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Bjørn Terjesen
Øystein Tunsjø (eds)

The rise of naval powers in Asia

and Europe's decline

INSTITUTT FOR FORSVARSSTUDIER

SKIPPERGATA 17C, 0152 OSLO, NORGE

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SUMMARY

For the first time in modern history Asian states are spending more on defence than their European counterparts. The sea power ambitions of leading land powers such as China, Russia and India stand as a challenge to US naval supremacy in the region. The old European great powers are becoming marginalised in an increasingly Asia-centred world. The edited volume *The Rise of Naval Powers in Asia and Europe's Decline* examines this new geopolitical landscape of the 21st century, emphasising the role of the great powers and the importance of sea power in shaping international politics.

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CONTENT

ABBREVIATIONS

AAW	anti-aircraft warfare
ACV	air-cushion vehicle
ADMM	ASEAN defence ministers' meeting
AEW&C	airborne early warning and control system
AIP	air-independent propulsion
ALH	advanced light helicopters
APR	Asia-Pacific Region
ARF	ASEAN Regional Forum
ASBM	anti-ship ballistic missile
ASCM	anti-ship cruise missile
ASW	anti-submarine warfare
AWACS	airborne warning and control system
BIMST-EC	Bangladesh-India-Myanmar-Sri Lanka-Thailand Economic Cooperation
BMD	ballistic missile defence
CCP	Chinese Communist Party
CIWS	close-in weapons systems
CMF	combined maritime forces
CMC	Central Military Commission (China)
CSCAP	Council for Security Cooperation in Asia Pacific
CSG	carrier strike group
DD	destroyer
DDG	guided missile destroyer
DDH	helicopter destroyer
EAS	East Asia Summit
EEZ	exclusive economic zone
HADR	humanitarian assistance and disaster relief
HDW	Howaldtswerke-Deutsche Werft GmbH
IFR	international fleet reviews
IMDEX	international maritime defence exhibitions
IONS	Indian Ocean naval symposium
IOR-ARC	Indian Ocean Rim-Association for Regional Cooperation
ISR	intelligence, surveillance and reconnaissance
JASDF	Japan Air Self-Defence Force
JGSDF	Japan Ground Self-Defence Force
JMSDF	Japanese Maritime Self-Defence Force

LCAC	air-cushion landing craft
LIMA	Langkawi International Maritime and Aerospace Exhibition
LPD	landing platform dock
LSD	dock-landing ship
LST	tank-landing ship
LTTE	Liberation Tigers of Tamil Eelam
MCM	Mine Counter-measures Force
NCW	network-centric warfare
NDPG	National Defence Programme Guidelines (Japan)
OTH	over-the-horizon
PLAAF	People's Liberation Army Air Force
PLAN	People's Liberation Army Navy
PLOTE	People's Liberation Organisation of Tamil Eelam
RAS	replenishment at sea
ReCAAP	Regional Cooperation Agreement on Combating Piracy and Armed Robbery Against Ships in Asia
ROKN	Republic of Korea Navy
SAARC	South Asia Association for Regional Cooperation
SAM	surface-to-air missile
SDSR	Strategic Defence and Security Review (UK)
SHADE	shared awareness and deconfliction
SLBM	submarine-launched ballistic missiles
SNF	strategic nuclear forces
SRBOC	super-rapid-blooming off-board chaff
SSBN	nuclear powered ballistic missile submarine
SSGN	nuclear-powered cruise missile submarine
SSM	surface-to-surface missile
UAV	unmanned aerial vehicle
UCAS	unmanned combat air system
USC	United Shipbuilding Corporation (Russia)
UUV	unmanned underwater vehicle
VMF	Russian Navy (Voyenno-morskoiflot)
WPNS	Western Pacific Naval Symposium

Preface

The working papers presented here were initially read at the second Norwegian Seapower Symposium. It was held at the Royal Norwegian Naval Academy in Bergen in August 2011, and chaired by Rear Admiral Bernt Grimstvedt, Chief of the Royal Norwegian Navy. The aim of the Seapower Symposia is to engage with naval issues and developments of importance, while identifying and analysing their potential implications for small modern navies in general and the Norwegian Navy in particular. The first symposium, which took place in 2009, focused on maritime and naval challenges and opportunities in the High North. This second symposium examined naval developments in Asia, the major players being China, India, Japan and the US, and what the implications of changes might be for small modern navies. Both symposia were in two parts. After focusing on naval thinking, maritime strategy, doctrines and general trends in an international perspective, discussions followed on the Norwegian perspectives at strategic, operational and tactical levels. Those participating at the symposia are serving naval officers in the fleet and Coast Guard, headquarters, personnel at naval schools and training centres, academics attached to the Norwegian Armed Forces and from various defence institutes in Norway and abroad, retired flag officers and others.

