, did not even bother to forward it to Berlin, but wrote his reply to Knorr immediately on receiving the lieutenant-commander's letter.[51] Although Knorr was unaware of it, this was exactly the same errand Gerolt had conducted for Bismarck three years earlier during the Luxembourg Crisis. It must have been evident to the North German legate exactly what his answer would be from the Americans, so he had no need to forward Knorr's proposal to Berlin.

As summer turned into fall, conditions became less and less favourable for Knorr. American sympathies had been with the Germans until their stunning victory at Sedan; afterwards, it was the French who were looked upon with greater favour. Furthermore, the Americans were busy selling and shipping arms to the hard-pressed French. The Caribbean became a much less friendly place for the *Meteor*.

In early November, Knorr sailed the *Meteor* into Havana harbour. Cuba was a Spanish possession and, while Spain was nominally neutral, her sympathies lay much more towards the French. Knorr had difficulties with the Spanish authorities in Havana, especially regarding the rules governing belligerent warships in neutral harbours. Part of the problem stemmed from the uneven manner in which such regulations had been enforced by the major local neutral powersÐthe United States, Great Britain and Spain. In communication with Rear-Admiral the Marques de San Rafael, the commander of the Spanish Cuban station, Knorr complained of this inconsistency. He noted that the Americans, until a proclamation of 8 October, had allowed French warships to sail from their harbours immediately in pursuit of North German merchant vessels; Knorr, however, had been upbraided by the Cuban authorities for attempting to leave Havana harbour within 24 hours of a French postal steamer. In his defence, Knorr stated that he had not been intending to pursue the French merchantman, but was instead preparing to offer combat to the French warship *Bouvet*. Making

allowances for the communication difficulty between himself and the Marques (their conversation of two days' previous had been held in French, a language Knorr admitted he did not have perfect control in), Knorr still felt that the Spanish government should have made a clearer proclamation of their rules governing belligerent ships in neutral harbours.[52]

The same day Knorr wrote the letter, the *Meteor* engaged in battle outside Havana harbour.[53] The engagement was sharp and furious, but ended after two hours, with the *Bouvet* limping off into the harbour. The *Meteor,* however, was too severely damaged to follow up its advantage; in ramming the French vessel, she had suffered damage to her bridge, mainmast, rigging and cutter, and had lost two sailors. Knorr also took his ship into harbour, where she remained until war's end, unable to challenge the several French warships which arrived to provide reinforcement for the *Bouvet*.[54]

The treatment of merchant ships by the French certainly failed to live up to the Germans' hopes of free commerce. The United States, for one, had welcomed the German proclamation of July to exempt private property from seizure; now they were making use of the Prussian gesture to ship arms to the desperate French. That same proclamation appeared to be against Prussian interests.[55] Meanwhile, the French navy had no compunction in pursuing a more traditional *guerre de course*. In October 1870, the French converted sailing frigate *Desaix* captured and sank three German merchantmen, the *Charlotte, Ludwig* and *Vorwärts*. The latter two were destroyed along with their neutral-owned cargoes, a violation of the terms of the Declaration of Paris. Protests were made, but the decision was upheld in a French prize court.[56]

Accordingly, by November 1870, Bismarck had changed his mind about allowing the *Bundesflotte* to engage in commerce-raiding. The corvette SMS *Augusta* sailed from Danzig and headed, via the north of Scotland and the west coast of Ireland, to the Atlantic Ocean. In early January 1871, the corvette caught three French merchant vessels, destroying one and sending the other two under prize crews back to German ports. However, the arrival of superior French warships forced the *Augusta* into the Spanish port of Vigo, where it remained blockaded until war's end. The three prizes taken were the only successes the *Bundesflotte* recorded in its meagre war on French commerce.[57]

The insignificant efforts of the navy in the war did produce a number of lessons that were long-remembered. Despite the minor triumphs of the *Meteor* and the *Augusta,* the *Bundesflotte* left the glory of war to the armies. The inability to disrupt French trade, especially when the flow of British and American arms was all that stood between the Third Republic and capitulation, was particularly galling: `It was a lesson not wasted on a later generation of German sailors.'[58]

The Franco-Prussian War II: Tirpitz and the view from the Jade

Meanwhile, in the harbour of Wilhelmshaven, most of the North German navy lay at anchor. A young sub-lieutenant Alfred Tirpitz, on board SMS *König Wilhelm,* had much time to reflect on the course of the war at sea. Even before the war began, the ships of the fleet were in poor condition. Adalbert had led the squadron in the spring of 1870 on what was supposed to be his last seagoing command before retirement, but the scheduled voyage to the Azores was less than successful. Poor maintenance, coupled with the crippling lack of availability of drydock facilities in German harbours, meant that the fleet's performance was poor at best. Adalbert tried to have the ships use their auxiliary sails but, due to fouled bottoms, the ships were unable to move without steam power. This pointed to another inherent liability in technological change: iron-hulled ships were far more prone to fouling than their wooden predecessors. The *König Wilhelm* had been in service for only a year, yet her bottom was encrusted with an estimated 60 tons of mussels, reducing her speed by four knots.[59]

After the harrowing dash through the English Channel to the relative safety of Wilhelmshaven's roadstead, the capital ships of the *Bundesflotte* sat uselessly at anchor, unable even to enter the incomplete harbour. There they remained, except for minor sorties. As one historian described the naval war, the *Bundesflotte* `at best annoyed the French'.[60] During the French fleet's stay in the waters of the North Sea, the navy adopted a defensive posture, with the agreement of the king and the head of the army, Field Marshal Helmuth von Moltke.[61] This attitude, however, upset the people clamouring for action Ð especially many junior officers, including Tirpitz. He recalled how he and his fellows were `indignant' at not being allowed to engage the enemy.[62]

What effect did this enforced idleness and the subsequent inferiority complex given to the navy by the successes of the army have on Tirpitz? Many junior officers felt despair and humiliation at the navy's dependence on the army in the events of the war, but Tirpitz's depth of despair surpassed theirs, as did his solutions to the problem.[63] This marked the first stirrings of a mind which was to be the most active and the most perceptive of German naval tacticians for the next generation.

It may seem unusual to look at the early theories of a young and unknown officer in this context, but Tirpitz's early works must be considered a necessary exception. In light of his subsequent career, and his opposition to the theories of the advocates of cruiser warfare, it is illuminating to see what one of the few advocates of an alternative approach was considering. What little analysis there was at the time was couched in the vaguest and most general of terms; this was true of much contemporary naval literature. The *Bundesflotte* was still learning about the sea.

Writing to his father in September 1871, Tirpitz analysed the war's events in the light of a pamphlet published by Captain Reinhold Werner, who had

commanded the ironclad *Kronprinz* during the war. Werner posed three questions in his work: `Is a navy at all necessary? Which ships are most suitable for our purposes? Where are the ships to be built?' [64]

Tirpitz saw the need for a navy directly linked to the German economy. By his own conservative estimates, Tirpitz calculated the war losses of German shipping firms at 300±400 millions, and that was only `direct loss'. [65] He was not reconciled to the ideal espoused by the government at the beginning of the war, the freedom of shipping on the seas: `The idea that private property at sea is also to be respected is very pretty, but provisionally I cannot yet imagine that it will become reality in the next hundred years.' [66] In his opinion, the stronger powers at seaÐGreat Britain, in particularÐwould always use their naval might to best advantage, regardless of the status of international conventions or treaties. Consequently, Tirpitz saw only one effective deterrent to such opposition: `a battle fleet'.

The young officer made his case for a battle fleet by examining the alternatives. First, he rejected the use of land-based defences alone as both expensive and requiring many troops to effectively garrison; thus, he was no proponent of the bricks-and-mortar philosophy of coastal defence. Second, he felt that mines alone could provide no effective solution, since without protection an attacking fleet would merely sweep up the mines unopposed. Even a combination of mines and coastal fortifications could not defend effectively against either amphibious assault or a blockade. Only a fleet of armoured warships, capable of engaging the enemy away from the coast, could perform that task.[67]

Tirpitz's letter to his father, in essence, spelled out the shape of his strategic thought for the next five decades:

> If we are blockaded, then it would come under all circumstances to a real, serious battle. Even if we are only approximately the same strength then we ourselves will be able to withdraw to our fortifications in the case of an unfavourable outcome. If, however, we use the right moment and strike the enemy, then its bulk will be destroyed¼The purpose of a sea-battle is not the gain of territory but the destruction of the opponent. If we destroy the offensive squadron of the enemy in this manner, then we can quickly repair ourselves in our nearby ports and proceed against the enemy coasts, which are then robbed of their main offensive fleet and offer less unfavourable terrain conditions for ship attacks than Germany['s coasts]. [68]

As far as the types of ships to be built, Tirpitz continually stressed the importance of armoured vessels, as they were capable of withstanding attack from any enemy fleet. Furthermore, he emphasized that decisions on the types of ships to be built should be left to the experts in the Naval Ministry instead of being endlessly debated on in the Reichstag or in the press.[69] Again, this was a policy he sought to develop in areas he was in charge of later in his career.

As a general statement of ideas, it is a remarkable letter. However, it is not wholly original: calls for a battle fleet were put forward by Prince Adalbert in some of his memoranda, and these calls would be repeated in the coming years by the new head of the *Admiralität,* General Albrecht von Stosch.[70]

Ultimately, the significance of Tirpitz's evaluation of the navy's needs, as reflected in his observations of the events of the war, is that it is a different interpretation of how to deal with the problem of commercial maritime traffic in war. Even had the *Bundesflotte* decided to commit itself to an all-out *guerre de course* once the French fleet had been withdrawn from the North and Baltic Seas, it would not have been able to do so, because valuable time had been lost; even outfitting the fleet for commerce-raiding required much time and effort in preparation.[71]

The question that remained, however, was this: what would be the best means to halt enemy shipping? The answer to Knorr and others of his experience was a war on commerce. To Tirpitz, the answer lay in the shape of the French ironclads which had hovered off the coast. The North German navy possessed several large capital ships, but it did not have the ability to blockade the French coast, even after the enemy had been dealt severe setbacks on land. The only way such a blockade could have been instituted was with a more powerful fleet: `It did not enter into the public consciousness how a very strong navy could have abbreviated the war.' [72] The solution Tirpitz proposed was more ambitious, more expensive and more demanding than that proposed by the proponents of cruiser warfare, but one which had proven successful. The German war on commerce had bagged a total of three ships; the French blockade had been one of the few successes of their entire campaign. Had the French pursued their advantage more diligently, they might have even landed troops in the north, diverting German army units from their ultimately victorious campaign.

Conclusion

The Prussian and North German navies were the vanguard of German expansion into the wider world. They were also expected to safeguard commercial interests, both the passage of goods in and out of ports, and the protection of commerce on the high seas. There was always the difficult and protracted tug-of-war in the navies between the need to expend energy and resources on this commerce protection and the desire to develop an offensive capability. This dualism affected both naval planning and construction policy. Although planning during this period emphasized commerce protection as the first priority, there was always the urge in naval officers such as Knorr and Tirpitz to find a means to strike back at the enemy.

Even as far back as the expedition to East Asia in the late 1850s, it was understood that the Prussian navy's presence in those waters would be little more than symbolic, that it was not possible for the navy to provide adequate protection for German commerce overseas.[73] The five-year-long impasse

between the government and the Landtag also meant that funds for new construction were unavailable. Regardless of the grandiose construction plans crafted in 1861 or 1865, the opportunity for Prussia to be a contending naval power had slipped away in those years. The 1867 *Flottengründungsplan* was a promising start, but the Franco-Prussian War had shown the navy had a long way to go before achieving respectability. Furthermore, Bismarck's reluctance to commit the kingdom or the Confederation to an expansionist policy meant that overseas operations would be severely limited by the resources available. This was a point which continued to elude those who demanded the government adopt an aggressive *Stützpunktpolitik:* without regard for the reality of the political situation, they continued to press for the establishment of bases overseas. Bismarck' s consistency was not something which these advocates could reasonably expect to wear down.

The alternative proposed by liberals, free-traders and international jurists, that of reciprocal respect for private property at sea, held some attraction for politicians but very little for the naval officers. The freedom of the seas would have meant not worrying about protecting German commerce, but it also would have denied the navy the opportunity to cripple enemy merchant shipping. It was one matter to face such a possibility in a war with Austria, but the war with France admirably demonstrated both sides of the coin: German shipping was paralysed by French naval aggression, while the French land war effort was kept supplied by imported arms, a trade the *Bundesflotte* was too weak to interdict.

The navy, therefore, had to become strong enough to seize control of trade from the enemy. How best to do this would be the starting-point of a long-running feud within the navy, and within the other navies of the world. Was it through Knorr's experience overseas, or was it through Tirpitz's theories concocted at anchor in the Wilhelmshaven roadstead? Most officers would come to the conclusion that commerce-raiding held the key, while far fewer saw sea power as the product of a large battle fleet. This was why the navy remained wedded to the idea of small ship action and a worldwide *guerre de course*.

Notes

1. The question of Bismarck's long-standing refusal to pursue the acquisition of colonies, and then his decision to embark on a colonial policy in 1884, and his equally sudden turn away from that policy within two years, have been the subjects of numerous scholarly studies and do not lie within the scope of this work. Suggested works include Hans-Ulrich Wehler, *Bismarck und der Imperialismus* (Cologne: Kiepenhauer & Witsch, 1969), an English summary of which may be found in Wehler, `Bismarck's Imperialism, 1862±1890', in James J.Sheehan, ed., *Imperial Germany* (New York: New Viewpoints, 1976), pp. 180±220; George W.F.Hallgarten, `War Bismarck ein Imperialist? Die Außenpolitik des Reichsgründers im Licht der Gegenwart', *Geschichte in Wissenschaft und Unterricht,* 22 (1971), pp. 257±65; M.E.Townsend, *The Rise and Fall of*

Germany's Colonial Empire, 1884±1918 (New York: n.p. 1930); and Paul M.Kennedy, *The Rise of the Anglo-German Antagonism 1860±1914* (Atlantic Highlands, NJ: The Ashfield Press, 1980), esp. ch. 10 and its endnotes.

2. Hans-Otto Steinmetz, *Bismarck und die deutsche Marine* (Herford: Koehler, 1974), p. 21.
3. Charles Henry Huberich and Richard King, eds, *The Prize Code of the German Empire as in Force, July 1, 1915* (New York: Baker, Voorhis, 1915), p. xi.
4. Wolfgang Petter, `Die überseeische Stützpunktpolitik der preu*ß*isch-deutschen Kriegsmarine 1859±1883', unpublished PhD dissertation, University of Freiburg, 1975, p. 109; Lawrence Sondhaus, *Preparing for Weltpolitik: German Sea Power before the Tirpitz Era* (Annapolis, MD: Naval Institute Press, 1997), pp. 76±7.
5. Sondhaus, p. 76, describes the *Gazelle* as being `out of harm's way'.
6. As quoted in Petter, `Die überseeische Stützpunktpolitik', p. 110.
7. Huberich and King, *The Prize Code of the German Empire,* pp. ix±x. The final version of the Prize Code was issued on 20 June 1864, and may be found in the *Preußisches Gesetzblatt 1864,* p. 369. The list of contraband included the following: `cannons, mortars, all kinds of weapons, bombs, shells, bullets, fuses, slow matches, cuirasses, articles of equipment, saddles, [and] bridles.'
8. Otto Pflanze, *Bismarck and the Development of Germany,* 3 vols (Princeton, NJ: Princeton University Press, 1990), Vol. 1, p. 268. As well, some liberals were pro-colonial for the same reason, to force the government to create a larger navy to meet the expanded responsibilities overseas. Woodruff D.Smith, *The German Colonial Empire* (Chapel Hill, NC: University of North Carolina Press, 1978), p. 4.
9. Sondhaus, p. 81; Thomas Brysch, *Marinepolitik im preußischen Abgeordnetenhaus und Deutschen Reichstag 1850±1888*(Hamburg: E.S.Mittler, 1996), p. 170.
10. Pflanze, *Bismarck and the Development of Germany,* Vol. 1, pp. 279±80.
11. Alfred von Tirpitz, *Erinnerungen* (Leipzig: K.F.Koehler, 1920), p. 4.
12. As quoted in SBVR, 9. Sitzung, 18 April 1868, 1. Legislaturperiod, 1. Band, Session 1868, p. 130.
13. Petter, pp. 155±6. His conclusion on the entire affair is that Bismarck was trying to use the Americans as a means of increasing pressure on France.
14. Ibid., pp. 124±5.
15. Quoted in Ivo N.Lambi, *The Navy and German Power Politics, 1862±1914* (Boston, MA: Allen & Unwin, 1984), p. 2.
16. Lambi, *The Navy and German Power Politics, 1862±1914,* p. 3; Sondhaus, *Preparing for Weltpolitik,* p. 86.
17. Sondhaus, *Preparing for Weltpolitik,* p. 87.
18. Wolfgang Petter, `Deutsche Flottenrüstung von Wallenstein bis Tirpitz', *Handbuch zur deutschen Militärgeschichte 1648±1939,* 6 vols (München: Bernard & Graefe, 1979), Vol. 5, p. 83.
19. Jachmann to Bismarck, 2 December 1867, as quoted in Petter, `Die überseeische Stützpunktpolitik', p. 170.
20. Ibid., pp. 137±8.
21. BA-MA, RM1/576, Bismarck to Roon, 9 January 1868.
22. Ibid.
23. BA-MA, RM1/576, Adalbert to Roon, 18 February 1868.
24. Ibid.
25. Ibid.

26. Ibid.; emphasis in original.
27. Sondhaus, *Preparing for Weltpolitik,* p. 98; Petter, `Die überseeische Stützpunktpolitik', pp. 143±8; Steinmetz, p. 44, goes so far as to suggest that Kinderling acted against Bismarck's specific orders. However, Thomas Schoonover disputes the generally accepted notion that Kinderling acted on his own; he is convinced that the Kinderling mission was `a sly Prussian scheme to penetrate the isthmus by presenting the world with a fait accompli'. His argument follows that of Tulio von Bülow, `Sobre el proyecto de base naval alemana en 1868', *Revista de los Archivos Nacionales,* 7(1943), pp. 147±9. Furthermore, Schoonover states: The most convincing evidence in support of Bülow's argument [of Bismarck's denial of any interest being disingenuous] was not available to historians of that period. The Prussian naval ministry archives contain Kinderling's confidential report to the Prussian Naval High Command. His report indicated that he was responding to specific instructions. Likewise, his promotions in 1871 and 1878 hint at service to, rather than hindrance of, Bismarck's objectives.' An attempt in July 1998 to consult the relevant document used by Schoonover to support his case, BA-MA MSg 1/1101, `Franz Kinderling', was unsuccessful; according to the archivists in Freiburg, that document has been missing since September 1988. As for Kinderling's record of promotion, a check of Hans H.Hildebrand and Ernst Henriot, eds, *Deutschlands Admirale 1849±1945,*4 vols (Osnabrück: Biblio Verlag, 1988), *passim,* reveals that Kinderling's record of promotion does not vary greatly from that of his fellow officers. A comparison of 33 senior officers of the navy, serving roughly around the period 1860±85, reveals that Kinderling's length of time between promotion to captain and to rear-admiral was seven years and two months, approximately four and a half months longer than the average. In particular, Gustav Klatt, who was regularly two years ahead of Kinderling in promotions during 1854±68, reached rear-admiral in 1873 in only four years and six months: Thomas Schoonover, *Germany in Central America: Competitive Imperialism, 1821±1929*(Tuscaloosa, AL: University of Alabama Press, 1998), pp. 60±2 and 244, esp. nn. 11 and 18.
28. In 1785, the United States and Prussia signed a treaty which allowed for each's maritime trade not to be hindered by the other in the event of a war in which one party was neutral while the other was a belligerent. Benjamin Franklin was one of the American delegates, along with Thomas Jefferson and John Adams.
29. The Secretary of State (William Henry Seward) to the Minister in the North German Union (George Bancroft), 25 February 1868, as quoted in *Policy of the United States towards Maritime Commerce in War: Volume 1, 1776±1914,* prepared by Carlton Savage (Washington, DC: United States Government Printing Office, 1934), p. 480.
30. SBVR, 9. Sitzung, 1. Legislaturperiod, 1. Band, Session 1868, 18 April 1868, p. 129. The debate is also mentioned in Steinmetz, *Bismarck und die deutsche Marine,* p. 27, but he misidentifies it as occurring on 18 August.
31. Ibid., p. 129.
32. Ibid.
33. Ibid., p. 132.
34. Ibid., p. 133.
35. Ibid., p. 134. Also see James J.Sheehan, *German Liberalism in the Nineteenth Century* (Chicago: University of Chicago Press, 1978), p. 135.

36. BA-MA, RM1/867, Bismarck to Roon, 12 February 1870.
37. Theodore Ropp, *The Development of a Modern Navy: French Naval Policy 1871±1904,* ed. Stephen S.Roberts (Annapolis, MD: Naval Institute Press, 1987), p. 22; Sondhaus, *Preparing for Weltpolitik,* p. 93. Also see Tirpitz's memoirs for a firsthand account of that voyage: `we steamed back through the Channel in the middle of July, without having been into dock, and in daily expectation of being attacked by the French, against whom our only defence would have been practice shot (filled with peas) and a fuse which misfired at every opportunity': Tirpitz, *Erinnerungen,* p. 5.
38. Sondhaus, *Preparing for Weltpolitik,* pp. 94, 96; Ropp, *Development of a Modern Navy,* p. 23. Sondhaus seems to regard the blockade as much more effective than Ropp; the former describes it as `paralyzing German overseas trade for more than half a year' (p. 96), while the latter memorably calls it `one of the most useless demonstrations in French naval history' (p. 23).
39. Michael Howard, *The Franco-Prussian War: The German Invasion of France, 1870±1871* (New York: Methuen, 1961), p. 74.
40. Francis R.Stark, *The Abolition of Privateering and the Declaration of Paris* (New York: AMS Press, 1967; originally published, 1897), pp. 157±9.
41. D.P.O'Connell, *The International Law of the Sea,* Vol. 2, ed. I.A.Shearer (Oxford: Clarendon Press, 1988), pp. 1106±7.
42. Huberich and King, p. xiv. The decree was repealed on 19 January 1871.
43. Stark, p. 25.
44. Ibid., pp. 25, 30, 159.
45. Lawrence Sondhaus, `ªThe Spirit of the Armyº at Sea: The Prussian-German Naval Officer Corps, 1847±1897', *International History Review,* 17 (1995), pp. 471±2. While Sondhaus makes reference to a few volunteers to the auxiliary fleet, Stark states that the fleet was never created: Stark, *The Abolition of Privateering,* p. 159.
46. Steinmetz, *Bismarck und die deutsche Marine,* pp. 26±7.
47. Ibid., pp. 27±9. It is interesting to note that Bismarck limited his protests to Great Britain alone; in subsequent analyses of the Franco-Prussian War and its relation to a *Kreuzerkrieg,* the German navy always spoke of American arms shipments: Kennedy, *Rise of the Anglo-German Antagonism 1860±1914,* p. 23.
48. Steinmetz, *Bismarck und die deutsche Marine,* p. 28.
49. *Conway's All the World's Fighting Ships 1860±1905* (London: Conway Maritime Press, 1979), p. 259.
50. BA-MA, N578/8, Nachlass Knorr, pp. 7±9.
51. Ibid., p. 14, Gerolt to Knorr, 14 September 1870, as reproduced in Knorr's memoirs; the contents of Knorr's original letter of 1 September 1870 is inferred from Gerolt's lette r and Knorr's memoirs.
52. BA-MA, N578/8, Nachlass Knorr, Knorr to El Contra-Almirante, Commandante-General del Apostadero y Escuadra de Cuba, Marques de San Rafael, 9 November 1870, pp. 33±4.
53. Of course, there is dispute over which ship initiated the challenge to combat; French sources claim the *Bouvet* issued the challenge, while Knorr's memoirs and most other accounts credit the Germans with being the instigators: BA-MA, N578/8, Nachlass Knorr, p. 34; Sondhaus, *Preparing for Weltpolitik,* pp. 99 and 266, n. 127.

54. Sondhaus, *Preparing for Weltpolitik,* p. 99; Willi A.Boelcke, *So kam das Meer zu uns. Die preußisch-deutsche Kriegsmarine in Übersee 1822 bis 1914* (Frankfurt am Main: Ullstein, 1981), p. 111.
55. Savage, *Policy of the United States towards Maritime Commerce in War,* Vol. 1, p. 99; the American Secretary of State (Hamilton Fish) to the North German Union Minister (Gerolt), 22 July 1870, pp. 480±2.
56. Sir Frederick Smith (Earl of Birkenhead), *The Destruction of Merchant Ships under International Law* (London: J.M.Dent, 1917), pp. 45±6, 56.
57. Steinmetz, *Bismarck und die deutsche Marine,* p. 27; Sondhaus, *Preparing for Weltpolitik,* p. 96.
58. Howard, *The Franco-Prussian War,* pp. 75±6.
59. Tirpitz, *Erinnerungen,* p. 5; *Conway's,* p. 243.
60. Sondhaus, *Preparing for Weltpolitik,* p. 94.
61. Ibid., p.95.
62. Tirpitz, *Erinnerungen,* pp. 5±6. When recalling this event in his memoirs, an older and wiser Tirpitz admitted that, in the face of three-to-one odds, the cautious approach adopted by the navy was much the better plan.
63. `In many ways Tirpitz was an unusual naval officer', writes Volker R.Berghahn in *Der Tirpitz-Plan. Genesis und Verfall einer innenpolitischen Krisenstrategie unter Wilhelm II* (Düsseldorf: Droste Verlag, 1971), p. 58. According to Berghahn, Tirpitz's breadth of interestsÐtechnical, political and philosophicalÐand his intellect made him stand out as much from his fellow-officers as his physical appearance.
64. Quoted in Ulrich von Hassell, *Tirpitz. Sein Leben und Wirken mit Berücksichtigung seiner Beziehungen zu Albrecht von Stosch* (Stuttgart: Chr. Belsersche, 1920), p. 88. For the purposes of this discussion, focus will be directed only to the first two questions, as the third is concerned with the merits of German vs English shipbuilding.
65. The original does not make clear whether Tirpitz's calculation is in marks or thalers, ibid., p. 88.
66. Ibid., p. 88.
67. Hassell, *Tirpitz,* p. 89; Berghahn, *Der Tirpitz-Plan,* p. 59.
68. Quoted in Hassell, *Tirpitz,* p. 90.
69. Ibid., p. 90.
70. Michael Salewski, *Tirpitz. AufstiegÐMachtÐScheitern* (Göttingen: Musterschmidt, 1979), pp. 16±17, is a useful antidote to the fulsome praise of Hassell, *Tirpitz,* p. 91. However, the fact that Tirpitz's ideas were not new does not invalidate them; the fact that he ultimately implemented them makes them all the more important.
71. Tirpitz, *Erinnerungen,* p. 6.
72. Hans Hallmann, *Der Weg zum deutschen Schlachtflottenbau* (Stuttgart: W.Kohlhammer, 1933), p. 8.
73. Michael Salewski, ed., `Die Preußische Ostasienpolitik (1859±1862)', in *Die Deutschen und die See* (Stuttgart: Franz Steiner, 1998), p. 75.

Part III

THE ARMY AT THE HELM

The navy in the Stosch and Caprivi eras, 1871±88

5
ALBRECHT VON STOSCH AND THE NEGLECTED NAVY, 1871±72

The triumph of German arms in the Franco-Prussian War led to the creation of a unified German state under strong Prussian influence. The power vacuum in Central Europe, once uneasily shared and contested by the weaker Austria and Prussia, was now filled by a young and robust state. By joining the ranks of the great powers, Germany took on new roles and new responsibilities around the world Ð political, diplomatic, economic and cultural.

Thus, in 1871, a new era in the history of German naval power began. As the representative of the Empire in every corner of the globe, the navy now held an even more serious responsibility in terms of projecting German power and prestige. No longer was the navy the flag-bearer for a small German state among many, nor was it the representative for a bastard half-Germany; it was the navy for all Germans everywhere. This was to the advantage of German merchants, pan-colonialists and expatriates.

It also meant that the German navy must represent the equivalent of other navies of the first rank, at least in terms of national prestige, if the German Empire was no more to be trifled with than the United States, France or even Great Britain. The navy, as the most visible overseas component of that empire, should convey the image of might and power worthy of the respect of lesser peoples and nations around the world.

Unfortunately, the navy was in no condition to meet the challenges of its expanded political and commercial duties. The war had taken its toll on the navy's morale; and there was little support for it as an independent body from either the Reichstag or the general public, primarily due to the navy's inability to contribute to the victory over France. The spectacular success of the army cast a long shadow over the navy's pitiful but unavoidable war record. It would take leadership and organization to restore order to the new Imperial German Navy.

That leadership and organization were imported from the army in the person of Albrecht von Stosch, who was selected for precisely those qualities. His genius for detail meant the navy would soon be a much more disciplined force, and, hopefully, one that would be more prepared in the event of another war. However, Stosch's determination, zeal and abrasive personality led to conflict between him and a number of senior naval officers. Furthermore, his personality

would bring him into conflict with Bismarck: coupled with rumours of Stosch's attachment to a liberal ministry to supplant the Chancellor, the ill-will between the two men was exacerbated.

Stosch was also interested in the expansion of German trade overseas. In conjunction with the navy and the Foreign Office, he sought to increase the German international presence to better reflect Germany's predominant position in Europe. In so doing, his aims coincided with those persons who continued to believe in the effectiveness of commerce-raiding as a means of waging naval warfare. Although Stosch's first concern was coastal defence, he always ranked the destruction of enemy commerce higher than the creation of a battle fleet.

The first year of Stosch's appointment as head of the Admiralty was a fairly benign period; there were no serious crises, and the members of the Reichstag made allowances for Stosch's relative inexperience when he presented his first report to them in May 1872. It gave Stosch time to see where the navy should concentrate its efforts, mainly in reorganizing the navy's administrative and educational concerns.

1871: The unhappy peace

Although the Franco-Prussian War had been a brilliant victory for German arms, the laurels of that triumph were passed to the navy in a most reluctant fashion. No glorious battle had been won by the navy; it had survived, mostly by riding out at anchor the French blockade. The skirmish between the *Meteor* and the *Bouvet* outside Havana had accounted for five Iron Crosses being awarded, over half the total handed out to all naval personnel in the war.[1] There was considerable debate over whether the navy should be permitted to have representatives marching in the victory parade in Berlin; grudgingly, the navy was allowed to have 22 officers and seamen take part. Worse still, a question was raised in the Reichstag over whether all naval personnel should be awarded the commemorative medals given out by the government to war veterans: The seamen got their medals, but it embarrassed the navy that the matter had ever been raised.'[2] Without victory and glory to back up their war service, the officers and sailors of the navy appeared to have failed to contribute to the unprecedented feat of German arms.

In short, the war was a disaster for morale among naval officers who felt they had been cheated of the glory in which their army brethren were now basking. By the summer of 1872, 12 junior officers, including nine noblemen, had transferred from the navy to the army. All had felt the shame of having done nothing of significance in their Fatherland's moment of glory. This did not bode well for the future of the junior service.[3]

The Treaty of Frankfurt, the final treaty of peace between France and Germany, did not provide any direct benefits to the navy. Consistently, Bismarck refused the offer of French warships as part-payment of the French indemnity; it was not that the Chancellor failed to see any benefit in adding warships to the

navy, but that he knew the navy did not have the personnel necessary to crew those vessels.[4]

There was another way by which the navy could have gained through the treaty, namely through the cession of all or some of France's overseas possessions. There were many calls for such a move, especially by the business communities of the Hanseatic ports. A typical example is found in the pamphlet `Die Französische Flottenstation in Cochinchina', originally written as an article in the *Hamburger Börsenhalle* in September 1870 by P.Rickmers, a Bremen shipowner. The article strikes the right note between the glowing pride of Sedan and the expectation of further glory:

> Up to now the many established German businesses in China have always relied upon the protection of England. But so large and powerful a realm as GermanyÐand after America and England the largest seafaring nationÐ now, since it stands as the most powerful realm in Europe, should scorn and be too proud to let its numerous subjects overseas be protected by Englishmen, and rather should itself provide the necessary protection for its subjects. However, how is Germany to make this possible without colonies, *without a base* in those waters?[5]

The same author was quite prolific on his subject, having a vested interest in the situation at sea. On another occasion he gave a specific reason why he believed Indochina was best in German hands:

> as the base of the French *Kreuzerkrieg,* Saigon has `paralysed all German shipping', so that `losses of millions' have occurred. `Saigon in German hands', so Rickmers wrote, `would be the guarantee of the largest and most important part of German shipping and of our navy stationed in those waters'. [6]

The urge to obtain overseas possessions had not abated in the least; the increase in German power had made such desires even stronger. While Saigon and the surrounding territory of Indochina was a popular choice of the expansionists, other petitions submitted to the government called for further annexations.[7] Adalbert, in Versailles with the army, urged for the annexation of such far-flung territories as Martinique, St Pierre, Miquelon and Guadeloupe. However, Bismarck remained steadfast in his opposition to any German colonial expansion. In February 1871, he wrote that, to him, colonies for Germany would be like `the Polish aristocratic families who have sable furs but no shirts' Ðin short, a wasteful and frivolous extravagance.[8]

The unification of the German states also led to a further administrative change in the structure of the navy as the *Bundesflotte* expanded to become the Imperial German Navy. This change was reflected in the revised constitutional status of the navy. It became one of the few institutions to be entirely imperial in

character. Section IX, Article 53 of the Reich Constitution of 1871 created the Imperial German Navy as a federal agency under the command of the Kaiser, a distinction not held by the armies, which remained under the command of their respective federal states. Roon had opposed this decision, as he had previously opposed the change from the Prussian navy to the *Bundesflotte* only a few years earlier, but he was overruled by Bismarck, who saw a German navy more likely to attract support and recruits throughout the Reich than a Prussian navy.[9] Furthermore, an imperial navy could act to bind the Hanseatic cities to the empire, and tear them away from their long-standing association with Great Britain. There could be a merger of the mercantilist interests of the Hansa and the colonial aspirations of the factions in favour of German colonialism.[10] Finally, the navy as a step-child of the liberal Frankfurt Parliament could serve as another means of binding liberal support to the Reich.

This constitutional point, coupled with the fact that there would be changes in the senior personnel, allowed for a plan which redesigned the chain of command. Both Roon and Adalbert were preparing to retire, feeling the effects of age and, in the case of Adalbert, illness. Previously, Roon had served in the dual capacity of Prussian Minister of War and Prussian Minister of the Navy. Now, these positions were split permanently. Adalbert had been at the same time chief of the Naval Command. Now, it was decided to combine the dual aspects of command and the administrative duties of the Minister of the Navy into a single position, the *Chef der Admiralität,* or Head of the Admiralty.[11] However, this system had one weakness which would become increasingly apparent in the course of the succeeding decade: while the military command of the navy and all its attendant concernsÐappointments, promotions and operational planningÐwould be the exclusive purview of the Kaiser, the administration of the navy would be under the jurisdiction of the Chancellor's Office. The new *Chef der Admiralität* would be beholden to two masters, Wilhelm and Bismarck. The division between administrative and command functions had not been eliminated, but merely moved up a level in the hierarchy.[12]

No significant decisions regarding the navy's future operations or construction plans were made at this time, but the international uncertainty concerning technological advances had begun to creep into those circles most interested in the future of the navy. The new Reichstag, the federal lower house, had been following world events with great interest, as its members would have a say in the determination of the annual naval budget. The prevalent mood was one of pessimism about the future of large armoured warships. `The time of the armoured Colossus has passed by', pronounced Friedrich Harkort, a retired army captain, liberal politician *(Fortschrittspartei)* and industrialist, on 21 November 1871.[13] To people such as Harkort, the future seemed to belong to smaller armoured ships, either monitors of the type used by the Americans, or cruising vessels with light armour, designed for long-range service. The latter design of warship would be ideal for a *guerre de course,* especially since the rules of warfare at sea were again being clarified through legal means.

The American Civil War left a number of unsettled legal questions in the enforcement of maritime law. The Confederacy had been a sentimental favourite with many people around the world, and its commerce-raiders had been received with benevolent neutrality in numerous port cities. However, on a number of occasions that benevolence had crossed the line into outright material assistance. The Confederates had recruited new sailors in neutral ports and had obtained supplies in excess of what was normally permitted. Worst of all, several countries, most notably Great Britain, had allowed Confederate agents to buy used or new vessels and the arms necessary to turn them into commerce-raiders. As a result, the United States government sought compensation from the British for these apparent violations of maritime law.

The Treaty of Washington was an agreement, signed in 1871, between the United States and Great Britain which, among other matters, settled outstanding disputes between the two nations over the CSS *Alabama* concerning the vessel's construction, outfitting and crewing by British nationals. One of the stipulations arising from the treaty, and agreed to by other nations, was that neutral countries were:

> bound, first, to use due diligence to prevent the fitting out, arming or equipping within its jurisdiction of any vessel which it has reasonable ground *[sic]* to believe is intended to cruise or to carry on war against a Power with which it is at peace; and also to use like diligence to prevent the departure from its jurisdiction of any vessel intended to cruise or carry on war as above, such vessel having been specially adapted, in whole or in part, within such jurisdiction to warlike use.[14]

As well, neutral powers were to prevent their seaports from being used as unofficial bases of operations, supply depots or recruiting centres.[15] Such moves would eliminate any possibility of the German navy using overseas ports of other countries during a war, and it would also rule out any chance of following up on the idea of 1867 of purchasing surplus vessels, or Knorr's suggestion, in September 1870, of arming German merchant vessels lying idle in neutral harbours.

Without direction, and without effective leadership, the first few months of the imperial navy's existence were little more than a waiting period. Constitutionally, the navy held a position of its own in the military and bureaucratic hierarchy of the *Kaiserreich*. However, the gloomy shadow of the navy's negligible role during the Franco-Prussian War continued to haunt its personnel. It would be up to a new leader to determine a new course for the navy in a decade when it would assume an unexpected importance in German high politics and diplomacy.

Albrecht von Stosch, the `General-Admiral'

The Prussian navy seemingly had been in existence long enough to provide a new leader from within its own hierarchy. The obvious choice for the position of Head of the Admiralty was Jachmann, the commanding admiral during the war. However, the general consensus was that Jachmann had been given his opportunity in 1870 and had proven to be other than what was needed: a strong organizer.[16]

One man had shown himself to be an extraordinary organizer, and seemed to be ideal for the task. Albrecht von Stosch was serving as Commander-in-Chief *pro tem* of the German occupying forces in France in late 1871 when he was informed that the post of Head of the Admiralty had been confirmed as his. His service in the army, especially during the wars with Austria and France, was impressive. He had served as Quartermaster-General of the Prussian Second Army under the command of the Crown Prince in 1866, and in 1870 was the Commissary-General for all German armies, responsible for the provisioning of every army in the field. Even the French recognized the effectiveness of Stosch's efforts; on regular occasions they would remark of the German soldiers: `They are all of an insulting health.' [17] Clearly, here was a man capable of bringing order to the imperial navy.

Stosch had several important connections in the highest circles of power, the most significant being the Crown Prince. After serving under the Crown Prince in the Austrian war, Stosch remained in regular contact with his royal master. Three years later, in 1869, Stosch accompanied the Crown Prince to the grand opening of the Suez Canal. This was the general's first time afloat on a (North) German warship, and he was suitably impressed by the occasion. He came to think of the navy as both representative of German power and as `protection against the arbitrary will of foreign officials and the conflicting interests of other Western nations'. [18] However, his first task upon assuming command was to reorganize the navy, especially its war-readiness. Stosch felt the Franco-Prussian War had highlighted the navy's lack of preparations for war, `so I am going to direct my efforts to introducing an element of combat readiness in order to be able to act immediately next time'. [19]

If Stosch's greatest asset was his ability to bring order out of chaos, his greatest liability was his personality. `Stosch's personality was as sharp as jagged iron', wrote Tirpitz, who was both protégé of and friend to Stosch in later years.[20] The general had fallen into disputes before with strong-willed individuals, but his greatest trial lay ahead of him, in the person of Chancellor Otto von Bismarck. However, that was in the future; for the present, Stosch was pleased to be receiving the appointment. Thus the future laughs', he wrote confidently in his memoirs, expecting the Admiralty to be the start to a bright future.[21]

Stosch's appointment did not sit well with most senior naval officers. A number of them, including Jachmann, were forced into early retirement when

Stosch was made their superior in rank.[22] Of the 20 most senior officers in the navy in 1872, half were gone by 1878. What is important to note about these men is that all had begun their careers in the merchant marine and had transferred to the navy during the Danish war of 1849, with the sole exception of Jachmann, who had transferred in 1847. Furthermore, none of these men was from the nobility. Stosch may have desired a solid corps of officers, but he was also a snob:

> For Stosch, practical experienceÐeven bravery in warfareÐfailed to outweigh humble origins, lack of formal education, or the stigma of service in the merchant marine. Too many of the senior officers Stosch inherited were not the sort of role models he sought for the young men who would lead the corps in the future.[23]

Even before he had been confirmed in the position, Stosch had confided in his friend, the journalist, newspaper publisher and writer Gustav Freytag.[24] As the date for commencing his new duties approached, Stosch used Freytag as a sounding-board for his ideas on how to improve the navy. The subject did not initially strike him in any particular manner, but he valued it more for the organizational challenge: `you know that the navy does not appeal to me particularly, at the most [it is] the unusualness and the difficulty posed by the job.'[25] As his tenure began, however, that started to change. By the beginning of December, he had come to a much clearer picture of what he intended for the navy:

> We need ships which are suitable for protecting the merchant fleet offensively, and the squadrons which we station for policing purposes in distant places must also have such ships. The large battleships, however, I still hold as wrong or superfluous for our conditions, since we cannot be called upon to fight a sea-battle for a long time.[26]

In plain terms, while Stosch saw a need in the future for an armoured fleet, the immediate concern was for multi-purpose vessels, able to operate at great ranges in order to perform both merchant escort and political duties. This would downplay the importance attached to the possession of a battle fleet by Adalbert, and still maintained in the 1867 *Flottengründungsplan*.[27] It also happened that this type of vessel was ideally suited for commerce-raiding but a poor alternative for fleet vs fleet action. By default, this furthered the ambitions of those who saw commerce-raiding as a legitimate means for the German navy to conduct war. Already, Stosch was examining the requirements of what would make up the two important aspects of his tenure as Head of the Navy: wartime commerce protection and peacetime foreign service.