The academic and military expertise of distinguished speakers from India, Japan, United Kingdom, the United States and Norway ensured rigorous analyses and constructive discussions. The main conclusions of the symposium are that a war between major powers seems unlikely for the time being, and that navies will continue to emphasise military operations other than war. Nonetheless, it was acknowledged that rivalry and tensions among major sea powers in Asia will likely contribute to a resurgence of great power politics in international affairs.

As organisers of the symposia, we hope the various discussions and papers will enable information sharing, foster understanding and build confidence among allies and partners.

We would like to take this opportunity to thank the Royal Norwegian Naval Academy, the Norwegian Naval Training Establishment (KNM Tordenskjold) and the Norwegian Institute for Defence Studies (IFS) for their support. We also express our gratitude to Karl Rommetveit at the Royal Norwegian Naval Academy and Tom Kristiansen and Sven Holtsmark at IFS for their valuable comments and suggestions during the preparation of this collection of papers. Series editor Therese Klingstedt at IFS has effectively guided us through the various stages of its publication. Nonetheless, the opinions expressed by the authors are entirely their own.

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Introduction

Karl Rommetveit and Bjørn Terjesen

The world has been undergoing a fundamental transformation for some time, as economic power shifts with seemingly unstoppable momentum from west to east. Governments of East and South East Asia are in consequence revisiting and revising their defence and security policies, not least in the field of naval defence as Asian waters increasingly play host to the world's maritime and naval activity. Asian governments are spending more on defence than their European counterparts. Washington is realigning policy to safeguard its economic and security interests in the Asia-Pacific and East Asia, while de-emphasising its presence in Europe (U.S. Department of Defense 2012; Clinton 2011). The papers collected in this volume explore these geopolitical changes from different perspectives, analysing the growing maritime and naval importance of Asia. Two of the most important questions the authors seek to answer are how Western navies will respond and adapt to an Asia-centred world and can we say something about the potential for conflict, on the one hand, and, on the other, for mutually rewarding collaboration among the great Asian powers.

Three land powers, China, India and Russia, are expanding and modernising their naval capacities. The three papers focusing on China's, India's and Russia's naval expansion discuss some of the challenges confronting land powers when they decide to become sea powers. Is it the case that maritime security concerns take precedence over these countries' historical dependence on continental power? The papers addressing the US, Japanese and British perspectives tackle the response of the traditional maritime powers to this ongoing transformation of old land powers as they go to sea.

Historically, when land powers have sought sea power, conflict has often erupted. We need to know how to achieve stability but also what factors are likely to lead to a naval arms race and potential conflict? While Germany and 'Checkpoint Charlie' may have constituted the military front line of the Cold War, the South China Sea, East China

Sea and Indian Ocean may constitute the military front line in the decades ahead, but the 'stopping power of water' may do more to mitigate the effect in the Asia-Pacific Region than confrontation on land did in Europe during the Cold War. For example, it will be much more difficult for China to challenge US naval supremacy at sea, than it was for the Soviet Union to challenge Western Europe on land.

While there are many uncertainties regarding future developments in Asia, navies will be of critical importance in the twenty first century. Sea lanes are essential for power projection and vital to economic growth and prosperity. Navies will continue to protect maritime interests and resources at sea. The global commons and maritime domain will probably be even more important commercially in a globalised and interdependent world. As the authors show, this is one of the main driving forces propelling the naval build-up in the Asia-Pacific Region.

At the same time, naval planners have the daunting task of developing navies that are able to tackle broader 'security' issues, ranging from constabulary duties, Humanitarian Assistance and Disaster Relief (HADR) operations, support of national diplomacy, safeguarding national sovereignty rights to the ability to neutralise and fight other naval forces. The uncertain threat environment has brought forth a mix of naval capabilities. However, the acquisition of platforms by some of the leading powers in Asia suggests that navies in the Asian-Pacific region are predominantly being developed with operations against peer competitors in mind. Advanced, expensive naval ships are frequently conducting missions for which they were not necessarily acquired, such as constabulary duties, i.e. counter-piracy operations. This collection of papers examines how navies in the Asia-Pacific Region intend to manage the balance between traditional and non-traditional security tasks and compares naval priorities in Asia and Europe.

Fundamental questions for coastal states are why they need a navy and to what purpose. A tentative answer, generically speaking, might be that navies essentially exist to provide support to armies and to weaken the enemy's economic-military potential at sea while ensuring the uninterrupted flow of friendly maritime commerce in peace, crisis and war. Ken Booth proposes a tripartite division of navies' functions or roles: a military; a diplomatic; and a policing role. The military role forms the base of the trinity, because of a navy's capacity to threaten and use force (Booth 1979, 16). Today, and in the immediate future, however, naval forces will probably be employed in diplomatic tasks and many and varied policing tasks – what Geoffrey Till, in his paper, calls maintaining good order at sea. This does not indicate that major conflict between nation-states can be excluded altogether, even if it seems unlikely today. Indeed, one of the principal findings of these papers is that the naval build-up in the Asia-Pacific is significantly focused on war fighting capabilities and that Asian navies are better funded and provided with extra resources to perform non-traditional security tasks.