Freytag was quick to respond concerning how the new navy could be created. He suggested leaving the promotional aspects of the new navy to him, and placed

at Stosch's disposal his network of newspapers: `The leadership of the navy must be friendly andÐinsofar as duties permitÐcommunicative towards the nation.'[28] Freytag knew that it was essential to win the support of both the deputies of the Reichstag and the public at large. It was important that everyone believe that money invested in a strong navy was a sound investment for the Reich. This was advice Stosch took to heart, as his future relations with the parliamentary representatives would demonstrate.

Freytag also took the opportunity to raise several other questions regarding naval policy with Stosch. In the same letter, he commented unfavourably on Jachmann's having placed an order for several new large armoured warships with an English shipyard, maintaining that Jachmann had `compromised' himself by placing these orders. Freytag also inquired about the state of facilities at Wilhelmshaven and whether a Baltic-North Sea canal was to be built. Two other questions of his bear mentioning: `Will the *Flottengründungsplan* [of 1867] be kept intact?', `And if so, in what size will the armour be built?'[29] These were questions which Stosch would have to consider carefully in the coming months.

Barely more than a week later, Freytag again wrote to Stosch. He was still convinced that Jachmann's purchase of vessels built in England was a mistake: `anyhow, here is a black mark, even if no one person bears any blame.'[30] He was also insistent that Germany needed to build up an industry capable of manufacturing armour plating. Freytag, however, saved his most interesting observations for later in the letter:

> If, in case of a new war, we do not want to experience a deep depression and a legitimate disgruntlement in our merchant fleet again, and if gradually we want to persuade the other naval powers of the necessity and humanity of the principle: *Private property at sea, with the exception of war materials, may not be seized or bombarded,* then it will not be sufficient that we protect our coasts by batteries and torpedoes, but we will instead have to equip ships which can break a blockade or cruise in fleet or as single ships for protection of our merchant cargoes. It is not necessary therefore that we hold to a number of ships which is equal to the FrenchÐ even a small fleet may be able in our seas and individual [ships] in foreign places to unsettle the enemy and bring assistance to merchant ships.
>
> For such cruisers, which must be armoured, probably a different model from the *König Wilhelm* would be possible: solid, with a ram, fast, with shallow draught. To develop such a type would be a rewarding task; they would have to become swifter than the giants, and be strong enough to ram. But that is not my job.[31]

Freytag, in part influenced by the northern shipping magnates, gave Stosch the same advice that had served as the pattern for earlier models of how the navy should conduct its actions in war: the interests of the merchant navy and the

valuable cargoes it carried for the war effort should be the first priority at all times. Also, Freytag echoed the sentiments of those who wanted all attacks on merchant shipping in war to cease. In his opinion, only this would free up enough resources to allow the navy to concentrate on a more offensive posture against the enemy.[32]

When Stosch assumed the position of Head of the Admiralty, prospects for the navy appeared bleak: the morale of the senior officers was low, and junior officers were leaving the corps. Little attention had been paid to creating a German shipbuilding industry when orders kept being placed with British firms, and there was no coherent plan in the event of another war. His priorities were to restore morale and discipline, to foster German shipbuilding and, above all, to restore the confidence of the German public and its elected representatives in the fact that the navy served a useful roleÐand, in the process, secure funding for new construction. Stosch was hampered by his overall lack of knowledge of the navy and its functions, and was also limited in the size of his staff.[33] He did not avail himself of the one useful body that might have given him some directionÐ the *Admiralitätsrath,* or Admiralty Council, a body composed of senior officers and naval engineers. This failure would come back to haunt him.[34] However, his personal motto: `Should it, must it remain so?', guided him in his evaluation of naval practices.[35]

1872: Adalbert's last foray and Stosch's first

Although Adalbert had retired, he had not cut off all his ties to the navy. It was difficult to sever a lifetime's relationship, and Adalbert remained convinced he knew what the nascent Imperial German Navy required. He understood that any policy involving overseas operations would be ineffective without *Stützpunkte,* but that there were few places left where the navy might find such bases: `The German Empire must possess overseas bases for warships and overseas places of refuge for its trading vessels in war.'[36] He attempted to plead for colonial acquisitions in the wake of the Franco-Prussian War, but his entreaties were as futile as those of the Hanseatic merchants and the expansionists.[37]

The Prince put together a final statement of his case in a memorandum and submitted it to Stosch on 20 April 1872, a day after the pair had met and discussed the question of overseas naval bases.[38] Adalbert began by stating the reasons for which he wanted `naval stations' *(Flotten-Stationen):* to protect specific places leading to the acquisition of colonies:

> Naval stations are Imperial naval depots in far areas where His Majesty's ships can always replenish their coal, their ammunition, and all types of supplies; make necessary repairs; and disembark the sick or exchange crews. They provide fixed bases for our cruisers and squadrons in war and serve our trading vessels as safe havens.[39]

Adalbert then spelled out what, to him, were the specific requirements of a naval station. In general, the naval station was to be a base for war. Unfortunately, due to the limited number of sites suitable for bases still available worldwide, it would be likely that the imperial government would have to obtain one by lease. If such a leased port could not be found, it would force German vessels to abide by the rules of war for neutral ports and be liable to expulsion after the maximum 24-hour stay.

The list Adalbert drew up of requirements for a German *Stützpunkt* included considerations of geography, the conditions of the facilities, navigation and military suitability. The Prince wanted a base near to German trade routes and `patriotic interests', and also one `that allows our ships free action, does not lie in close proximity to possessions of a power superior to us at sea, which according to conditions could act against us in a hostile manner'.[40] The region of the prospective base must not be too heavily inhabited, and must be self-sufficient in the basic supplies of food and water. Furthermore, and an important consideration for tropical regions, at least one base should be located at a higher altitude to allow for the construction of a hospital or clinic for those sailors infected with tropical diseases. The anchorage must be protected against both weather and enemy fire, and must be deep enough to allow use by even the largest German warships. Finally, the *Stützpunkt* must have the ability to be protected by several well-placed artillery pieces at the harbour mouth, plus a garrison of no more than 200 soldiers.[41]

Next, Adalbert spelled out what facilities the naval depot at an overseas base must possess and be capable of doing. Obviously, the base would not be as well-equipped as Wilhelmshaven or Kiel; however, it could have enough facilities to allow for basic maintenance and minor repairs of the smaller vessels such as gunboats and armoured corvettes which were normally stationed overseas. Magazines could be established for storing all necessary supplies, from ammunition to tropical uniforms.

The next section of Adalbert's memorandum, `Steamships and Naval Stations', dealt with the perceived links between the merchant and military marines. The Prince felt that the two complemented each other. Steamships would prefer to anchor where naval protection was available, and thus Germany would have to construct facilities able to provide the needs of such passenger vessels, especially coaling and repairs. Consequently, a larger settlement would grow up around the dockyard facilities, and trade routes would adapt themselves to serving the new city. Adalbert maintained that the connection between a naval base and the growth of steamship routes was mutually beneficial: `At any rate, a place that flowers with such a shining future in store might attain a greater importance by far for the Motherland than it would have had as merely a naval station.'[42]

Finally, Adalbert posed the question of where naval stations should be established. In his opinion, although German trade routes were spread out over the entire globe, only the areas where such trade was concentrated required a

significant, permanent naval presence. Consequently, it was those places which were most in need of a naval station. Adalbert declared that two such areas currently existed: the waters off East Asia, and the West Indies. In fact, the entire second and third sections of the memorandum were devoted to the Prince's choices of sites in those regions. In East Asia, Adalbert's preferences were in the Montebello Islands, off the coast of Korea, and the Anambas Islands, 190 nautical miles from Singapore and near the Sunda Strait, an important waterway. In the West Indies, Adalbert proposed a German naval station be established either on Culebra (south of Puerto Rico), the Dutch possession of Curaçao off the coast of Venezuela, or on Bequia Island, near St Vincent and Grenada. These were areas which saw significant commercial traffic, but had nowhere near the geopolitical importance of the British bases at key points, especially Gibraltar, Malta and Singapore.

The main reason Adalbert was so insistent on Germany's obtaining a fleet station of any sort was the need to have an available coaling-depot in wartime:

> If in the last war the great difficulty in obtaining coal in foreign ports was already quite clear, then undoubtedly in future wars it will become completely impossible, because almost all countries already view coal as war contraband, and future international congresses will certainly ensure that in the future this will be recognized as a generally valid principle and strictly enforced. Therefore, if our warships want to take on coal, they will be rejected by every foreign country and foreign colony; thus, nothing else remains but to acquire individual points where we can store our coal as if on *German* soil.[43]

Adalbert, already preoccupied with the need for Germany to find one of the few remaining good natural harbours, wanted Stosch to push for an aggressive policy of obtaining *Stützpunkte*. His suggestions reflected a compromise between peacetime duties, trade protection and aggressive wartime action. They were also in the spirit of economy: the cost of coal varied from 20 thalers in the North Sea to four times as much in South America. With the costs of keeping vessels on station overseas continuing to rise, it made sense for the navy to rely as much as possible on its own means. The past five years' expenditures had been met only through retroactive indemnities and through the wartime extraordinary budget.[44] To Stosch, Adalbert's arguments would have been persuasive; to Bismarck, however, with his opposition to any colonial policy, they would have been empty.

In the following month, Stosch presented a memorandum concerning the navy to the Reichstag. To him, the new-found strength of the Reich was already having an effect on the navy and its increased duties overseas. Businessmen and other Germans living and working abroad were no longer afraid to call themselves `Germans'; instead of calling on the Royal Navy or some other established power to protect their interests, these emigrants and merchants were

now calling on the German navy for support. This was a factor which could not have been taken into account when the construction plans of 1867 were drawn up.[45] Furthermore, Stosch made it clear the navy was interested in pursuing a *Stützpunktpolitik,* citing the familiar litany of reasons why the navy needed overseas bases: financial savings on supply and repair in peacetime, and the elimination of concerns over neutrality laws in time of war.[46]

When naval matters were discussed in the Reichstag, they produced a nearunanimous reaction from the representatives. Over the two days scheduled for the issue (26 and 27 May), the idea of a large battle fleet was rejected; however, there was also no serious consideration of the idea of obtaining overseas bases, which was puzzling considering the emphasis Stosch had placed on the matter in his memorandum.[47] The argument against an armoured fleet was made quite strongly by Harkort, who was incensed that the navy, despite repeated warnings from both the Bundesrat and the Reichstag, had constantly overspent its budget. (This was a veiled criticism of the Ministry of Finance as well as the navy.[48]) Harkort was, like many of the other deputies, inclined to view the navy as first and foremost the guarantor of safety for the German merchant marine, in both war and peace. The alarming loss of trade vessels in East Asia to piratesÐ14 ships were waylaid off Hong Kong in a single month, Harkort claimedÐwas a matter the German navy should be expected to deal with. While the Royal Navy stationed 40 ships in those waters, there was only a single German warship in this crucial area of German trade. Harkort reminded the deputies that `light and fast ships' were needed to navigate the shallow waters and overtake the swift vessels the pirates used.[49]

Harkort was also deeply concerned about the safety of German maritime commerce in war and expressed his fear of enemy commerce-raiders. `The future belongs to the *Alabamas* and the *Floridas*', he said, quoting the British Admiral George Rose Sartorius from 1864, and noted that England was then in the process of building similar raiding ships. He then continued:

> Gentlemen, I draw your attention to the recent French war. How many vessels the French took from us, for which we were simply in no position to take revenge because we did not have suitable ships. No doubt we have capable crews, but we could not stand up to the French ships.[50]

Indeed, Harkort's opposition to larger armoured vessels stemmed in no small part from the rapid pace of technological change. He regarded the *König Wilhelm,* the largest ship in the navy and built in 1868, as both obsolete and a waste of money. In his opinion, large armoured vessels were useless to the navy, as they were poor sailing ships and devoured copious amounts of coal, and they even displaced too much water to be useful in the shallows of the Baltic Sea. Harkort, like many other naval observers of the time, thought that it was more practical to wait and see which would be the victor in the armour vs artillery battle.[51] While this idea had some merit, still it would mean that the German navy should not

build any units capable of doing battle with larger enemy ships. This paralysis in the face of changing technology was not an ailment unique to the industrialist, nor would it be the only time that prudence would be the suggested course of action in the face of rapid technological advances. Between the technological worries and the financial overruns, Harkort's opposition to any battle fleet expansion was plainly evident; he was ill-disposed even to the 1867 plan as it existed currently: `In my opinion, the entire *Flottengründungsplan* is not practical.'[52]

One of the few voices raised in favour of larger vessels was that of Georg Herbert Graf (Count) zu Münster-Ledenburg, a Free Conservative from Hanover. His concerns were the defence of the German sea-coasts and the ability to stave off another blockade. As far as the Count was concerned, the weapons of the small war were, at best, unproven. `Up to now', he scoffed, `torpedoes blow up only the crews which fire them; that they blow enemy ships up into the air I have neither heard nor seen.'[53] More important, the Count also identified the chief problem with building only smaller units: in the event of a blockade by the enemy, how could commerce-raiding vessels slip in and out of German ports tightly guarded by the enemy's most powerful warships? While he believed the problem could be solved in large measure through the construction of a North Sea-Baltic canal, Count Münster nevertheless remained convinced that a significant quantity of armoured vessels was necessary for the navy to resist blockading measures by an enemy. All efforts at sea would be in vain, `if we do not have a fleet that keeps the North Sea free for us'.[54]

After these comments, Stosch rose to speak. The debate provided the first opportunity for Stosch to address the Reichstag. Although he was not a member of the legislative body, nor was he responsible to it, it was nevertheless his responsibility to speak on naval matters as the representative of His Imperial Majesty's government. After apologizing for his relative inexperience in his new position, Stosch laid out his policy for the navy. The German navy could not consider itself to be in the same class as those of France or England. Its primary emphasis, therefore, would be on coastal defence, using mines, monitors and torpedoes, but not solely relying on them. An *Ausfallsflotte* (sortie fleet) of armoured warships would be necessary to deter any attempts at blockade or amphibious assault, but a large number of corvettes would also be required for overseas duties. Stosch maintained there were no new funds available for construction beyond what was called for in the 1867 *Flottengründungsplan,* and that an attempt by some members to eliminate the construction of five armoured ships from that year's budget made no difference to him. His accent was, first and foremost, on the fact that he was still an army officer and, to him, the needs of the army came first. Consequently, there should be no need for large fleets. This last remark was cheered by some members, and his maiden speech was generally well-received.[55]

At the end, Stosch commented on the need to protect German trade. As far as he was concerned, the navy would possess sufficient numbers of larger corvettes,

but would require several additional shallow-draft warships capable of dealing with the threat of pirates in certain waters. In conclusion, he stated that he would have the complete details of the direction of the navy worked out within the next two years.[56]

While the debate of May 1872 had not produced any significant changes in German naval thought, nor any amendments to the fleet construction plan, it did mark the acknowledgement of a factor which would dominate German naval thought for the next 11 years: the German navy's existence was as an unofficial subsection of the army, and any efforts expended on behalf of the navy were in no way to interfere with the needs of the army. Furthermore, the basic considerations regarding overseas trade were to remain unchanged; the country would not actively pursue a policy of *Stützpunktpolitik,* but it did expect the navy to provide an effective measure of trade protection in peace and war. Finally, the expectations for a *guerre de course* remained very high among some members of the Reichstag.

It was apparent that Stosch's correspondence with Gustav Freytag had played a role in shaping the general's approach towards the parliamentarians. His tact and courtesy won him approval from the members, even those who did not support the navy for one reason or another.[57] This would become important in the coming year, when Stosch needed their approval for budget increases and new naval plans.

Stosch reorganizes the navy

If Stosch made gains in befriending the members of the Reichstag, he was less successful in winning the trust and confidence of another important element: the naval officer corps. As an army officer, Stosch knew he was technically unprepared for the demands of naval command. He was still figuring his way around the possible roles the navy could play. Would the demands of the Reichstag for smaller ships lead him to acknowledge the role these vessels could play in conducting a *guerre de course,* or would his army training blind him to any such possibilities?

Stosch should have been able to rely on the advice of his predecessors, especially the two most senior retired naval officers in the Reich, Prince Adalbert and Jachmann. However, Adalbert's well-meaning memorandum on overseas naval stations, while appealing to Stosch personally, would get no sympathy from either the Reichstag or Bismarck.[58] With the Prince's death in June 1873, Stosch lost a valuable source of guidance. Jachmann, on the other hand, remained bitter about being passed over for the post of *Chef der Admiralität,* and would subsequently miss no opportunity to denigrate Stosch.[59]

As for the officer corps, Stosch's arrival was seen as a mixed blessing. To senior officers, Stosch was a visible sign of their failure to produce a leader from within their own ranks. Worse still, the changes Stosch made in naval functions did not coincide with their views on how the navy should behave. Adalbert had

opposed any introduction of army drill for sailors: `strict care had been taken that the customs copied from the English navy should be naval and not military.' [60] Jachmann had been forced to implement limited drill practice to counteract the boredom and monotony of routine for the main fleet while it was under blockade during the Franco-Prussian War. But what Jachmann had begun as an expedient, Stosch implemented in full. Furthermore, Stosch tried to instil an atmosphere of tradition and custom akin to that of Prussian army regiments. The officers' reaction was mixed: while junior officers received this prussianization eagerly, the older officers chafed against such a non-naval tradition, and `grumbled there used to be one spot left in Prussia where one could live¼and that was the navy'. [61]

Not all of Stosch's innovations borrowed from the army were to be viewed in such a negative fashion. In March 1872, Stosch founded the *Marineakademie,* a school set up for the continuing education of the most promising junior officers. The *Marineakademie* was to be the naval equivalent of the Prussian *Kriegsakademie* in Berlin, a training-ground for potential General Staff officers. It was also an innovation in the training of naval officers; no other country in the world had ever set up a school for such a purpose.[62] The Academy was set up to encourage general education and independent study. However, Tirpitz, who attended the *Marineakademie* from 1874 to 1876, felt that an opportunity had been missed through the `insufficient' teaching of naval history. Nevertheless, whatever the level of teaching in naval theory, it was a significant step forward, one not taken by more established naval powers such as Great Britain or France.[63]

Stosch's organizational skills were to be employed in regulating the navy to a specific purpose. The Franco-Prussian War had shown the navy was not ready to fight a war, and Stosch was determined to avoid that situation a second time. To his way of thinking, it was the professionalism of the navy which needed to be improved. The senior members of the officer corps were expected to set an example of behaviour for their juniors, and that was best accomplished, in Stosch' s view, through the character of noble officers coupled with the establishment of proud traditions comparable to those of the Prussian army. Staff work in the Admiralty was made consistent in quality, and various departments were established for training, regulation and experimentation. The sailors, toughened by many hours of drill, would reflect that professionalism which Stosch sought. However, the criticism of British naval officers upon seeing Stosch's regime at work was a telling blow: `These are soldiers.' [64] Stosch might have regarded this as a compliment, but it also reflected a fatal weakness, the inability to distinguish the navy's different needs and priorities. This weakness would prove the undoing of the `Stosch system'.

Conclusion

From the very start, it was clear in which direction the navy would proceed under Stosch's leadership. The ersatz admiral (Stosch was granted naval rank in 1875) was expected to bring order to a service plagued by uncertainty and chaos. As an outsider, he felt free to impose new traditions in place of those he considered wasteful or useless. The Reichstag debate of May 1872 set the tone for what could be expected from Stosch over the next few years: an emphasis on cruising vessels for overseas service, and a reluctance to engage in building capital ships. While an aggressive *Stützpunktpolitik* would have been preferable to the pro-colonial Stosch, he realized such a policy did not meet with favour with his political superior, Bismarck. For now, Stosch would bide his time.

The greatest weakness of the navy was the lack of support for it throughout the nation, especially evident in the attitude of the members of the Reichstag. The aversion to larger warships, supposed by historians to have been instilled by the dicta of the *Jeune Ecole,* was already in evidence nearly 15 years before the onset of that school of thought. It would take all Stosch's political acumen and charmÐ and Freytag's journalistic skillsÐto garner support for a new *Flottengründungsplan*.

Stosch's assumption of the position of Head of the Admiralty, for all its positive elements, could not help but ruffle the feelings of several senior officers, Jachmann in particular. Furthermore, Stosch's abra sive personality, his disregard of what traditions the navy did possess, and his determination to reform the navy, regardless of what the feelings of the officer corps might be, left the possibility open to infighting within the corps and intrigues against Stosch. His background as an army officer could neither be ignored nor forgiven.

However, aside from being an army officer, Stosch also harboured ambitions of his ownÐhe was `a political general' Ðand it would be these ambitions which would bring him into conflict with his greatest rival, Bismarck.[65] In turn, that rivalry would further weaken Stosch's relationship with the senior naval officers, and the resulting dissension in the ranks would eventually lead to a deterioration in the one relationship the general had worked so hard to improve, that between himself and the Reichstag. Eventually, great things lay ahead for the German navy, but in the short term even harder times were to come.

The events of this period also illustrate the difficulty the navy was experiencing in successfully establishing itself in the public eye. What role was the navy to play in the event of war? Based upon its showing in the Franco-Prussian War, few people expected any contribution from the navy; consequently, there was little will to provide support for the navy or its projects. Faced with meagre resources and low expectations, the officers of the navy were prepared to make do in as glorious a manner as possible.

Notes

1. Lawrence Sondhaus, *Preparing for Weltpolitik: German Sea Power before the Tirpitz Era* (Annapolis, MD: Naval Institute Press, 1997), p. 99. The other four Iron Crosses went to Captain Johannes Weickhmann of the *Augusta;* Commander Count Franz von Waldersee, who commanded the aviso *Grille* in a brief sortie against the blockaders at Swindemünde; and Prince Adalbert and his aide, both of whom were serving with the army.
2. Ibid., p. 96. Tirpitz noted in his memoirs that `we were not even allowed to count these years as war service': Alfred von Tirpitz, *Erinnerungen* (Leipzig: K.F.Koehler, 1920), p. 6.
3. Lawrence Sondhaus, `ªThe Spirit of the Armyº at Sea: The Prussian-German Naval Officer Corps, 1847±1897', *International History Review,* 17(1995), p. 472.
4. Ivo N.Lambi, *The Navy and German Power Politics, 1862±1914* (Boston, MA: Allen & Unwin, 1984), p. 3.
5. BA-MA, RM1/867, P.Rickmers, `Die Französische Flottenstation in Cochinchina', *Hamburger Börsenhalle* (September 1870); emphasis in original.
6. Willi A.Boelcke, *So kam das Meer zu uns. Die preußisch-deutsche Kriegsmarine in Übersee 1822 bis 1914* (Frankfurt am Main: Ullstein, 1981), p. 251.
7. Ibid., p. 250.
8. Both as quoted in Ekkhard Verchau, `Von Jachmann über Stosch und Caprivi zu den Anfängen der Ära Tirpitz', in Herbert Schottelius and Wilhelm Deist, eds, *Marine und Marinepolitik im kaiserlichen Deutschland, 1871±1914* (Düsseldorf: Droste Verlag, 1972), p. 58. The Bismarck quotation is from Moritz Busch, *Tagebuchblätter,* 3 vols (Leipzig: F.W.Grunow, 1899), Vol. 2, p. 157, entry for 9 February 1871. Busch was Bismarck's press secretary.
9. Elmar M.Hucko, ed., *The Democratic Tradition: Four German Constitutions* (Leamington Spa: Berg, 1987), p. 137; Otto Pflanze, *Bismarck and the Development of Germany,* 3 vols (Princeton, NJ: Princeton University Press, 1990), Vol. 2, p. 138.
10. Woodruff D.Smith, *The German Colonial Empire* (Chapel Hill, NC: University of North Carolina Press, 1978), p. 7.
11. Hans-Otto Steinmetz, *Bismarck und die deutsche Marine* (Herford: Koehlers, 1974), p. 32.
12. When he assumed the position of Head of the Admiralty, Stosch expressed `the hope that Bismarck will not be able to collide with me in the political sphere and, if possible, will leave me in peace in my own province'. This proved impossible: Stosch to Gustav Freytag, 3 December 1871, in Ulrich von Stosch, ed., *Denkwürdigkeiten des Generals und Admirals Albrecht von Stosch, ersten Chefs der Admiralität: Briefe und Tagebuchblätter* (Stuttgart and Leipzig: Deutsche Verlags-Anstalt, 1904), p. 271. The translation is from Frederic B.M.Hollyday, *Bismarck's Rival: A Political Biography of General and Admiral Albrecht von Stosch* (Durham, NC: Duke University Press, 1960), p. 100.
13. As quoted in Thomas Brysch, *Marinepolitik im preußischen Abgeordnetenhaus und Deutschen Reichstag 1850±1888*(Hamburg: E.S.Mittler, 1996), p. 264.
14. Quoted in C.John Colombos, *The International Law of the Sea,* 6th rev. edn (London: Longman, 1967), pp. 648±9.

15. Ibid.; Nils Ørvik, *The Decline of Neutrality 1914±1941: With Special Reference to the United States and the Northern Neutrals,* 2nd edn (London: Frank Cass, 1971), p. 32.
16. Steinmetz, *Bismarck und die deutsche Marine,* p. 32.
17. Quoted in Hollyday, *Bismarck's Rival,* p. 71. Also see Ernest Schröder, *Albrecht von Stosch, der General-Admiral Kaiser Wilhelms I* (Berlin: Verlag Dr Emil Ebering, 1939), *passim,* esp. ch. 4.
18. Quoted in Hollyday, *Bismarck's Rival,* p. 61.
19. Stosch to Gustav Freytag, 31 January 1872, as quoted in ibid., p. 105.
20. Tirpitz, *Erinnerungen,* p. 17.
21. As quoted in Hollyday, *Bismarck's Rival,* p. 100.
22. However, Jachmann remained `commander of all active naval forces', which would have made him commander-in-chief of naval operations in the event of war, and also served as a member of the *Admiralitätsrath* (Admiralty Council) until his retirement in February 1874: Sondhaus, *Preparing for Weltpolitik,* p. 104.
23. Sondhaus, `[a]The Spirit of the Army[o] at Sea', p. 473.
24. One of the newspapers Freytag controlled was the *Hamburger Börsenhalle,* which had been used by Rickmers for his pro-colonial articles.
25. Stosch to Freytag, 24 October 1871, as quoted in Walther Hubatsch, *Der Admiralstab und die Obersten Marinebehörden in Deutschland, 1848±1945* (Frankfurt am Main: Verlag für Wehrwesen Bernard & Graefe, 1958), p. 36.
26. Stosch to Freytag, 3 December 1871, in Stosch, ed., *Denkwürdigkeiten des Generals und Admirals Albrecht von Stosch,* p. 272.
27. Sondhaus, *Preparing for Weltpolitik,* p. 86.
28. Freytag to Stosch, 4/5 December 1871, *Gustav Freytags Briefe an Albrecht von Stosch,* ed. Hans F.Helmott (Stuttgart and Berlin: Verlags-Anstalt, 1913), pp. 82±3.
29. Ibid., p. 84.
30. Freytag to Stosch, 13 December 1871, ibid., p. 85.
31. Ibid., p. 86. The word omitted, as indicated by the ellipses, was `Bulldogs'; there is no satisfactory translation of the word, and it has been inferred that Freytag was referring to a type of warship.
32. Freytag had long held liberal and nationalist sympathies of his own. In 1855, he wrote a novel, *Soll und Haben [Debit and Credit],* which was `above all, a Liberal National manifesto': T.E.Carter, `Freytag's *Soll und Haben:* a Liberal National Manifesto as a Best-Seller', *German Life and Letters,* 21/4 (1968), pp. 320±9.
33. Hollyday, *Bismarck's Rival,* p. 106.
34. Schröder, *Albrecht von Stosch,* p. 66.
35. As quoted in Ulrich von Hassell, *Tirpitz. Sein Leben und Wirken mit Berücksichtigung seiner Beziehungen zu Albrecht von Stosch* (Stuttgart: Chr. Belsersche, 1920), p. 24.
36. As quoted in Wolfgang Petter, `Die überseeische Stützpunktpolitik der preußischdeutschen Kriegsmarine 1859±1883', unpublished PhD dissertation, University of Freiburg, 1975, p. 211.
37. BA-MA, N253/408, a typed three-page memorandum on the early years of the navy, author and date unknown.
38. BA-MA, RM1/867, Adalbert to Stosch, 20 April 1872.
39. BA-MA, RM1/867, `Flotten-Stationen', 20 April 1872.
40. Ibid.

41. Ibid.
42. Ibid.
43. Ibid.; emphasis in original.
44. Petter, `Die überseeische Stützpunktpolitik', pp. 206±7.
45. Verchau, `Von Jachmann über Stosch und Caprivi', p. 61.
46. Petter, `Die überseeische Stützpunktpolitik', pp. 207±8, quoting from Stosch's memorandum of 6 May 1872.
47. Ibid., p. 208, which says the opposition to large ships was unanimous, but see below for the dissenting arguments of Count Münster.
48. SBVR, 1. Legislatur-Periode, III. Session, 29. Sitzung XXIV, 27 May 1872, p. 555.
49. Ibid., p. 555.
50. Ibid., p. 556. George Rose Sartorius (1790±1885) was Admiral of the Fleet in the Royal Navy, and was known as the `father of the ram' for his championing the use of the ram as a weapon of war in the steam-powered navy. See Stanley Sandler, *The Emergence of the Modern Capital Ship* (Newark, NJ: University of Delaware Press, 1979), pp. 130±3. I am indebted to Dr Sandler and the members of H-War for this information.
51. SBVR, 1. Legislatur-Periode, III. Session, 29. Sitzung XXIV, 27 May 1872, p. 556.
52. Ibid., p. 556.
53. Ibid., p. 557. The first recorded instance of one warship attacking another with a self-propelled torpedo was in 1877 when the unarmoured cruiser HMS *Shah* launched a Whitehead at the Peruvian armoured turret ship *Huascar;* the first successful torpedo attack did not occur until later that year in the Russo-Turkish War: Bernard Brodie, *Sea Power in the Machine Age* (Princeton, NJ: Princeton University Press, 1941), p. 275 and n. 24.
54. SBVR, 1. Legislatur-Periode, III. Session, 29. Sitzung XXIV, 27 May 1872, p. 557.
55. Ibid., p. 559. Also see Sondhaus, *Preparing for Weltpolitik,* p. 108. Those cheers would have been from both conservative pro-army and left-leaning anti-military factions, united only in their insistence on the smallest possible naval budgets.
56. Brysch, *Marinepolitik,* pp. 267±8.
57. Hollyday, *Bismarck's Rival,* p. 116.
58. For opposition to overseas naval stations in the 1872 debate from a proponent of freedom of the seas in the 1868 debate, Dr Rudolf Schleiden, see Petter, `Die überseeische Stützpunktpolitik', pp. 209±10.
59. Hollyday, *Bismarck's Rival,* pp. 103±4, who also maintains that neither Adalbert nor Jachmann would have approved of Stosch's ultimate plans of subordinating the navy to the army.
60. Tirpitz, *Erinnerungen,* p. 16.
61. Sondhaus, *Preparing for Weltpolitik,* pp. 107±8, and `ªThe Spirit of the Armyº at Sea', pp. 476±7; Tirpitz, *Erinnerungen,* p. 17.
62. The next country to do so was the United States, with the founding of the Naval War College in the mid-1880s. Rolf Hobson, *The German School of Naval Thought and the Origins of the Tirpitz Plan 1875±1900* (Oslo: Institutt for Forsvarsstudier, 1996), pp. 16±17, points out that most studies of naval history incorrectly identify the USNWC as the first school for naval officer training.

63. A much more thorough examination of the *Marineakademie* and its role in the formation of both a `Prussian' and a `German' school of naval thought has been undertaken by Rolf Hobson in his doctoral thesis, a pre-examination copy of which he has generously provided: `Imperialism at Sea: Naval Strategic Thought, the Ideology of Sea Power and the Tirpitz Plan, 1875±1914', unpublished PhD dissertation, Norges teknisknaturvitenskapelige universitet, Trondheim [NTNU, formerly the University of Trondheim], 1999, *passim,* esp. chs 3 and 5.
64. Sondhaus, *Preparing for Weltpolitik,* pp. 104±8; Tirpitz, *Erinnerungen,* p. 16.
65. Steinmetz, *Bismarck und die deutsche Marine,* pp. 33±4.

6
DIVERSE FORTUNES
The navy under Stosch, 1873±83

As part of the greater world presence of Germany, the navy was called upon increasingly to play a role in international diplomacy. Coupled with the importance of its duties as a guarantor of German overseas trade interests, this meant that a large segment of the navy's resources were stationed in foreign waters on a fulltime basis. Consequently, the majority of the navy's warships were designed for long-range cruising in both shallow waters and the high seas. This meant that, by default, the navy acquired the kind of fleet needed for commerce-raiding. Furthermore, it meant that German warships, scattered as they were across the globe, could make war upon a European enemy's merchant marine at any point.

This was not the declared strategy of the navy in the event of war, but was one that was in place *de facto*. Until now, the navy had not applied a coherent and consistent strategy to any of its campaigns at sea, hampered as it was by significant inferiority against both Denmark and France. This situation had produced a navy which received little political support, was often overworked and was under-appreciated.

After a year of becoming accustomed to his new position, Stosch was ready to make changes. The evaluations he carried out in 1872 led him to the conclusion that the Imperial German Navy was incapable of meeting the goals set out in the construction programme of 1867. The result was the creation of a new *Flottengründungsplan* in 1873, one which established the German navy as a power of the second rank, not seeking to challenge for mastery of the seas, but capable of upholding the honour of the empire. The 1873 *Flottengründungsplan* was a comprehensive policy for the navy which included a revised construction schedule for new vessels, the creation of first-rate naval yards and works, and a set of strategic goals for the navy in the event of another war, namely the coastal defence of Germany. Furthermore, through the sheer size and complexity of the new construction orders and Stosch's insistence on domestic manufacture wherever possible, the *Flottengründungsplan* gave a strong impetus to the then insignificant German shipbuilding industry.

The 1873 *Flottengründungsplan* is often compared and contrasted with the later Naval Laws of Tirpitz because of their shared clarity and sense of purpose. The 1873 plan was smaller in overall scope and ambition in comparison to

the `Tirpitz Plan'; but considering the size of the German navy and the general attitude towards it after the débâcle of the Franco-Prussian War, its achievements were no less remarkable. Nevertheless, the *Flottengründungsplan* was not as great an accomplishment for the long-term future of the navy as some have portrayed itÐin no small measure due to the contradiction it created between the demands of defence in home waters and an emphasis on lighter cruising vessels. This choice of ship might have been practical for overseas peacetime duties, but it also fanned the flames of hope for those who continued to advocate a policy of obtaining overseas bases for a projected *guerre de course*. Stosch's strong but futile advocacy of a German colonial policy was further encouragement to this group.

The rest of Stosch's tenure as *Chef der Admiralität* was neither as fruitful nor as harmonious as his brief honeymoon. There was never much relief in the tension between Stosch and some of his more restless subordinates. Worse still, the quiet resentment that had been building in his relationship with Bismarck reached breaking-point, causing Stosch's attention to be drawn away from his duties, and making support for the navy questionable in Bismarck's eyes. The Chancellor would continue to use the navy as a political and diplomatic tool, but he would jealously guard against allowing too much credit to go to his perceived rival.

While the constant need for cruisers overseas provided experience to many of the junior officers who would one day lead the navy, it also had several drawbacks. Men and machines were driven to breaking-point and beyond; but most officers learned only about sailing in single ships or in small squadrons. The study of battle tactics was ignored, being reduced to little more than evolutionsÐpretty parade-ground manoeuvres of three or four vessels assuming an interesting if hardly battle-capable formation. This incapacity to think on a larger scale, coupled with Stosch's inability to distinguish between the time it took to mobilize an army and a navy, led to a horrific tragedy with far-reaching consequences. The *Großer Kurfürst* disaster of 1878 would worsen the already-strained relationship between Stosch and Bismarck, would create new and deeper rifts in the officer corps, and would sour the one remaining positive element of Stosch's tenureÐhis working relationship with the Reichstag. The final five years of the Stosch era would see no progress in construction and only marginal advances in operations planning, brought on solely at the instigation of the army. The organizational fire was quenched long before Stosch's resignation in 1883.

The 1873 *Flottengründungsplam:* a new start

During 1872, as part of Stosch's efforts to familiarize himself with his new position, he examined the progress of the navy in meeting the construction goals set out in the 1867 *Flottengründungsplan*. What he saw, he could not ignore. The navy would have to build five more armoured warships and another eight

unarmoured corvettes within the next five years to meet the goals of the 1867 plan, a task that simply was beyond its meagre means. Furthermore, thanks to both overseas peacetime political duties and the extraordinary expenses of the Franco-Prussian War, the navy had overspent its budget every year since 1867. There would be no room for further extraordinary expenditures even to catch up on lagging construction, especially with construction costs increasing annually.[1]

Stosch's solution to creating a suitable navy was to bring its operational policies in line with army needs, while building smaller and less complex and less expensive ships. As seen by the army, the operational parameters of the navy were straightforward: protection of the sea-coasts from amphibious assault, hindering the institution of a close blockade by the enemy, and preventing enemy bombardment of coastal towns.[2] Stosch took this to mean the navy's tasks were defensive in nature, and decided to plan on building such a fleet. In November 1872, Stosch wrote to Bismarck: `the fleet should ªnot¼have the task to proceed offensively against the great European states, but¼extendour power only where we have to represent lesser interests and where we cannot otherwise bring to bear the actual power of our state, our power on landº.' In the margin, Bismarck noted: `We must surpass all sea powers of the second rank.'[3] The Chancellor's agreement was motivated far less by military than political concerns; while he saw no need to antagonize the nations who were of the first rank in naval power (and he would define those countries as France and Great Britain), he wanted a fleet adequate to serve his political needs overseas where a measure of parity could be kept with other navies. Such strength would allow the Chancellor to engage in a measure of power politics by playing the two great naval powers off each other.[4]

The new *Flottengründungsplan* would also reflect the changing moods among naval designers and theorists. Based upon new technology and the events of the most recent naval wars (the American Civil War, the Seven Weeks' War, the Franco-Prussian War and various conflicts in South America), it appeared likely that the Reichstag was correct in its negative assessment of the future of the `armoured Colossus'. The weapons of the future at sea appeared to be the ram, the gunboat and the torpedo, all capable of being carried by smaller ships. Heavy and costly armour plating could be punctured by rams, smashed by gunfire or pierced below the waterline by an inexpensive torpedo. Furthermore, it was virtually impossible to build a class of ships, several vessels identical in design, because of the constant need to incorporate the latest advances. The most modern of designs were often obsolete by the time they slid down the slips and into the water, thanks to constant breakthroughs in propulsion, armour or armament. It was permissible for a ship to be stationed overseas to be somewhat behind in technology since no nation sent its front-line warships to East Asia or Africa and none of the local countries as yet possessed first-rate warships of their own; however, to deploy such a ship in European waters was to invite disaster. Consequently, many observers believed, and with much apparent justification, that the capital ship was obsolete.[5]

During the winter of 1872±73, Stosch and his staff prepared a new policy for the navy, one which would combine the roles the army expected it to play and Stosch's additional policy of providing commerce protection, with a plan of construction to meet the increasing demands for ships.[6] The final draft was presented to the Reichstag in April 1873. The document, `Memorandum Concerning the Development of the Imperial Navy and the Material and Financial Requirements Resulting from It', was a summary of the policy of the navy in future wars, the intended programme of construction of both seagoing vessels and fixed coastal defences, and the resultant costs of this programme.[7] The very first paragraph contained a concise summary of the demands placed on the navy since 1867: `1) protection and representation of maritime trade on all seas; 2) defence of the Fatherland's coasts; 3) development of an offensive plan.' However, these additional demands had increased the necessary expenditures by some 35 million thalers over what the Federal Parliament of 1867 had approved. Most of that price increase resulted from technological developments and the increased role Germany now played overseas.[8]

The memorandum then analysed the changes that had impacted upon each of the three points. Overseas duties had grown commensurate to the influence of three factors: German maritime trade had increased in importance; Germans living overseas, who previously had relied on other powers for protection (most often Great Britain), were now demanding to be given their rights due to them as citizens of the German Reich; and `the maritime development of Germany draws ever greater attention from the other maritime states of Europe, which until now had controlled the seas alone'. Even in 1873, there is a brief hint of a naval rivalry with England.[9] These demands for protection, from Fiji to Liberia, from East Asia to South America, strained the navy's resources, both in available ships and in crews to man them. This point was put to the Reichstag in such a way as to make it appear that the navy's well-being was indispensable to the ever-continuing expansion of the German merchant marine:

> If the German navy wants thus to resolve its peacetime maritime tasks as effectively as it did in 1867, then it must increase not only the number of its ever-busy ships but also its personnel; furthermore, it must also make the procurement of the latter more independent of the needs of the merchant marine; and finally, must extend knowledge of the seas. Only the navy can form the scientific trunk around which great shipping can climb up strongly.[10]

The memorandum decided to consider the question of coastal defence in light of some of the potential requirements for offensive action. On the one hand, much of Germany's fleet would be scattered across the globe, serving the interests of German international commerce; on the other hand, Germany had a much shorter coastline to protect than did her potential opponents in a European conflict. Thus, Stosch proposed to compare the naval budgets of the other European

maritime powers to determine what would be a reasonable assessment of Germany's needs. Furthermore, as much of the German coastline was considered impassable to hostile landing operations, the memorandum suggested that fixed coastal defences could be limited to built-up areas.[11]

The memorandum betrayed its origins in army thinking when it discussed the effectiveness of battle at sea:

> Germany can and must leave the offensive effort in a great war to its army. One may not forget one point in comparison between land and naval warfare: each hostile village which is taken in possession is a concrete success; a conquered ship is only noted when the results of the war are tallied. A conquered fortress secures the conquest of a province. The removal of an entire hostile fleet grants at most the means to begin a conquest.[12]

The investment required to produce a fleet large enough to eliminate an enemy fleet was prohibitive, so it was decided to subordinate the navy's needs to the army. Furthermore, because the navy by itself could not guarantee victory, it was not deemed worthy of serious consideration. Only the army, by physically seizing the enemy's territory and strongholds, could produce the final victory. This was a familiar argument to many and seemed to make even more sense in Germany, where the army was both the hero of Sedan and the bulwark against the threat from the Gaul to the west and the Slav to the east.