A navy, no matter how strong, cannot do everything alone, it has to work with other elements of naval power, such as a coast guard, and of the country's maritime power,

such as the merchant marine, shipbuilding industries, ocean and offshore technology enterprises and other parts of the maritime cluster. Navies need to work closely with the army, air force and many civilian government agencies. Navies and coast guards must work with many Non-Governmental Organisations (NGOs) and private volunteer organisations ashore. In other words, in addition to being a warrior and military leader, a naval officer must be a diplomat and manager.

In extension, the nation-state is still the basic entity of the international system. Navies are primarily instruments in defending national rather than transnational interests and values against direct and indirect threats. On the other hand, again according to Till, the global maritime system is under increasing pressure from piracy, transnational terrorism, illegal immigration and certain coastal states' actions to restrict freedom of navigation. While mostly concerned with Asia, Till nevertheless provides a *tour d'horizon* of global naval trends, emphasising uncertainty, a balanced navy, technology, maritime law, strategic identity, economics of sea power and a decline of naval independence. He compares the significant naval rearmament of the Asian region with declining naval funding in Europe, and, partly, in the United States.

Till points to implications for Europe of what transpires in the Asian-Pacific region and uses the Royal Navy as an illustration to draw out some consequences. He reminds us of the importance of a balanced or general purpose fleet, one that can be adapted to respond to the unexpected in an unknown future. Navies should be able to balance the whole spectrum of tasks from high intensity war fighting and naval diplomacy to policing/constabulary duties. Since the global system is based on sea-borne trade, the role of the navies is to keep the oceans open. This implies the ability to maintain good order at sea and probably conduct expeditionary operations in a multinational framework.

In chapter 3, Bernard D. Cole assesses the recent naval developments in China which has been impressive and, for some actors, alarming. Cole first discusses the 'hardware' and 'software' aspects of the People's Liberation Army Navy (PLAN); too many studies overlook the people who maintain and operate the hardware, he emphasises. The human dimension is the key factor in naval effectiveness and fighting power. Cole examines the capabilities, missions, challenges and weaknesses of the PLAN. Pointing to the lack of replenishment-at-sea ships in the PLAN's inventory, Cole argues that the logistic focus of maritime thought in Beijing remains on Taiwan and other regional situations. In short, the '[r]ealisation of any talk of a Chinese "blue water navy" awaits construction of a capable logistic force able to sustain long-term operations at sea' China's naval modernisation will continue, Cole concludes, driven largely by great power status; its ambition for regional dominance; its military-industrial complex; and finally domestic politics. How China defines its national security interests in the decades to come will determine the type of navy it will deploy.

Robert S. Ross analyses the implications of China's military modernisation for US security and the East Asian security order. Since the end of the Second World War, the

United States has been almost unchallenged at sea in the Western Pacific. But China's expanding capabilities will disturb the present maritime strategic order, suggesting that the era of unqualified US naval security is over. Ross addresses the challenge posed by PLAN's sub-surface vessels, its surface vessels, and its increasingly important land-based capabilities. Despite improvements in China's subsurface and surface force, Ross does not see the former fundamentally challenging US maritime supremacy, and the latter has only played a marginal role in constraining US naval operations in the Western Pacific. China's improving land-based capabilities, however, could challenge US maritime supremacy in East Asia.

Ross discusses the United States' response to China's growing military capabilities, emphasising the development of smaller, faster, stealthier and less expensive naval ships and the transition to less vulnerable maritime platforms, such as nuclear-powered cruise missile submarines and unmanned aerial vehicles. In this regard, Ross points out, the US is confronted with a major challenge: how to reconcile the development of less visible, but more lethal smaller naval platforms and more distant basing arrangements without seemingly ceding the region to Chinese power. And how can US avoid degrading the credibility of its commitment to defend the maritime states in East Asia, thereby undermining its regional alliance system?

Japan, like the United States, is increasingly concerned about the expansion and modernisation of China's naval forces. Japan works extensively alongside the US and was a vital ally in deterring and neutralising the Soviet Union's naval ambitions in the Pacific during the Cold War. Yoji Koda provides a historical survey of the formation of the Japanese Maritime Self-Defence Force (JMSDF), which came into being after the dissolution of the erstwhile Imperial Japanese Navy. In light of Japan's past as an imperial power in the region, clear limitations were laid down in its constitution: Japan could have a self-defence force for defensive purposes, a protective 'shield'. In mission sharing operations, Koda writes, the United States concentrates on offensive operations, on being the 'spear' in what is called a 'spear and shield' relationship. Japan, a nation of densely populated islands but limited natural resources, depends on being able to import and export goods by sea. As a Japanese scholar, Koda understands the country's need to protect its commercial sea lines. Japan's defence strategy during the Cold War was directed at warding off threats posed by Soviet submarines, and therefore concentrated on anti-submarine warfare (ASW) within a balanced force structure. Interestingly though, this capability could also be employed against the emerging Chinese submarine force. After 9/11, a new initiative was launched to actively participate in international security and counter-piracy missions and humanitarian operations.