However, the question of naval strength was tied in with other requirements, and to Stosch the only other interest which mattered was coastal defence. To that end, it was decided that the most effective method of providing coastal defence was through the use of `offensive and defensive torpedoes', that is propelled or guided torpedoes and static mines. The memorandum acknowledged freely that the idea was not original, that it had been borrowed from American naval defence planners, and was the method the United States would have employed in the event of a war with Great Britain during the period of tension between those two powers in the latter half of the 1860s: `Besides torpedoes, [coastal defence] would need both floating and land batteries to provide support to local defence, and finally some larger ships (sortie ships) to hold the paths open for our coastal trade and to make the blockade of our ports as difficult as possible.'[13]

Nevertheless, Stosch remained concerned about the prospects of defending against a blockade. The only available means for countering an effective enemy blockade would be a fleet at least as strong as that of the foe. Here, Stosch was willing to concede the necessity of `large battleships' to harass an enemy in the Heligoland Bight. However, defending the Baltic would be even more difficult, due to the shallow ports and open nature of the waters surrounding most of them. The shallows meant that true battleships would be useless, and that a compromise on shallow-draught vessels would need to be made. As for the development of an offensive plan:

> The third [requirement] already raised in 1867, namely the development of the offensive capability of the German fleet, has already been characterized above; according to the plan now under consideration, it does not have the task to proceed offensively against the large European states but rather to carry our power only to where we have smaller interests to represent and where we cannot in any other way bring to bear the true power of our state, the land forces. We must have the means to be able to intervene protectively where our German interests have been illegitimately harmed, such as easily occurs in those states where the passions of the individuals are greater than the power and the reason of the state.[14]

Some strength at sea was desirable, but it would be the strength of being available on the spot, around the world, wherever German interests were directly affected. It was not the idea in 1873, as it would be in 1897, that German strength on the high seas was to be judged according to German strength in home waters in the event of a European war.[15] Where the memorandum spoke of the German ability to go on the offensive, it was not the same as having a large battle fleet: `Our offensive will thus consist of attacks against flotillas and against coastal forts in more or less distant waters. This offensive thus requires a number of strong and good seagoing battleships *[Schlachtschiffe].*'[16] Such a war would be fought against three- or four-ship cruising squadrons and against fortified *Stützpunkte,* not against the full might of the Royal Navy or *la Marine*.

Furthermore, where the memorandum uses the word `battleships', it does not mean armoured behemoths, merely ships capable of engaging in sea-battle. This is made clearer in the next paragraph:

> The question of how we protect our merchant fleet in the case of a European war is not answered because, in the case of a war with the great sea powers, the German navy is not in the position to satisfy this task; only indirectly by means of our land power can this take place. The German navy will then be given only the responsibility which lies in its strength, in order to contribute its small portion to the decision. It will have to see what it can do with those ships which are intended for functions in distant areas, as indicated above, and with those which we have as sortie ships for our coastal defence.[17]

In short, the German navy under Stosch was to serve as an auxiliary to the army, and was `simply another arm of a rational system of national defence'. By spending money on fixed coastal defences, Stosch sought to prevent a successful enemy attack from the sea long enough for his sortie ships and torpedo-boats to gather and for the army to rush troops by rail to the threatened area. This was an extension of the system of defence set up by Moltke throughout Germany, using a series of fixed strongholds linked by railways to move armies while the enemy advance would be slowed by harassing cavalry attacks.[18] Thus, Stosch's

concentration on coastal defence and shallow-draught vessels made perfect sense when integrated within an overall sphere of German territorial defence.

However, defence of German interests no longer meant concentrating solely on defence of the Fatherland. The defence of German interests overseas was to be left to the cruising vessels on station in those areas most in need of a regular presence, even though Stosch had already concluded that it would be unlikely that they would be capable of carrying out this task in war. Although this meant, in theory, that commerce protection was the most important facet of the navy's duties, German honour would demand a more active role in the prosecution of the war effort, most likely through commerce destruction:[19] `[The navy must possess] a large number of corvettes, which are stationed partly in those waters where German interests are concentrated and are put in the greatest question, accompanied by gunboats so that shallow waters, too, may be patrolled; and partly at the great coastal and commercial centres of the world, where Germans live in small or great numbers.'[20]

Finally, the 1873 *Flottengründungsplan* was a scaling back of the greater ambitions of the 1867 plan. The total number of ships to be built was to be reduced to two-thirds of that requested in the earlier plan.[21] The majority of these reductions came from the total of large armoured warships which had been scheduled to be built. The need for cruising corvettes would outweigh the need for large armoured warships, and the allocation of construction funds reflected the new reality in the Admiralty.

Before debate was scheduled to take place on the naval estimates, Stosch prepared his groundwork. In early May he wrote to his friend Freytag:

> I enclose herewith a copy of the so-called plan for the foundation of the fleet. If you will write about it, I will leave the handling of the matter up to you entirely. I would like to hear new and independent points of view before I enter upon the parliamentary battle. Before the end of the month, I am going to try my hand at bribery and conduct the Reichstag around Wilhelmshaven and entertain it. Many of the gentlemen do not know what water is at all, not to mention a warship. Otherwise the Reichstag is very industrious and fulfils all the expectations of the Government.[22]

Stosch had decided to take Freytag's advice when he had first accepted the position; he let Freytag handle the news aspects of the *Flottengründungsplan* while he took it upon himself to gain favour with the Reichstag. This step might seem unusual, since the Reichstag was not required formally to approve the plan; however, shortly after his letter to Freytag, Stosch did indeed entertain several Reichstag delegates, including the usually intractable leader of the Progressive Party, Eugen Richter, at Wilhelmshaven.[23] When the *Flottengründungsplan* was presented in the Reichstag it was a success for Stosch, in that there was virtually no criticism of the navy or of its plan during the two-day budget debate on 26±27 May. The sole comment of significance came from Friedrich Harkort,

who repeated his sentiment of a year before that `German naval development should wait until technical advances become clear'.[24] Considering the pace of technological development at the time and for the next quarter-century, Harkort's advice, if taken, would have been the equivalent of a full stop in German naval construction for a generation.

Overall, the 1873 *Flottengründungsplan* was responsible for several important steps in the development of the German navy. First, it established a regular construction programme for the navy. Over the 10-year period from 1873 to 1883, the navy was to increase tremendously in size to become the third largest in the world, at a cost of some 219 million marks, with a quarter of that money coming from the French indemnity fund.[25] Dockyard facilities would be improved, including the construction of drydocks at Kiel and Wilhelmshaven which would be large enough to accommodate the largest German warships; until then, large German warships had been forced to use British drydocks for extensive repairs. Stosch's plan created the infrastructure necessary for self-maintenance.[26] Also, because Stosch preferred to award contracts to German firms, the German shipbuilding, armour and armaments industries began to develop the technical expertise necessary for the manufacture of warships. Finally, Stosch promoted the protection and expansion of German overseas trade even beyond the level thought adequate by the majority of people, and this was an additional boost to German commerce.[27]

This commercial impetus stemmed, in no small part, from Stosch's wish to create a Ministry of Commerce with himself at its head. In late December 1873, he wrote to Freytag: `we must represent our maritime interests more strongly in the Empire¼as well as educating our trading captains better. I am fighting for that, and I have the Hanseatic cities on my side.'[28] Indeed, Stosch's dreams of a `Supreme Maritime Authority' were grand, and he viewed himself as becoming more and more an expert on the needs of the merchant marine: `The interests of the merchant marine and Navy never collide and could be combined in one Ministry for a reasonable period¼ I have learned a great deal from the preliminary work [on the naval observatory in Hamburg] and already astonish the landlubbers.'[29] For a man who apologized for his lack of knowledge of the navy less than two years previously, Stosch had certainly come a long way, at least by his own estimate.

However, the *Flottengründungsplan* had a number of drawbacks. The promotion of German seaborne commerce itself could be a liability as well as an asset. During the Reichstag debate in 1872, Dr Rudolf Schleiden of Schleswig-Holstein (who had spoken in favour of the freedom of the seas in 1868) expressed strong opposition towards any attempts by Germany to obtain overseas possessions of any kind. Realizing that he again would encounter stiff opposition to the idea of a German *Stützpunktpolitik,* Stosch chose to say nothing in 1873 about obtaining overseas bases for the German navy.[30] What this meant, in practice, was that the long-range cruising vessels which featured so prominently in the *Flottengründungsplan* had no bases to operate from in the

event of war. Even during peacetime they were dependent upon the goodwill of foreign hosts. Thus, the German navy would construct ships ideally suited for long-range cruiser warfare but the government would refuse to provide those ships with the independent supply bases necessary for a far-flung *guerre de course*.

Furthermore, the German navy was not to have an opportunity to learn to work together as a cohesive unit. The cruising vessels would be on station or running from place to place overseas for much of their careers, and consequently would absorb the majority of active officers and seamen. The annual summer mobilization of reservists would allow for a brief sortie with the larger units, but would provide no proper training in fleet action. The German navy would become a useful political instrument but, aside from the defence of the immediate German coasts, would have been useless in the event of a European war.

Finally, the emphasis on overseas duties and coastal defence stifled the possibilities of true German offensive naval planning. The cruisers would be useless against enemy battleships, and the sortie corvettes would lack the range necessary for attacks in enemy territorial waters.[31] Without the necessary resources, German naval planning was doomed under Stosch to remain as nothing more than an auxiliary wing of the army.[32] The 1873 *Flottengründungsplan* was a step forward in some areas, but because of its emphasis on cruising vessels, it was a step backwards in others. It would take nearly another decade and a half before there would be the opportunity for creativity in the field of naval operations planning in the German navy, or even the need for such creativity.

Too many cooks: the navy and foreign affairs

With the unification of the German states in January 1871, the German Empire became a major player on the stage of world politics. This had consequences in both politics and economics. For example, other nations viewed German commercial activities in the South Pacific in a different light because of unification; no longer were merchants from Hamburg, Bremen and Lübeck merely competing traders from different Hanseatic ports: now they were all German merchants, as unified in their economic efforts as the Reich was unified politically.[33]

Furthermore, this increased overseas naval activity contributed to the development of a pro-commerce-raiding mindset in the navy in three areas. First, the warships stationed overseas were the right type of cruising warship necessary for such a campaign. Second, each warship operated with a great deal of independence, in the same manner as it would in case of war. Ships' commanders took a great deal of latitude and responsibility in making decisions, in the same way Raphael Semmes had been forced to in his decisions on American prizes. Third, constant overseas activity led these commanders to form their own opinions on where the best places for possible German *Stützpunkte* could

be found. These bases would be as suitable for their peacetime diplomatic and commercial duties as they would in the event of German cruiser warfare.

The difficulty with analysing this aspect of German naval history lies in the fact that a number of different and equally important elements affected the decisions and actions of the main players. The use of the navy as a political instrument overseas involved the Chancellor (who was also the Foreign Minister *de facto,* if not always *de jure*); the Head of the Admiralty and the Admiralty itself; the Foreign Office and diplomats, consuls and agents on assignment; and the commanding naval officers on station. Each person was motivated by different desires and priorities, many of which conflicted with one another. The fact that Bismarck was anti-colonial and Stosch was pro-colonial was a minor but no less significant element in the dispute which sprang up between the Foreign Office and the navy.

Another factor which added to that conflict was the attitude of naval commanders on overseas assignment. The demands of the Foreign Office put great pressure on ships and crews serving in foreign waters; in turn, those commanders often took it upon themselves to act independently in diplomatic situations. Without modern telecommunications, the man on the spot could take action contrary to the wishes at home of the politicians and bureaucrats. This seemed to occur all too frequently, and Bismarck had no mercy on those naval officers who disrupted his `great political ideas'.[34] What made it all the more difficult for Bismarck was the apparently rampant annexationist tendencies of some commanders; their letters from distant waters constantly painted a glowing picture of their current port of call, and frequently added the hint that such-and-such a port would make a useful addition to the German Empire.[35] Frequently, the Chancellor found himself forced to counter the more public assertions of these captains to dispel rumours which would have an unduly negative impact in Europe. For instance, in 1873 the corvette *Nymphe,* captained by Commander Louis von Blanc, was in the waters of the South Pacific as part of an around-the-world cruise. Statements made by Blanc were repeated in the German press as signs that Germany was about to acquire the Philippines from Spain. Bismarck wrote to Stosch, complaining of the harm Blanc's remarks could cause, and demanded that Stosch take action: `This is why I humbly ask Your Excellency to make the observance of the most careful restraint in political questions a duty for the commanders of His Majesty's ships.'[36] Stosch would duly pass on the Chancellor's censure, but at the same time, he would be supportive of his commanders.[37]

On numerous occasions, the Foreign Office and the navy found themselves in disagreement over the actions of naval officers on foreign station, but the most outstanding example of the hazards of combining military duty and diplomacy occurred, in 1873, during the Carlist War in Spain. The chief victim of these proceedings was Reinhold Werner, a career sailor. Werner had served in the Hamburg merchant marine from 1842 to 1849, then had transferred to the Federal navy in 1849 and the Prussian navy in 1852. Werner's record as an officer was

exemplary; he had served with distinction in the Danish war of 1849 and the Wars of Unification, and had commanded one of the ships on the voyage to East Asia in 1859±62 and written a book about the trip.[38] He was popular within the navy and known to the general public through his writing. He had even written a pamphlet for internal circulation on the subject of naval tactics.[39] However, he did not fit Stosch's concept of the ideal officer, having begun his career in the lowly merchant marine.

In early 1873, the monarchy in Spain was overthrown and a provisional republican government was established. As was traditional, the major European powers dispatched warships to Spanish waters to safeguard their citizens living in Spain and to protect their commercial interests. Werner was appointed to command a squadron of an armoured frigate, a corvette and a gunboat which arrived in the waters off southern Spain in June. The German squadron joined forces with a British patrol; and because Werner was senior in rank to the British commanding officer, he assumed overall command of the combined force. This in itself was not a problem, nor would it have been a problem had the squadron's only duties been patrol and escort. However, supporters of a rebel faction in the Spanish navy seized several ships and commenced the shelling of the city of Cartagena, held by the republican government. One of these ships was an aviso which flew the red flag as its insignia. Under international maritime law, such a vessel was to be regarded as a pirate ship, and Werner's force captured the aviso.[40] Furthermore, the squadron took action against the two rebel warships which had shelled Cartagena, capturing them and returning them to the Spanish government. This prompt action received great acclaim from German nationals in Spain, from the Spanish people and from the German press at home. However, Werner took the brunt of the Chancellor's ire and was recalled immediately.[41]

The difficulty with Werner's position was that he had no specific orders for his situation, as Stosch had not yet drafted instructions for the commanders of overseas squadrons, and consequently Werner was left to act on his own initiative.[42] This made things impossible for him, since the moment Werner took direct action, it appeared to the world that his actions, the direct intervention of the German military in the affairs of a foreign country, were sanctioned by Berlin. The only course Bismarck would have been pleased with would have been for Werner to take no action at all; under the circumstances, Werner considered that option was not possible. Effectively, `a sword of Damocles'[43] hung over the head of any naval commander who involved himself in foreign affairs, and Werner had the misfortune of involving himself in an area of German foreign policy where Bismarck was already under criticism, both at home and abroad. Bismarck's anger led him to call for Werner's court martial. Tirpitz, however, echoed the sentiments of his fellow crewmen when he noted how Werner's initiative had been met with great approval, but the subsequent volte-face by Bismarck had reduced German prestige in Spain.[44]

Stosch was placed in a difficult situation. On the one hand, he believed Werner had exceeded his authority;[45] on the other hand, it was only proper that he protect Werner from the interference of the Foreign Office and the Chancellor. He summed up his situation in a letter to Otto von Holtzendorff, the Attorney-General of the Duchy of Gotha and a close personal friend:

> Naturally I take every step to back [Werner] up, since I must support my officer's thirst for action under all circumstances. But when the Imperial Chancellor says: `Werner has committed a great political error and has acted against instructions', I cannot contradict him. Werner has acted in opposition to orders without any pressing reason and therefore is not to be saved. Bismarck says: `I can give ever so many assurances that we want peace, but I will not be believed or trusted when the German soldier pushes himself forward at every opportunity to make his power felt. Only recall will make my political action possible again.' ÐThe Emperor could not contradict that, but the behaviour of the Navy greatly pleased him. Therefore nothing further will happen to Werner.[46]

Stosch was proven correct, to a degree. Werner was placed before a court martial, which did not conclude until the summer of 1874. The verdict went in the captain's favour, much to Bismarck's displeasure (he had wanted Werner imprisoned for a dozen years) and both the Kaiser's and the Crown Prince's approval. Unfortunately, one consequence of the incident was a deterioration in relations between Stosch and Werner. Although Stosch had spoken in support of Werner, he effectively exiled the captain to commands on land (Director of the Imperial Works at Wilhelmshaven, then Head of the Baltic Naval Station); never again did Werner command a ship or squadron. Werner felt that Stosch had betrayed him, and in consequence held a grudge against his commanding officer. He would be an enemy Stosch would regret making.[47]

The Werner incident was merely one example of a number of instances where naval officers would run afoul of foreign policy by engaging in their own form of diplomacy while stationed overseas. In 1872, Captain Carl Ferdinand Batsch intervened in internal affairs on the island of Haiti without the approval of the local German diplomat or the Foreign Office. After the Haitian government reneged on a promise to pay a claim to a German merchant, Batsch authorized a landing-party to seize compensation. While the action succeeded in prodding Haiti into covering its obligation, Bismarck pressed for Batsch's recall; Stosch opposed the move, and was in turn supported by the Kaiser.[48]

In 1876, Eduard Knorr, the hero of Havana and now a captain, was in Tonga. As part of a treaty negotiation, Knorr attempted to secure permission to build a German coaling-station on the island.[49] At the same time, Bismarck was busy fighting a rearguard action by Stosch and others looking to establish a naval magazine in the Chinese harbour of Amoy. Again, Bismarck was forced to call on Stosch to restrain his captains from making rash pronouncements or

precipitous movements.[50] The Chancellor's frustration led him frequently to remind Stosch of their mutual situation. In a letter on 4 January 1875, he `complained to Stosch very strongly about the fact that he had not succeeded in ªattaini ng a guarantee or even only a prospect of co-operation, to the effect that the political responsibility for political actions of ships' commanders in foreign waters be assured and coveredº'. Bismarck then went on to remind Stosch of the risk the Chancellor was placed in if there was a contradiction between the stated foreign policy of the imperial government and the actions of representatives of that government abroad: `Your Excellency will hardly be able to call me wrong if I carry doubts about taking political responsibility for instructions to warships concerning other countries, as long as I find the direction of the navy not open to the political motives I represent and their enforcement.'[51] In short, Bismarck was not willing to place his political reputation in question because of navy captains acting on their own initiative. Conflicts over how much control the Foreign Office should have over overseas naval expeditions; arguments over which naval matters were functions of command and therefore under the purview of the Kaiser and which were administrative and therefore the responsibility of the Chancellor; and disputes over colonization, were all part of each man's defence of what he perceived as his responsibility.

Many factors led to the deterioration in relations between Stosch and Bismarck, aside from the dispute over control of the navy on overseas political duties. Some of these quarrels included Stosch's attempts to place the merchant marine under the jurisdiction of the Admiralty, Bismarck's continuing opposition to a colonial policy, and the mistrust Bismarck felt towards Stosch because of the *Chef der Admiralität's* perceived closeness to the Crown Prince and the possibility that, following Wilhelm's death, the new Kaiser would appoint Stosch as head of a more liberal ministry. However, all of these issues boiled down to one factor: both men were strong-willed and dominant, and neither tolerated the other's interference in their individual spheres: `[Stosch's] position had been created to give him as much independence as the Constitution allowed and Bismarck would permit.'[52] Furthermore, Bismarck's personal pride was also a factor: `[Stosch] was strong-willed, ambitious, and independentÐqualities that Bismarck did not appreciate.'[53] The pair had their quarrels but, often through the influence of the Kaiser, managed to exist in an uneasy cooperation. That came to an end on 10 March 1877, when the conflict between the pair became public knowledge.

Erosion and disaster

The significance of the *Großer Kurfürst* disaster to cruiser warfare lies not in the event itself, but in both what it represented and what it caused. It was indicative of the navy's lack of preparations for larger sailing formations, which spoke of how much the German navy remained wedded to single-ship operations. It was also the turning-point in Stosch's relations with his senior offi cers.

Stosch had always prided himself on maintaining good relations with the members of the Reichstag, even with those men such as Eugen Richter who were opposed to increased spending on armaments. Thus, when Richter had put forward an amendment to the 1876 estimates for a minor reduction in naval arms expenditures, Stosch had accepted the amendment. Unfortunately, Stosch had been refusing the same request from Bismarck for several months. During the budget debate in the Reichstag on 10 March 1877, Richter made reference to the Admiralty's agreeableness over financial reductions. Bismarck, who was in a foul mood and feeling unappreciated, lashed out in reply in an attack on his own government for late presentation of the budget bill. Bismarck's sense of isolation fuelled his paranoia about the liberal faction in BerlinÐKaiserin Augusta, the Crown Prince and Princess, and their followersÐand he included Stosch in that group (as their perceived favourite on the Chancellor's replacement) in his angry statement. Noting that Richter had succeeded in what he had been unable to achieve, Bismarck commented that he was surprised to find the Reichstag deputy had greater influence over the government than the Chancellor.[54] Stosch, who had left the chamber moments before after being assured that no naval matters would be discussed, was caught by surprise by Bismarck's angry attack which now made the division between the two men public knowledge. Within a few days, Stosch submitted his resignation to the Kaiser who promptly refused it. It was now Bismarck's turn to offer his resignation, which Wilhelm turned down with the marginal note: `Never!'[55] The battle retreated into another uneasy truce, forced upon the pair by the Kaiser's refusal to be parted from either. Wilhelm needed Bismarck to run the nation; he believed Stosch remained the right man to head the Admiralty. However, from this point on, Bismarck yielded nothing to his rival. Stosch was excluded from sessions of the Prussian Cabinet, and his private ambitions for the merchant marine and for colonies were opposed unreservedly by the Chancellor. To Bismarck, Stosch's survival at the Admiralty was a daily reminder of the limitations of his own power.[56]

Fortunately for Stosch, matters quieted down for him after this affair. Bismarck retired to his estates for the next 11 months,[57] and no serious affairs of state troubled the navy. The one significant event the navy was involved in was a demonstration of gunboat diplomacy, German-style, in Nicaragua in March 1878. Reaction to the success of the navy was mixed, as a foreign observer commented:

> It was expected, I suppose, that the hearts of the deputies [of the Reichstag] would swell with patriotic pride at learning that the German fleet is beginning to be known and respected in distant harbours; that a German subject abroad is now the equal of an Englishman, or an American, or a Frenchman. In fact, however, this hope has not been quite realized. There are thoughtful Germans who say, and one of them writes in the *National Zeitung,* that a quarrel with the Republic of Nicaragua offers the

> German fleet few laurels, and that in some respects the Empire cuts rather a sorry figure.[58]

What was not known to most observers was the makeshift nature of this demonstration. Three of the four warships which took part in the operation were called away from other assignments and forced to steam hurriedly to Nicaragua.[59] This was a costly gesture: costly in the use of coal, the wear-and-tear on men and machines, and the loss of those warships from their regular assignments. The suggestion of a `flying squadron', proposed several years earlier as a means of having ships permanently available for short-notice political duties such as this, had been rejected once before by Stosch and would be so again as, in his opinion, too extravagant a measure. Unfortunately, this piecemeal approach adopted by Stosch to the problem of short-notice political needs meant the overseas cruisers were too busy to return home. Few of the experienced officers and crews were available for the annual summer exercises by some of the larger armoured warships.[60] Not being able to practice in larger formations was about to take its toll on the navy.

On the morning of 31 May 1878, a squadron of three armoured warships under the command of Batsch, now Rear-Admiral and Chief of Staff of the Admiralty, was sailing west through the English Channel (Figure 1). The three ships were part of the annual summer exercise, the one opportunity in the year to train reservists, sail the large armoured warships in the fleet and practise formation evolutions. Command of the fleet was considered a holiday for a senior staff officer and did not go to a senior officer regularly serving afloat.[61] The warships themselves were not in normal active service: the flagship *König Wilhelm,* still the largest ship in the navy, had not been in service since 1875 and before that had been in reserve since the Franco-Prussian War. The newer *Preußen* had been in service since the previous summer, while its sister-ship, the *Großer Kurfürst,* had just been commissioned on 6 May. When the latter had left Wilhelmshaven on 29 May, there remained on board a number of workmen labouring to complete the final installation of the boilers, engines and rudder.[62]

The three ships were practising various formations on that clear morning, and had assumed a *Doppelkiellinie* formation. Two merchant vessels appeared on a collision course with the warships, prompting the flag officer of the watch to order his three warships to turn away to starboard. When the vessels turned, the *Großer Kurfürst* began her turn much later than the other ships, and it was also discovered that the *Großer Kurfürst* had a much greater turning radius than the *König Wilhelm,* a fact that had not yet been made clear in the few opportunities there had been to work with the new ship.

A collision between the two ships seemed imminent, yet could have been avoided had it not been for the confusing and contradictory instructions given to the *König Wilhelm'*s helmsman by the officer of the watch. Instead, the collision tore a huge gash in the *Großer Kurfürst'*s port side, sinking her in 15 minutes with the loss of 276 officers and men, over half the ship's complement. It was

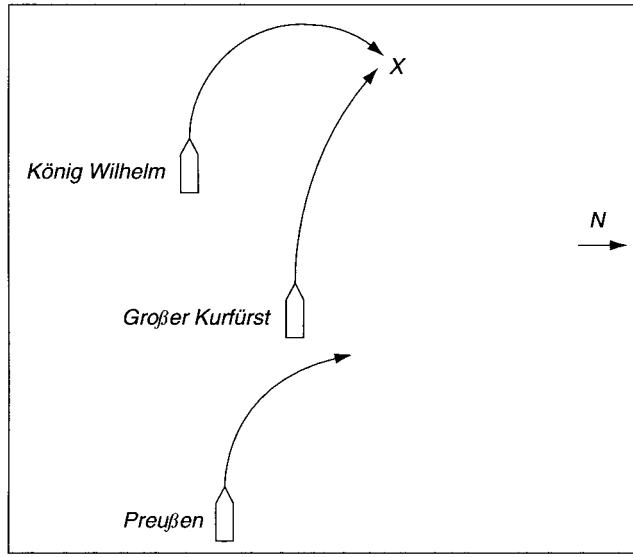

Figure 1 The *Großer Kurfürst* disaster, 31 May 1878. Figure based on a hand-drawn diagram included in Knorr's account of the incident. BA-MA, N578/9, Nachlass Knorr.

the greatest disaster in peacetime German naval history.[63] Had the loss of the *Großer Kurfürst* occurred at any other time, it would have been significant news in Germany and might have cost Stosch his post. Instead, the summer of 1878 was an extremely active time in German history: there were two assassination attempts on the Kaiser; Bismarck tried to pass an anti-socialist law and, when that failed, he dissolved the Reichstag and called an election. Meanwhile, the statesmen of Europe had gathered in the capital for the Congress of Berlin, hoping to settle the ongoing international crisis in the Balkans. Stosch was left on his own to settle the affair.

Unfortunately, Stosch had a vested interest in seeing the inquiry produce a specific verdict. Batsch was Stosch's protégé and his hand-picked successor-in-waiting, and the *Chef der Admiralität* feared that Batsch `will bear most of the burden of guilt'.[64] As commanding officer of the squadron, Batsch was technically responsible for the events of his command, even when he was off-duty, as he had been at the time of the collision. Nevertheless, Stosch was determined not to appear to play favourites, and the appropriate commission of investigation was established, chaired by the chief of the Baltic naval station, Rear-Admiral Reinhold Werner. The report of the commission was submitted on 21 July, and it was everything Stosch feared it would be. The commission noted that Captain Alexander Count von Monts de Mazin, captain of the *Großer Kurfürst,* had reported to Batsch that he and his crew had had insufficient time to familiarize themselves with the new warship and its peculiarities. This fault could be traced back beyond Batsch to Stosch himself; in his zeal to prepare the

navy for a future war, the Head of the Admiralty insisted that warships should be mobilized in the same time it took to mobilize an army regiment, as little as three days.[65] Furthermore, because of the unfamiliarity of men and ships, conducting close formation manoeuvres was deemed an unnecessary risk by the commission. Finally, the commission disproved Batsch's contention that the *Großer Kurfürst* had been out of position, and consequently solely responsible for the accident. The commission's summation was terse and significant: `Rear-Admiral Batsch bears the responsibility for the mishap.'[66]

Stosch could have accepted the commission's report under normal circumstances, but he felt that he had been done a grave injustice by Werner's handling of the inquest. Werner had allowed the witnesses through their testimony to criticize Stosch and his system of mobilization. Monts himself had been most vocal in his objections. This attack was picked up by the press and members of the Reichstag. At first, Stosch considered resigning, but he decided to fight on. Rejecting Werner's report and praising Batsch's service record, Stosch asked for official courts martial for Batsch, Monts and the flag-captain and the officer of the watch on the *König Wilhelm*. Through this, he expected to have Batsch cleared and Monts proven to be at fault. At the same time, Stosch also launched a counter-attack against Werner, hoping to drive him into retirement. This succeeded, and Werner submitted his resignation in October.

The attacks on Stosch outside the navy continued. On 13 September, a lengthy debate was held in the Reichstag on the topic of the disaster. Stosch was criticized for failing to convoke an Admiralty Council earlier in his tenure to receive guidance from his senior officers, and in general for ignoring expert opinion on the lengthy requirements of outfitting a warship for duty.[67] The *Chef der Admiralität* continued to believe all his critics were only disgruntled naval officers. This was true of one anonymous source. An article printed in the September 1878 *Deutsche Revue* and written by a `former sea officer' provided a scathing criticism of the Stosch system. This author was none other than Jachmann, still bitter at his forced retirement. He spared no criticism of the strain Stosch had placed on the navy, claiming that Stosch's drills were no substitute for experience.[68]

Stosch stood by his decisions, however, and in a letter to Freytag he maintained that it was these same older officers who were retarding the development of the navy: `they must die so the navy can develop. The gentlemen have not only learned nothing, but they have no experience.' He went on to write that it was their experience with only gunboats and sailing ships which prevented them from being effective officers.[69]

Stosch's criticisms of his senior officers were on the mark, but so were their criticisms of his system. On the one hand, without learning how to sail large warships in formation, senior officers would be unable to conduct operations in home waters in the event of war; on the other hand, ships were constantly on duty overseas, and to save money the larger warships designed for use in European waters were laid up, crewed only during the summer months. Those

exercises were an accident waiting to happen; the crews were recruits and reservists doing their compulsory military service, and the senior officers were normally those who served on Stosch's staff in Berlin and had no other recent seagoing experience. All this, combined with a warship such as the *Großer Kurfürst,* a new and untested vessel, made such an accident more and more likely. Stosch's origins as an army officer had never been lost on the naval officers; his Prussian army uniform, which he had been obliged to wear on board ships until he was given an admiral's rank in 1875, had led to ridicule and terms of derision. Such epithets as `old boatman' and `landlubber' were commonly applied to the ersatz admiral dressed in plumed helmet and spurs.[70]

The subsequent courts martial became another running sore in relations between Stosch and his officer corps. Due to the necessity of having officers senior or equivalent in rank to Batsch serve on his court martial, the tribunal consisted of a major-general and two retired admirals, one of them Jachmann, who had not disclosed his bias or his authorship of the anonymous anti-Stosch article. The court martial unearthed even more evidence against the Stosch system and continued to hold Batsch responsible for the accident. Stosch appealed the verdict to the Kaiser, and a second court martial was held, now under the army's auspices. This time, the verdict was in favour of Batsch and against Monts, but Wilhelm refused to implement the sentences, necessitating a third court martial. This one cleared Monts and blamed Batsch, sentencing him to six months' imprisonment (he eventually served two months' detention in an army fortress). Stosch had Monts hauled before a fourth court martial for losing his ship, but the captain was once more acquitted. For a little more than a year, the navy had been forced to air its dirty linen in public. Stosch submitted his resignation several times to Wilhelm, but was refused each time.

The *Großer Kurfürst* affair is illustrative of two factors: Stosch's inability to differentiate between the army's practice of instant mobilization and the necessary lengthy preparation to mobilize a large mechanical device such as a battleship, and the senior officers' lack of practice with any sort of formation sailing. Both conditions were far more consonant with small navies with single tasks, such as coastal defence, than with a multi-purpose battle fleet. As a result of this disaster, Stosch suffered an irreparable breach in relations with his officers and, worse still, lost the respect of a large segment of the Reichstag deputies. Consequently, naval expenditures fell by nearly one-third during the final five years of his tenure.[71]

Thinking about war: tactics and operations planning

Despite the basic guidelines of the 1873 *Flottengründungsplan,* the necessity still existed for the German navy to devise means of fighting a naval war. The basic strategy was to act as the army's seagoing auxiliary and defend the coasts, but the methods of conducting that defence remained open, subject to the limitations of construction.

One of the cheaper means of defence was the use of torpedoes. During this era, the final division between passive defences, such as mines, and guided or self-propelled offensive weapons, such as torpedoes, occurred. The German navy was interested in the new self-propelled torpedo, and Stosch was instrumental in founding the torpedo arm of the German navy. This was perhaps Stosch's true legacy to the navy's future, as the brightest tactical and strategic mind of the next generation of German naval officers, Tirpitz, made his early career here.

There had been interest in Germany in the experimental Whitehead torpedoes as far back as 1869, but the first purchase of these new weapons was not made until 1873.[72] In order to evaluate them more effectively, Stosch founded the Torpedo Experiment Commission, headed by Monts, who also ordered a torpedo vessel from England to test launching. The navy soon learned torpedoes could be of value; and by late 1876, Stosch ordered that `all torpedo material' be excluded from the tour itinerary of visiting foreign officials.[73]

However, the torpedo was one of the new weapons which was having an adverse effect on the study of battle in all navies at this time. Thanks to the mixture of old and new technologies, coupled with the confusing experiences of recent wars, battle tactics were unfocused. It was as if the marvel of new technology, the ironclad, had eliminated the need for any study of how to fight.[74] Common sense vanished in the face of industrial progress. As an example, thanks to the influence of theorists such as Admiral Sartorius, British warships in the 1870s, built with unarmoured ends and heavy guns on the broadsides, were expected to attack by ramming their enemy. Theorists could not agree on whether naval battle, thanks to armour and steam power, would remain a traditional line-of-battle artillery duel or devolve into a confused ram mêlée in the style of the battle of Lissa. Worse still for naval hierarchies, if the future of naval warfare was the mêlée, that meant that commanding admirals would rapidly lose control of the battle, each individual ship's captain having to make on-the-spot decisions.[75]

It is impossible to overemphasize the fascination held by naval officers for the ram as a weapon of naval warfare in the 1860s and 1870s. No less an authority than Philip Colomb wrote in 1865 that the ram was the ultimate weapon. Even the young Commander John Fisher, the future First Lord of the Admiralty and father of the dreadnought, felt that the ram would play a significant role in naval battles.[76] The Royal Navy was held in thrall by the weapon, viewing it as an irresistible combination of the sturdiness of the iron hull and the manoeuvrability of steam power. Consequently, as far back as 1868, the Admiralty provided detailed instructions on ramming procedures. The British were not alone in this mania. In Russia, Admiral Gegorie Boutakov held regular ramming practices for his ships in 1868 by attaching bumpers to the vessels. He would demote ships' captains who failed to prevent their ships from being rammed during these exercises.[77]

The study of tactics in the German navy reflected this confusion, which was amplified by the navy's lack of experience in formation sailing and fighting. Early tracts by naval officers dwelt more on basic formations, and were more

about evolutions than true tactics.[78] The treatise by Werner tried to develop formations which would allow for easy manoeuvrability and retain the commanding admiral's control in battle. Werner devised five formations he thought would be most useful: the column (line ahead for four ships), the front (line abreast but for two ships only), the *Carré* (four ships in a diamond), the wedge (for three or four ships) and the *Gruppe* (a diagonal with a single ship in the lead, another formation for three or four ships).[79] All of these formations were for small squadrons, not for larger battle fleets. The spread formations such as the wedge or the *Gruppe* also allowed for maximum deployment of whatever weapons were available to the commanding admiral, whether it be artillery, torpedoes or the ram. (In fact, the wedge formation was identical to the *peloton* (`platoon') formation, first advocated by the French in the late 1860s and later adopted by the Royal Navy for its concentration of fire, ease of movement, ability to meet the enemy from any direction, and a clear field of fire for the bow guns.[80])

All of this effort meant that the German navy was no clearer on how to fight a fleet engagement than any other navy. However, given the size of the German fleet, and the fact that the majority of ships were constantly overseas, it was very difficult for the navy to find an opportunity to practise even the basic evolutions, let alone battle tactics. Furthermore, most naval officers were disinclined to study battle tactics, feeling that the consequent mêlée would make each and every battle unique, requiring a well-handled ship more than a knowledge of fighting.

The ability to control a fleet during battle was even more limited. The German navy currently had only two choices for commands to signal to the squadron in battle: `Go at the enemy' *[Ran an den Feind]* and `Battle' *[Gefecht],* a painfully small choice of commands in comparison to the signalling systems in place in other navies. There was no ability to control a fleet while in a battle situation, thus guaranteeing both the creation of a mêlée and the devolution of control to individual ships' captains. After the first volley, the commanding admiral would be reduced to the role of cheerleader. There was no ability to recall the fleet, to amend formations or to make specific suggestions to portions of the fleet. Individual initiative, the hallmark of the old `rough-and-ready sea dog', would take precedence over any tactical thought.[81]

Fortunately for the German study of tactics, a fortuitous combination was about to arise. On 1 July 1877, Stosch appointed Tirpitz to be in charge of detonators and warheads in the Torpedo Experiment Commission. While there, the young officer quickly familiarized himself with the workings of the new weapon and, when asked, submitted a memorandum on the subject to Stosch on 12 October. The memorandum was described by Stosch as `exemplary' for its clarity and accuracy.[82] Tirpitz wrote:

> It is characteristic of battle on the open sea that its sole goal is the annihilation of the enemy. Land battle offers other tactical possibilities,

> such as taking terrain, which do not exist in war at sea. Only annihilation can be accounted a success at sea.[83]

Until now, annihilation of enemy forces in sea-battle was practically unheard of. The great naval battles, even decisive victories, had seen few ships sunk in battle. It was not until 1864 and the sinking of the USS *Tecumseh* at the battle of Mobile Bay that the first warship was sunk instantaneously in battle.[84] Many naval experts still thought in terms of boarding and capture.[85]

Tirpitz assessed the various types of torpedoes and concluded that the self-propelled Whitehead offered the best chance of success; however, he also noted the weapon's failings, as its technology was new and prone to error. Although Tirpitz was favourably disposed towards the introduction of the torpedo, he believed it would be better for development if it was introduced gradually.[86] Also, he came out in favour of smaller torpedo-boats instead of the larger and slower torpedo warships the Germans were currently using to test the weapon: `This memorandum marked Tirpitz's public debut as a thinking man in a navy where rough-and-ready sea dogs were the norm.'[87]

By May 1878, Tirpitz had become the new head of Torpedo Development. Here, he was able to test torpedoes on a regular basis, and also try the best methods for delivering those weapons. He was also able to make important friends, such as solidifying his position with Stosch. A successful demonstration of the torpedo in 1879 by Tirpitz helped heal a breach in the relationship between Stosch and the Crown Prince, damaged since the *Großer Kurfürst* tragedy; for this, Stosch was grateful to the young officer. The relationship between Stosch and Tirpitz would prove important for the latter, as Stosch would become Tirpitz's mentor in later years.[88]

Operations planning was a new concept to many during this era, as armies and navies came to terms with the ability to determine strategy before a conflict erupted. Previously, campaigns were planned only once war had been declared; now, general staffs could map out invasions and defences in peacetime, knowing exactly what resources they would have available and how long it would take to mobilize those forces. However, the idea of planning a war was not for everyone: `Political and even naval lords were apt to regard planning for war with the jaundiced eye of a Victorian bishop viewing a popular Millenarian movement.'[89] Without being a full-scale operations plan itself, the German concept of coastal defence marked a first step in the creation of naval operations planning. The navy had an idea of what strategic goals it wanted to achieve and what resources were available.

The next step in operations planning was taken again because of the needs of the army. The navy in the 1870s had been expected to provide coastal defence, to deter a potential blockade, and, if possible, to interfere with the enemy's war effort through intercepting its overseas supplies. These plans were consistent with the idea of a war of *revanche* by the French. By the early 1880s, there were genuine fears in the General Staff and the government of the possibility of a war

with both France and Russia. Consequently, the army wanted the navy to come up with a plan in the event of such a war.[90]

During the summer of 1882, several plans were drawn up for the navy in the event of war with Russia. The plans were based on the premise that the German navy was superior to the Russians in armoured warships and would assume the offensive. The Russians would seek to whittle down an attacking force through the use of mines and torpedoes. The first priority of the Germans was to destroy the Russian Baltic fleet. If the Russians sought the safety of their main harbour at Kronstadt, the Germans were to blockade the port while hoping to entice the Russians out to do battle. All this was merely as a support to an advancing German army. The German navy's presence in the Gulf of Finland would prevent the Russian fleet from attacking German positions, disrupt Russian mobilization and draw Russian forces away from the front and towards coastal defence: `Bold offensive action on the part of the fleet in European watersÐ without as yet taking adequate consideration of logistic factors or making provision for necessary basesÐso as to support the war effort on land, which was viewed as decisive, had thus emerged in the operational thinking of the German navy, although it was directed against an inferior enemy.'[91]

A further operations plan, which examined the prospect of a war with both France and Russia, again assumed that the Germans would take the offensive against the Russians while maintaining a defensive posture against the French, hoping to ward off French attacks and blockade through the use of the sortie corvettes and torpedo-boats. The manoeuvres of 1882 were an attempt to test such defensive measures. A German squadron playing the role of the attacker was assigned the task of passing through Fehnmar Sound, a channel between the German island of Fehnmar and the Danish island of Lolland. The commander of the attackers was given complete latitude over his decision as to when (day or night) and where (the German side, the Danish side or in the middle) to pass through the channel between the islands. Tirpitz, in charge of the defending screen, spotted his opponent's clumsy and predictable attempt and quickly alerted the defending squadron's commander, who surprised the enemy with an attack from the rear.[92] This exercise illustrated to many senior officers that torpedo-boats had their uses in defence; however, they failed to draw another equally obvious conclusion, that they needed much more practice in the art of the offensive at sea. Exercises such as the `Battle of Fehnmar' were few and far between, especially since many squadron commanders were fearful of attempting complicated manoeuvres, worried they would become victims of the next *Großer Kurfürst*.[93]

There were no great theorists in the German navy in the Stosch era. This reflected in part the navy's lack of history and heritage, and in part the general state of affairs in all navies at this time, where a few minds grasped at concepts many of their brother-officers failed to understand. The weapons of modern naval warfare were untried, save for a few skirmishes. The sole example of a great battle between two ironclad steam-powered fleets, Lissa, was frequently

misinterpreted as conclusive proof of the effectiveness of an obsolete weapon, the ram. What was needed was regular practice, and the only section of the German navy that gained such hands-on experience was the Torpedo Experiment Commission; its beneficiary would be Tirpitz, who began to apply his practical knowledge to theoretical questions.

In the early 1860s, Lieutenant Alfred Henry Alston of the Royal Navy wrote:

> It is plain that you will not make tacticians of your officers by providing them with a book of instructions for the manoeuvring of fleets which they command which contains only mechanical directions for throwing the ships into geometrical figures of squares, oblongs, angular formations, lines, and so forth.[94]

Alston was correct, but the German navy needed practice in assuming those basic formations, let alone theorizing about tactics and creating operational plans. The fact that the navy was capable of formulating offensive plans as early as 1882 was due solely to its connection and subordination to the needs of the army. Otherwise, the navy would have continued on as best it could, vaguely hoping to cause some unspecified damage to an enemy at sea, as so weakly pointed out in the 1873 *Flottengründungsplan,* which confessed its inability to protect German commerce. The new operations plans were a distinct improvement over the vague statement that: `[the navy] will have to see what it can do with those ships which are intended for functions in distant areas¼and with those which we have as sortie ships for coastal defence.'[95]

The end of the Stosch era

The aftermath of the *Großer Kurfürst* affair left Stosch in an increasingly difficult position. He had managed to survive Bismarck's attempts to oust him from office, and still retained the Kaiser's confidence, even after the unseemly parade of courts martial against the key officers involved in the tragedy.[96] However, Stosch had lost the close relationship he had previously enjoyed with the Reichstag. This made it more difficult for him to garner approval for further naval construction.

In essence, the attacks on Stosch in the Reichstag consisted of three points: Stosch placed too heavy a demand on German shipbuilding; he tried to train officers and sailors as if they were soldiers; and he never consulted his subordinates.[97] The first point was certainly debatable, but it is undeniable that Stosch's reliance on the German shipbuilding industry allowed that branch of industry to flourish. Without the lessons learned during the Stosch years, the German navy and German steamship firms would not have been able to rely on domestic designs and construction from the 1890s on; the Tirpitz Plan would have been an impossibility. The second and third points were, as already noted, justified criticisms of Stosch and his style of leadership. The fact that these

criticisms were now coming from members of the Reichstag made matters all the worse for him.[98]

The pressures of many years spent in the service of his monarch and country began to take their toll on Stosch's health. In particular, the naval manoeuvres of September 1881 were hard on the *Chef der Admiralität*. Nevertheless, Stosch's stubbornness refused to allow him to quit. In a letter to Freytag the following February, he wrote:

> I often wish to shake off the burden of office in order to live for my self and the moment. But, and you may call me weak, I cannot go as long as the Emperor lives. He continually shows me signs of his favour and satisfaction.[99]

It was in matters completely unrelated to the navy which severed Stosch's last official tie to his duty and to the navy. Stosch earned the displeasure of his Kaiser over an ongoing power struggle within the army command structure early in 1883. As both a minister of the Crown and as an army officer, Stosch had a vested interest in the outcome of the conflict. However, Stosch chose to side against the majority of his fellow-officers, Bismarck and the Kaiser.

The conflict was between the Chief of the Military Cabinet, General Emil L.von Albedyll, and the Minister of War, General Georg A.K.von Kameke. The matter in dispute was a motion in the Reichstag calling for the end to the traditional tax exemption on the private income of officers. Kameke upset his fellow-officers by agreeing with the resolution. The argument made by Albedyll and others to Wilhelm was that the motion was an attack on the military prerogative of the Kaiser. With Kameke opposed by Albedyll, Moltke and Bismarck, among others, his position in the Cabinet was untenable, and he submitted his resignation on 3 March.[100]

Stosch was now placed in a difficult position. Of all the members of the imperial and Prussian Cabinets, Kameke was the one minister who had consistently supported Stosch. In the wake of the *Großer Kurfürst* affair, Kameke had supported Stosch's attempts to quell dissension within the naval officer corps. By contrast, Albedyll had opposed Stosch's efforts to paint Monts as the guilty party. However, there was an even more fundamental aspect to the Stosch-Kameke partnership. Both men embodied an approach to the Reichstag which was at odds with that taken by the Kaiser, Bismarck and the various ministers. Stosch and Kameke were willing to deal directly with Reichstag deputies, a clear violation of the constitution, which stipulated that all such activities were within the sole purview of the Chancellor. Naturally, Bismarck resented this infringement on his duties, and continually rebuked the pair for their actions.[101]

Stosch submitted his resignation on 7 March. While his prime motive for so doing was as an act of ministerial solidarity, he did not mention that in his letter. Instead, he pleaded ill-health, both physical and mental, as the reason for his

request to be relieved of his duties. This was not the first time Stosch had submitted his resignation, and once again, Wilhelm refused the *Chef der Admiralität*'s request, with the proviso that extended leave could be provided if necessary for Stosch's health.[102]

However, this time Stosch fully intended for his resignation to be accepted. He sent the Kaiser a second letter, one which laid bare the fundamental difference of opinion between Stosch and Wilhelm over parliamentary rights. Writing a few weeks later, Wilhelm commented on Stosch's second letter:

> General von Stosch answered me on that with a kind of political creed, whose details I have ignored; it could not be doubtful for me, however, after the contents of this letter that the retention of General von Stosch in his position would lead to collisions of the most precarious kind, and that granting his request to resign is necessary.[103]

Only now was it clear even to the Kaiser, who had stood by Stosch faithfully for so many years, that it was no longer possible to keep him and Bismarck in the same Cabinet, and that Stosch held views diametrically opposed to Wilhelm on the concept of ministerial responsibility. He was further disappointed by Stosch's refusal to attend a final audience; the admiral pleaded his inability to attend because he had already sent ahead his dress uniform.[104]

Stosch may have felt it was necessary for him to resign, but that did not lessen his disappointment at leaving a position he had spent over a decade in creating. He hoped to recommend Batsch as his successor, and so informed the admiral in a letter the same day Wilhelm accepted Stosch's resignation. His feelings about the entire situation were summed up in a letter to a friend a month later:

> I have really lost the centre of my life and my activity, but not a single friend. All who stood close to me had long since departed, and the new race was reserved towards me, as politically dangerous. I was so lonely that an infinite longing to become free seized me. I was certain I would retire as soon as I decently could. That has happened, and I feel cheerful in my innermost heart. You would object that the attempt is not yet two weeks old, but when one reaches my age [65] and has enough of the world behind him, one has a trustworthy feeling that one needs to live as a spectator.[105]

Even in retirement, Stosch retained an interest in naval matters, especially where they were concerned with colonial policy. As far back as 1880, Stosch was a member of the Central Association for Commercial Geography and for Promotion of German Interests Abroad, an advocacy group for North German shipping interests and various small- and medium-sized goods manufacturers. Also, he continued to observe the ethnological expedition of SMS *Hyäne* to Easter Island. Freed from the infighting within the officer corps and from the

daily pressure of Bismarck's contempt, Stosch had more time for reflection and observation.[106]

Conclusion

> The importance of the Stosch program was that for the first time it brought into existence a fleet which more or less corresponded to an objective which it had hitherto proved impossible to obtain.[107]

It is important to realize, however, that there are a number of qualifications to this assessment of the Stosch era, some of which reflect unfavourably on the architect of that programme. First, the programme was financially achievable due to several factors not present when previous building programmes had been proposed for the Prussian navy or the *Bundesflotte*. The Roon programmes of 1862 and 1865 were doomed because of the ongoing constitutional conflict between the government and the Landtag. The 1867 plan was fatally crippled by the extraordinary expenses of overseas operations and the cost of the Franco-Prussian War. On the other hand, the 1873 *Flottengründungsplan* was assisted by funds from the French war indemnity. Even though it scaled back in several areas from the 1867 plan, it still required a massive outlay of cash to complete, of which roughly one-quarter was covered by the indemnity.[108]

Second, the fleet's very existence was subordinated to the army's needs. While this provided a clearer focus to the main tasks of the navy, it meant the navy took on a supporting role. Furthermore, Stosch's prussianization of the navy, from the introduction of drill to the importation of regimental customs, meant that the navy began to assume a character alien to its original officer corps. The unseemly removal of so many senior officers who did not fit Stosch's profile of the ideal naval officer took many good and devoted men from positions of authority and created several knowledgeable and hostile critics on the outside. Stosch may be considered to have deliberately cut himself off from the advice of experienced seamen by refusing to call the Admiralty Council; in one sense, this allowed him to make changes in the navy that otherwise would have been opposed by those used to the status quo, but in another it caused Stosch to make mistakes grounded in his lack of knowledge of how a navy operated.

The chief successes of the Stosch era lay in Stosch's area of strength, namely administration. The cultivation of good relations with the Reichstag was a lesson well learned by Stosch's ultimate protégé, Tirpitz. The establishment of a strong domestic shipbuilding industry allowed Germany to leap into the forefront of naval architecture and construction, both in warships and in passenger liners. The creation of the *Marineakademie,* while it bore little fruit during Stosch's tenure, gave officers a footing in the study of topics directly related to the navy. From its early graduates would come the first true German naval theorists, Tirpitz and Curt von Maltzahn. The encouragement given to the Torpedo Experiment

Commission meant that the German navy became proficient in the use of the new weapon, and that at least one segment of the navy learned to operate in a climate akin to a large fleet preparing for war in European waters. It is no surprise that many of the best and brightest of Germany's future naval leaders would serve at one point or another in the `torpedo gang', Tirpitz's disciples from the Torpedo Inspectorate. Finally, the assignment of specific tasks for the navy in the event of war was a positive step, even if it was in a purely subordinate role. The navy was supposed to confine its actions in war to coastal defence and anti-blockade patrols, with hopefully some ability to protect German commerce overseas. This was the clearest assignment of tasks the navy had been given in a long time, and should have helped avoid a situation like the last war, when the fleet sat uselessly in harbour while enemy warships patrolled the coasts and chased off German merchantmen.

However, the inherent contradiction between the operation plans' emphasis on defence of home waters and the realities of peacetime overseas duties meant that many single ships and small squadrons would be away from the homeland and direct control of the Admiralty. Whether he wanted it or not, Stosch would have been forced to accede to some form of *guerre de course,* as the honour of the navy and the demands of frustrated officers would have required no less. Equipped with long-range cruisers, operating in distant waters away from the direct control of the Admiralty, it would be simple for officers in command of overseas squadrons and ships to engage in their own little *Staatskaperei,* destroying enemy cargo vessels until hunted down by the enemy. At least these warships would be making a positive contribution, one which could be remembered with pride and pleasure. This would be a continuing problem, and one which would vex Stosch's successor.

The failures of Stosch during his tenure may be traced back to his acerbic personality. His conflicts with Bismarck detracted from the harmonious relations between the navy and the Foreign Office, indispensable with the two agencies forced to cooperate on matters of foreign policy. The steady deterioration of relations with his senior officers prevented a mutual exchange of ideas that might have led to an improvement. The `Stosch system' may have been a noble attempt to arouse hidebound sea dogs from their lethargy and tradition, but it demanded the impossible from men and machine alike, and ultimately cost 276 good men their lives and several more men their careers. Furthermore, when Stosch did finally resign, it meant that the navy was in no position to present a likely candidate from within for its leadership.

The most interesting view of Stosch's tenure in the navy comes from an army colleague of his, Field Marshal Edwin von Manteuffel, Commander-in-Chief of the occupation forces in France after the Franco-Prussian War, and at the time, Stosch's commanding officer. He wrote to Albedyll on 22 March 1883, in the wake of Stosch's resignation:

> In Nancy, when General von Stosch was asked whether he wanted to become *Chef der Admiralität,* or so it is called, I advised him against it; if he would have obeyed my advice then probably he would be one of our commanding generals. He always had a liberal vein, but many military characteristics would have prevailed¼ These [liberal tendencies] undermined him, and we have one less good general.[109]

Does this mean Stosch was a failure as the *Chef der Admiralität*? Thanks to the steady construction programme of the 1873 *Flottengründungsplan,* by 1883 the German navy was the world's third-largest, behind only Britain and France.[110] However, much of that tonnage was composed of vessels which were obsolete or wearing themselves out policing the waters of the world. As a diplomatic instrument, the German navy was barely adequate; as a fighting force, it still left much to be desired. Stosch had secured a permanent place for the navy and had overseen its rudimentary steps as a fighting force; however, he had not yet succeeded in turning it from a collection of motley ships into a fleet. That was a task beyond his capability, thanks to the ongoing revolution in naval technology. It is the foundation which Stosch laid for the future which is perhaps his greatest legacy, and deservedly earned him the honour of being considered one of the `fathers' of the German na vy.[111]

Notes

1. Lawrence Sondhaus, *Preparing for Weltpolitik: German Sea Power before the Tirpitz Era* (Annapolis, MD: Naval Institute Press, 1997), p. 109; Wolfgang Petter, `Deutsche Flottenrüstung von Wallenstein bis Tirpitz', in *Handbuch zur deutschen Militärgeschichte 1648±1939,* 6 vols (München: Bernard and Graefe, 1979), Vol. 5, pp. 111±12; Ivo N.Lambi, *The Navy and German Power Politics, 1862±1914* (Boston, MA: Allen & Unwin, 1984), p. 4.
2. As detailed by Helmuth von Moltke, Chief of the General Staff, in a letter to Stosch on 22 February 1873; quoted in Rolf Hobson, *The German School of Naval Thought and the Origins of the Tirpitz Plan 1875±1900* (Oslo: Institutt for Forsvarsstudier, 1996), p. 12.
3. As quoted in Sondhaus, *Preparing for Weltpolitik,* p. 109; the Stosch quotation is from Ulrich von Stosch, ed., *Denkwürdigkeiten des Generals und Admirals Albrecht von Stosch, ersten Chefs der Admiralität: Briefe und Tagebuchblätter* (Stuttgart and Leipzig: Deutsche Verlags-Anstalt, 1904), p. 272; and Bismarck's reply is originally quoted in Wilhelm Gerloff, *Die Finanz- und Zollpolitik des Deutschen Reiches* (Jena: Verlag von Gustav Fischer, 1913), p. 79.
4. Rolf Hobson, `Imperialism at Sea: Naval Strategic Thought, the Ideology of Sea Power and the Tirpitz Plan, 1875±1914', unpublished PhD dissertation, Norges teknisk-naturvitenskapelige universitet, Trondheim [NTNU, formerly University of Trondheim], 1999, p. 139.
5. Theodore Ropp, *The Development of a Modern Navy: French Naval Policy 1871± 1904,* ed. Stephen S.Roberts (Annapolis, MD: Naval Institute Press, 1987), p. 27.

6. Stosch to Gustav Freytag, 3 December 1871, in Ulrich von Stosch, ed., *Denkwürdigkeiten des Generals und Admirals Albrecht von Stosch,* p. 272; Wilhelm Deist, *Flottenpolitik und Flottenpropaganda. Das Nachrichtenbureau des Reichsmarineamtes 1897±1914* (Stuttgart: Deutsche Verlags-Anstalt, 1976), p. 22.
7. `Denkschrift betreffend die Entwickelung der kaiserlichen Marine und die sich daraus ergebenden materiellen und finanziellen Forderungen', SBVR, I.Legislatur-Periode, IV. Session 1873, 3. Band, Anlagen, Nr. 50, Bismarck to Simpson, 21 April 1873, pp. 236±46.
8. Ibid., pp. 236±7.
9. Ibid., p. 237.
10. Ibid., p. 237. Stosch's support for the scientific aspects of German naval expansion is covered in Axel Grießmer, `Die Kaiserliche Marine endeckt die Welt. Forschungsreisen und Vermessungsfahrten im Spannungsfeld von Militär und Wissenschaft (1874 bis 1914)', *Militärgeschichtliche Zeitschrift,* 59 (2000), pp. 61± 98.
11. Ibid., p. 237.
12. Ibid., p. 237.
13. Ibid., p. 237.
14. Ibid., p. 238. Also see Curt von Maltzahn, *Geschichte unserer taktischen Entwickelung,* 2 vols (Berlin: n.p. 1910±11), Vol. 1, p. 110; Hobson, `Imperialism at Sea', p. 137.
15. Hobson, `Imperialism at Sea', p. 138.
16. SBVR, `Denkschrift betreffend die Entwickelung der kaiserlichen Marine', p. 238.
17. Ibid., p. 238.
18. Ropp, *Development of a Modern Navy,* p. 28.
19. Deist, *Flottenpolitik und Flottenpropaganda,* p. 23.
20. SBVR, `Denkschrift betreffend die Entwickelung der kaiserlichen Marine', p. 239.
21. Ibid., p. 238.
22. As quoted in Frederic B.F.Hollyday, *Bismarck's Rival: A Political Biography of General and Admiral Albrecht von Stosch* (Durham, NC: Duke University Press, 1960), p. 114.
23. Sondhaus, *Preparing for Weltpolitik,* p. 111.
24. As quoted in Hollyday, *Bismarck's Rival,* pp. 114±15.
25. Hollyday, *Bismarck's Rival,* p. 110; Sondhaus, *Preparing for Weltpolitik,* p. 148.
26. Ropp, *Development of a Modern Navy,* p. 30.
27. Ulrich von Hassell, *Tirpitz. Sein Leben und Wirken mit Berücksichtigung seiner Beziehungen zu Albrecht von Stosch* (Stuttgart: Chr. Belsersche, 1920), p. 26.
28. Stosch to Freytag, 29 December 1873, as quoted in Hollyday, *Bismarck's Rival,* p. 150.
29. Stosch to Freytag, 2 February 1874, as quoted in ibid., p. 151.
30. Wolfgang Petter, `Die überseeische Stützpunktpolitik der preußisch-deutschen Kriegsmarine 1859±1883', unpublished PhD dissertation, University of Freiburg, 1975, p. 209.
31. The four sortie corvettes which were builtÐthe *Sachsen*-classÐwere politely described as `a disaster'. Their flat bottoms made them roll in any swell and disrupted their gunnery accuracy, yet they drew too much water to be useful in the Baltic. Their armour was obsolete before construction was completed, and their engines were not up to the task, leaving them slower than the ships they were

designed to chase down. As a final insult, their unconventional design of four small funnels arranged in a square earned the ships of the class the derisive nickname of `cement factories': Sondhaus, *Preparing for Weltpolitik,* pp. 135±6; Hans Jürgen Hansen, *Die Schiffe der deutschen Flotten 1848±1945* (Oldenburg: Bechtermünz Verlag, 1998), p. 70; *Conway's All the World's Fighting Ships 1860±1905* (London: Conway Maritime Press, 1979), p. 245.

32. Lambi, *The Navy and German Power Politics, 1862±1914,* p. 5.
33. W.O.Henderson, *The German Colonial Empire 1884±1919* (London: Frank Cass, 1993), p. 410.
34. Hollyday, *Bismarck's Rival,* p. 109; Alfred von Tirpitz, *Erinnerungen* (Leipzig: K.F. Koehler, 1920), pp. 13±14. The quotation is from Hans-Otto Steinmetz, *Bismarck und die deutsche Marine* (Herford: Koehlers, 1974), p. 44.
35. See, for example, various letters contained in BA-MA, RM1/577 from Blanc, Werner and other commanders.
36. BA-MA, RM1/577, Bismarck to Stosch, 2 June 1873.
37. Tirpitz, *Erinnerungen,* pp. 13±14.
38. *Preußische expedition nach China, Japan und Siam in den jahren 1860, 1861 und 1862* (Leipzig: F.A.Brockhaus, 1873). After the conclusion of his naval career, Werner went on to become a prolific writer on naval affairs: biographical information from Sondhaus, *Preparing for Weltpolitik,* p. 129, and Hans H.Hildebrand and Ernest Henriot, eds, *Deutschlands Admirale 1849±1945,* 4 vols (Osnabrück: Biblio Verlag, 1988), Vol. 3, pp. 536±7. Sondhaus errs when he says Werner entered the Prussian navy at age 22; Werner was born in 1825, making him 27 in 1852.
39. BA-MA, RM1/251, 15 July 1872, `Entwurf einer Dampf-Taktik', written by Werner when he was in command of SMS *Renown,* an old British screw ship-of-the-line used as an artillery school ship. See Chapter 6, pp. 116±17.
40. Tirpitz, *Erinnerungen,* p. 14. Tirpitz was serving as watch officer on SMS *Friedrich Carl,* Werner's flagship.
41. Tirpitz, *Erinnerungen,* p. 14; Hollyday, *Bismarck's Rival,* p. 146; Sondhaus, *Preparing for Weltpolitik,* p. 120.
42. Hollyday, *Bismarck's Rival,* p. 146.
43. Steinmetz, *Bismarck und die deutsche Marine,* p. 41.
44. Steinmetz, *Bismarck und die deutsche Marine,* p. 41; Tirpitz, *Erinnerungen,* pp. 14±15.
45. Sondhaus, *Preparing for Weltpolitik,* p. 120.
46. As quoted in Hollyday, *Bismarck's Rival,* p. 147.
47. Hollyday, *Bismarck's Rival,* pp. 147±8; Hildebrand and Henriot, *Deutschlands Admirale 1849±1945,* Vol. 3, p. 537.
48. Sondhaus, *Preparing for Weltpolitik,* p. 118; Steinmetz, *Bismarck und die deutsche Marine,* pp. 40±1.
49. BA-MA, N578/9, Nachlass Knorr, p. 24.
50. See, for instance, BA-MA, RM1/41, 18 March 1875, Bismarck to Stosch, and BA-MA, RM1/1732, 28 June 1875, Bismarck to Stosch.
51. Walther Hubatsch, *Der Admiralstab: und die Obersten Marinebehörden in Deutschland, 1848±1945* (Frankfurt am Main: Verlag für Wehrwesen Bernard & Graefe, 1958), p. 38.
52. Hollyday, *Bismarck's Rival,* p. 101.

53. Otto Pflanze, *Bismarck and the Development of Germany,* 3 vols (Princeton, NJ: Princeton University Press, 1990), Vol. 2, p. 360.
54. Sondhaus, *Preparing for Weltpolitik,* p. 112; Hollyday, *Bismarck's Rival,* p. 164; Pflanze, *Bismarck and the Development of Germany,* Vol. 2, pp. 358±9.
55. Pflanze, *Bismarck and the Development of Germany,* Vol. 2, p. 361.
56. Ibid., pp. 362±3; Hollyday, *Bismarck's Rival,* pp. 166±70.
57. James J.Sheehan, *German Liberalism in the Nineteenth Century* (Chicago: University of Chicago Press, 1978), p. 177, speculates that Bismarck used this period of isolation to prepare for his abandonment of the Liberals, alliance with the Conservatives and adoption of protectionist economic policies.
58. *The Daily News,* 15 April 1878, p. 15; clipping found in BA-MA, RM1/577.
59. SMS *Leipzig,* one of the corvettes which took part in the demonstration, was summoned from Japan; she was forced to stop in Panama and put ashore some Japanese cadets she was carrying: Sondhaus, *Preparing for Weltpolitik,* p. 119.
60. Ibid., p. 119.
61. Ibid., p. 122.
62. Ibid., p. 127.
63. The account of the disaster was taken from BA-MA, N578/9, Nachlass Knorr, and Sondhaus, *Preparing for Weltpolitik,* pp. 124±6, who makes extensive use of the official records of the subsequent courts martial in the BA-MA; for file numbers and document names, see p. 272, nn. 1 and 4.
64. Quoted in Sondhaus, *Preparing for Weltpolitik,* p. 127. The account of the events that follow is based more on Sondhaus, as Hollyday's account of events during this period is slanted heavily in Stosch's favour.
65. Tirpitz, *Erinnerungen,* p. 18.
66. Sondhaus, *Preparing for Weltpolitik,* p. 128, quoting from the commission's report, `Gutachten über den Zusammenstoss SMS *König Wilhelm* und *Grosser Kurfürst* am 31. Mai 1878', in BA-MA, RM1/18.
67. Hollyday, *Bismarck's Rival,* pp. 180±1.
68. Sondhaus, *Preparing for Weltpolitik,* p. 130.
69. Stosch to Freytag, 3 October 1878, as quoted in Ekkhard Verchau, `Von Jachmann über Stosch und Caprivi zu den Anfängen der Ära Tirpitz', in Herbert Schottelius and Wilhelm Deist, eds, *Marine und Marinepolitik im kaiserlichen Deutschland, 1871±1914* (Düsseldorf: Droste Verlag, 1972), p. 62, n. 31.
70. Christfied Coler, `Der Sturz Albrecht von Stoschs März 1883', *Wehrwissenschaftliche Rundschau,* 17 (1967), p. 697.
71. Sondhaus, *Preparing for Weltpolitik,* p. 135.
72. Edwyn Gray, *The Devil's Device: Robert Whitehead and the History of the Torpedo* (Annapolis, MD: Naval Institute Press, 1991), p. 93; Patrick J.Kelly, `Tirpitz and the Origins of the German Torpedo Arm, 1877±1889', unpublished ms., 1993. (Kelly's paper is now published in: *New Interpretations in Naval History: Selected Papers from the 11th Naval History Symposium, held at the United States Naval Academy, 21±23 October 1993,* ed. Robert W.Lore, Jr (Annapolis, MD: Naval Institute Press, 2001).)
73. Kelly, `Tirpitz and the Origins of the German Torpedo Arm, 1877±188', p. 2; Sondhaus, *Preparing for Weltpolitik,* p. 115.
74. Stanley Sandler, *The Emergence of the Modern Capital Ship* (Newark, NJ: University of Delaware Press, 1979), p. 118.

75. Ropp, *Development of a Modern Navy,* pp. 105±6.
76. Sandler, *Emergence of the Modern Capital Ship,* pp. 121, 123. Fisher wrote that he believed the modern naval battle would consist of six separate sequences: a salvo from the bow gun, ramming, a broadside volley, a torpedo, the other broadside and another torpedo.
77. Ibid., pp. 129, 131. The demotions were only temporary, but they served to convey Boutakov's message to his officers.
78. BA-MA, RM1/251, contains several works on naval tactics passed on from Prince Adalbert to Stosch, including *Entwurf zur See-Taktik* (1869) and Reinhold Werner's `Entwurf einer Dampf-Taktik' (1872). Their content is remarkably similar to that of works written by theorists in the Royal Navy and the French navy a century earlier, in the 1770s, and the heyday of sail. See, for instance, the collection of works cited in Brian Tunstall, *Naval Warfare in the Age of Sail: The Evolution of Fighting Tactics, 1650±1815,* ed. Nicholas Tracy (Annapolis, MD: Naval Institute Press, 1990), *passim*. However, this is not to state that the science of tactics was any further evolved in those navies, as they too struggled to find ways of exploiting the new weapons of naval warfare. See Sandler, ch. 5, *passim*.
79. BA-MA,RM 1/251, `Entwurf einer Dampf-Taktik'.
80. Sandler, *Emergence of the Modern Capital Ship,* p. 127.
81. Patrick Kelly, `Strategy, Tactics, and Turf Wars: Tirpitz and the *Oberkommando der Marine,* 1892±1895', unpublished ms., 1997, p. 5 (see also n. 72, above); Ernst Schröder, *Albrecht von Stosch, der General-Admiral Kaiser Wilhelms I* (Berlin: Verlag Dr Emil Ebering, 1939), pp. 78±9.
82. Hassell, *Tirpitz,* p. 94.
83. As quoted in Kelly, `Tirpitz and the Origins', p. 3.
84. This fact may seem unusual, but wooden warships were able to sustain a great deal of damage in battle from the battering effect of cannon-balls, which were non-exploding projectiles. Any warships which did explode in the course of a battle (the French flagship *L'Orient* at the Battle of Aboukir in 1798, for example) usually did so only once the vessel was on fire, and that fire subsequently touched off the powder magazine. With the development of underwater explosives, ships became vulnerable to sudden loss of buoyancy and more prone to sinking. The *Tecumseh* was sunk by striking an underwater torpedo (early sea-mine).
85. Sandler, *Emergence of the Modern Capital Ship,* p. 114.
86. Kelly, `Tirpitz and the Origins', pp. 3±4; Hassell, *Tirpitz,* pp. 94±6. This cautious approach to new technology would be a hallmark of Tirpitz's career, especially during his tenure as Secretary of State of the Imperial Naval Office from 1897 to 1916. He wrote in his memoirs that it was better `to prove the military usefulness of a new invention before adopting it universally': Tirpitz, *Erinnerungen,* p. 118. Also see Gary Weir, `Tirpitz, Technology, and Building U-Boats, 1897±1916', *International History Review,* 6 (May 1984), pp. 174±90.
87. Kelly, `Tirpitz and the Origins', p. 5.
88. Hassell, *Tirpitz,* pp. 26±7, has an excerpt from an article Tirpitz wrote in 1918 on Stosch which is a favourable portrait of the general's development of the navy.
89. N.A.M.Rodger, `The Dark Ages of the Admiralty, 1869±1885', pt 1, *Mariner's Mirror* (November 1975), p. 36, as quoted in Sandler, *Emergence of the Modern Capital Ship,* p. 248.
90. Lambi, *The Navy and German Power Politics, 1862±1914,* p. 15ff.

91. Ibid., p. 16, which is unrivalled in its examination of German naval operations plans.
92. Kelly, `Tirpitz and the Origins', pp. 9±10.
93. Ibid., pp. 18±19.
94. As quoted in Sandler, *Emergence of the Modern Capital Ship,* p. 122.
95. SBVR, I.Legislatur-Periode, IV. Session 1873, 3. Band, Anlagen, Nr. 50, `Denkschrift betreffend die Entwickelung der kaiserlichen Marine', p. 238.
96. Pflanze, *Bismarck and the Development of Germany,* Vol. 3, p. 39.
97. Hollyday, *Bismarck's Rival,* p. 178.
98. Thomas Brysch, *Mainepolitik im preußischen Abgeordnetenhaus und Deutschen Reichstag, 1850±1888*(Hamburg: E.S.Mittler, 1996), pp. 307±18.
99. Stosch to Freytag, 16 February 1882, as quoted in Hollyday, *Bismarck's Rival,* p. 197.
100. Sondhaus, *Preparing for Weltpolitik,* pp. 146±7; Hollyday, *Bismarck's Rival,* pp. 208±9.
101. Sondhaus, *Preparing for Weltpolitik,* p. 147.
102. Coler, `Der Sturz Albrecht von Stoschs März 1883', pp. 697±9.
103. Wilhelm I, in a decree to the Ministry, 3 April 1883, as quoted in Coler, `Der Sturz Albrecht von Stoschs März 1883', p. 702.
104. Eberhard Kessel, `Die Entlassung von Kameke und Stosch im Jahre 1883. Ein Beitrag zur Geschichte der deutschen militärischen Institutionen', in *Forschungen zu Staat und Verfassung. Festschrift für Fritz Hartung* (Berlin: Duncker & Humblot, 1958), p. 451.
105. Both quoted in Hollyday, *Bismarck's Rival,* p. 213.
106. Pflanze, *Bismarck and the Development of Germany,* Vol. 3, p. 117; Grießner, `Die Kaiserliche Marine endeckt die Welt', pp. 77±8; Hollyday, *Bismarck's Rival,* ch. 8.
107. Hobson, `Imperialism at Sea', pp. 139±40.
108. Sondhaus, *Preparing for Weltpolitik,* p. 110.
109. Manteuffel to Albedyll, 22 March 1883, as quoted in Coler, `Der Sturz Albrecht von Stoschs März 1883', p. 704.
110. *Sondhaus, Preparing for Weltpolitik,* p. 148.
111. Volker Berghahn, *Der Tirpitz-Plan. Genesis und Verfall einer innenpolitischen Krisenstrategie unter Wilhelm II* (Düsseldorf: Droste Verlag, 1971), p. 49.

7
TWO SCHOOLS OF THOUGHT
The *Jeune Ecole* and the cruiser admirals

The end of the Stosch era in the Imperial German Navy coincided with the advent of one of the most persuasive and alluring theories of naval warfare, one which appealed to naval theorists and politicians alike throughout Europe. The *Jeune Ecole*[1] combined coastal defence, anti-blockade and commerce destruction into a package that promised a formidable naval presence at a reasonable cost. The admiralties of Europe were forced to take into account the threat a *Jeune Ecole* style navy posed to modern ironclads, close blockade, amphibious assaults and maritime commerce.

However, the options were not yet closed on how the new technology could be best used in the next war. While the thinkers of the *Jeune Ecole* claimed to have learned some of their lessons from the events of the American Civil War, other military minds had learned vastly different lessons from the same conflict. In particular, the perceived successes of the Confederate commerce-raiders, operating as they did without overseas bases, were considered instructive to other nations faced with the same problem. Torpedo-boats, even ocean-going vessels of the kind advocated by the *Jeune Ecole,* would be insufficient for a commerce destruction policy in tropical waters; this appeared to be a call for the development of long-range cruisers. Thus, the exploits of the *Alabama* might yet prove useful to a new generation of naval theorists.

Even before these new theories began to take hold, it was apparent that the German navy had committed itself, in one form or another, to some measure of cruiser warfare. The theories gave their proponents the means to more effectively explain their adherence to the *guerre de course*. More important, the attention paid by a respected and established naval power such as France to the ideas of commerce warfare lent them additional currency in a country without a nautical past such as Germany. Most important, the theorists were advocating an offensive strategy, a means whereby the German navy could contribute in a positive manner to the triumph of German arms.

Stosch's successor, another army general, seemed hardly suited to meeting this challenge. Leo Count von Caprivi de Caprera de Montecuccoli was a career infantry officer, and had absolutely no prior interest in assuming command of the navy. His appointment was greeted with dismay by most of the naval officer corps, who made no secret of their preference to be led by one of their own.

Nevertheless, Caprivi's appointment in March 1883 was mandated by the Kaiser, with the few remaining senior officers of the fleet still under the shadow of the *Großer Kurfürst* affair. Also, Caprivi's working relationship with Bismarck was far more cordial than the Chancellor's relationship ever had been with Stosch.

If the sailors could not lead themselves, they could and certainly would provide as much advice as possible. Just as Stosch had received a memorandum from Adalbert in 1872, so did Caprivi receive a memorandum from another retired sea-officer, in this case, Jachmann. Again, the cry would be heard for colonial expansion and of the need for overseas bases, but Caprivi shared Bismarck's distaste for col onies.

Despite the animosity towards him from a number of the senior officers, Caprivi, unlike Stosch, sought advice and suggestions from them. The convening of an Admiralty Council in January 1884 to study the possibilities offered by cruiser warfare to the Imperial German Navy illustrated the general's willingness to listen to what the experts had to say on naval matters. His subsequent rejection of a number of the conclusions of the Admiralty Council had less to do with those offering them and more to do with the impracticality for the navy of those recommendations.

Nevertheless, the importance of the Admiralty Council should not be underestimated. In essence, the German navy tried to design a blueprint for winning a war through commerce-raiding, and came up with a method vastly different from that envisioned by the creators of the *Jeune Ecole*. This alternative strategy reflected an understanding of the changes occurring in international law and the position of neutrals, as well as Germany's unfavourable geographical position *vis-à-vis* the world's trade routes. It was also an expression of the desire to assume the offensive in a naval war, instead of being confined to the passive and inglorious role of coastal defence. In short, it meant the navy had found a means of contributing to the war effort and, in a roundabout way, a reason for both its existence and the continued support of the government and the Reichstag.

Finally, one important difference must be considered when comparing the French and German approaches towards commerce destruction. To the *Jeune Ecole,* the sinking of merchantmen was only a means to an end, a method of ravaging the foe's economy and instilling in the enemy's merchant classes a despair of pursuing the conflict to their financial ruin. To the Germans, commerce destruction was a physical act of denying the enemy the sinews of war, of aiding the army in its pursuit of victoryÐnota psychological means, but a purely physical one. It is only half-right to contrast the *Jeune Ecole* style of commerce warfare with the unrestricted submarine warfare adopted by the Imperial German Navy in the First World War. While it is true that the Germans did not come to value the importance of the submarine as a weapon against commerce until it was too late, it is not true that their ignorance of the possibilities of commerce-raiding was due to their being `wedded to Mahan, the High Seas Fleet and Tirpitz's ªRisk Theoryº"; German theories of commerce-

raiding were in creation a decade before A.T. Mahan's work was published, and, as this chapter will show, were at that time based upon physical loss to the enemy and not upon economic warfare. The German navy `violated every single rule that [the founders of the *Jeune Ecole*] had laid down' because it was planning to fight a different kind of *guerre de course*.[2]

Defence of trade, attack on trade: British theories of commerce defence and the evolution of the *Jeune Ecole* in France

The theories of Richild Grivel and the Cassandra-like cries of warning from J.C.R.Colomb had not gone entirely unheeded or ignored in the decade-and-a-half since their original utterances. Grivel died in Africa in 1882, but Colomb was a popular speaker throughout the 1870s, and his public presentations, often at the Royal United Services Institution, found their way into print. If the Royal Navy did not take Colomb as seriously as he might have wished, it did at least consider carefully what its best policy would be in the event of war. By 1874, the Admiralty had decided to protect seaborne commerce by stationing cruisers at or near strategic points of concentration, such as important ports or busy waterways. These cruisers would patrol the major shipping-lanes, on the lookout for enemy commerce-raiders preparing to prey on the steady stream of traffic offered on these well-known trade routes. Coal depots would be centrally located in Australia, the Falklands, St Helena and Mauritius, and a fleet of fast colliers would stand ready for the very difficult task of locating the patrolling cruisers and coaling them at sea. However, the focus of the Admiralty's plans was protecting the supposedly vulnerable narrow waters where commerce would naturally congregate. This ignored one of the key lessons of the American Civil War, that most of the Confederacy's successes were scored on the high seas. Confined narrow waters may have posed a threat to the merchant ships, but they also proved a death-trap to commerce-raiders. The open seas allowed for escape in any direction, and provided a measure of secrecy in an era when the telegraph made news of raiders lying in ambush public knowledge in a matter of hours.[3]

Nevertheless, the strategy adopted by the Royal Navy differed little from that used during the Napoleonic Wars: to protect vital sea-lanes while maintaining a close blockade of the enemy's ports.[4] The ability to keep a close blockade, however, had been made even more difficult by the advent of steam power.[5] The blockaders needed regular supplies of coal; the blockaded no longer had to wait until favourable winds came up to attempt a sortie. Furthermore, mines and torpedoes posed a grave threat to a blockading warship which strayed too close to harbour defences.

The torpedo had come into its own as a weapon of coastal defence over the decade of the 1870s. Indeed, with the torpedo-boat, the small and swift gunboat, and the resurgence of the ram, it was again speculated that the capital ship had become obsolete.[6] The navies of Europe experimented with the torpedo, trying

to find its ideal usage. Most navies, like the German and the French, initially saw its chief value in coastal defence; others, like the Austro-Hungarian navy, experimented with torpedo-boats in formation with the main battle fleet. Using the dense smoke produced by the firing of the battleships' main artillery as cover, the torpedo-boats would dash forward to attack the enemy's line of battle.[7] The idea of torpedo-boats also caught on elsewhere; Russia had built 115 torpedo-boats by 1885, mostly for use on the Black Sea against the Ottoman Turks, which were 100 more than the French navy possessed.[8]

As the torpedo improved in range and reliability, it became important to build a class of ships suitable for the delivery of this weapon. The torpedo-boat was created as a small, fast unarmoured warship, capable of quickly dashing in and out of the enemy's artillery-fire and defences in order to fire its torpedoes. With the British shipbuilders Thorneycroft and Yarrow leading the way, followed closely by the German firm of Schichau, the torpedo-boat became a staple of the world's navies. During this period of experimentation, chance events in 1883 led to the creation of the *Jeune Ecole*.

Admiral Hyacinthe-Laurent-Théophile Aube, a career colonial naval officer, had been writing on French naval affairs since the early 1870s. His theories, reflecting his many years of service overseas, repudiated both the huge ironclad fleets and the tradition-bound senior officers who commanded them. In his opinion, many smaller unarmoured gunboats would be much better than a few unwieldy ironclads: `In the old days, one armoured oneself, instead of armouring one's ship.'[9] Like Grivel, Aube contended that it made no sense for France to attempt to outbuild Great Britain, especially in constructing the armoured monsters he so despised. He was willing to concede command of the sea to Britain to preserve the French navy for two important tasks: coastal defence, especially of the colonies, and commerce-raiding. However, by dispersing French naval forces over a wide area, and consequently forcing the British to divide their own forces in order to institute an effective blockade, Aube hoped to create temporary local superiority by using the new technology to enable steam warships to break out of port and unite before British reinforcements could arrive. The telegraph would allow French ports to coordinate breakouts and rendezvous, putting maximum pressure on the blockaders.

How was this temporary local superiority to be exploited, and what was the goal of the French forces once they had slipped the blockade? This was the most important piece to Aube's puzzle, and it fell into place during a cruise of the French Mediterranean fleet in 1883. In the course of the voyage, the fleet ran into a heavy storm. Accompanying the fleet were two Normand 33-metre torpedo-boats, *No. 63* and *No. 64*. Although their displacement was a mere 45 tons each, the two tiny craft weathered the storm as well as the larger ships of the fleet.[10] Perhaps this would not have been such a momentous event had it not also been witnessed by a guest of Aube's, a young journalist, Gabriel Charmes. Aube was the theorist of the *Jeune Ecole,* while Charmes quickly became the mouthpiece. Shortly after the cruise, Charmes wrote of his experience, setting off a furious

debate over the practicality of manufacturing seagoing torpedo-boats able to attack commerce at greater ranges than thought possible.

The enemy against whom the *Jeune Ecole* directed the greatest amount of its planning was Great Britain, and a fleet of ocean-going torpedo-boats would prove ideal for a war of commerce destruction by France against her traditional rival. The French naval bases in a line south from Toulon through Corsica to Bizerte would cut off the flow of commerce in the Western Mediterranean; the great triangle created in the Atlantic Ocean between Dakar, Martinique and Brest would also become dangerous waters for merchantmen bound to or from the island kingdom. Finally, the Channel ports of Dunkirk and Le Havre would serve as a last line of attack against shipping heading for the mouth of the Thames. This system of lines of interdiction relied as heavily on the overseas colonial ports as it did on the bases at home.[11]

The most contentious issue was how the *Jeune Ecole* recommended the new weapons be applied to warfare. Charmes wrote that the navy's task was `to fall without pity on the weak; and without shame and all possible speed to fly from the strong'.[12] Aube was even more direct:

> War is the negation of law. It¼is the recourse to forceÐthe ruler of the worldÐof an entire people in the incessant and universal struggle for existence. Everything is therefore not only permissible but legitimate against the enemy¼ Therefore the torpedo-boat will follow from afar, invisible [to] the liner it has met; and, once night has fallen, perfectly silently and tranquilly it will send into the abyss liner, cargo, crew, passengers; and, his soul not only at rest but fully satisfied, the captain of the torpedo-boat will continue his cruise.[13]

As well as sinking merchantmen without warning, Aube also recommended shelling enemy coastal ports, with the intention of putting maximum pressure on the populace and, consequently, on the defenders, thereby siphoning off vessels from commerce protection and blockading duties to defend these vulnerable areas. The success of commerce-raiding would be gauged not by tonnage sunk, but by the resulting financial chaos and panic caused by heightened insurance rates. Another expected benefit, of a long-term nature, was that enemy merchantmen would seek the relative safety of a neutral flag, inflicting further losses on the merchant fleet. This had been one of the lessons learned by Aube from the experience of the American Civil War, when many Federal merchant ships had registered in other nations; the resulting loss to the American merchant fleet and carrying trade had yet to be recovered.[14]

Aube's `red in tooth and claw' ideas of naval warfare reflected his leanings towards an idea popular at this time among some segments of French societyÐ social Darwinism. In January 1886, in the pages of the mass-circulation *Le Petit Journal,* Aube, now naval minister, warned that avoiding expansionist policies might cause French loss of industrial and commercial wars, now `the

decisive wars, the wars for survival¼veritable struggles for life'.[15] To him, economic warfare was as deadly as military engagements, with quarter neither asked for nor granted.

Naturally, there were howls of outrage over these shocking ideas. Aube's most formidable critic, Admiral Siméon Bourgeois, one of France's leading experts on both torpedoes and on the newest but as yet unperfected weapon of war, the submarine, was scathing in his condemnation of the *Jeune Ecole*'s proposals. He wrote:

> The advent of the torpedo, whatever its influence on naval material, has in no way changed international treaties, the law of nations or the moral laws which govern the world. It has not given the belligerent the right of life and death over the peaceful citizens of the enemy State or of neutral States.[16]

It was the ruthlessness of the *Jeune Ecole* that shocked many observers. In an era increasingly devoted to the rule of law, the inviolability of private property, and the right of free trade for neutrals, the indiscriminate pursuit of commerce destruction advocated by Aube and Charmes seemed an atavistic throwback. International jurists, proud of the progress made during the last half of the nineteenth century in enshrining legal principles in grand agreements, were horrified. Even French jurists were appalled: `Every neutral ship would be justified in treating as pirates the torpedo-boats which should dare to send a neutral to the bottom on such feeble evidence [as external appearances alone].'[17]

Progress had been made further limiting war on maritime commerce, and the jurists were justly proud of their gains. In Turin in 1882, the `Règlement International des Prises Maritimes' had been adopted by the major seafaring nations. The regulations limited the circumstances under which a captor was entitled to burn or sink his prize to five exceptions: the prize being unable to keep afloat due to damage and weather; the prize being unable to keep up with warships and liable to recapture; the approach of a superior enemy force creating threat of recapture; the captor being unable to put aboard a prize crew without leaving sufficient men on his own ship; and the port to bring the prize to being too distant.[18] None of these conditions would apply in the application of a *Jeune Ecole* style of cruiser warfare, but the regulations were a way of restoring civility and order to a process which threatened to become unregulated.

Nevertheless, the ideas of the *Jeune Ecole* held a fascination for many, both in France and around Europe. Their chief attraction was the low cost of a fleet built along its lines; thus, it was the appeal of a `fleet on the cheap' that drove Austria-Hungary in the mid-1880s towards the strategy of the *Jeune Ecole*.[19]

In Great Britain, the new theory was studied less as a possible means of attacking an enemy and more because it appeared likely there would be a need to defend against it. The Royal Navy's 1888 manoeuvres demonstrated that it was possible for a close blockade to be evaded, and that torpedo-boats posed a real

threat to capital ships.[20] The instructions given to the fleets were a test of whether close blockade was still feasible under modern conditions:

> A Maritime nation, with whom hostilities are imminent, prepares two squadrons, in two ports, some distance apart, ready to commence operations the moment war is declared; but before their preparations have been completed, war breaks out, and a close blockade is established. The blockaded squadrons endeavour to escape, and carry out certain pre-arranged operations. The blockading squadrons endeavour to prevent the escape of the enemy's squadrons, or should they fail in doing this, to follow and endeavour to capture them.[21]

During the manoeuvres, the blockaded fleets succeeded on several occasions in breaking out of otherwise closely watched ports. Nevertheless, the official conclusions reached by the umpires of the 1888 manoeuvres maintained that a close blockade remained the most desirable form of warfare for the Royal Navy.[22]

The two great naval antagonists, Great Britain and France, each had their strategy in place for the onset of a war. The French would again rely on their time-honoured *guerre de course,* but pursued with the full use of modern technology and an unprecedented ruthlessness. The British, more reliant than ever before on imported food and goods, were beginning to worry that their traditional policy of close blockade might not prove adequate in the face of the threat of the torpedo-boat. This would propel the Royal Navy into seeking an alternate solution, eventually creating the notion of the distant blockade, a perfectly workable strategy but one which defied the Declaration of Paris.[23]

The British continued to place faith in the ability of patrolling cruisers to deal with any commerce-raiders which might escape a blockade. The *Jeune Ecole* placed its faith in hit-and-run attacks, completed before the patrol could intercept the attackers. The possibility of British commerce remaining vulnerable to a swift and daring foe was one which other navies would grasp at hopefully.

Caprivi takes office, and Jachmann's memorandum

This was the ever-changing world of naval development into which Leo von Caprivi was thrust when he assumed the Head of the Admiralty on 20 March 1883. He had served in both the Seven Weeks' War of 1866 and the Franco-Prussian War with distinction as a staff officer with the First Army in 1866 and with X Army Corps in 1870±71, and had earned a reputation as an administrator and as a man willing to speak and act independently.[24] Nevertheless, Caprivi was the third straight infantry general to serve as commander of the navy; Bismarck once lamented: `if one could only have a Hussar lieutenant as Admiral at least once; but always infantrymen.'[25] Caprivi came to the position as unprepared as

had Stosch 11 years earlier; when he joined the navy, he was initially unable to recognize the insignia of different naval ranks.[26]

The one question that remained to be answered was in what direction Caprivi would lead the navy. Stosch's contributions had been in personnel and *matériel*. His emphasis on education and training had laid the groundwork for an efficient and well-drilled body of seamen and the nucleus of a naval general staff, while the *Flottengründungsplan* of 1873 had provided the navy with a sizeable fleet of ships capable of coastal defence and transoceanic commerce protection.[27] Where would Caprivi's priorities lie?

The future of the navy seemed to lie in the torpedo-boat. Stosch had not built many torpedo-boats during his tenure as head of the Admiralty, but at least he had sponsored the creation of the Torpedo Commission.[28] The possibility that the effectiveness of the torpedo-boat would render capital ships obsolete had affected the thought of the German navy, which pointed towards a corresponding change in construction policy.

Just as Adalbert had attempted to influence Stosch, so too did a retired naval officer attempt to provide helpful advice to Caprivi. In October 1883, the head of the Admiralty received a *Denkschrift* from Jachmann, containing a number of proposals. Jachmann's work, `Die Entstehung der Preußisch Deutschen Flotte' (`Genesis of the Prussian-German Fleet'), began as a history lesson for Caprivi's education. However, Jachmann was interested in more than merely providing a service; he had his own agenda to pursue. Jachmann proposed to use torpedo-boats on dark nights when the enemy fleet was either at anchor or passing slowly through confined waters, making use of the element of surprise, but he suggested only minimal arming of warships with torpedoes.[29] At least he was in agreement with Caprivi on one matter: `war-readiness is the great task of our Admiralty.'[30]

Jachmann was also interested in the duties of the navy overseas, both in war and in peace. He believed that the German navy came close to possessing the right class of ships for overseas duties, the *Moltke-class*.[31] These armoured frigates were suitable for representing the interests of the Reich in peacetime and, with some minor improvements in speed and armament, capable of disrupting the communications and seaborne commerce of the enemy in war.[32] Worried about the amount of coal needed to sustain a warship on commerce-raiding duties, Jachmann was consoled by the fact that the *Moltkes* were good sailing vessels, equipped with auxiliary sails to propel the ship when conservation of coal was necessary. In his opinion, if a slightly faster class of the *Moltke* were to be built, preferably with an armoured deck, the German navy would possess a class of ships capable of carrying out duties in war and in peace on overseas stations for the next 50 years.[33] What Jachmann wanted to do with those ships during a war with France was to break them into small squadrons for attacks on French colonies and trade, a worldwide *guerre de course,* carried out from a series of bases in the Far East which Jachmann advocated Germany should obtain.

Of course, Jachmann's prognosis for the longevity and the usefulness of such ships was woefully misplaced. The retired admiral seemed completely out of touch with the rapid developments in armour, armament and propulsion taking place in current shipbuilding. For someone so impressed by the pace of improvements in torpedo-boats over the past decade, he was unable to translate that progress into similar advances in the construction of cruising vessels. Unfortunately for the navy, Jachmann was not the only officer wedded to the concept of long-range cruiser warfare.

The cruiser admirals have their say: the Admiralty Council of 1884

If unsolicited advice from a retired admiral was not enough, Caprivi also had to deal with the possibility of insubordination in his own ranks. Captain Alfred Stenzel, one-time lecturer at the *Marineakademie* and currently director of the imperial shipyard at Wilhelmshaven, wrote to his superior, Count Alexander von Monts, North Sea Station Chief, in September 1883, calling for the convening of an Admiralty Council, taking as his example the French navy's system of greater responsibility and accountability on the part of its military leaders.[34] Ironically, many of the things Stenzel was interested inÐsuperior organization, better training and improved equipmentÐwere goals that Caprivi shared, but Stenzel went a step further. He wrote that the organization of the navy was `more difficult' than that of other institutions because of so many factors coming into play in the various departments. Consequently, the amount of knowledge needed was too great for one man alone to possess, and, as Stenzel put it, the navy `requires' the advic e of the Admiralty Council.[35]

Monts dutifully passed Stenzel's letter on to Caprivi, who wrote back to Monts on 10 October, making it clear that he disagreed with the contents of Stenzel's letter and regarded the captain as overstepping his bounds, however well-meant the advice. Caprivi went on to remind Stenzel that the French had gone through 14 ministers of war since the conclusion of the Franco-Prussian War, hardly a model acceptable to him: `Being convinced that an officer of the character and the selflessness of Captain Stenzel came to the matter himself, I will disregard the sometimes accusatory tone of his observations and advice.'[36]

Nevertheless, Caprivi decided to convene an Admiralty Council. In December he wrote to Monts, posing the three questions he wished the Council to consider:

1. In the case of war against one of our neighbouring powers, is a decisive importance to be attributed to cruiser warfare, and which forces should be employed towards that end?
2. How much should the possible use of ships as cruisers in the event of war be considered as a factor in the construction of ships for political service, and which requirements accordingly are to be placed for those ships and armament?

> 3. On the basis of which criteria are the instructions provided for in §32 of the mobilization plan, for the conduct of squadrons and ships abroad in the outbreak of a war against Germany, to be developed?[37]

The Council was convened in January 1884 and sat for nine sessions.[38] The members chosen were a cross-section of officers with a variety of experience in overseas service: Monts chaired the Council, and was joined by Rear-Admirals Knorr, Blanc and Wilhelm von Wickede; Captains Arthur Count von Schack, Carl-August Deinhard, Carl Eduard Heusner and Stenzel; and three civilian members, including Professor Alfred Dietrich, the Chief Designer of the navy.[39]

The Council considered the questions in the order they had been posed. Immediately, it chose to limit the definition of `neighbouring powers' *[`Nachbarmächte']* to France and Russia. In the event of a war with Russia, the Council saw the navy's first priority as gaining control of the Baltic Sea.[40] The purpose was to `sweep away' the enemy flag from the seas, to blockade his harbours, or to destroy his trade. The drawback, however, in a war with Russia, was that although most of Russia's seaborne commerce passed through the Baltic, there were still ports that the German navy could not control. No action was possible in the Black Sea without an ally that bordered on that body of water, and Vladivostok's commerce could only be attacked by the overseas ships and squadrons in the course of normal commerce warfare.[41]

A war with France, however, posed a completely different set of problems. Much as Germany could control Russia's main access to the waters of the world, so could France hinder the flow of German seaborne commerce through its natural geographic position. Furthermore, the superiority of the French navy dictated a much more cautious strategy on the part of the Germans. Thus, the first priority in the event of a war with France was to defend the coasts from amphibious assault and blockade. There was still the recognition that a more powerful navy could provide a more effective deterrent to French blockade or assault, but obtaining such a fleet was simply not physically possible.[42]

The Council established a list of specific tasks for the cruisers in the event of war. The first was to act against the transportation of overseas supplies necessary for the enemy's purposeÐwar contrabandÐand prescient of Aube's writings, `without regard for the flag'.[43] While this may sound like the ruthless nature of the *Jeune Ecole*'s war on commerce, it was based much more on the memories of German experiences in the Franco-Prussian War, when British and American manufactured arms kept the war going for much longer than the Germans thought it should have. Sea power would finally be put to its proper use, to deny the enemy the means of waging war once the German armies had been victorious. This was not war for economic purposes; this was war fought for a definite military objective.

The second target of the cruisers was to be enemy merchant vessels and ocean-going fishing vessels, excepting the coastal fishing fleet; this was in accordance with traditional anti-commercial practices. The third seagoing target was enemy

cruisers and other vessels flying the enemy's flag. The fourth point was eventual action against the enemy's coasts or colonial possessions, leading to the fifth and final point, a blockade of the enemy coast.[44]

The objective of the cruisers' action was, above all else, to deny to the enemy the ability to continue to wage war using supplies and materials imported from overseas. This was stressed very carefully at several points in the report of the Council:

> If a belligerent state does not wish to be cut off from overseas supplies and if the enemy cruisers were not in a position to successfully prevent this, then cruiser warfare could contribute substantially to the decision of the war, even probably bring about such a decision by itself¼A striking proof for this is provided by our last war, in which the need of France soared within months. The amounts of deliveries of weapons, etc. for the newly-created armies, were enormous. A single steamer, e.g., one of many, had brought in not fewer than 140 cannons and 30,000 rifles, worth around 5 million marks, from New York to Bordeaux. Without these colossal overseas supplies the continuation of the war would have been impossible and in this case one can rightly state that an emphatic and successfully conducted cruiser war, while it might not have directly brought about the decision, it would have considerably expedited it.[45]

Two decades after the American Civil War, and nearly 15 years after the Franco-Prussian War, the German navy was still planning to fight the next war in the same way. The Council reminded Caprivi of the successes of the *Alabama,* both against Union commerce and in battle with the Federal gunboat USS *Hatteras;* the clear implication was that a suitable cruiser would be capable of fending for itself. The lessons learned from the American Civil War were different in France and Germany: to the French, the rapid desertion of the Federal merchant fleet to neutral flags was the key to future success in destabilizing the economy of the enemy; to the Germans, the audacity and the physical success of the Confederate commerce-raiders were the most important factors.

It is interesting to note that many of these points coincide with similar issues raised in Stenzel's lectures at the *Marineakademie* in the late 1870s. Although the original notes of Stenzel's lectures no longer exist, he wrote them out in book form and they were subsequently published in 1913, seven years after his death.[46] In the book, he listed the three priorities of `little war' *(`der kleine Krieg')* as first against enemy war supplies (`an object of far-reaching significance'), second against enemy maritime traffic (`the source of wealth') and third against enemy property. He even re-cited the example of the Franco-Prussian War to emphasize the importance of stopping the flow of goods of war.[47]

Although the Council devoted most of its report to the possibilities of war with France or Russia, and despite the limited definition chosen for the terms of

reference, it nevertheless speculated on the possibility of conducting a *Kreuzerkrieg* against England: `Cruiser warfare would have the greatest significance in a war with England, which is inaccessible to our army and will always remain so, thanks to its dominating fleet.'[48] The German navy could not help but achieve enormous success against an English commercial fleet that was six times as great as Germany's: `In such a case therefore cruiser warfare could become decisive.'[49] However, the Council also recognized the danger in engaging in commerce-raiding against the world's greatest sea power. Noting that Russia had commenced construction of several cruisers designed for trade interdiction on the high seas, the Council also commented on the fact that, in response, the Royal Navy had begun its own construction of more cruisers with greater displacement, stronger armour and greater speed.

Overall, the members of the Council believed that cruiser warfare had a role to play in a conflict with another European power. That role was perceived to be of a practical nature, as a means of aiding the army in its land campaign, by denying badly needed supplies to the enemy; the cruisers were to serve as `cavalry in the rear of the enemy'.[50] Cruiser warfare was therefore, in this philosophy, designed not as economic warfare, but as an adjunct to traditional conflict. Nevertheless, the Council also kept an eye on greater possibilities for the fleet: `our fleet has in first priority to strive for the control of the seaÐthe chief purpose of the fleets generallyÐat least at its coasts, and to utilize all strength which can be made available towards that end.'[51] This was the strongest statement yet by any naval body towards such an offensive-geared strategy; it went far beyond coastal defence and spoke of an even more powerful use of sea power than cruiser warfare.

The Council had concluded that cruiser warfare was a valid means of expressing German sea power; the second question, as to the ideal type of cruiser for both peacetime and wartime duties, was therefore an appropriate matter for debate. (Indeed, the question was argued to such an extent that Stenzel and Wickede submitted a dissenting opinion to the main report, disagreeing with the majority opinion over how many rounds of ammunition were needed for the two final designs.) The importance placed by the Council on determining an appropriate cruiser design was evident in the attention to details and the disagreements over specifics. By presenting a completed design, the Council hoped to offer a ship which Caprivi would agree to build, the Reichstag would agree to fund and the navy would be able to use in all corners of the globe, serving in both peace-time diplomacy and wartime exigencies. There would be no confusion in the German navy over ship construction; the Admiralty Council was determined to see to that.

The Council set out a list of five essential qualities required by the cruiser: in order of importance, they were seaworthiness, speed, self-sufficiency, armament and rigging.[52] This required a careful juggling act; the Council wanted as many ships of the same class as comparable ships in the enemy's fleet, but the ships had to be built to the smallest possible size in order to economize.[53]

Why would the Council rank the five items in the order that it did? Seaworthiness was considered the most important. While this is a necessary quality for any ship, it was to be emphasized in these cruisers because of the wide-ranging nature of their duties: long-range service in temperate and tropical climates, gentle and rough seas, and confined and open waters. It did little good to assign a ship for long-term service that was unable to handle it well. The next important qualification was speed. In an era when many merchant vessels could actually outrun would-be commerce-raiders, speed had become a vital asset. It allowed the cruiser to catch slower prey and to outdistance more powerful pursuers. Self-sufficiency was ranked third for several reasons. First, as the experience of the Confederate raiders and the abortive exploits of SMS *Augusta* had shown, little support could be expected from neutral ports. Without a network of bases, German cruisers were at the mercy of unscrupulous suppliers in peacetime and the rules of war regarding neutral ports in times of war.[54] Second, the longer a cruiser could remain at sea, the better chance it stood of finding prey. Third, the longer a cruiser remained away from ports, the less likely it was to have its position given away. The telegraph would allow the enemy's consulates to warn its ships and stations of the arrival and departure of a German raider.

The fourth item, armament, posed several problems for the designers. While the necessary weapons did not need to be equivalent to those found in first-class ships assigned to home waters, they had to be sufficient for the assigned tasks, most specifically engage enemy commerce-raiders or commerce protection ships in single combat. The weapons had to be of such a type that the greatest amount of ammunition possible could be stowed in the cruiser without taking up more than the traditional 5 to 8 per cent of total ship's displacement that armament usually accounted for.

Finally, rigging was also considered to be of sufficient importance to be included among this list. A cruiser's coal supplies would be exhausted by a few high-speed chases.[55] Furthermore, steam-powered engines remained unreliable for sustained propulsion; the quality of coal and the use of freshwater in the boilers, together with the rigours of constant use, taxed the still primitive nature of the technology to its limits. Also, spare parts were hard to come by in tropical and neutral ports. Consequently, auxiliary sails, even in the 1880s, were considered an integral part of a cruiser designed to serve on overseas duties in peace and as a commerce-raider in war.[56]

The Council designed both a first- and a second-class cruiser to fulfil the necessary requirements for such vessels. The first-class design was to be a ship of 3,500 tons maximum displacement, capable of a top speed of 17 knots and a cruising range of 5,000 miles at 10 knots. The frame of the vessel was to be made out of steel or iron, but the ship was to have wooden sides and a coppered bottom.[57] The copper bottom was to repel the marine life that would otherwise foul the cruiser's keel; the wood kept the copper from reacting with the iron hull.

To ensure the cruiser's self-sufficiency, the Council's design emphasized the need for an adequate supply of vital provisions. The coal bunkers were to be as large as possible for a wide cruising radius. Three months' worth of supplies could be stored in the hold; water could be stored for a fortnight, with a water-distilling machine installed on board to provide more. To avoid breakdowns in the engines there should be two separate engines, each one capable of propelling the ship on its own.

Armament, including one or two torpedo-boats to be carried on board the cruiser, was not to exceed 7 per cent of the total ship's displacement. The Council called for two 150 mm cannon in the bow, two more in the stern, an unspecified number of 150 mm cannon and four to six small rapid-fire guns on each broad-side. Torpedo-tubes were also to be mounted on both the bow and the broadside. In addition, `construction of the bow that preserves the possibility of ramming' was to be another design feature.[58]

How did this projected cruiser compare to what was currently available in the German navy? The previous classes of cruisers, the *Bismarck* and *Carola* classes, were designed to serve on overseas duties. Perhaps the best choice for comparison is SMS *Charlotte,* which was under construction during the period of the Council's debates.[59] She was essentially a copy of the *Bismarck*-class design, with an iron hull sheathed in wood and fully rigged, the last German warship to be so built. Her displacement was 3,703 tons, and she was armed with 18150 mm cannon, 16 88 mm cannon and six 37 mm revolver cannon. Her top speed was 13½ knots. In comparison to the ideal cruiser design by the Council, the *Charlotte* was comparably armed (save for the lack of torpedo-tubes and torpedo-boats), but slower and heavier. By way of further comparison, the next comparable class of cruisers to be laid down, the *Irene*-class of 1886, were of nearly 5,000 tons displacement, incorporating the armaments suggested by the Council, with engines powerful enough to propel them at 18 knots, and an armoured deck. Obviously, the Council's attempt at designing a first-class cruiser was rapidly overtaken by developments in naval architecture and the needs of overseas ships.

Different circumstances dictated different requirements for ships serving on overseas duties. A first-class cruiser might be more than was necessary for a specific duty, so the Council also drafted a design for a smaller second-class cruiser. In many ways, the design was merely a scaled-down version of the first-class cruiser proposal: a ship of iron or steel construction with wood sheathing and copper bottom, with a similar if smaller calibre complement of guns and torpedo-tubes. The top speed was to be 16 knots, and the cruising range was 5,000 miles at 10 knots. This entire package was to come in a ship of no more than 2,200 tons total displacement. The Council acknowledged the limitations in designing ships by committee, and concluded its report as follows:

> Finally it still may be noted that the requirements for any new ships to be built are calculated according to the performance capability of today's

> technology. With any new construction it would be self-evident that all technological improvements would be employed while observing the established principles.[60]

The two final meetings of the Council were concerned with Caprivi's third questionÐwhat instructions should be given to the overseas squadrons in the event of war. There were two possible choices, either having each cruiser operate independently or cruisers joining to form small squadrons of three or four vessels. To its advocates, one of the advantages of single-ship action was that the dispersal of cruisers as widely as possible forced the enemy to do likewise with its pursuit craft, perhaps giving the opportunity for a vessel to sneak past into the shipping-lanes. Another was that a single squadron-to-squadron engagement could eliminate the entire overseas force. Those in favour of single-ship operations could point to the record of the Confederate commerce-raiders, while opponents could argue that the Confederacy had had no choice in conducting such operations, having so few ships and no bases.

One of the keenest participants in the debate was Knorr; his comments reflected both his wartime experience and his personal leanings.

> It is questionable whether in this light keeping the forces together will be called for. ÐFurthermore,it is assumed that the union always succeeds; if this is not the case, then the activity of a cruiser operating alone will have to be preferred to the single ineffective squadron. Moreover, I would like the opportunity to overcome the French squadron on the East Asian Station¼. We are in every respect unfavourably placed opposite the French even regarding the favour of neutrals.[61]

Knorr's attitude typified the feelings of the officers, that single-ship action presented more feasible opportunities for the navy than a concerted squadron action. In Knorr's opinion, the German forces overseas stood no chance of success unless they worked individually. Also, his pessimism about relying on neutral support was born from his experiences commanding SMS *Meteor,* when the Spanish remained decidedly unfriendly neutrals, and the example of the United States abruptly ending its benevolent neutrality after the tide of the war with France had turned in Prussia's favour. Knorr expected nothing from any neutral, and meant to plan his actions accordingly.

However, Knorr's vision of the duties of those single ships was not in harmony with the ideas of someone like Aube:

> Not prizetaking but destruction of enemy merchant ships must be our principle, and as wide a definition of the term `war contraband' as possible should be given. I believe cruiser warfare will be conducted more successfully from single ships than from squadrons and I would therefore

> be in favour of dissolution of the squadron of the East Asian Station, as long as the annihilation of the enemy is not a certain prospect.[62]

Knorr was convinced that single-ship action was the desired method, and was determined to pursue this as far as possible. There is a hint of the ruthlessness of the *Jeune Ecole* in Knorr's statement; however, his determination to have `as wide a definition of the term ªwar contrabandº as possible' indicates that he would not go as far as Aube, Charmes and the advocates of a true commercial war. The *Jeune Ecole* did not care to stop and search vessels to determine whether the cargo they carried was contraband or legitimate trade, or whether it was government or private property; they only wished to cause the maximum amount of economic disruption and social damage possible. By even thinking of any definition of contraband, Knorr showed that he was wedded to the traditional practices of commerce-raiders, of stop and search. The only concession to modern realities he would make would be to advocate destruction rather than confiscation or prize-making, and that was based solely on the lack of German ports available for the captured merchantman to be taken to. Knorr was interested in the *guerre de course* as a method of denying the enemy the means to wage war, not through indirect economic-political pressure. His war on commerce was to be conducted for practical purposes.

Knorr was not alone in his feelings towards commerce destruction. During the discussion on the feasibility of *Kreuzerkrieg,* Stenzel expressed similar sentiments:

> A successful *Kreuzerkrieg* will not only considerably ease our army's conduct of the land war, but it will, especially in the case of a war of long duration, also expedite and bring about a decision; thus, a particularly high importance must be attributed to it.[63]

The final outcome of the Admiralty Council's deliberations, while not a ringing endorsement of commerce destruction, was nevertheless optimistic for Germany's chances in such a war. The Council pronounced it feasible under certain circumstances, proposed warship specifications to maximize the potential for lengthy cruises overseas, and seemed convinced that action by the navy to stifle the maritime trade of the enemy would be the most effective contribution possible to the war on land, where ultimately the decisive battles would be fought.

One factor which the Council did not consider in any depth was the position of neutrals in the event of a war between Germany and another European power. Without a chain of bases to rely upon for supplies and repairs, German commerce-raiders would have to rely primarily on the goodwill of neutral states. As the experience of the Franco-Prussian War had shown, that was a very slender reed to lean upon. Consequently, the designs of the prototype first- and second-class cruisers were intended to ensure maximum self-sufficiency. Self-

sufficiency, however, was not a permanent state, and eventually even the most independent of raiders would have to put into port for coal, food, water, ammunition and spare parts.

This would, in turn, have an effect on the relationship between a belligerent Germany and the neutral states. If the German navy pursued a bellicose policy of ruthless commerce-raiding `without respect for the flag', it would cut itself off from neutral good will and would, in all likelihood, be forced by neutral pressure to abandon such a drastic strategy.[64] The general perception held by the Council members of neutrals in such a war was that they would step back, allow the combatants to fight it out, and would render only as much aid as was permitted under the letter of international law. This was also a conclusion reached by Stenzel in his lectures. The favouritism shown by many neutrals to the Confederate commerce-raiders was contrary to the normal course of justice, and would not be permitted to happen again in the future.[65]

This was perhaps why Knorr, Stenzel and other German commerce-raiding advocates were concerned with aspects of a more traditional form of the *guerre de course,* and one that could only be carried out by cruisers and not torpedo-boats. In their view, it was too great a risk to threaten public opinion in the daring French fashion by operating what would effectively be an unrestricted war on commerce. Germany would have to rely on the goodwill of neutrals to keep its overseas shipping-lanes open and its imports of foreign goods flowing. For that reason, an implicit but unjustified faith was placed in the reciprocity of neutrals towards a Germany at war with France.

Caprivi's naval goals clarified: the memorandum to the Reichstag, March 1884

Caprivi took the reports of the Admiralty Council under advisement and, with all the other material he had received since the commencement of his tenure as Head of the Admiralty, prepared to deliver his first statement of policy to the Reichstag in March 1884, during the annual naval estimates debate. The report presented, `Memorandum concerning the Further Development of the Imperial Navy' [`Denkschrift betreffend die weitere Entwickelung der Kaiserlichen Marine'], was in all probability prepared by Caprivi with the assistance of Tirpitz:[66] `The memorandum reflected the prevailing uncertainties about naval construction.'[67] That is, to say, it failed to set out as comprehensive a fleet construction plan as Stosch's 1873 *Flottengründungsplan*. Was this a failure brought on by general uncertainty or by Caprivi's own indecisiveness?

It is well understood that Caprivi believed that a strong battle fleet was the first necessity for the navy: `We are worthless as allies at sea if we cannot appear with a battle fleet upon the high seas.'[68] He declared in March 1884 that he was more interested in building capital ships than the cruisers recommended by the Council. Caprivi's naval priorities were reflected in his division of the memorandum into four sections, spending the greatest amount of time on the

first section, `Ships and Vessels' [`Schiffe und Fahrzeuge']. Although Caprivi spoke a great deal about torpedo-boats, it was always within the context of using them as coastal-defence vessels and as blockade-breaking ships. His vision of the navy did not include a vigorous prosecution of war on the world's seas because Germany was limited in its ability to conduct such a war, but he did at least make a token acknowledgement of its uses: `Indeed, today *Kreuzerkrieg* still offers the possibility of injuring the enemy to a certain extent, and even the lack of secure coaling stations will not prevent a warship that finds itself abroad from asserting itself.'[69] Furthermore, Caprivi saw no practical means for commerce-raiding to be successfully conducted at the current levels of technology; with passenger liners, mail ships, and cargo steamers all able to outrun the overseas cruisers, the possibility of a worthwhile *guerre de course* was becoming `progressively unfavourable'.[70] Thus, he chose to disregard the advice of the Admiralty Council of two months previously, and its projections for *Kreuzerkrieg*. It mattered little whether the navy built the cruisers designed by the Council; in Caprivi's view, the end-result of commerce warfare would be of no significant value, and therefore was no longer worthy of serious consideration by the navy.

Instead, Caprivi made it clear that a battle fleet would be much more effective and much more practical. Without a battle fleet, Germany's world position would be precarious, and the overseas interests of the Reich could not be guaranteed by the implied threat the battle fleet posed.[71] Several historians have described this as worthy of Tirpitz's later plans.[72] Caprivi did display interest in and support for the torpedo-boat as a weapon of great promise, but he refused to become wrapped up in its capabilities to the exclusion of all else:

> A navy like ours cannot afford the luxury of failed experiments; it cannot dare much in constructions. We will rather proceed cautiously in the area of the development of armoured ships, as there are other directions in which we could safely await successes and as time could be used for the training of personnel.[73]

Unlike Stosch's *Flottengründungsplan,* this, the first official pronouncement on naval policy under Caprivi, was not designed to be a long-range building plan for the fleet. It shared the uncertainty in the world' s admiralties over the shape of the navy of the future and was hesitant about spending enormous sums of money on armoured behemoths vulnerable to the cheapest and smallest of weapons. To Caprivi, the building programme Stosch had proposed was now complete.[74] It was time for the navy to focus its energies elsewhere.

Conclusion

The first year of Caprivi's tenure seemed to presage a quiet build-up of the German navy's other aspects aside from the raw dynamics of shipbuilding. The Stosch

era had provided the navy with the nucleus of a fleet; now, under Caprivi's leadership, other developments could be emphasized: operations planning, strategy and tactics. Despite many officers' interest in the establishment of overseas bases, Caprivi regarded this as secondary to the threat of war in Europe. Accordingly, he felt free to downplay the recommendations of the Admiralty Council, as even that body had made clear that the *guerre de course*'s role in the next European war would be secondary.

While Caprivi did find the torpedo to be an effective weapon, he was not prepared to take its use to the extremes the *Jeune Ecole* proposed. To Caprivi, the navy's first task was, as before, to secure German coasts from the threat of invasion and to maintain the flow of commerce into German ports by thwarting enemy attempts at blockade. To that end, the torpedo-boat seemed the ideal solution: swift, cheap and readily available in quantity. Thus, Caprivi's attraction for the torpedo and the torpedo-boat did not parallel Aube's interest in ruthless commerce-raiding on the sea-lanes.

Unfortunately for Caprivi, this period for consolidation ended with the commencement of Germany's drive for empire in 1884. The pressures put on the German navy, and the additional duties required, taxed the available resources of the navy, and also kept alive the hopes of those who saw Germany's future war at sea to lie in the long-range threat to enemy commerce. A plan had been created for the conduct of *Kreuzerkrieg,* one which could be conducted by ships the navy would conceivably have to build for peacetime overseas duties. By using the designs of the Admiralty Council, the German navy could have prepared itself to fight the next war on a global scale—disrupting the flow of enemy commerce as much as possible, wherever possible.

However, such a war would not have been fought in the style proposed by the *Jeune Ecole,* but in a style combining some of its elements with the key features of the older Confederate model. The German commerce-raiders would have operated as single ships, roaming the seas and shipping-lanes across the globe. They would not have been able to rely on lines of interdiction, as the French would have with their natural geographic position. Also, the German navy would have relied on some form of stop-and-search procedure. Contrary to Aube's ruthless dictums, neutral vessels would not have been subject to arbitrary destruction without proper verification. The verification procedures would have been as broad as possible, though, allowing the raider's captain the greatest latitude in condemning prizes and sinking such merchantmen.

Was the Admiralty Council's guide for commerce warfare a practical option, and was it comparable to the theories of the *Jeune Ecole*? Unfortunately, lacking easy access to the world's waterways and overseas bases, Germany was ill-suited to either system. Nevertheless, this did not deter those advocates of commerce-raiding in the navy; on the contrary, it made them all the more eager for long-range cruisers or a chain of fortified bases, or a combination of both. Despite Caprivi's rejection of the Admiralty Council's favouring commerce destruction, the notion refused to die. When couched in the ruthless language of the *Jeune*

Ecole, it would retain the fascination of a number of officers, politicians and navalists. To them, it was their means of asserting themselves as officers of the Imperial German Navy, prepared to give their lives in the service of their Reich.

Notes

1. So-called for its opposition to *la Vieille Ecole,* the class of senior officers comfortably set in higher commands. The *Jeune Ecole* was as much a reaction by younger officers against privilege and lack of promotion opportunities as it was a new theory of naval warfare. See Volkmar Bueb, *Die `Junge Schule' der französischen Marine. Strategie und Politik 1875±1900* (Boppard am Rhein: Harald Boldt Verlag, 1971).
2. Theodore Ropp, *The Development of a Modern Navy: French Naval Policy 1871± 1904,* ed. Stephen S.Roberts (Annapolis, MD: Naval Institute Press, 1987), p. 170.
3. Bryan Ranft, `The protection of British seaborne trade and the development of systematic planning for war, 1860±1906', in Ranft, ed., *Technical Change and British Naval Policy, 1860±1939* (London: Hodder & Stoughton, 1977), p. 2.
4. John F.Beeler, *British Naval Policy in the Gladstone-Disraeli Era, 1866±1880* (Stanford, CA: Stanford University Press, 1997), pp. 211±12.
5. Rolf Hobson misunderstands Bernard Brodie when he quotes Brodie acknowledging that the freeing of ships from the weather-gauge passed the advantage to the faster ships; Brodie is referring to battle on the high seas, not blockade: Rolf Hobson, *The German School of Naval Thought and the Origins of the Tirpitz Plan 1875±1900* (Oslo: Institutt for Forsvarsstudier, 1996), p. 25; Bernard Brodie, *Sea Power in the Machine Age* (Princeton, NJ: Princeton University Press, 1941), p. 83.
6. Ropp, *Development of a Modern Navy,* p. 27. The focus on torpedoes may seem out of place in light of the facts of cruiser warfare, but this weapon, more than any other, dictated the widespread confusion over the future of big-ship construction at this time, and effectively compelled navies into building cruisers during this period in lieu of battleships.
7. Lawrence Sondhaus, `Strategy, Tactics, and the Politics of Penury: The Austro-Hungarian Navy and the *Jeune Ecole', Journal of Military History,* 56 (1992), p. 592.
8. M.S.Partridge, `The Royal Navy and the End of the Close Blockade, 1885±1905: A Revolution in Naval Strategy?', *Mariners' Mirror,* 75 (1989), p. 122. A check of *Conway's All the World's Fighting Ships 1860±1905* (London: Conway Maritime Press, 1979), p. 210, indicates that the Russian torpedo-boats were small vessels based on a Yarrow design, less than 68 feet in length and usually equipped with a single torpedo (Whitehead, gunpowder-launched or spar). The first 100 boats were launched in 1877±78, and the other 15 were acquired abroad by 1880, most from Schichau.
9. Quoted in Ropp, *Development of a Modern Navy,* p. 156.
10. Ropp, *Development of a Modern Navy,* p. 159; *Conway's,* p. 332.
11. Bueb, *Die `Junge Schule' der französischen Marine,* pp. 19±20.

12. Gabriel Charmes, *La réform de la marine* (Paris: n.p., 1886), as quoted in Bryan Ranft, `Restraints on War at Sea before 1945', in Michael Howard, ed., *Restraints on War: Studies in the Limitation of Armed Conflict* (Oxford: Oxford University Press, 1979), p. 51.
13. Hyacinthe-Laurent-Théophile Aube, `Défense nationale, défense des colonies', in Henri Mager, ed., *Atlas Colonial* (Paris: C.Bayle, 1885), pp. 11±12, as quoted in Ropp, *The Development of a Modern Navy,* p. 165.
14. Theodore Ropp, `Continental Doctrines of Sea Power', in *Makers of Modern Strategy: Military Thought from Machiavelli to Hitler,* ed. E.M.Earle (Princeton, NJ: Princeton University Press, 1943), p. 449.
15. *Le Petit Journal,* 14 January 1886, as quoted in Linda L.Clark, *Social Darwinism in France* (Montgomery, AL: University of Alabama Press, 1984), p. 162.
16. Siméon Bourgeois, `Les torpilles et le droît des gens', *Nouvelle Revue,* v.2 (1886), as quoted in John C.Colombos, *The International Law of the Sea,* 6th rev. edn (London: Longman, 1967), p. 511.
17. Charles Dupuis, *Le droit de la guerre maritime d'après les doctrines anglaises contemporaires* (Paris: A.Perdone, 1899), as quoted in Colombos, *The International Law of the Sea,* p. 493.
18. Sir Frederick Smith (Earl of Birkenhead), *The Destruction of Merchant Ships under International Law* (London: J.M.Dent, 1917), p. 37.
19. Sondhaus, `The Politics of Penury', p. 588.
20. Arthur J.Marder, *The Anatomy of British Sea Power: A History of British Naval Policy in the Pre-Dreadnought Era, 1880±1905* (New York: Alfred A. Knopf, 1940), pp. 107±11; Partridge, `The Royal Navy and the End of the Close Blockade, 1885±1905', pp. 123±4. Also see Alfred Stenzel, *Über Kriegsführung zur See. Eine strategische Studie an der Hand der englischen Flotten-Manöver im Jahre 1888* (Berlin: Wiegandt & Grieben, 1889), *passim*.
21. As quoted in Partridge, `The Royal Navy and the End of the Close Blockade, 1885± 1905', p. 123.
22. Marder, *The Anatomy of British Sea Power,* p. 108.
23. For the development of the distant blockade, see Partridge, `The Royal Navy and the End of the Close Blockade, 1885±1905'; for its adoption as a policy against Germany before the First World War, see Avner Offer, *The First World War: An Agrarian Interpretation* (Oxford: Oxford University Press, 1989).
24. Gordon A.Craig, *Germany 1866±1945* (New York: Oxford University Press, 1978), pp. 230±1; Hans H.Hildebrand and Ernest Henriot, eds, *Deutschlands Admirale 1849±1945,* 4 vols (Osnabrück: Biblio Verlag, 1988), Vol. 1, pp. 203±4; Michael Howard, *The Franco-Prussian War: The German Invasion of France, 1870±1871* (New York: Methuen, 1961), pp. 152±4, 307; Ivo N.Lambi, *The Navy and German Power Politics, 1862±1914* (Boston, MA: Allen & Unwin, 1984), p. 6.
25. Frederic B.M.Hollyday, *Bismarck's Rival: A Political Biography of General and Admiral Albrecht von Stosch* (Durham, NC: Duke University Press, 1960), p. 140.
26. Lamar Cecil, *Wilhelm II: Prince and Emperor, 1859±1900* (Chapel Hill, NC: University of North Carolina Press, 1989), p. 293.
27. Lawrence Sondhaus, `ªThe Spirit of the Armyº at Sea: The Prussian-German Naval Officer Corps, 1847±1897', *International History Review,* 17 (1995), pp. 474±7.

28. Lawrence Sondhaus, *Preparing for* Weltpolitik: *German Sea Power before the Tirpitz Era* (Annapolis, MD: Naval Institute Press, 1997), p. 148, who says the German navy `had only three useless torpedo boats, with another seven on order' by the end of Stosch's tenure. Patrick Kelly, however, notes that the *Flottengründungsplan* was modified in 1882 to include 10 large and 12 small torpedo-boats, and again in early 1883 for an additional 18 torpedo-boats. Patrick J.Kelly, `Tirpitz and the Origins of the German Torpedo Arm, 1877±1889', unpublished ms., 1993, pp. 8, 10. (Kelly's paper is now published in: *New Interpretations in Naval History: Selected Papers from 11th Naval History Symposium, held at the United States Naval Academy, 21±23 October 1993,* ed. Robert W.Love, Jr (Annapolis, MD: Naval Institute Press, 2001).)
29. BA-MA, RM1/1845, Jachmann to Caprivi, October 1883, `Die Entstehung der Preußisch Deutschen Flotte'.
30. Ibid., as quoted in Thomas Brysch, *Marinepolitik im preußischen Abgeordnetenhaus und Deutschen Reichstag 1850±1888* (Hamburg: E.S.Mittler, 1990), p. 320.
31. Both *Conway's,* p. 251, and Hans Jürgen Hansen, *Die Schiffe der deutschen Flotte 1848±1945* (Oldenburg: Bechtermünz Verlag, 1998), p. 56, refer to this class of vessels as the *Bismarck*-class. For further details, consult Appendix III: `German Cruiser Classes, 1860±90', p. 194.
32. BA-MA, RM1/1845, `Die Entstehung der Preußisch-Deutschen Flotte'.
33. Ibid.
34. Stenzel taught sea tactics and naval history at the *Marineakademie* from 1875 to 1881, and again from 1894 to 1896. His work on naval strategy and tactics earned him the nickname `the German Mahan'. His pupils included such future senior officers as Tirpitz and Maltzahn: Rolf Hobson, `Imperialism at Sea: Naval Strategic Thought, the Ideology of Sea Power and the Tirpitz Plan, 1875±1914', unpublished PhD dissertation, Norges teknisk-naturvitenskapelige universitet, Trondheim, 1999, pp. 166±7. Also see Hildebrand and Henriot, *Deutschlands Admirale 1849± 1945,* Vol. 3, pp. 380±1. Stenzel's entry in Hildebrand and Henriot is unique, in that he is the only officer to be included who failed to attain an admiral's rank.
35. BA-MA, RM1/1872, Stenzel to Monts, 10 September 1883.
36. BA-MA, RM1/1872, Caprivi to Monts, 10 October 1883. Also see Sondhaus, *Preparing for Weltpolitik,* p. 152.
37. BA-MA, RM1/1872, Caprivi to Monts, 18 December 1883.
38. The minutes in BA-MA, RM1/2795, show meetings occurring on January 16, 17, 18, 19, 21, 22, 23, 24 and 25, for a total of 9 sessions, a sum confirmed by Brysch, *Marinepolitik im preußischen Abgeordnetenhaus und Deutschen Reichstag 1850± 1888,* p. 322, n. 17. Sondhaus says the Council met 10 times: *Preparing for Weltpolitik,* p. 278, n. 40.
39. There was also one additional unidentifiable officer; Lieutenant-Commander Hugo Zeye served as secretary: BA-MA, RM1/2795; biographical information from Hildebrand and Henriot, *Deutschlands Admirale, 1849±1945,* Vol. 3, *passim*.
40. The Council worded its statement rather strongly: `In a war with Russia our fleet would have as the main goal and the most important task to strive for, the *control of the seas [Beherrschung]* i.e. here in this respect, the Baltic'; emphasis in original. The use of the term `Beherrschung' implies a much greater degree of

activity in the event of war than a mere coastal defence: BA-MA, RM1/2795, `Gutachten über die Frage', 21 January 1884.

41. Ibid.
42. Stenzel may have disagreed to some extent with this notion. In 1891, he wrote that the North German *Bundesflotte* should have attacked the French naval blockade in 1870; even though the Germans would probably have lost, such a move would have nevertheless successfully broken the blockade. Hobson, `Imperialism at Sea', p. 162, n. 86.
43. `[A]gainst overseas imports for war purposes by the enemy, i.e. war contraband and indeed without regard for the flag': BA-MA, RM1/2795, `Gutachten über die Frage', 21 January 1884.
44. BA-MA, RM1/2795, `Gutachten über die Frage', 21 January 1884.
45. Ibid.
46. Hobson is satisfied that Stenzel did not revise his original manuscript to any significant extent in the intervening three decades, nor that it was altered by Hermann Kirchhoff, the admiral and disciple of Stenzel who edited it for publication: Hobson, *The German School of Naval Thought,* p. 69, n. 31, and `Imperialism at Sea', pp. 167±8 and n. 104.
47. Alfred Stenzel, *Kriegsführung zur See. Lehre vom Seekrieg,* ed. Hermann Kirchoff (Hannover: Hahnsche Buchhandlungs, 1913), p. 247.
48. BA-MA, RM1/2795, `Gutachten über die Frage', 21 January 1884.
49. Ibid.; underlining in original.
50. Walther Hubatsch, *Der Admiralstab und die Obersten Marinebehörden in Deutschland, 1848±1945* (Frankfurt am Main: Verlag für Wehrwesen Bernard & Graefe, 1958), pp. 43±4.
51. BA-MA, RM1/2795, `Gutachten über die Frage', 21 January 1884.
52. BA-MA, RM1/2795, `Gutachten über die Frage', 23 January 1884.
53. Although an enemy is not specified, it is most likely to have been France, with Russia a distant second.
54. Cf. the complaints in RM1/2806, `Denkschrift betreffend die Ausführung des Flottengründungsplan von 1873', 1 July 1886, regarding peac etime.
55. Julian S.Corbett, *Some Principles of Maritime Strategy* (London: Longmans, Green, 1911), p. 272.
56. Beeler, *British Naval Policy in the Gladstone-Disraeli Era, 1866±1880,* p. 212.
57. *Conway's,* p. 41, notes that the Royal Navy's policy for most of the late nineteenth century was to build ships with iron hulls only if they exceeded 3,000 tons displacement.
58. BA-MA, RM1/2795, `Gutachten über die Frage', 23 January 1884.
59. Laid down in 1883, *Charlotte* was launched on 5 August 1885 and completed on 1 November 1886. All data for this section from *Conway's,* pp. 251±2, and from Hansen, *Der Schiffe der deutschen Flotte 1845±1945,* p. 79.
60. BA-MA, RM1/2795, `Gutachten über die Frage', 23 January 1884.
61. BA-MA, RM1/2795, minutes of the meeting of 24 January 1884.
62. Ibid.
63. From the minutes of the meeting of 18 January 1884, as quoted in Brysch, *Marinepolitik im preußischen Abgeordnetenhaus und Deutschen Reichstag 1850± 1888,* p. 324.

64. Stenzel wrote in 1894 on the effects of the Federal blockade during the American Civil War; he concluded that the Declaration of Paris would have to be respected by belligerents because of the pressure neutrals would bring to bear. Quoted in Hobson, `Imperialism at Sea', p. 179.
65. Stenzel, *Kriegsführung zur See,* p. 247.
66. Kelly, `Tirpitz and the Origins of the German Torpedo Arm, 1877±1889', p. 12.
67. Lambi, *The Navy and German Power Politics, 1862±1914,* p. 6.
68. `Denkschrift betreffend der weitere Entwickelung der Kaiserlichen Marine', 11 March 1884, as quoted in Rolf Güth, *Von Revolution zu Revolution: Entwicklungen und Führungsprobleme der deutschen Marine 1848±1918* (Herford: E.S.Mittler, 1978), p. 74.
69. SBVR, V Legislatur-Periode, IV Session, 1884, Vol. 3, Anlage 26, p. 434.
70. Ibid., p. 434.
71. Ibid., p. 435.
72. Güth, *Von Revolution zu Revolution,* p. 74; Lambi, *The Navy and German Power Politics, 1862±1914,* p. 7.
73. SBVR, V, IV 1884, 3. Band, Anlage 26, p. 435; also see Güth, *Von Revolution zu Revolution,* p. 74, and Hans Hallmann, *Krügerdepesche und Flottenfrage* (Stuttgart: W.Kohlhammer, 1927), pp. 19±20.
74. Sondhaus, *Preparing for Weltpolitik,* p. 153.

8
CAPRIVI OFF COURSE
Colonial sideshows, operations planning, construction policies and tactical development, 1884±88

> `I hear you are opposed to colonies', said Bismarck after Caprivi became head of the Navy. `Yes,' replied Caprivi simply. `I am too', the Chancellor assured him.[1]

When Caprivi took over the Admiralty, he expected to be allowed to concentrate on what he believed to the navy's top priorities Ð planning for a naval war against another European power, and training officers and personnel to fight in that war. His statement to the Reichstag of March 1884 had made that perfectly clear; he had even rejected the arguments of the Admiralty Council for preparations for commerce warfare. To Caprivi, the main theatre of action would be in the North Sea and the Baltic. Certainly some German naval strength would be siphoned off by the needs of the Foreign Office and for the protection of Germany's burgeoning overseas commerce, but Caprivi hoped that such ventures would be limited in scope and expense.

Bismarck's decision, however short-lived, to pursue a policy of colonial expansion placed new and greater than ever strains on the navy. The need for ships changed drastically as the exponential increase in overseas duties necessitated a concentration on warships that could operate at long ranges. The seafaring officer corps split into two groups: those who saw regular service with the overseas squadrons, and those whose duties were more often in home waters. This would ultimately lead to a schism in the view of the duties of the navy and its best policy in the event of war. Furthermore, with the official recognition that ships on overseas duties were expected to contribute to the war effort, it was impossible for Caprivi to avoid the topic of *guerre de course*. However, he could try to redirect the main focus of the navy back to Europe, back to what he believed to be the main theatre of operations for the navy. Caprivi was willing to explore avenues of opportunity for the navy to be effective, but ultimately he continued to support and prepare for fleet action instead of an enhanced cruiser war.

What made the German navy's task even more difficult was the paucity of suitable bases in the newly acquired Empire: `The German Navy was merely the obedient instrument of colonial acquisition. Its requirements were not considered

in the formation of a colonial empire, nor was it even solicited for an opinion.'[2] This lack of consideration resulted in the navy having to service the government's overseas needs, now greater than ever before, without even having gained a useful base from which to consolidate operations. All this made Caprivi's tasks more difficult than ever and would eventually lead to dissension within the senior ranks of the navy, as they tried to come to terms with the many duties demanded of them in war and peace and to prioritize those duties.

In spite of the emphasis on overseas service, Caprivi still found the opportunity to focus on the needs of the German navy at home in the event of that European war he both feared and expected. Construction policies and operations plans vied for attention as the naval experts tried to balance immediate service needs against concerns over the future of naval technological development. The scare of the *Jeune Ecole* was felt most strongly during this period as capital ship construction stagnated throughout Europe, and nowhere as severely as in Germany. Did Caprivi waver in his opposition to commerce-raiding, finally bowing to the pressures of the moment? Was Caprivi a bungler, an `enemy of the navy' *(`Marinefeind'),* as Knorr called him in his memoirs?[3] Initial evidence and the conclusions of some historians would seem to justify a harsh judgement of Caprivi's tenure.[4] He failed to follow up on Stosch's building programme by refusing to institute a *Flottengründungsplan* of his own; thus, by 1889, the German navy had slipped from third place in tonnage behind Great Britain and France to fifth, after Russia and Italy.[5]

For all his skill as an administrator, Caprivi faced several daunting challenges to his ability to command the navy. First, he was a symbol of the naval officer corps' failure to produce a leader from within its ranks for the second straight time. Officers who had been content initially to serve under Stosch were less willing to accept another army general as Head of the Admiralty.[6] Indeed, it was the intention of Kaiser Wilhelm I to make Caprivi's appointment as unpalatable as possible to one senior officer in particular, namely Batsch, the disgraced admiral of the *Großer Kurfürst* disaster. By deliberately back-dating Caprivi's promotion to lieutenant-general from December 1882 to February 1880, Wilhelm made Caprivi senior in rank to Batsch as vice-admiral by one day, a snub calculated to be a deliberate enough insult to ensure Batch's resignation.[7] This made Caprivi's position difficult with some senior officers, and led to whisper campaigns against, and dislike of, the Head of the Admiralty.

Second, Caprivi lacked the political acumen that Stosch had demonstrated in his relationship with the Reichstag. He was an old soldier, accustomed to doing things in a solitary manner, and unprepared for the need to build alliances with the politicians.[8] Fortunately, this difficulty was lessened by a combination of several circumstances. Caprivi had nearly a year to acclimatize himself to the navy before being called upon to present the next naval budget, and he proposed no large and expensive building programmes. Despite his anti-colonial feelings, Caprivi was able to bask in the limelight of Bismarck's colonial policy, since the navy would be the primary tool of German colonial expansion.

What is often downplayed, however, is that Caprivi advanced the work of other aspects of naval development: operations planning, strategy and tactics. By the end of his tenure at the Admiralty in 1888, Caprivi had managed to focus the navy's attention on two crucial factors: careful operations planning in the event of a war with France or Russia, or both; and the study of battle tactics, as opposed to evolutions and manoeuvres. The exercise Caprivi circulated in early 1888, the famous `Twelve Questions' (also known as the `Twelve Tactical Questions'), was much more effective and much more important than credited by Knorr, who referred to it as `pointless questions'.[9] It was a careful first step in getting German naval officers to think through a specific battle exercise where more than three or four ships were involved. By 1889, the seeds had been sown for the navy to produce a generation of admirals and captains capable of thinking in terms of fleet engagements, not squadron action or ship-to-ship combat. Stosch may have taught the navy to *work,*[10] but it was Caprivi who taught it to *think*.

Naval sideshow or vital task? The navy and the new colonial policy

At the close of the nineteenth century, and even into the first few years of the twentieth, it was considered a basic truth that `maritime commerce as it expands, tends, even apart from direct colonization, to bring territorial occupation in its train'.[11] This was a principle believed by politicians, economists, colonial expansionists and even some military men. Stosch and Jachmann had supported the idea of colonies for Germany; Caprivi, while opposing colonial expansion, was not the sole voice of the navy on this matter. Knorr was a staunch believer in obtaining colonies for economic purposes:

> My conviction of the correctness of a sound colonial policy for the Reich is founded on the incontestable experience that those states which had colonial possessions and correctly exploited them have increased by this means their national prosperity and their political power. It is not necessary to point out the shining example of England; even insignificant Portugal without its colonies would become still very much more insignificant than it is. Enormous Russia alone possesses in its compact expanse land enough, which the other European states must seek to acquire for their development through colonial possessions.[12]

This disagreement no doubt stemmed from Caprivi's incessant concern over the threat of a European war; the Head of the Admiralty allowed this worry to affect his priorities for the navy.[13] However, Knorr had no such worries, and could afford to be more vigorous in his support of a pro-colonial policy.

German commerce, still locked in the throes of the `Great Depression' that had begun with the crash of 1873, again sought relief from its woes through foreign

expansion, just as it had after the financial downturn of 1857: `In the space of a few weeks, following a sharp fall on the stock exchange and bank failures, the crisis turned into a serious depression which continued without improvement until February 1879.' There was a brief improvement in the economy between 1879 and 1882, but there was no sustained period of prosperity until 1896.[14] Many people, especially the North German trading houses, regretted the decision not to strip France of some or all of her colonial empire after the Franco-Prussian War. The turning-point was the switch in imperial policy from free trade to protectionism in 1879.[15] Despite the great network of German trade throughout the world, the clamour for colonies swelled throughout the 1870s and early 1880s.[16] The situation was exacerbated by the beginning of the `scramble for Africa'Ðthe annexations by France and King Leopold of Belgium of sizeable portions of central Africa.

The German navy had played a key role in maintaining German commercial interests around the globe. As the only instrument of German foreign policy with the means to access these regions, the navy was called upon to show the flag wherever and whenever commercial or diplomatic interests needed to be protectedÐas in Haiti in 1872, Spain in 1873 and Nicaragua in 1878. However, the navy was rarely called upon to exert a permanent influence on a particular region. With the establishment of colonies, that became the newest role added to its already strained capabilities.

Within a month of Caprivi's statement to the Reichstag in March 1884,[17] all his careful calculations on balancing overseas expenditures were upset. In April, the government declared the establishment of a protectorate over an otherwise inhospitable portion of the coast of south-west Africa. In order to assert the Reich's claims in the face of potential British opposition, Bismarck found it necessary to have a military presence at the new outpost; thus, in June, a corvette was ordered to sail to what became the territory of German South-West Africa. As the floodgates opened on German colonial expansion in West Africa and the South Pacific, orders were given for more ships to attend and ensure a smooth transition to colonial rule. By the end of 1884, German warships had overseen the creation of the Empire in German South-West Africa, Togo, Cameroon, the Bismarck Archipelago and Samoa.[18] But as great as the demands were on the navy regarding the annexation of African territories, they were even greater in the South Pacific. Of the 17 German cruisers on overseas duties in 1884, nine were in the Far East and Pacific region.[19]

Naturally, there was conflict during this period between Caprivi, as chief of the Admiralty, the senior officials of the Foreign Office and the Chancellor. In late summer 1884, a dispute sprang up between Caprivi and Paul von Hatzfeld, the Secretary of State for Foreign Affairs, because of the overlap in jurisdiction between colonial and naval questions. The matter was exacerbated by the manoeuvres of Heinrich von Kusserow, a senior councillor in the Foreign Office for colonial matters and a pro-colonial advocate.[20] Thanks to a falling-out between Caprivi and Kusserow, the former's communications with the Foreign

Office became `not polite', and the Foreign Office began to whisper of preferring to deal with the pro-colonial Stosch, a statement that would not sit well with Bismarck.[21] Even though Caprivi and Bismarck appeared to be working together much more smoothly than Stosch and Bismarck had ever managed, tensions ran deep between the two during that summer. A minor matter, when Bismarck requested several vessels be sent to Zanzibar and then promptly forgot himself and criticized Caprivi for dispatching the ships, did not make relations easier. Friedrich von Holstein noted in his diary that: `for months I have been doing my utmost to prevent a quarrel between His Highness [Bismarck] and Caprivi. They are both hard rocks, even so the Chancellor does make things difficult for Caprivi by changing his mind so much.'[22]

At the time of this tiff, Caprivi was in Kiel overseeing preparations for the upcoming test of various types of torpedo-boats.[23] He wrote back to Holstein (who had advised him to speak to the Chancellor), claiming his presence in Kiel was `indispensable' for the next few days: `Moreover, I do not think highly enough of my capacity for such a discussion to promise myself any success from it. Once the great man [Bismarck] is angry with one, it is probably wisest to get out of his way in time; it will be my endeavour to do so.'[24] By waiting a few days, Caprivi was able to avert a further conflict with Bismarck, thus avoiding the creation of a situation where the navy would find itself once again at odds with the Chancellor solely because of a personality conflict.

What role did the concentration of German naval might play in the founding of the German colonial empire? The navy was not required to engage in sea-battles, blockades or even commerce-raiding, the more traditional naval roles. Instead, the navy provided landing parties and artillery support against coastal points of opposition. Within months of the establishment of a formal German presence in the Cameroons, the naval forces were called upon to quell insurrection; sailors supplemented the small contingent of marines on board each warship.[25] By landing sailors ashore, the navy was stepping out of its traditional element and entering one for which its men were not trained. This was a situation Caprivi did not like and which he did not wish to see continue, and led him to the unusual step of inquiring whether the Kaiser could legally `enter into a state of warfare¼ *gegen Schwarze*' without the approval of the Bundesrat, as required under Article 11 of the Reich Constitution of 1871.[26] He had previously made clear his dislike of overseas operations diverting personnel and material from the fleet in his memorandum of March 1884. Nevertheless, the navy acted as it was ordered, and lent its resources to the creation of the colonies.

The navy's increased workload was not made any easier by the lack of usable harbours in the new territories. While conducting operations in Togo and Cameroon, Knorr relied heavily on the Spanish island of Fernando Po as a base. Negotiations took place between the German and Spanish governments over the possibility of the German navy acquiring a coaling-station on the island. None of the West African colonies possessed suitable harbours, so Fernando Po could have served as the main naval base for the German navy in that region;

furthermore, it would have been a useful stopping-place for other ships bound to and from East Africa or the Australasian stations. In addition, it would have been ideal as a base for a *Kreuzerkrieg* in the South Atlantic shipping-lanes.

Negotiations for a coaling station began even before German colonial activities had commenced; the German ambassador to Spain, Eberhard Count zu Solms-Sonnenwalde, had approached the Spaniards on this matter in late March or early April 1884. The Spanish government was willing to allow coaling and provisioning to take place, but sought to impose a number of restrictions on the rights of the Germans to build facilities, and to place a time-limit of 15 years on the agreement.[27] Negotiations continued throughout the winter of 1884±85, and on 18 March 1885 a draft of a lease agreement was concluded, which was to run for 15 years subject to a one-year notice of cancellation or renewal on either side, and the maintenance of Spanish sovereignty being recognized. Hatzfeld forwarded a copy of the lease agreement to Caprivi. One of the terms, however, was that in the case of war between Germany and another power in which Spain remained neutral, the German government agreed not to infringe on the Spanish government's right to conform to `the prescriptions of international law'.[28] This would have rendered Fernando Po unusable as a base in time of war, and would have precluded its availability for a German *guerre de course* in the South Atlantic.

The worst feature of the entire colonial venture, in the eyes of the navy, was the cost of these new duties—in money, time, ships and men. The establishment of the colonies was an expensive undertaking for the navy; by the end of January 1886, in less than two years some 1,567,000 marks had been spent on the cost of naval operations alone.[29] Once the colonies were established, it became the navy's duty to provide protection for German traders and nationals and to quell insurrection and unrest. Ships were always in demand by the Foreign Office, cutting into Caprivi's aim of preparing the fleet for a European war. `Caprivi has the one-sided aim of equipping the navy exclusively for naval engagement', wrote Holstein, `and so he is unwilling to send single ships on distant expeditions. That is the constant point of friction between him and the Chancellor.'[30]

In the final analysis, the German colonial venture was both a positive and a negative element in the duties of the Imperial German Navy. On the one hand, it gave many officers and seamen experience in handling crisis situations, and brought many of them under fire for the first—and often only—time in their careers. On the other hand, it detracted from what Caprivi perceived as the navy's main duty: to prepare for a European war: `[he] lamented that overseas duty on lightly-armed, fully-rigged vessels did little to prepare personnel for wartime service in a modern battle fleet.'[31] Ultimately, the colonies were a drain on naval resources, demanding ships that would have little value in a European war. Despite over two decades of naval pressure in one form or another for overseas bases and possessions, the colonial empire bore little resemblance to anything the navy had requested:

> The colonies had been acquired for economic and political reasons, and were unrelated to any strategic or logistical requirements of the Imperial Navy. The colonies merely constituted further responsibilities for a service that was already pressed to meet its worldwide obligations, and the Navy came to resent the continual request for warships and landing parties.[32]

Ships for overseas service in peace and war: the Flying Squadron revived

Colonial duties placed further demands on the navy even after the overseas empire had been established. Not only had its efforts been needed to found the colonial empire, but the navy was now required to maintain the empire's security and prestige as well. The Foreign Office was unstinting in its cries for warships to attend to colonial needs: `¼that it appears advantageous from the standpoint of the Foreign Office if a cruiser squadron visits in regular rotation these overseas areas which are placed under the protection of His Majesty the Kaiser or wherever else German interests are predominant.' [33]

The question of Fernando Po and other possibilities of leased coaling-stations aside, the very real necessity of maintaining a more permanent German overseas presence put new pressures on the navy. Of all the newly acquired territories, only Dar-es-Salaam in German East Africa possessed the requirements necessary to act as a base of operations for commerce-raiding.[34] How would this affect the duties of the overseas cruisers and gunboats in the event of hostilities breaking out between Germany and another European power with overseas possessions?

Part of this question was answered on 17 March 1885, when Kaiser Wilhelm I issued General Order (No. 43), `Concerning the Duties of the Commanders of Overseas Ships'. The order made constant reference to the `honour of the flag', and expected commanders to act in the best interests of the empire:

> In this context, the commander will have to observe above all that, from now on, it is his first duty to inflict as much damage as possible on the enemy. Whether it is better for this purpose for him to turn against enemy warships or to seek through cruiser warfare to damage the enemy's sea-commerce or coastal places of enemy territory is a decision for him alone¼ I demand from the commander that before all he maintain in the crew a war-like spirit, good discipline, and devotion to duty. This will be all the more successful the more he understands how to act and to ensure his actions' success. I will gladly distinguish those who are suggested by the commander to me as worthy of this.[35]

Such emphasis on devotion to duty merely served to reinforce the obvious: without a system of fortified bases, overseas commerce-raiding for the German navy was an exercise in futility. German warships abroad would be too small,

slow and under-equipped for purposes of serious warfare. Consequently, they were to inflict what damage they could before the inevitable honourable end.[36]

Ultimately, Caprivi was forced to come up with a solution that would allow the maximizing of resources at minimal cost to the navy. The last straw was the unfortunate fate of the gunboat *Hyäne,* which out of necessity was constantly diverted from one scene of action to another by the Admiralty; in the period 1882±87, *Hyäne,* a 490-ton vessel with a crew of 40, circled the globe in a zig-zag course that took it constantly back and forth from Africa to Asia. Caprivi's solution, in January 1886, was to resurrect the concept of the `Flying Squadron', a specially designated body of ships on constant patrol between Africa and Asia, available to be diverted on short notice to a trouble spot. This system would mean fewer ships permanently on station, fewer ships needed for overseas duties and reduced costs of keeping ships on station.[37]

The Flying Squadron was not a universally popular solution to the question of overseas duties, however, and one of its top detractors was the man given command of it: Knorr. The squadron (consisting of Knorr's flagship, the *Bismarck,* and the newer flush-decked corvettes SMS *Olga, Sophie* and *Carola*) was kept busy in its first year of operations, racing from the Pacific to Zanzibar in the summer of 1886 to exact reparations for the murder of a German businessman. However, Knorr and his crews did not appreciate the workload placed upon them: `The nickname of the newly-invented cruiser squadron was ªFrenzyº, that had the effect of being extremely stressful and damaging for men and ships.'[38] Indeed, Knorr's opinion of the Cruiser Squadron only seemed to confirm his already low opinion of his commander and the plans Caprivi had for the navy in general:

> In the Cruiser Squadron, which now for the first time sailed through the ocean under my commandÐandI was its opponent as a system in general Ð there culminated in part the naval policy of Caprivi: as few large ships as possible in the navy in general, and for the time being only gunboats to the overseas stations, if necessary! Then, the navy needs little money and its needs in men and ships are small and unimportant. That was the basic idea for the creation of the Cruiser Squadron against which I fought as much as possible when I was Chief of Staff of the Admiralty. Under my successor the idea was better thought-of and I had to lead the first Cruiser Squadron![39]

Knorr wanted the navy to be capable of stationing a cruiser or a gunboat in every region, ensuring a constant German naval presence. This was an ideal solution; but it was one which the German navy could not afford, for its cost would have been prohibitive. It would have been necessary for the German government to obtain coaling-rights in a number of African, Asian, Latin American and Oceanic harbours, and the navy would have had to provide a much greater number of supply ships, gunboats and cruisers to occupy these stations. Finally, the navy

would have needed many more officers and sailors, always a problem even with the current small total of personnel. Theoretically sound though Knorr's solution was, it was not a practical solution for the German navy.

Caprivi's institution of the Flying Squadron meant an increased workload for the ships and men of the Squadron, but it did save on vessels needed overseas. Germany did not need to maintain a permanent presence in many areas, so for the navy the concept of stations was a luxury. However, Knorr saw Caprivi's actions as anti-navy, and in opposition to his own clearly held beliefs concerning the duties of the navy and on German responsibilities abroad:

> The Cruiser Squadron has maintained itself, at least in name, as long as it reflected occasional established principles which never corresponded and never could correspond to the always-changing demands, incessantly chasing to and fro over half the Earth and, therefore, with much more expenditure of material and personnel than would have been necessary with single units for the primary stations. But what did that matter. Just keep the navy small and insignificant, and also no colonies! That was Caprivi's basic idea. It must have been an exceptional pleasure for him to make me the first Chief of the Cruiser Squadron and thereby also keep me as distant from home as possible. It concerns me little, however, and I tried to do my duty as well as I was capable.[40]

Knorr could afford to be critical of the Flying Squadron, and was perhaps justified in feeling overworked, but in fact the concept was a qualified success. Able to be directed to wherever its presence was necessary, the squadron extracted a formidable overseas presence from a decidedly second-class navy. Furthermore, it produced savings in both men and *matériel* for the navy, bottom lines in which Caprivi was genuinely interested. What purpose would it serve for the navy to follow Knorr's advice to have station squadrons scattered throughout Africa and Asia, let alone the Caribbean and the Mediterranean? The German colonial empire was not extensive enough to afford the luxury of permanent on-station squadrons of warships, and the German navy was not sufficiently endowed to be able to keep so many ships overseas. Even the Admiralty Council had been forced to concede the point that German warships overseas would play a limited role in the event of a European war. To assign so much of the navy's precious resources to what would prove to be a sideshow during wartime would be to ignore the advice of many naval strategists who always advised against the unnecessary scattering of forces in time of conflict.[41]

The minnows and the whales: construction policy under Caprivi

On 1 July 1883, the Admiralty released a document, `Memorandum concerning the Implementation of the 1873 Fleet Foundation Plan' (`Denkschrift

betreffend die Ausführung des Flottengründungsplans von 1873'). Its chief subject was the rising costs necessary for the maintenance of the fleet while carrying out its assigned tasks. One of the navy's problems was the price of supplies at overseas ports; at most stations, prices were double what they would be at home, and Spanish and Portuguese ports were especially rapacious, charging as much as 125 per cent in excess of the regular rate. A second concern stemmed from the demands being placed on the navy for overseas duties; because of the constant requests of the Foreign Office for gunboats to enforce German political and commercial policies, the navy concluded it needed two more corvettes and more overseas bases.[42]

However, the memorandum also spoke of the increasing importance of torpedo-boats, even though they had not originally figured in the *Flottengründungsplan*. These tiny ships were considered to be useful for a variety of tasks, including breaking blockades and coastal patrol duties, and as sortie vessels. This versatility made the torpedo-boat an economical proposition.[43] At this time, navies were more concerned with keeping costs down; naval construction as a spur to domestic shipbuilding was an idea whose time had not yet come. Economy was a good word to use when speaking of naval spending; many of the deputies in the Reichstag would approve. Furthermore, with the increasing costs of maintaining an overseas presence, money saved in ship construction was money that could be used elsewhere.

At this time, no one (with the exception of some senior naval officers and a handful of naval enthusiasts) was interested in large-scale naval construction plans. Too many Reichstag members were afraid of what Eugen Richter would call `limitless fleet plans', or large-scale spending with no ultimate purpose.[44] Bismarck made his offer of fleet increases in 1886, but generally he had no interest in larger warships, remaining wedded to a preponderance of cruisers.[45]

Therein lay the essential contradiction of Caprivi's naval policy: balancing present needs against future expectations and fears, based both on the strategic reality of a two-front war and the technological uncertainty of naval construction in the 1880s. As for the torpedo-boats:

> ¼Caprivi saw in them a relatively cheap but nevertheless deadly weapon for the weaker side. For large ships he had done little; but he was also convinced of the necessity of a battle fleetÐthatby itself `would be able to make use of moments of weakness on the enemy's part to attack him' Ð and furthermore saw victory in a battle on the high seas as `the most effective weapon for the defence of the Fatherland's coasts under all circumstances'.[46]

To Caprivi, the savings realized by building torpedo-boats would be far better spent on preparations for the army. Caprivi expected the next war to be just around the corner, and he feared it would be a two-front war against a Franco-Russian alliance. Tirpitz noted this mindset of his new chief: `[Caprivi]¼lived

and weaved his plans in the state of mind which he often expressed to me as follows: ªNext year we shall have a war on two fronts.º Every year he expected it next spring.'[47] Preoccupied with the looming war he constantly predicted, Caprivi was ever receptive to suggestions as to how to protect the German coasts effectively and still leave funds for the army's projected needs. Caprivi's priorities were not towards expansion, but towards consolidation; the navy should train its personnel to be the best possible, and should learn how to best use the weapons it possessed. Finally, the navy needed to learn how to sail in larger formations. These were the goals Caprivi had in mind for the navy.[48]

The pressing need for cruisers and gunboats to serve overseas, coupled with the uncertainty over naval development because of the technical advancements in torpedoes and mines and the strategic theories of the *Jeune Ecole,* had their greatest impact on construction policy in the Caprivi era. The needs of the fleet pushed off in several contrary directions, while the feasibility of long-term construction planning was less and less guaranteed. Had Caprivi wished to implement a *Flottengründungsplan* to further the development begun under Stosch, it is doubtful it would have been either successful or practical, or even approved by the Reichstag. Historians disagree over this issue; some maintain that there was no support for the navy from the German Conservatives, the Social Democrats and the Centre Party, while others feel that `the navy's friends in the Reichstag hoped that the light unarmoured craft central to the *Jeune Ecole* strategy would spell the end of expensive battleship projects'. There was evidently little chance of any large-scale fleet construction programme being approved at this time. Also, `the liberal faction in the Reichstag [were marked] as ªsusceptible to the *Jeune Ecole*º', implying that the tone for such limited funding was in fact set by Caprivi.[49] There were those who believed the fleet should be expanded, regardless of technical or political considerations, and the general's inactivity in this matter caused them great agitation: `Caprivi will not bring the fleet up to par with mere thoroughness; too little initiative¼Caprivi really ought continually to curse and swear, disclaiming *[sic]* with his arms and legs in the air that too little is done for the navy.'[50]

The Head of the Admiralty, however, was less sanguine about the prospects of expanding the navy in capital ships. He had come across the torpedo-boat as a potential stopgap solution to Germany's coastal-defence woes, and sought to work on the technical development of this vessel. Accordingly, the fall manoeuvres of 1884 presented an opportunity to test various manufacturers' designs and to settle on a single model of torpedo-boat for the navy.

The decision to obtain torpedo craft from the German firm of Schichau was a reflection of two important points: first, the desire to purchase the most satisfactory design; and second, the attempt to possess a homogeneous fleet. The *Großer Kurfürst* disaster had shown what problems could be caused by ships of varying capabilities trying to work in close formation. Furthermore, a standardization of design would allow for interchangeability in parts and a

simplification of design. However, the uncertainties of long-term ship construction precluded that possibility for the time being.

In its place, Caprivi instituted large-scale manoeuvres exercises, requiring commanders to become familiar with fighting with and against larger squadrons than the three- or four-ship miniature squadrons the German navy had been traditionally using. The 1884 manoeuvres were the first to feature a `homogeneous squadron'; and the 1885 manoeuvres paid great attention to the torpedo-boat squadrons, which were the only single-design units.[51]

The torpedo-boats attracted the brightest junior officers in the navy, much as the U-boats would in the next century. Even more prestige attached to the unit when Prince Heinrich von Preußen, son of Crown Prince Friedrich and younger brother to Prince Wilhelm, became the commander of the First Torpedo Division in 1887. He commanded his unit, escorting his brother to their grandmother Queen Victoria's Golden Jubilee naval review at Cowes that year.[52] It is significant to realize that such future admirals as Reinhard Scheer spent part of their careers in the torpedo-boat squadrons; this helps to explain why a navy that could have two ships in a three-ship formation collide in clear weather in 1878 could later execute no fewer than three battle turn-away manoeuvres, two while under heavy fire, of an entire double-squadron of dreadnoughts in 1916.

Caprivi realized the difficulties he faced in his building programme for the navy: on the one hand, he wanted the fleet ready for the expected Franco-Russian War; on the other hand, he did not want to take up resources the army would need for that same conflict. Expenditures for 1884±85 for the navy, from torpedo-boat orders to overseas duties, had reached a record 61.4 million marks, a figure that had never been reached before, and would not be attained again for nearly a decade afterwards.[53] Caprivi expressed his concern about the increase taking place in Russian ship construction to Bismarck in late May 1886; the Chancellor replied that he was prepared to increase the size of the navy `to the extent that Germany's manpower and finances allowed'. Many expected Caprivi to take advantage of such *carte blanche* but, ever mindful of the army's needs, Caprivi declined.[54] Instead, he drafted a paper that tried to place the navy's priorities in view. Dated 14 June 1886, the memorandum `Concerning the Further Development of the Navy' (`Ueber die weitere Entwickelung der Marine') attempted to put into perspective Caprivi's confusion over the problem of the *Jeune Ecole*.[55]

The report was divided into five sections: a general overview, a summary on construction of ships, and three sections on specific types of vesselsÐarmoured ships (battleships), cruisers and other armoured vessels. In the first section is a statement that seems to confirm that Caprivi had gone over to the followers of commerce warfare: `It lies in the nature of naval warfare that it must seek its most effective success in the damage of hostile private property upon the sea or reachable from the sea.'[56] While there may seem to be whispers here of the ruthlessness of the *Jeune Ecole,* this remains little more than the traditional denial of supplies theme that runs through German naval planning, even though it no

longer makes the traditional distinction between state-owned and privately owned property. Caprivi, observing the dramatic growth in overseas activities in recent years, especially evident in the scramble for Africa, commented on the corresponding increases in both the merchant marines and the navies of neighbouring European powers. To him, the growth in commerce was symbiotic with military might.

The greatest obstacles to an increase in the navy, Caprivi contended, were its inability to train new officers and personnel and the perceived competition with the army for resources:

> Only after another victorious struggle for Germany's existence has taken place will consideration for overseas relations of the Reich be able to come fully into force. Until then additional requests for money and men will have to be kept within modest limits.[57]

This limitation affected the number of ships that could be maintained in service, as a shortage in personnel meant that warships would lie idle, no matter how many were constructed.

In the second section, `General Points for the Construction of New Ships', Caprivi set out the restraints he faced, where personnel shortages and financial concerns met head-on with the needs of the fleet. Although Caprivi acknowledged the need to tend to overseas obligations, he gave first priority to action in home waters:

> It follows therefore that the number of ships and vessels usable exclusively in the region of our coasts may not exceed the number of those we must leave behind as garrison to make safe the local foreshore, if everything that can go on the ocean is sent out.[58]

As concerned as Caprivi was about the defence of the German coasts, he did not want a passive coastal defence system akin to Stosch's *Ausfallkorvetten;* instead, the warships he desired were to be capable of bringing the battle to the enemy away from the coast. However, he was equally certain he would not leave the German coasts undefended for any reason. As an army general, his first priority remained the defence of those coasts:

> Even concerning these ships and vessels that can be used only in home waters, we have to see to it that they are not only usable within river estuaries and harbours, but capable of attacking or pursuing further into the open sea. We should not build a single warship or vessel that is not clearly capable of being used before Copenhagen or Kronstadt and which cannot join in a fight by Heligoland.[59]

Caprivi was forced to moderate his preference for a battle fleet in European waters with the recognition that the newly acquired colonial empire placed greater burdens on the navy's peacetime duties. It was at this point that Caprivi once again set himself to musing over the possibilities of commerce-raiding: the navy would have ships overseas at the outbreak of war, ships which were less dependent on coal for propulsion and, hence, less dependent on bases. In addition, these ships would be useless in battle against a proper enemy fleet, so perhaps they could contribute to the war effort by attacking enemy commerce.[60] One conclusion that Caprivi came to was that it was not advisable to build a `Schiff für Alles', a single general-purpose vessel capable of a multitude of tasks. The advances in technology worked against striving for such generalization.

Consequently, Caprivi devoted the rest of his memorandum to analysing the three main categories of vessels, and determining what role each could play in German naval operations. Again, to avoid both costly expenditure and unexpected obsolescence, he deliberately chose not to compete with other navies in the great armour vs armament race: `the demand for ª strongest armour º and ª heaviest calibre º is out of the question for us.'[61] His greatest fear remained the torpedo and how little effort it could take on the enemy's part to destroy a valuable investment.

His other concern was to weigh the advantages and disadvantages of building, say, 10 large ships vs 30 smaller ships. Which would be more effective? Would the heavier firepower of the large ships be more or less effective than the greater rate of fire from the 30 smaller ships? How important was it for the commanding admiral of the 10 large ships to choose the correct target to commence firing upon, if he had less opportunity to change his fire from one target to another in mid-battle?[62] Such questions reflected the unsettled question of battle tactics. Using smaller ships in battle dictated the creation of the *mêlée,* the frantic chasing and devolution into single-ship combat where speed, lighter calibre guns, the torpedo and the ram would play greater roles. Larger vessels meant an orderly progression of battle and a long-range artillery duel, where heavy-calibre guns and thick armour were the greatest assets.

Caprivi also took into consideration the effect of morale on the navy. Reasoning that the navy would still feel inferior when compared to the Prussian army and its glorious tradition, he thought it crucial that the navy needed to win a battle; conversely, the effect of a defeat would produce a severe psychological setback. Faced with this prospect, did it make sense for the navy actively to seek a battle it could very well lose? All this tied in to Caprivi's evaluation of the net worth of winning a sea-battle:

> Concerning the real results of a naval victory, they lie only a small part in the annihilation of, incapacitation of the enemy fleet. Decisions at sea are definitive to the extent that it is difficult to repeat them within the same campaign. But the effects of a naval victory are nevertheless not far-reaching. Only in its consequences, in making it easier for the victor to

> land with strong forces, or to blockade the enemy coast, lies the real worth of a victory at sea. That a naval battle guarantees the victor command over the seas can no longer be asserted.[63]

There are echoes of the future writings of Julian Corbett in this section.[64] In noting that command of the sea may not be obtained by means of the decisive battle, Caprivi began to explore the possibility of exerting control over the enemy's fleet and its room for action through grand strategy. He then applied his thought to its effects on a war of commerce destruction. In his opinion, it was impossible successfully to control the enemy's trade on the high seas because `the naval ships and sea routes have become too many'.[65] Caprivi could not see a *Kreuzerkrieg* succeeding to the extent of driving the enemy's commerce from the seas, and it was here that he alluded to the *Jeune Ecole*'s theories on skyrocketing insurance premiums having an effect on trade. Caprivi's conclusion was that while command of the seas in general could not be obtained, it could be exercised in specific regionsÐthe Baltic, the Mediterranean, the English Channel, etc. Thus, Caprivi wanted ships capable of both defending the German coasts and of meeting the enemy in open waters, in the event that the German navy had to take the fight to an enemy such as Russia: `We are forced to prepare ourselves for a *Kreuzerkrieg* due to the constant absence of a great part of our ships overseas, and due to the fact that there are states that we could not reach in other ways.'[66] This was simply a way of backing the German navy into a *guerre de course,* but it was certainly not Caprivi's preferred policy. The vessels that would be stationed overseasÐauxiliary sail-equipped wooden corvettes and ageing gunboatsÐ would be useless in battle, and would not anyway have the means to return to Germany. Thus, based on the Kaiser's General Order (No. 43) of March 1885, commanders of vessels on overseas service were expected, as a point of honour, to attack the enemy in some manner, no matter how futile the gesture. Caprivi knew such action would play no real role in a European war, where the question would be decided by the clash of armies: `meanwhile, in such a case *Kreuzerkrieg* must be pursued, on account of honour, and in order not to let our overseas ships hide themselves.'[67] Caprivi knew that Germany was in an unfavourable position to conduct a legitimate and sustained commerce destruction campaign, primarily due to the lack of overseas bases. Without a constant supply of coal, munitions and provisions, no raider could roam the seas for long. Furthermore, it did not seem advantageous to Caprivi for such cruisers to be armoured; they would not be facing superior enemy forces, but would be hunting merchantmen. For the price of one armoured cruiser, Germany could build two unarmoured cruisers, available for both wartime service and peacetime duties in the colonies. Looking at cruiser development, Caprivi could see the Royal Navy developing a `hybrid' vessel, a cross between the battleship and the cruiser designed to protect its overseas commerce; such a vessel would be able to chase down and destroy enemy cruisers through superior firepower.[68] However, in Caprivi's opinion, `for us such moti ves are not present',[69]

Nevertheless, despite the allure of battle on the high seas, despite the back-handed necessity of an honourable *Kreuzerkrieg,* Caprivi made it perfectly clear where the first priority of the German navy lay: `so long as a country does not possess sea power of the first rank, the protection of its own coasts demands the first consideration in the case of organizing a navy.'[70] No one as yet entertained the notion of Germany possessing a naval power of the first rank, especially 3 with Caprivi's determination to see the army's needs were always paramount, and thus the navy's role remained strategically similar to that of the Stosch era. The difference lay in how Caprivi planned to defend the coasts; instead of a passive defence based on fortifications and armoured floating batteries, the German navy was to be more aggressive in thwarting the foe, with attacks by torpedo-boats and armoured vessels that were more than coastal defence ships, more even than *Ausfallkorvetten*.

Caprivi's 1886 memorandum reflected a determination to make the navy more forward-looking in its operations, even as the *matériel* available was hardly suited to the tasks. The criticism levelled against Caprivi, that his operational thinking became more offensive-oriented as his construction policy became more defensive-oriented, was apparent in his inability to specifically state what kind of armoured ships Germany should build.[71] While he was clear on the improvements to be made in cruiser design (perhaps still echoing the terms of reference from the Admiralty Council of January 1884, as some of the language and points raised by the final reports found its way into this statement), Caprivi was less clear on the design of battleships. If in doubt, he erred on the side of quantity: unarmoured cruisers over armoured, torpedo-boats above all else.

Thoughts of war on the large scale: operations planning against France and Russia

The most important constant in Caprivi's tenure as Head of the Admiralty was his all-consuming expectation of war between Germany and Russia, or Germany and Russia allied with France. The political crises of this period, particularly from 1885 on, seemed to lend credence to his concerns. Especially troubling was Bismarck's maintenance of relations with Russia. On the one hand, the alliance signed with Austria-Hungary in 1879 meant that the Chancellor had to keep Vienna placated and take a hard line with St Petersburg; on the other hand, equally fearful of pushing the Russians into the arms of France, he also sought to be conciliatory towards them. With a crisis brewing in Bulgaria and with the rise of the populist General Georges Boulanger in France, Bismarck was forced to walk a very thin line between the two extremes of his Russian policy.[72] The military, ever mindful of its position *vis-à-vis* Russia, often suggested a pre-emptive strike against Germany's neighbour to the east. As a military man and a general still highly placed in the circles of power (and viewed by some as a possible successor to the ageing Helmuth von Moltke as Chief of Staff), Caprivi would naturally share his fellow professional soldiers' concerns.[73]

Thus it was that the year 1887 saw a renewed effort by both the army and navy in preparing operations plans in the event of war.[74] This was not a new subject for Caprivi; as early as April 1883, barely a month into his new post, he had examined the 1882 operations plans against Russia to see how effectively they coincided with the army's own plans. At that time, in Caprivi's view, the main task of the navy in such a war was to provide supplies to the army as it advanced along the Baltic coastline. Caprivi had Knorr, then Chief of Staff, draft amendments to the 1882 war plans to conform to this design.[75]

Aside from inter-service cooperation, however, the navy's other main purpose was coastal defence. The 1884 Admiralty Council had confirmed that in a Franco-German war the navy's role would be defensive, with primary emphasis on coastal defence and anti-blockade measures.[76] These were actions coordinated to meet the army's need for a steady stream of supplies and to alleviate the army's requirement to post units at strategic points along the North Sea and Baltic coasts.

However, Caprivi gradually became more interested in both an offensively orientated role for the navy and one independent from army planning. Realizing that one of the resources he had available was overseas cruisers, Caprivi was determined to explore each opportunity, regardless of his personal convictions. Knowing that commerce-raiding posed little hope of success in another Franco-German conflict, Caprivi decided to determine whether the French fishing fleet was vulnerable to German cruisers. Accordingly, in the summer of 1885, SMS *Moltke* was ordered to cruise in the North Atlantic to see if the fishing vessels off Iceland and Newfoundland might be suitable targets. It was concluded that without an Atlantic harbour for the German navy, any attempt to attack the French fishing fleet would be too hazardous a risk.[77] This helped to reaffirm Caprivi's commitment to maximum concentration in the Baltic and North Sea, the places most likely to see action.

In the fall of 1887, four sets of operation plans were drafted by Caprivi; while only one of these plans actually made it out of the Admiralty to be examined by the Kaiser and the Chancellor, the suggestions in all four are instructive in displaying the thoughts of Caprivi towards the expanding role of the navy in a European conflict.[78] Again, however, Caprivi rejected any thoughts of commerce warfare in these scenarios, going so far as to dismiss earlier thoughts of attacking the French Atlantic fishing fleets as `ineffective'.[79]

It was Caprivi's advocacy of a quick strike by the German navy against the French Northern Fleet upon the outbreak of hostilities that marked a significant step forward in German strategy.[80] This was a plan completely independent of any army operations forecast by the General Staff. The idea of the German navy sailing forth and launching not only a surprise attack with torpedo-boats at the outset of war, but also initiating a deliberate fleet action against the French Northern Fleet, was a bold and daring stroke in German naval operations planning. Caprivi was even willing to countenance the loss of a significant portion of his attacking forces, provided the enemy's losses were at least equal.

He reasoned he would still be able to provide an adequate coastal defence with the vessels remaining, and the French would not be able to make good their losses in time to mount a successful counter-assault on the German coast or be capable of instituting a close blockade of German ports. The plan also contained several elements of strategy that were to appear elsewhere in the future, both in German operations and those of other countries. Tirpitz's projected torpedo-boat attack on the French at Cherbourg was similar to that actually carried out by the Japanese against the Russian Pacific Fleet at Port Arthur in 1904. If the attack proved insufficient to draw out the French into a premature battle, Caprivi also advocated the shelling of CalaisÐthis would be the aim of the High Sea Fleet against Great Britain some 35 years later, during its tip-and-run raid on Scarborough in December 1914, to lure at least a portion of the enemy's forces and engage in battle before superior reinforcements could arrive.[81] In Caprivi's case, he was looking to the eventual arrival of the French Mediterranean and Atlantic fleets from Toulon and Brest, respectively.[82]

The plan drafted for the eventuality of a Triple Alliance vs France and Russia war saw even greater scope for German naval operations independent of the army. While an Austro-Italian fleet would keep the French Mediterranean fleet tied up in the south, the German navy would have freedom of action against the French Northern fleet. Indeed, if there was the possibility of British benevolence in such a war, the scope for German activity in the English Channel increased even further.[83]

These operation plans indicate that, while Caprivi was not abandoning the traditional German naval priorities of coastal defence and blockade-breaking, he was certainly introducing much more active measures into those normally passive plans. Despite the German navy's relative decline in armoured vessels, Caprivi was intent on taking the offensive, and firmly believed the keys to success in this type of warfare lay in the training of personnel, and especially in the officer corps. For that level of training to be obtained, officers had to be taught to manoeuvre and to fight in a group, as members of a fleet. The days of individual ship action were about to end.

Thoughts of war on the small scale: the development of battle tactics

The indecision of Europe's admiralties over the necessity of building capital ships also found its way into the uncertainty over battle tactics. The lack of interest in tactics at the public level of the 1870s was still much in evidence, and even few naval men were interested in or trained to examine the problem. To a certain extent, cruiser warfare was an easy way to avoid the discussion of battle tactics. Furthermore, if the interdiction of enemy trade offered a means of winning the war without engaging the enemy's fleet, then perhaps it was the ideal strategy for a weaker navy to adopt. Nevertheless, there were still many naval men, Caprivi included, who still believed the outcome of a war at sea would be

determined by the clash of battle fleets, not by the slow pinpricks of the *guerre de course*.

In many ways, the tactical situation in this transition era from sail to steam resembled the conditions of the early sailing warship era, and especially the three Anglo-Dutch wars of the mid-seventeenth century. Prior to those conflicts, fleets had tried various formationsÐthe Spanish Armada had sailed in a crescent-shaped formation, for exampleÐbefore settling on the line ahead formation, a single file of ships with the commanding admiral's flagship either at its head or near the middle of the line. The reason for adopting the line ahead had been primarily a control mechanism, keeping ships in a controllable formation that allowed the greatest weight of cannon-fire to be concentrated, and also permitted them the opportunity to evade the enemy's fire-ships, vessels set alight and sent towards the fleet. In some ways, the torpedo was a repeat of the threat of the fire-ship, albeit one that moved faster and was more difficult to spot.

Again, modern navies had experimented with new formations to see which would allow the greatest use of weaponry. Admiral Wilhelm von Tegethoff had sailed the Austrian fleet in a wedge formation towards the Italian line at the battle of Lissa in 1866. The German navy had experimented with various squadron formations in the 1870s.[84] However, these formations were still no more than evolutions, designed for manoeuvring a squadron under normal conditions. There was still much confusion over how battle would develop once the two fleets came within sight of each other. Caprivi was in the majority in his belief that sea-battles would no longer be artillery duels; most navalists saw the future of war at sea in the close-range *mêlée,* where ship chased ship, looking to deal the knockout blow with either torpedo or ram. This led to no end of confusion over the expected duties of warships.[85] Even an expert such as Philip Colomb had noticed the complacent attitude of his fellow-officers towards tactics. In a review of one of Gabriel Charmes's works in 1887, Colomb wrote that `naval tactics' was a contradiction in terms, as battle would be little more than the *mêlée:* `Slowly in the English Navy the *laisser-aller* conception is passing away.'[86]

The lack of clarity in the development of naval tactics was no different in the German navy than in other navies. The manoeuvres of the larger ships in the fleet were little more than evolutions, designed to give officers and crews a feel for the basics of formation sailing. The overseas vessels were not expected to serve in this capacity, and were not even designed for such service. Even the Flying Squadron was intended to serve off the coasts of troublesome colonies, not jockeying for position with a comparable enemy on the high seas. The only unit within the navy that was able to remain together in sufficient numbers to practise tactics was the Torpedo Inspectorate, headed by Tirpitz. Since 1884, Tirpitz had been given a free hand by his superior to work on torpedo-boat tactics.[87] Caprivi had sought to prepare the fleet for battle readiness and accordingly changed the kinds of training given to crews; there was to be less

emphasis on military drill and more on night attacks and boarding techniques, practical training for war at sea.[88]

The work of Tirpitz and the Torpedo Inspectorate helped to shape Caprivi's appreciation of naval tactics during the term of the latter's stay in office. By early 1888, Caprivi was ready to find out how far his officers had come in their appreciation of battle tactics. On 30 January, Caprivi sent out a memorandum to senior officers which was an exercise in theoretical tactical planning. This memorandum, `Twelve Questions' [`Zwölf Fragen'], posed a theoretical battle scenario and then asked 12 questions on how the problem was to be dealt with.

The scenario created by Caprivi showed that, in his nearly five years as Head of the Admiralty, he had made the intellectual leap from thinking like a land general to thinking like an admiral.[89] According to the memorandum, his theoretical German force, consisting of a dozen armoured ships and three dispatch boats formed into three squadrons, plus three divisions of torpedo-boats, is cruising in the North Sea, where it encounters an enemy force of 15 ships and a dozen torpedo-boats, both fleets heading directly towards each other. Weather and wind conditions are given. The questions then posed asked for the most effective battle formations for both day and night fighting; whether the fleet was to be divided; when the artillery should open fire, and when the order should be given to engage in the *mêlée;* whether it was possible to attack a portion of the enemy fleet; how a breakthrough of the enemy line could best be exploited; if and when ramming should be used; how to use the wind to best advantage with regard to smoke from gun blasts and engine funnels; what to do with the avisos and the torpedo-boats during battle; and if, in the event of driving the enemy from the battle site, the victors should pursue or pause to regroup.[90]

What do these kinds of question say about Caprivi's perception of how a naval battle would be fought? The disposition of the opposing fleets illustrated Caprivi's notions of an aggressive defence, in that while the enemy forces were superior in armoured ships, they were inferior in torpedo-boats.[91] This would roughly correspond to the situation if a French fleet were to attack the German North Sea coast.[92] Second, Caprivi certainly expected the battle to have several distinct stages: a brief artillery duel as the two fleets assumed battle formation and closed on each other; an attempt to pierce the enemy's line if such a formation was used, or, failing that, closing to short range, where individual vessels would square off in torpedo attacks or ramming; and finally, as one fleet retreated the other would either give chase or regroup. Third, while Caprivi expected individual ship commanders to assume a great deal of responsibility, he also expected them to obey the commanding admiral until such time as the order was given for each ship to operate independently. This put an onus on the commanding admiral to judge carefully the progress of the battle, and gave him the means to ensure German victoryÐor defeat.[93]

By mid-March, the majority of replies had been received and evaluated. Some officers treated the exercise as just a routine assignment and submitted brief and

uninspiring answers.[94] Knorr was quite happy to be away with the Cruiser Squadron when the questionnaire was handed out:

> During my absence with the Cruiser Squadron, General v.Caprivi had ordered the senior officers to answer a series of questionsÐ`the 12 Questions' Ð about naval battle. I found out after my return and was pleased that these, in my opinion for the large part pointless, questions had passed us by.[95]

On the other hand, Tirpitz took the exercise very seriously and submitted a response of more than 200 pages, dealing with both Caprivi's original questions and related matters arising from his suggested answers, and even incorporating some of his practical work with the torpedo-boats. Thus, his submissions stood out from the majority of others.[96]

The preliminary conclusions Caprivi reached, after analysing the various responses, were that the *mêlée* would be the inevitable result of any sea-battle, and that this would emphasize the importance of both the officer corps and the sailors of the navy more so than the ships and weapons available. On 1 April, he wrote to Knorr, now the incoming chief of the main fleet, spelling out his conclusions on the submissions given. Caprivi was convinced that a modern naval battle would be an exercise in chaos. He argued there was no doubt that any final decision in a naval battle would occur in a totally lawless and leaderless confusion, namely the *mêlée*. A transition from an ordered formation into the *mêlée* might occur earlier or later but the fact was that it would come, whether or not the admiral wanted to bring it about.[97] The rapid pace of technologically driven warfare placed further difficulties on the commanding admiral's ability to make decisions, requiring him to rely on his ship captains to a greater degree.

Caprivi also applied Carl von Clausewitz's ideas of friction in his analysis of the battle: `We must attempt to reduce what we prepare for war to the most simplest of formulae; one must further count on it that the enemy will act otherwise than we expect. Naval battles do not occur according to program.'[98] This was advice a later generation of officers would ignore to their peril.

Once the battle was joined, Caprivi wanted the entire fleet to contribute to its utmost to winning the decision. As far as Caprivi was concerned, there were few rules for engaging in the *mêlée;* losses should, at worst, be equal to enemy losses. No warship was permitted to abandon the *mêlée* as long as it could make any contribution, either through any remaining weapons-fire, or, in the case of the small and swift torpedo-boats, to hinder hostile torpedo-boats. In his opinion, the purpose of the *mêlée* was not merely to capture the enemy fleet, but to destroy it.[99]

This was a situation that would favour the use of torpedo-boats over artillery-equipped armoured vessels. Thus, it made sense for Caprivi to pursue the construction policy that he did, emphasizing the predominance of torpedo-boats over other ships. Nevertheless, Caprivi remained convinced that armoured ships

and heavy artillery retained a role in the navy. Caprivi, however, would leave it to the commanding admiral to decide which weapon he wanted to emphasize. By assuming a broad formation such as a wedge or line abreast, the commander encouraged the use of torpedo-boats and the quick devolution of the battle into a mêlée. An admiral whose strength lay in smaller warships and who trusted his captains might choose this option. On the other hand, if the commander chose a line ahead formation, he emphasized his broadside artillery and hoped to keep the enemy's ships at a di stance as long as possible.

Caprivi wanted the best formation to be determined through manoeuvres and exercises, but he was already of the opinion that the wedge formation was not a good choice. Theoretically, it was seductive, but that was provided the enemy did something as foolish as remain in range of superior artillery fire; more likely, the foe would attempt to assault one end of the long string of ships, isolate and annihilate it.[100]

Many naval historians have been critical of Caprivi's tenure as head of the Admiralty. Caprivi never lost his desire for a battle fleet, but he also never followed through on building one. The largest ships for which he authorized construction, the *Siegfried*-class armoured ships, were intended to serve as more than mere coast-defence vessels.[101] However, these ships were small and underpowered; in essence, Caprivi had done exactly what he had set out to avoid, building a class of ships that were too small to be battleships, too slow to be cruisers and too large to be gunboats[102]Ðin effect, the `Experimente' he had derided so much in his *Denkschrift* of March 1884.[103] This was perhaps his greatest failure during his tenure as head of the Admiralty.

Skulduggery and intrigue: Caprivi's relations with Prince Wilhelm

The tenure of Caprivi as Head of the Admiralty began to come to an end, as did so many other things, with the ascent of Wilhelm II to the throne in June 1888, barely three months after the death of his grandfather Wilhelm I and the ascension of his terminally ill father Friedrich III. The seeds of Caprivi's downfall as Head of the Admiralty had been sown several years earlier, as some naval officers had never taken to Caprivi, no matter what attempts he made to appreciate their views. Knorr never had anything good to say or write about Caprivi,[104] and he was not alone in his ill-feelings towards the transplanted general.

One of the most insidious and well-placed detractors of Caprivi was Albert, Baron von Seckendorff, a captain in the navy and the aide-de-camp to Prince Heinrich. Seckendorff was seen as having a great deal of influence over Heinrich who, in turn, was often in contact with his older brother. Hugo von Radolinski, the High Chamberlain to the Crown Prince in 1887, noted the gossip Seckendorff seemed to be spreading to the princes about Caprivi.[105] Early in 1888, Radolinski came into possession of a letter sent by Seckendorff to Prince

Heinrich, advising the latter not to leave the navy and join the army instead, as Bismarck seemed to desire. Seckendorff dismissed both Stosch and Caprivi in his closing sentences:

> The creation of the German navy meant the fulfilment of a national wish. For that reason a mist of democracy settled round it which became appreciably denser under the command of a Prussian general [Stosch] with a liking for Parliament, and under a second general [Caprivi], who is engaged in the forcible extirpation of professional individuality, with the result that a vigorous flow of life blood through the main organs of the navy has for years past been prevented.[106]

With opinions like this coming from naval officers close to the princes, it was little wonder that a dislike of Caprivi was building up in royal circles.

However, Caprivi himself cared little for Prince Wilhelm. As early as August 1885, he had expressed `severe criticisms' of the prince to Holstein. Calling him a `callow youth', Caprivi told Holstein the tale of a naval officer assigned to the prince to teach him, as Holstein wrote, `the general rudiments of his career. But the way these ªlectures° had been held aroused Caprivi's indignation; the instructor had been treated like a booby.'[107] Two years later, further exposure to Wilhelm had failed to mollify Caprivi's attitude. Holstein noted in his diary on 28 September 1887:

> When I was talking to Caprivi about the possibility of the Crown Prince's [Friedrich's] death in the near future, he said: `Good Heavens, whatever will happen if Prince Wilhelm becomes Kaiser as early as this? He thinks he understands *everything,* even shipbuilding. We launched a cruiser recently, fitted with the so-called ªturtlebac k armoured plate°. The Prince sat opposite me during the meal, spoke very optimistically of all that might be expected from this model, and asked my opinion. I told him the experts still had certain doubts, some of which would not be dispelled until a cruiser of this type had seen some fighting. The prince said nothing. A few moments later he rose to propose the toast of the day. In conclusion he expressed the hope that he would very soon see the launching of another cruiser of this type. He's as obstinat e as a mule, and so is Prince Heinrich.'
>
> It must be mentioned here that Prince Heinrich is set against Caprivi by his adjutant, Seckendorff, and then stirs up Prince Wilhelm against him too.[108]

It was not only to Holstein that Caprivi revealed his opinion of the prince; he confided to Stosch that: `the Prince [Wilhelm] thinks he knows everything and is always there with his information. He has a big mouth in naval matters too, but he is still surprising, because he knows everythingÐship construction, artillery, torpedoes¼The naval officers are enthusiastic about him.'[109] That was the chief

problem for CapriviÐhe could never be popular in the navy in the way that the future Kaiser would be. The gulf that kept him as an army general would always be there, try as he might to include the naval officers in planning and discussion, and try as he might to think like a naval officer himself. The decision by Wilhelm, upon assuming the throne, to divide the powers of the Admiralty in a manner that would more closely resemble the structure of the army was merely the final straw; Caprivi informed his sovereign that he would not be willing to continue in such reduced circumstances. Thus, on 5 July 1888, Caprivi was relieved of duty and replaced by Monts.[110]

Conclusion

The question was whether the German navy was to rank as a second- or third-class fleet.[111] As a third-class navy, the German navy would have remained a coastal defence navy, occasionally sending a gunboat or a small cruiser overseas to deal with foreign affairs and to protect trade as best it could. To make the leap to a second-class navy, it would have to think beyond its own shores, to consider how best to fight and to defend German interests on the high seas. Majority opinion, including Bismarck, believed that the German navy should be of the second rank.[112]

However, some would perhaps claim that, due to Caprivi's cautious construction policies, the navy could not make the jump to true second-class status. Worse still, because of those construction policies, the German navy was being asked by Caprivi to do too much in his operations planning.[113] The *Siegfried*-class ships, eventually relegated to the lowly status of `fourth-class battleships' a decade later, was ample evidence that Caprivi had failed to follow through on his promise to build fighting ships that would be as much of value in front of Copenhagen or Kronstadt as they would at Kiel and Wilhelmshaven. The only indication given by Caprivi's building of the *Siegfried*-class was that he would not tie himself down exclusively to a programme of building cruisers for overseas service.

Nevertheless, another factor must be taken into account when looking at Caprivi's attempts to make a second-class navy for Germany: the *mentalité* of the officers. Caprivi repeatedly stressed the importance of training his officers to handle contingencies that were not carefully laid out beforehand, and he was willing to receive suggestions and advice. Unfortunately, many of those officers did not share Caprivi's European focus, and still perceived the next war as a glorious duel between single ships on the high seas. The creation of the colonial empire had brought about more practicable conditions for this type of war, even without the necessary bases. Caprivi sought to break the mould of the 1870-style naval warfare, conscious of how ill it would go for the German navy if it again remained safely behind the breakwaters of Kiel and Wilhelmshaven. His efforts may not have succeeded with the current generation of naval officers, but it would bear fruit with the European-centred policies of Tirpitz. The older officers

remained wedded to their dreams of small-ship action on the high seas, to commerce-raiding. Tirpitz was a reaction against that fragmented policy.

The German navy was not unique among the world's fleets in being a `motley collection' of unarmoured warships; this was a problem every first- or second-rate navy faced with the rapid pace of technological change.[114] However, it is unlikely any building programme, large or small in scale, would have had an impact in the few years that Caprivi was in office. The effects of building stagnation during Caprivi's tenure were most keenly felt in the 1890s, when French and Russian expansion threatened to overwhelm the German navy. Besides, the confusion over construction had not yet cleared away by the close of Caprivi's stint as Head of the Admiralty. Caprivi's chief concern was to take what was, in many respects, a small-thinking navy and force it to entertain the possibility of doing battle under large-scale conditions. The Imperial German Navy and a number of its senior admirals still saw war at sea as a matter of single-ship action, or engagements between squadrons of four or fewer ships. Flawed though Caprivi's methods of simulating large-scale operations were, they were the best means he could devise to give officers the opportunity to think in terms of battle fleets.

Finally, it must also be taken into account that Caprivi was not alone in being at a loss over the future of the large armoured warship. The Royal Navy, paragon of naval might, was itself uncertain of the future of the battleship. In 1884, the First Lord of the Admiralty, Lord Northbrook, felt that the Admiralty's greatest problem was neither in obtaining sufficient funds nor in being able to build armoured ships, but in deciding on how to spend the money. His successor, Lord George Hamilton, was also undecided as to the future of naval construction, pointing out that because naval technology was in `a period of transition', it made little sense to spend money on ships that would soon be outdated. Even as late as 1888, he was of the opinion that ships built would be obsolete in a decade.[115] Most of the world's admiralties were also caught in this period of indecision, with capital ship construction stagnating throughout the 1880s.[116]

The failure of Caprivi's construction policy for capital ships must be balanced against his success in torpedo-boat construction and in development of operations planning and battle tactics. In the long run, the ability to plan and to fight would serve the navy in good stead; construction of capital ships needed a period of relative technological stability, a Reichstag willing to vote in favour of the expense of shipbuilding, and a *raison d'être* for such construction. Those conditions would not come into being until the next decade. Caprivi built small warships not because he supported a small-scale naval war on the lines of a *guerre de course,* but because he saw no other effective means of fulfilling his role as guardian of the German coastline in the event of a soon-to-occur next war. His policy of caution and development was probably the best policy for the Imperial German Navy in the turbulent times of the 1880s. Unfortunately, without Caprivi being clearly able to state that commerce-raiding was a dead issue, its supporters

would remain fervently convinced that the next war should be fought on the high seas of the world.

Notes

1. A.Harding Ganz, `Colonial Policy and the Imperial German Navy', *Militärgeschichtliche Mitteilungen,* 1(1977), p. 36. A similar version of this conversation is reported in the diary of Friedrich von Holstein, at the time *Vortragender Rat* (Senior Counsellor) in the Political Division of the Foreign Office in Berlin: diary entry for 23 September 1884; Norman Rich and M.H.Fisher, eds, *The Holstein Papers. Vol 2: Diaries,* 4 vols (Cambridge: Cambridge University Press, 1955), p. 164. Hereafter cited as HP II.
2. Ganz, `Colonial Policy and the Imperial German Navy', p. 37.
3. BA-MA, N 578/9, Nachlass Knorr, p. 127.
4. Carl-Axel Gemzell refers on several occasions to the Caprivi period as one of `stagnation': Gemzell, *Organization, Conflict, and Innovation: A Study of German Naval Strategic Planning, 1888±1940*(Lund: Esselte Studium, 1973), pp. 35, 51.
5. Lawrence Sondhaus, *Preparing for Weltpolitik: German Sea Power before the Tirpitz Era* (Annapolis, MD: Naval Institute Press, 1997), p. 168.
6. Lawrence Sondhaus, `ªThe Spirit of the Armyº at Sea: The Prussian-German Naval Officer Corps, 1847±1897', *International History Review,* 17 (1995), p. 477.
7. Batsch resigned in July 1883: Hans H.Hildebrand and Ernst Henriot, eds, *Deutschlands Admirale 1849±1945,*4 vols (Osnabrück: Biblio Verlag, 1988), Vol. 1, pp. 203±4; Sondhaus, *Preparing for Weltpolitik,* p. 151.
8. Alfred von Tirpitz, *Erinnerungen* (Leipzig: K.F.Koehler, 1920), p. 37; Sondhaus, *Preparing for Weltpolitik,* pp. 150±1.
9. BA-MA, Nachlass Knorr, N578/11, p. 124.
10. Tirpitz, *Erinnerungen,* p. 16; emphasis in original.
11. James R.Thursfield, *Naval Warfare* (Cambridge: Cambridge University Press, 1913), p. 52.
12. BA-MA, N578/11, Nachlass Knorr, p. 57, second note.
13. Ganz, `Colonial Policy and the Imperial German Navy', p. 36.
14. Hans-Ulrich Wehler, *The German Empire 1871±1918* (Leamington Spa: Berg, 1985), pp. 32±4.
15. Gordon A.Craig, *Germany 1866±1945* (New York: Oxford University Press, 1978), pp. 117±18: `After the passage of the tariff legislation of 1879, demands for a positive colonial policy became more insistent, and the government's resistance to them weaker.' Also see Woodruff D.Smith, *The German Colonial Empire* (Chapel Hill, NC: University of North Carolina Press, 1978), pp. 7±8; Otto Pflanze, *Bismarck and the Development of Germany,* 3 vols (Princeton, NJ: Princeton University Press, 1990), Vol. 3, ch. 5, esp. pp. 119±22, makes a convincing case that economic reasons alone cannot explain Bismarck's eventual switch to a pro-colonial policy, as does A.J.P.Taylor in the much older but still relevant *Germany's First Bid for Colonies, 1884±1885: A Move in Bismarck's European Policy* (New York: Archon Books, 1967; originally published, 1938).

16. This network has been referred to by Ian L.D.Forbes, among others, as an `informal empire': Forbes, `German Informal Imperialism in South America before 1914', *Economic History Review,* Second Series, 31(1978), p. 384.
17. See Chapter 7, p. 146.
18. All of the above from Sondhaus, *Preparing for Weltpolitik,* pp. 154±6. Also see Willi A.Boelcke, *So kam das Meer zu uns. Die preußisch-deutsche Kriegsmarine in Übersee 1822 bis 1914* (Frankfurt am Main: Ullstein, 1981), p. 22; W.O.Henderson, *The German Colonial Empire 1884±1919* (London: Frank Cass, 1993), pp. 37±8.
19. Sondhaus, *Preparing for Weltpolitik,* p. 158.
20. Some historians credit Kusserow with the responsibility of breaking Bismarck's last opposition to colonial activities through a memorandum he wrote on 8 April 1884 on the situation in Angra Pequeña, which subsequently would become German South-West Africa. It was Kusserow's direct connections with the North German merchants, and Adolf Lüderitz (the founder of the German claims in Angra Pequeña) in particular, that produced the dissension between him and Caprivi in the summer of 1884: Pflanze, *Bismarck and the Development of Germany,* Vol. 3, pp. 124±7.
21. HP II, pp. 158±62, entry for 27 August 1884.
22. HP II, p. 162, entry for 19 September 1884. Bismarck is reported to have called Caprivi `a crank' over this matter, `but without anger': Wilhelm von Bismarck to Holstein, 24 August [1884], in Norman Rich and M.H.Fisher, eds, *The Holstein Papers. Vol. 3: Correspondence,* p. 126. Hereafter cited as HP III.
23. The testing voyage, which resulted in both the decision to purchase Schichau-made torpedo-boats and in the increased fame of Alfred Tirpitz, is covered in detail in Patrick J.Kelly, `Tirpitz and the Origins of the German Torpedo Arm, 1877±1889', unpublished paper, 1993, pp. 14±15. (Kelly's paper is now published in: *New Interpretations in Naval History: Selected Papers from 11th Naval History Symposium, held at the United States Naval Academy, 21±23 October 1993,* ed. Robert W.Love, Jr (Annapolis, MD: Naval Institute Press, 2001).)
24. Caprivi to Holstein, 17 September 1884, HP III, pp. 135±6. The letter was written on board SMS *Blitz,* a torpedo tender ship.
25. Boelcke, *So kam das Meer zu uns,* pp. 145±6; Henderson, *The German Colonial Empire 1884±1919,* p. 48.
26. Sondhaus, *Preparing for Weltpolitik,* pp. 158, 278, n. 39; emphasis in original; Elmar M.Hucko, ed., *The Democratic Tradition: Four German Constitutions* (Leamington Spa: Berg, 1987), p. 126.
27. BA-MA, RM1/828, Hellwig [?] of the Foreign Office to Caprivi, 10 October 1884.
28. BA-MA, RM1/828, Hatzfeld to Caprivi, 19 April 1885, with attachments of the draft agreement in Spanish and French dated 18 March 1885.
29. Boelcke, *So kam das Meer zu uns,* p. 200; Sondhaus, *Preparing for Weltpolitik,* p. 155, rounds the figure to 1.6 million marks.
30. HP II, entry for 19 September 1884, p. 163.
31. Sondhaus, *Preparing for Weltpolitik,* p. 158.
32. Ganz, `Colonial Policy and the Imperial German Navy', p. 41.
33. BA-MA, RM1/2732, Foreign Office to Admiralty, 27 December 1885.
34. Ganz, `Colonial Policy and the Imperial German Navy', p. 40. What little advantage Dar-es-Salaam did have was reduced by the presence of a strong British

base at Aden, and was completely nullified after 1890 when the island of Zanzibar became a British possession.

35. Quoted in Rolf Güth, *Von Revolution zu Revolution: Entwickelungen und Führungsprobleme der deutschen Marine 1848±1918* (Herford: E.S.Mittler, 1978), p. 74.
36. This fixation with cruiser warfare as a means of attaining honour would persist. In the plans for war with France or Russia, or an alliance of the two, drafted in 1889, the section on cruisers begins with the underlined statement: `cruiser warfare is not of decisive influence upon warfare.' However, the next paragraph ends with the even more telling statement, `Successful cruiser warfare is therefore particularly suitable, lending lustre to a young navy': BA-MA, RM5/1656, `Promemoria betreffend die Kriegführung der Marine gegen Frankreich, gegen Rußland und gegen Frankreich und Rußland zusammen', 16 October 1889. See Ivo N.Lambi, *The Navy and German Power Politics, 1862±1914* (Boston, MA: Allen & Unwin, 1984), ch. 4, for details on the domestic aspects of the plans.
37. Sondhaus, *Preparing for Weltpolitik,* p. 155; Hans Jürgen Hansen, *Die Schiffe der deutschen Flotten 1848±1945* (Oldenburg: Bechtermünz Verlag, 1998), p. 71.
38. BA-MA, N578/11, Nachlass Knorr, p. 44.
39. Ibid., pp. 17±18.
40. Ibid., pp. 17±18.
41. This was the chief criticism raised by Alfred Thayer Mahan against the policies of the Royal Navy under the fourth Earl of Sandwich during the War of American Independence: `This is one of the most common and flagrant violations of the principles of war Ð stretching a thin line, everywhere inadequate, over an immense frontier. The clamours of trade and local interests make popular governments especially liable to it': Mahan, *The Influence of Sea Power upon History 1660± 1783* (Boston, MA: Little, Brown, 1890), p.414, n.2.
42. BA-MA, RM1/2806, `Denkschrift betreffend die Ausführung des Flottengründungsplan von 1873'.
43. Ibid.
44. Quoted in Holger H.Herwig, *`Luxury' Fleet: The Imperial German Navy 1888± 1918* (London: Allen & Unwin, 1980), p. 25.
45. Tirpitz, *Erinnerungen,* pp. 89±90, recalled that, during a visit of his to Bismarck's estate at Friedrichsruh in June 1897, the retired chancellor spoke of how he was of the opinion that many smaller warships were preferable to a few larger vessels. Hans-Otto Steinmetz is more blunt in his assessment of Bismarck's attitude towards the navy, `Bismarck was no naval enthusiast': Steinmetz, *Bismarck und die deutsche Marine* (Herford: Koehler, 1974), p. 96.
46. Kurt Assmann, *Deutsche Seestrategie in zwei Weltkriegen* (Heidelberg: K.Vowinckel, 1957), p. 14, quoting from `Denkschrift betreffend die Weiterentwicklung der kaiserlichen Marine vom 1. Juli 1883'. Assmann says the document possesses a `Tirpitz-like spirit'.
47. Tirpitz, *Erinnerungen,* p. 23.
48. Thomas Brysch, *Marinepolitik im preußischen Abgeordnetenhaus und deutschen Reichstag 1850±1888* (Hamburg: E.S.Mittler, 1996), pp. 319±20.
49. Herwig, *`Luxury' Fleet: The Imperial German Navy, 1888±1918,* p. 15; Sondhaus, *Preparing for Weltpolitik,* p. 159; Brysch, *Marinepolitik im preußischen Abgeordnetenhaus und deutschen Reichstag 1850±1888,* pp. 352±3.

50. Wilhelm von Bismarck to Holstein, 26 September 1884, HP III, p. 137. Wilhelm indicated his father `would be quite ready' to support naval expa nsion.
51. Sondhaus, *Preparing for Weltpolitik,* pp. 162±3.
52. It is also of note that Tirpitz was captain of the flotilla leader in the First Torpedo Division.
53. Sondhaus, *Preparing for Weltpolitik,* p. 168.
54. Lambi, *The Navy and German Power Politics, 1862±1914,* p. 8.
55. Ibid., pp. 8, 11±12, n. 33, regarding dating the document. Lambi does not identify the memorandum as being written by anyone other than Caprivi.
56. BA-MA, RM1/98. `Ueber die weitere Entwickelung der Marine', 14 June 1886.
57. Ibid., translation from Lambi, *The Navy and German Power Politics, 1862±1914,* p. 8.
58. BA-MA, RM1/98, `Allgemeine Gesichtspunkte für den Bau neuer Schiffe'.
59. Ibid.
60. Ibid.
61. Ibid., `Panzerschiffe'.
62. Ibid.
63. Ibid.
64. Corbett maintained that command of the sea was not something held exclusively by one side unless gained through a decision in battle, `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': Julian S.Corbett, *Some Principles of Maritime Strategy* (London: Longman, 1911), p. 87, but then goes on to say that command of the sea is always in dispute between the two antagonists. There may be local areas where one side is superior to the other and may be able to conduct operations with greater impunity, but that an absolute command of the sea is nearly impossible to obtain: ibid., *passim,* but esp. pt II: `Theory of Naval War', pp. 87±153.
65. BA-MA, RM1/98, `Panzerschiffe'.
66. Ibid., `Kreuzer'.
67. Ibid.
68. And thus did Caprivi predict the creation of the battle cruiser? For the creation of the battle cruiser and Admiral `Jacky' Fisher's intentions for its use in global cruiser war-fare, see Jon T.Sumida, *In Defence of Naval Supremacy: Finance, Technology and British Naval Policy, 1889±1914* (London: Routledge, 1989), ch. 2, and Nicholas A. Lambert, `Admiral Sir John Fisher and the Concept of Flotilla Defence, 1904±1909', *Journal of Military History,* 59 (October 1995), pp. 639±60.
69. BA-MA, RM1/98, `Kreuzer'.
70. Ibid., `Panzerfahrzeuge'.
71. Lambi, *The Navy and German Power Politics, 1862±1914,* pp. 16±17.
72. Fritz Stern, *Gold and Iron: Bismarck, Bleichröder, and the Building of the German Empire* (New York: Vintage Books, 1979), pp. 441±2; Lothar Gall, *Bismarck: The White Revolutionary,* 2 vols (London: Unwin Hyman, 1986), Vol. 2, ch. 14.
73. Wehler, *The German Empire 1871±1918,* p. 151. Wehler seems somewhat unclear on the role of Bismarck in the military's mindset: on the one hand, he says the 1887 war scare was `conjured up by Bismarck' as a ploy to pass that year's army budget (p. 148), and on the other hand, he says that the idea of a pre-emptive strike was rejected `because of Bismarck's determined opposition' (p. 151). Either the spectre of war was raised by Moltke and the General Staff as a means of dealing with the

presumed threat of Russia, or it was raised by Bismarck as a political ploy; Wehler, however, in his attempt to portray the whole Second Reich as a house of cards, would prefer to have it both ways.

74. Lambi, *The Navy and German Power Politics, 1862±1914,* pp. 18±19; Paul M. Kennedy, *The Rise of the Anglo-German Antagonism* (Atlantic Highlands, NJ: The Ashfield Press, 1980), pp. 187±8.
75. Lambi, *The Navy and German Power Politics, 1862±1914,* p. 17.
76. BA-MA, RM1/2795, `Gutachten über die Frage', 21 January 1884.
77. Boelcke, *So kam das Meer zu uns,* p. 43; Sondhaus, *Preparing for Weltpolitik,* p. 172.
78. Much of the following is based on the thorough study of these operations plans in Lambi, *The Navy and German Power Politics, 1862±1918,* pp. 18±27. The four plans are: `Coastal war in the North Sea' (20 October); `Our waging of war at sea against France' (October); The waging of war in the Baltic Sea' (5 November); and `Report concerning the prospects of the waging of war at sea between Germany, Austria, and Italy on the one side and France and Russia on the other side' (15 November). The last-named was the only one to be forwarded to Wilhelm I and Bismarck.
79. Ibid., p. 22.
80. Tirpitz wrote that Caprivi worked out this plan `personally', which Tirpitz, as a commander of the torpedo-boats, was to initiate by an attack on French naval forces in Cherbourg, `the moment war was declared': Tirpitz, *Erinnerungen,* p. 25.
81. Although the *Jeune Ecole* also advocated a policy of shelling coastal towns, their motives differed from Caprivi's: the former were interested in producing a panic in the populace and the disruption of economic elements, bringing about pressure on the enemy government to end the war, while the latter was interested in a purely military response, in the enemy dividing his fleet and therefore providing an opportunity for the German navy to achieve a temporary local superiority.
82. Lambi, *The Navy and German Power Politics, 1862±1914,* p. 22.
83. Ibid., p. 22.
84. See Chapter 6, pp. 116 ff.
85. Theodore Ropp, *The Development of a Modern Navy: French Naval Policy 1871± 1904,* ed. Stephen S. Roberts (Annapolis, MD: Naval Institute Press, 1987), p. 105.
86. As quoted in Arthur J.Marder, *The Anatomy of British Sea Power: A History of British Naval Policy in the Pre-Dreadnought Era, 1880±1905* (New York: Alfred A. Knopf, 1940), p. 135.
87. Hans Hallmann, *Der Weg zum deutschen Schlachtflottenbau* (Stuttgart: W.Kolhhammer, 1933), p. 104.
88. Kelly, `Tirpitz and the Origins of the German Torpedo Arm, 1877±1889', p. 15. While Kelly notes the inclusion of boarding exercises with some surprise, Marder states that in the Royal Navy until 1905 boarding pikes and tomahawks were standard ship's equipment, and `boarding stations and sword and cutlass drill were part of the regular training on British men-of-war': Marder, *Anatomy of British Sea Power,* p. 135.
89. Lambi, *The Navy and German Power Politics, 1862±1914,* p. 10.
90. BA-MA, RM1/2910, `Zwölf Fragen', 30 January 1888.
91. A German torpedo-boat division consisted of 6±8 craft; this meant a German superiority of 6±12 torpedo-boats in the scenario.

92. This is confirmed by Tirpitz in his memoirs: Tirpitz, *Erinnerungen,* p. 24.
93. `Caprivi led the way in building a bridge between tactical doctrines and manoeuvres, on the one hand, and battle tactics, on the other': Rolf Hobson, *The German School of Naval Thought and the Origins of the Tirpitz Plan 1875±1900* (Oslo: Institutt for Forsvarsstudier, 1996), p. 14.
94. Kelly, `Tirpitz and the Origins of the German Torpedo Arm, 1877±1889', p. 19.
95. BA-MA, N578/11, Nachlass Knorr, pp. 123±4.
96. Summaries of the answers submitted, including diagrams of the various formations proposed, may be found in BA-MA, N253/35, Nachlass Tirpitz, Report of the Ship Examination Commission, 13 March 1888. There is also a summary in Curt von Maltzahn, *Geschichte unserer taktischen Entwickelung,* 2 vols (Berlin: n.p., 1910±11), Vol. 1, pp. 206±28.
97. BA-MA, N253/35, Nachlass Tirpitz, Caprivi to Knorr, 1 April 1888.1 am indebted to the late Dr Ivo N.Lambi for this reference.
98. Ibid.; also see Carl von Clausewitz, *On War,* ed. and trans. Michael Howard and Peter Paret (Princeton, NJ: Princeton University Press, 1976), Book I, ch. 7, `Friction in War', pp. 119±21.
99. BA-MA, N253/35, Nachlass Tirpitz, Caprivi to Knorr, 1 April 1888.
100. Ibid.
101. There is some confusion over the terminology to identify the *Siegfried*-class warships: Sondhaus refers to them as `fourth-class armoured ships', Conway's calls them `coast defence battleships' and Hansen calls them `coastal armoured ships' (`Küstenpanzerschiffe'). At best, they were a stopgap measure, designed to serve in the event of a war with Russia. The decision to build them was taken by Caprivi as a result of the war scare of 1886, and the concern that, because of increased Russian construction, the Russian Baltic Fleet would soon be superior to the entire German navy: Sondhaus, *Preparing for Weltpolitik,* p. 165; *Conway's All the World's Fighting Ships 1860±1905* (London: Conway Maritime Press, 1979), p. 246; Hansen, *Der Schiffe der deutschen Flotten 1848±1945,* p. 83; Lambi, *The Navy and German Power Politics, 1862±1914,* p. 8.
102. Hallmann calls the *Siegfried*-class `the lowest point in the development of the navy': Hallmann, *Der Weg zum deutschen Schlachtflottenbau,* p. 35.
103. SBVR V, IV 1884, 3. Band, Anlage 26, p. 435, as quoted in Chapter 7, p. 147; Sondhaus, *Preparing for Weltpolitik,* p. 165.
104. With the sole exception of Caprivi's heartfelt condolences to Knorr on the death of one of the latter's children, which surprised Knorr greatly.
105. Hugo von Radolinski to Holstein, 21 November 1887, HP III, p. 230.
106. Seckendorff to Prince Heinrich, 25 December 1887, enclosure in Radolinski to Holstein, 12 February 1888, ibid., p. 264.
107. HP II, p. 233, diary entry for 22 August, 1885.
108. Ibid., entry for 28 September 1887, p. 349; emphasis in original.
109. As quoted in Frederic B.M.Hollyday, *Bismarck's Rival: A Political Biography of General and Admiral Albrecht von Stosch* (Durham, NC: Duke University Press, 1960), p. 234.
110. Sondhaus, *Preparing for Weltpolitik,* p. 177. Caprivi did not remain idle for long; on 10 July he was given command of X. Army Corps, and remained in that position until he succeeded Bismarck as Chancellor in March 1890. Hildebrand and Henriot, eds, *Deutschlands Admirale,* Vol. 1, pp. 203±1.

111. Ekkhard Verchau, `Von Jachmann über Stosch und Caprivi zu den Anfängen der Ära Tirpitz', in Herbert Schottelius and Wilhelm Deist, eds, *Marine und Marinepolitik im kaiserlichen Deutschland, 1871±1914* (Düsseldorf: Droste Verlag, 1972), p. 67.
112. Although the Chancellor's preferences ran more towards politically useful cruisers: Herwig, pp. 15±16; Hans-Otto Steinmetz, *Bismarck und die deutsche Marine* (Herford: Koehlers Verlagsgesellschaft, 1974), p. 74.
113. Sondhaus argues that the failure of Caprivi to respond to Bismarck's overtures on fleet expansion in spring 1886 was a `possible missed opportunity', and states that Caprivi's confusion over the tenets of the *Jeune Ecole* was the chief cause of stagnation in German armoured warship construction. Sondhaus, *Preparing for Weltpolitik,* pp. 174±5.
114. Ibid., p. 166.
115. Ropp, *Development of a Modern Navy,* p. 139; Marder, *Anatomy of British Sea Power,* pp. 125±6.
116. A check of *Conway's* shows that, with the exceptions of Russia and Italy, none of the other major world powersÐGreat Britain, France, Germany, the United States, Austria-Hungary and JapanÐengaged in any significant battleship construction programmes in the 1880s, and the majority of Russia's new ships were built in the Black Sea, where they were useful only against the Ottoman Empire. Italy's new battleships took almost a decade to complete, not seeing service until 1893 and 1895; furthermore, the cost of the programme was ruinous to Italy's finances: Brysch, *Marinepolitik im preußischen Abgeordnetenhaus und deutschen Reichstag 1850±1888,* p. 352.

CONCLUSION
The illusion of *Staatskaperei*

For nearly the entire second half of the nineteenth century, Germany attempted a means of exercising sea power in both its peacetime and wartime operations which was ultimately a failure. The eventual realization of that failure would, in the opinion of Tirpitz, leave the German navy no option but to embark on a crash construction programme, one which would be partly responsible for the increase in tensions within Europe in the decade prior to the First World War.

The navy's primary method of exercising sea power in the nineteenth century was through the use of long-range overseas cruisers, designed to serve as political and diplomatic instruments of the Prussian and German governments. However, those same cruisers were also suited for conducting a worldwide war on enemy commerce, and this was how they were intended to serve in the event of a European war. Without a maritime tradition, German naval officers were forced to rely on their personal experiences and on the history of warfare at sea. Those experiences were based on single-ship and small squadron action, not in the operations of a large battle fleet. Thus the idea of cruiser warfare affected the construction policies, material disposition and emerging mindset of a developing service.

The navy's ability to influence events in war was determined by its size and the technological quality of its warships. This meant the German navy was frequently at a disadvantage when paired with its foes, both the ones it faced in battle in 1864 and 1870±71, and the imaginary ones it planned naval operations against in the first two decades after unification. Whether the navy wanted to or not, this meant that it was forced into adopting the strategy of the weak at sea.

Throughout the previous three centuries of naval warfare, the accepted strategy of the weaker naval powers was commerce-raiding, the *guerre de course*. However, conditions for commerce warfare changed dramatically in the middle of the nineteenth century. The chief influences on these changes were the evolution of international maritime law and the effects of the Industrial Revolution on the manufacture of ships, both cargo vessels and warships. International law took commerce-raiding out of the hands of the private sector. Theoretically, this was supposed to eliminate the threat against private property at sea forever; instead, it created a new style of commerce-raiding: the *Staatskaperei,* the nationalization of privateering. Removing the profit motive

from the war on commerce made capture a more risky proposition, and made the destruction of cargo and vessel a more appealing and effective alternative.

Many factors contributed to the German Empire being placed in a position where a decision needed to be made regarding naval policy. The first was the growth of its worldwide commerce. Even before unification, German traders and merchants were roaming the globe, seeking raw materials for import and markets for finished goods. Throughout the nineteenth century, pirates and unscrupulous local authorities would stoop to violence and harassment of these businessmen for their personal gain. In turn, Germans abroad sought the protection afforded by naval power. This was the era of gunboat diplomacy, when a European power's warship could cow unruly natives in Africa, Asia or Latin America. The unification of Germany in 1871 increased the pressure on the German navy to supply such force; German prestige and honour demanded that Germans should no longer hide behind the skirts of *Pax Britannica*.

However, the German navy had to worry about far more than providing a measure of protection for the German economy; as a military force, its primary role was to act as a fighting force in the event of war. How the German navy thought about fighting a war at sea was influenced as much by the German experience of land warfare as it was by the history of war at sea. More important, it was also influenced by the wars fought by the German states in the middle of the century: in none of these wars did German sea power play a vital or positive role.

Consequently, the German navy in the period following unification was a weak, disorganized and uncertain navy. It had a better understanding of its roles in peacetimeÐcommerce protection and diplomatic representationÐthan it did of its role in a future war. This disorganization was reflected in both its construction policies and in its planning for warÐthrough operations planning, the `large war', or tactics, the `little war'.

The cost of the new technology of war at sea made building warships a venture only governments could afford. Because the rapid pace of technological advancements meant that warships were obsolete by their commissioning, many peopleÐpoliticians and military men includedÐfelt that the expense was not justified by the end-result. Thus, there was intense pressure to economize in naval construction. The general movement towards a `fleet on the cheap'[1] was intensified by the introduction of the torpedo. A small fast vessel, armed with a single torpedo, could dispatch a much larger and more costly armoured warship; therefore, what was the worth in spending money on the larger warship? This theory was appealing to politicians and budget-conscious leaders.

This made it difficult for the navy to propose any large plans to the Reichstag. The 1873 *Flottengründungsplan* was a carefully plotted exception, as Stosch was able to take advantage of both a propaganda campaign aimed at the Reichstag, orchestrated by his friend Freytag, and the extraordinary funds made available from the French war indemnity.

The naval officers were caught in a dilemma: how each felt about the prospects of commerce-raiding as a viable policy determined how each felt about this new naval theory. The proceedings of the 1884 Admiralty Council reflected the opinions of the senior officers. The navy had failed to contribute in 1870, and a repeat of that situation had to be avoided at all costs. Their solution was to take an existing situationÐcruisers on duty overseasÐand use them in a *guerre de course,* to prevent the enemy from reaping the benefits of unrestricted trade which had kept France resisting German arms long after the latter's victory at Sedan. The ultimate importance of commerce-raiding was that it provided an offensive strategy for the navy, one which made it more than a subordinate of the army, and one which appeared to offer the hope of glory for its participants. As a junior service, the navy had to carve out its own identity in the eyes of the German leadership and the German people.

Cruiser warfare was a theory which refused to disappear. Events outside Germany made it impossible to ignore the possibilities offered by the *guerre de course*. The *Jeune Ecole* spoke the language of those who advocated commerce-raiding: the harassment of enemy trade to such an extent that it became impossible for the enemy to continue the war. Caprivi's desire for a battle fleet was impossible to achieve during his tenure because, at that time, the prevailing winds in naval planning once again blew in the direction of smaller vessels.

Up to the mid-1890s, it was the idea of cruiser warfare, combined with coastal defence, that occupied the imagination of the German navy.[2] Why this fixation? First, the army generals who were in charge of the navy permitted such ideas to hold sway, or had insufficient influence over naval officers to persuade them otherwise. Adalbert wanted to create a balanced fleet capable of exerting sea power; his long-term goal as far back as the heady days of 1848 was for independent German naval power. He was thwarted in his ambitions by the constitutional struggle within Prussia between the pro-military ruling establishment and the liberal parliamentarians. Forced to live on limited means, the navy spent more on cruisers necessary for the protection of overseas trade than on armoured warships for European operations. Adalbert's colonial dreams fostered the hopes of many officers of the creation of a chain of German naval stations around the globe, a dream conspicuously not shared by Bismarck, the man ultimately responsible for shaping Germany's foreign policy.

Stosch brought a much-needed sense of organization to the navy in an attempt to dispel the low morale in the navy after the Franco-Prussian War. The *Flottengründungsplan* of 1873 gave the German navy a quantity of vessels never seen before, and also helped nurture the domestic shipbuilding industry. What cannot be ignored, however, is Stosch's relations with his senior officers and with Bismarck. Without the cooperation of his senior officers, Stosch was unable to retain any effective control over them, and dissension grew within their ranks. Furthermore, Stosch's heavy-handed tactics in manipulating careers created enemies, embittered retired officers who might otherwise have been persuaded to become publicists for the navy, and eventually ensured that his successor would

have to be yet another outsider. Finally, the `Stosch system' placed too much stress on men and machines, and completely disregarded the complexities of modern mechanized naval warfare. This seems at odds with his creation of a naval engineer officers' corps and with his founding of the *Marineakademie,* but was symptomatic of Stosch's era: good came out of ill, and ill came out of good.

Caprivi is the most deprecated member of this group, mostly because of his indecisiveness over construction policy. He repeatedly expressed his interest in a battle fleet, yet refused to build one on the grounds that the money would be better spent on a fleet of torpedo-boats which would be ready in time for the everimminent next war. Caprivi wrote and said that he wanted large warships, but his actions did not correspond to his words. In his defence, though, it must be remembered that this was a time of uncertainty throughout the world as to the future of the large armoured warship; even the Royal Navy itself was plagued with doubt over the future of the capital warship.

Although Caprivi remained indecisive over the question of construction policy, he made significant contributions to the navy's overall progress in other ways. The greatest example of this was in the development of battle tactics. In spite of the opposition of a number of senior officers, Caprivi sought to improve the navy's ability to fight in a European war. This would require skills never before used by German warships in large numbers: the ability to assume battle formations, to act according to both prearranged plan and to mid-battle signals, and to know when to break off engagements.

Throughout these years, the ideas of commerce-raiding ran like a subplot through all German naval thought. Regardless of operation plans, whether for coastal defence or for more forward assaults on a portion of the enemy fleet, it was at least possible for the German navy to fight a war of commerce destruction. Cruisers were always on duty overseas: if war broke out, the cruisers could begin to hunt enemy merchant vessels. It seemed so easy. German commanders could have their fill of easy prey, each one dreaming of becoming the next Raphael Semmes, roaming the high seas as lone wolves or, better still, as perfectly legitimate buccaneers.

It was an illusion. Single warships would be picked off one by one by an enemy, most likely France, who possessed superior cruisers and handy bases from which to operate. If any German vessels survived long enough, the question of supplies would become a further problem. Benevolent neutrality was granted to the romantic and dashing heroes of the underdog Confederacy; it was certainly not shown to the watery version of the Prussian jackboot. For all Bismarck's bluster about naval commanders exceeding their authority, he was correct about the image they projected of German military might enforcing its will in lieu of diplomacy. German commerce-raiders could expect to be treated according to the letter of the law and no more. Without a string of *Stützpunkte,* cruiser warfare was impossible to maintain. The fact that Adalbert and Stosch had been in favour of German overseas expansion, and that CapriviÐagainst his willÐhad led the navy during the creation of the overseas empire, kept the hopes of expansionists

alive, that the navy would indeed have the bases needed to conduct a *guerre de course*.

By the end of June 1897, the realization that success in cruiser warfare as the main component of a naval war was an illusion had been turned into naval policy by the will of one man. Upon assuming the head of the Imperial Naval Office, Tirpitz set about clarifying his stance on construction policy and on strategic thought, tying them together. No longer would he be bound by the dual fleet policy; that was a luxury only Great Britain could afford. Instead, he would concentrate the navy's efforts on the one aspect where results could be produced, namely in building battleships. A clear decision was made, finally, on future naval policy. It was a decision many disagreed with, but it was a basis to begin to implement both a different construction policy and different operations planning.

The culmination of Tirpitz's memoranda and letters may be found in his memorandum of July 1897.[3] Here, Tirpitz spelled out his rejection of cruiser warfare as `hopeless, because of the shortage of bases on our side'. Furthermore, `we must therefore establish as our basic principle that vessels provided for overseas service must be constructed according to the design specifications of the home fleet'.[4] In the space of a few lines, Tirpitz rejected once and for all the designs of the 1873 *Flottengründungsplan,* the proposals of the 1884 Admiralty Council, and the position taken by the Imperial Naval Office in the early and mid-1890s over the types of cruiser to be built. The attention of the navy was to be centred on the North Sea, not on glorious old sea dogs acting as modern-day state-sanctioned pirates.

Despite Tirpitz's programme of construction, it was impossible for the navy to avoid any further attempts at cruiser warfare. The squadron based at Kiaochou would have no other effective means of contributing to the war effort and, as tension grew between Germany and Great Britain, plans were made for emergency coaling provisions, a network of agents, and arms depots for commerce-raiding in Australasian waters.[5] The debate over *Staatskaperei* eventually was merged with the debate over unrestricted submarine warfare, the closest the German navy came to adopting the doctrines of ruthless *guerre de course*.

None of this would deter advocates of cruiser warfare. Some champions of this course of action eventually lined up behind Tirpitz, but more because he promised the construction of a fleet of warships, as opposed to the ineffectual dithering of the current naval leadership and the bombastic vacillations of Kaiser Wilhelm II. Tirpitz had a specific plan, something not seen since Stosch's early days, and one which promised a greater role for the navy. The senior officers who were convinced of the correctness of a *Staatskaperei* never really lost their desire for commerce warfare, nor did they understand that the war they wanted to fight was no longer possible. The laws of war, the dynamics of imperialism and the rapid change of technology had all conspired to close a very brief window of opportunity which had been open during the American Civil War. The German navy could not have hoped to emulate the naval strategy of the Confederacy, yet

too many of its officers hung their hopes on that slender thread. It was a hope that was sadly misplaced.

Notes

1. William Langer, *The Diplomacy of Imperialism, 1890±1902* (New York: Knopf, 1951), pp. 420±1.
2. This study ends in 1888, but there are significant developments over the course of the 1890s that merit further study. Cruiser warfare is discussed in the 1889 war plans as a viable strategy, there is a hot dispute between the Imperial Naval Office and the Naval High Command in 1895±96 over the types of cruisers to be built (and thus for what duties they were best suited, including commerce-raiding), and there are several publications of note in 1899 by advocates of commerce-raiding, notably retired admiral Viktor Valois and, more important, the head of the *Marineakademie,* Curt von Maltzahn. Tirpitz's violently negative reaction to these publications is illustrative of how fragile his position was in the navy, in terms of doctrine no less than in terms of politics.
3. Both German and English text of the complete memorandum are found in Jonathan Steinberg, *Yesterday's Deterrent: Tirpitz and the Birth of the German Battle Fleet* (London: Macdonald, 1965), pp. 208±23, and German material in Volker R.Berghahn and Wilhelm Deist, eds, *Rüstung im Zeichen der wilhelminischen Weltpolitik: grundlegende Dokumente 1890±1914* (Düsseldorf: Droste, 1988). Note, however, that Steinberg errs in dating the document; see Berghahn, *Der Tirpitz-Plan. Genesis und Verfall einer innenpolitischen Krisenstrategie unter Wilhelm II* (Düsseldorf: Droste Verlag, 1971), p. 109, n. 7.
4. `Allgemeine Gesichtspunkte', as quoted in Steinberg, *Yesterday's Deterrent,* pp. 209, 217.
5. See Peter Overlack, `German Commerce Warfare Planning for the Australian Station, 1900±1914', *War and Society,* 14 (1996), pp. 17±48.

APPENDIX I
Terminology of warship types

In the age of sail, there were effectively three classes of warships: ships of the line, frigates and sloops. A **ship-of-the-line** was a large warship, usually armed with 50 or more cannon arranged on two or more decks, designed to fight in the line of battle. This type of ship eventually evolved into the ironclad, the battleship and the dreadnought. A **frigate** was a smaller warship, armed with 50 or fewer cannon, intended to serve as a patrol vessel, scout or commerce-raider, and to perform general duties in areas where ships of the line could not go. A **sloop** was a very small and swift ship with minimal armament, used to convey dispatches and passengers.

1860s As steam took over as the means of propulsion and iron construction replaced wooden, a large number of different classes and names for **cruisers** began to appear, often in rapid succession. The following is a rough terminology chart in chronological order. Note that not all names are direct translations; the English equivalents rather than literal translations of the German terms have been used.

A **frigate [Fregatte]** was smaller than an ironclad ship-of-the-line.

A **corvette [Korvette]** was a slightly smaller cruising warship, armed and used for scouting and for commerce-related duties.

An **aviso** was a small, fast ship with minimal armament. It was used mainly for patrol duties and carrying dispatches.

A **gunboat [Kanonenboot]** was a small, shallow-draught vessel designed for coastal work and patrol duties.

1870s The introduction of armour necessitated further changes in terminology.

An **armoured frigate [Gedecktekorvette]** was a frigate with armour around its most vital areasÐthe engine-room and the main armament. It still was not a fully armoured warship.

A **flush-decked corvette [Glattdeckskorvette]** was a corvette built at least partly out of iron, but not armoured.

1884 German warship terminology changed again.

A **cruiser frigate [Kreuzerfregatte]** was a larger cruiser which was an improved version of the armoured frigate. It was also referred to as a **first-class cruiser**

[Kreuzer I. Klasse] in some naval writings, such as the 1884 Admiralty Council report.

An **armoured corvette [Kreuzerkorvette]** was a cruiser which was an improved version of the flush-decked corvette. It was also referred to as a **second-class cruiser [Kreuzer II. Klasse]** in some naval writings, such as the 1884 Admiralty Council report.

1890s A further change in terminology occurred as cruiser types became more specialized.

A **first-class cruiser [Kreuzer I. Klasse]** was a large armoured cruiser designed to serve with the fleet or as an independent vessel. This type of warship eventually evolved into the armoured cruiser, battle cruiser, pocket battleship and heavy cruiser.

A **second-class cruiser [Kreuzer II. Klasse]** was slightly smaller, designed for commerce-raiding and commerce protection. This class of cruiser eventually disappeared.

A **third-class cruiser [Kreuzer III. Klasse]** was smaller still, designed for serving as a scout for the fleet, in convoy escort, or in overseas duties. This type, a design innovation by the Imperial German Navy, eventually evolved into the light cruiser, and was subsequently adopted by other navies.

A **fourth-class cruiser [Kreuzer IV. Klasse]** was the smallest cruiser, replacing the aviso and the gunboat for overseas duties. Eventually, this class disappeared, its roles being assumed by the light cruiser and the destroyer.

Sources:

Conway's All the World's Fighting Ships 1860±1905. London: Conway Maritime Press, 1979.

Hansen, Hans Jürgen. *Die Schiffe der deutschen Flotten 1848±1945.* Oldenburg: Bechtermünz Verlag, 1998.

Hildebrand, Hans H. and Henriot, Ernest, eds, *Deutschlands Admirale 1849± 1945,* 4 vols. Osnabrück: Biblio Verlag, 1988.

APPENDIX II
Use of overseas ports by the Prussian and German navies, 1851±88

Station	*# of visits* (by categories)
1. Europe and the Mediterranean:	
Portsmouth (Great Britain)	25±49
Plymouth (Great Britain)	over 200
Lisbon (Portugal)	25±49
Cadiz (Spain)	25±49
Gibraltar (Great Britain)	100±200
Azores (Portugal)	50±74
Cape Verdes (Portugal)	50±74
Malta (Great Britain)	100±200
Piraeus (Greece)	25±49
Smyrna (Ottoman Empire)	25±49
Port Said (Egypt/Great Britain)	75±99
2. Africa:	
Aden (Great Britain)	25±49
Zanzibar (Germany after 1885; Great Britain after 1890)	75±99
Cape Town (Great Britain)	75±99
Angola (Portugal)	25±49
Cameroon (Germany after 1884)	25±49
3. West Indies and South America:	
Barbados (Great Britain)	25±49
St Thomas (Denmark)	75±99
Havana (Spain)	25±49
Kingston (Great Britain)	25±49
La Guaira (Venezuela)	25±49
Bahia (Brazil)	25±49
Rio de Janeiro (Brazil)	25±49
Montevideo (Uruguay)	75±99

Valparaiso (Chile)	25±49
4. Asia and the Pacific:	
Apia (Samoa)	75±99
Auckland (Great Britain/New Zealand)	25±49
Sydney (Great Britain/Australia)	25±49
New Guinea (Germany after 1884)	75±99
Batavia (The Netherlands)	25±49
Yokohama (Japan)	75±99
Nagasaki (Japan)	75±99
Chefoo (China)	75±99
Shanghai (China)	50±74
Amoy (China)	25±49
Hong Kong (Great Britain)	100±200
Singapore (Great Britain)	75±99

Source:
`Die Hauptversorgungs- und Stationshäfen der deutsche Marine 1851 bis 1888', on display in the Wehrgeschichtliches Ausbildungszentrum, Marineschule Mürwik, Monday, 15 June 1998.

APPENDIX III
German cruiser classes, 1860±90

(NB: Variations existed from ship to ship within a class; figures are overall.)

Arcona-class wooden screw frigates *[Fregatten]*
(Arcona, Gazelle, Vineta, Hertha, Elisabeth)
laid down 1855±66
displacement: 2,353±2,866 tons; 236 ×42 8 ×21 ; 12 knots maximum speed
armament: 6×68 pounder cannon, 20×36 pdr.

Nymphe-class wooden flush-decked screw corvettes *[Glattdeckskorvetten]*
(Nymphe, Medusd)
laid down 1862
displacement: 1,183 tons; 213 ×33 5 ×14 8 ; 12 knots
armament: 10×36 pdr, 6×12 pdr.

Augusta-class wooden flush-decked screw corvettes *[Glattdeckskorvetten]*
(Augusta, Victoria)
laid down 1863 in France (originally to be sold to Confederacy, then to Japan)
displacement: 2,236 tons; 267 4 ×36 5 ×18 5 ; 13½ knots
armament: 8×24 pdr, 6×12 pdr.

Ariadne-class wooden flush-decked screw corvettes *[Glattdeckskorvetten]*
(Ariadne, Luise, Freya)
laid down 1870±72
displacement: 2,039±2,368 tons; 223 7 ×35 5 ×18 8 ; 14 knots
armament: 6×150 mm, 2×120 mm.

Leipzig-class iron flush-decked corvettes *[Glattdeckskorvetten]*
(*Leipzig, Sedan* (renamed *Prinz Adalbert*))
laid down 1874±75
displacement: 4,553 tons; 287 ×46 ×22 7 ; 15½ knots
armament: 12×170 mm.

Zieten aviso
laid down 1875 in Great Britain
displacement: 1,152 tons; 228 2 ×28 1 ×15 2 ; 16 knots
armament: 2×381 mm torpedo-tubes.

Bismarck-class iron flush-decked corvettes *[Gedecktekorvetten]*
(Bismarck, Blücher, Stosch, Moltke, Gneisenau, Stein)
laid down 1875±78
displacement: 2,947±3,332 tons; 269 ×45 ×20 8 ; 12½ knots
armament: 16×150 mm.

Carola-class iron flush-decked corvettes *[Glattdeckskorvetten]*
(Carola, Olga, Marie, Sophie, Alexandrine, Arcona)
laid down 1879±80
displacement: 2,387 tons; 250 6 ×41 ×20 ; 13½ knots
armament: 10×150 mm, 2×87 mm, 6 revolver 37 mm.

Blitz-class aviso
(Blitz, Pfeil)
laid down 1881
displacement: 1,463 tons; 257 6 ×32 6 ×14 5 ; 16 knots
armament: 1×125 mm, 4×87 mm, 1×350 mm torpedo-tube.

Nixe corvette *[Glattdeckskorvetten]*
laid down 1883
displacement: 1,951 tons; 207 8 ×43 3 ×20 10 ; 10 knots
armament: 8×125 mm.

Charlotte flush-decked corvette *[Kreuzerfregatte]*
laid down 1883
displacement: 3,703 tons; 275 ×47 11 ×22 6 ; 13½ knots
armament: 18×150 mm, 16×88 mm, 6 revolver 37 mm.

Greif aviso
laid down 1885
displacement: 2,230 tons; 336 10 ×30 ×14 3 ; 19 knots
armament: 2×105 mm, 10×37 mm revolver.

Wacht-class avisos
(Wacht, Jagd)
laid down 1886±87
displacement: 1,475 tons; 280 9 ×31 6 ×15 4 ; 18½ knots
armament: 3×105 mm, 3×350 mm torpedo-tubes.

Schwalbe-class light cruisers (sloops)
(Schwalbe, Sperber)
laid down 1887±88
displacement: 1,337 tons; 219 5 ×30 8 ×15 5 ; 14 knots

armament: 8×105 mm, 5 revolver 37 mm.

Meteor-class avisos

(Meteor, Comet)

laid down 1888, 1890

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displacement: 1,055 tons; 262 2 ×31 5 ×14 9 ; 19 knots

armament: 4×88 mm, 3×350 mm torpedo-tubes.

Bussard-class fourth-class cruisers *[Kreuzer IV. Klasse]*

(Bussard, Falke, Seeadler, Condor, Cormoran, Geier)

laid down 1888±93

displacement: 1,834 tons; 271 ×41 ×14 7 ; 15½ knots

armament: 8×105 mm.

Irene-class second-class cruisers *[Kreuzer II. Klasse]*

(Irene, Prinzess Wilhelm)

laid down 1886

displacement: 4,947 tons; 340 2 ×46 7 ×25 ; 18 knots

armament: 14×150 mm, 6 revolver 37 mm, 3×350 mm torpedo-tubes.

Kaiserin Augusta second-class cruiser *[Kreuzer II. Klasse]*

laid down 1890

displacement: 6,218 tons; 404 ×51 ×24 3 ; 21½ knots

armament: 4×150 mm, 8×105 mm, 8×88 mm, 4 revolver cannon, 5×350 mm torpedo-tubes.

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RM8ÐKriegswissenschaftliche Abteilung der Marine
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