Vijay Sakhuja examines contemporary naval developments in India and the possibilities for multinational cooperation. The land wars that India fought with China (1962) and Pakistan (1949, 1965 and 1971) shaped a continental mindset and led to neglect of the navy. However, historical experience of colonisation and foreign naval activities

close to Indian territorial waters in the Indo-Pakistani wars of 1965 and 1971, demonstrated India's need to build an autonomous naval capability to deter aggression from the sea. India's fast growing economy is increasing the country's dependence on the sea lines of communications. According to Sakhuja, over 97 per cent of India's trade by volume and 75 per cent by value is sea borne. Two-thirds of its energy needs must be imported, of which the volatile Persian Gulf region provides 67 per cent. India's strategic geography and its vast Exclusive Economic Zone (EEZ) also testify to the importance of its maritime domain.

The primary maritime areas of interest to India are the following choke points: Strait of Bab-el-Mamdeb; Strait of Hormuz; Straits of Malacca; and Cape of Good Hope. Other areas of interest and operations are the Red Sea, South China Sea, Southern Indian Ocean and East Pacific region. These are vast ocean expanses, and patrolling them requires a very large navy indeed. India buys hard and software from many countries, including Russia, UK, Germany, France and the US, giving the Indian Navy 'multinational interoperability', but in accordance with India's policy of non-alignment.

Mikhail Tsypkin discusses the challenge of understanding the Russian Navy. Historically, the Eurasian power of Russia has been (and still is) a great land power. Although Russian leaders have dreamt from time to time of turning Russia into a great naval power, their visions of a blue water navy have often foundered on the rocks of reality. An important exception was the naval build-up in the years between the 1962 Cuban missile crisis and late 1980s.

According to Tsypkin, the Russian Navy's most important missions are a mixture of strategic deterrence and power projection to defend Russian interests in adjacent waters, but the Navy also takes part in selected international operations such as counter-piracy and anti-smuggling. Interestingly, meeting the need for aircraft carriers is not one of the main priorities, despite its being a frequently occurring item on the Russian authorities' agenda since 2005. The Russian economy, including the naval budget, is heavily dependent on the rise and fall of energy prices. Furthermore, the war between Russia and Georgia in 2008 showed that the Russian armed forces had some serious deficiencies. This spurred the Russian navy to purchase four French Mistral class amphibious assault ships, giving Russia new power projection and 'show of force' capabilities for use in different scenarios in Russia's areas of interest. Increasingly, this also means the Far East.

Global warming has boosted the relative importance of geography in the northern areas, creating challenges along with opportunities. If the Northern Sea Route, as the Russians call it, is opened, it will improve Russia's geostrategic position by allowing it to transfer naval assets more rapidly from European Russia to the Far East. Climate change will also strengthen Russia's position as a link nation between Asia, Europe and North America. The Far East is of huge economic importance to Russia because of its rich fishing grounds, oil and gas reserves and transportation links to Asian markets. However, the unresolved dispute between Russia and Japan over the four southernmost Kurile Islands,

continues to sour relations. Finally, in a bid to bolster their 'bargaining' position relative to the other Arctic nations, i.e. the US, Canada, Denmark and Norway, the Russians are strengthening their military presence in the Arctic.

Like Till, Øystein Tunsjø starts with an overview of geopolitical shifts and the re-emergence of great powers in Asia. Tunsjø examines implications for Europe, transatlantic relations and NATO. The shift towards an Asia-centred world along with expansionary maritime policies in the region have geopolitical, commercial, strategic, military and legal ramifications even for a geographically remote country like Norway. An Asia-centred world, he continues, accentuates the need for a new division of labour in transatlantic relations where the EU and NATO take more responsibility for defence and security in Europe and its neighbourhood. It would redress Washington's diminishing interest in European affairs and growing preoccupation with the rise of China and the Asia Pacific region. Finally, Tunsjø discusses the direct and indirect effect of maritime developments in Asia on Norway's maritime interests.

As the papers and issues discussed in this collection show, problems of a particular nature will require the attention of politicians and policy makers in Norway, a small naval power but a major coastal state, with maritime interests all over the world, and an open economy. A conflict between local and global presence can easily erupt, even more so when we realise that most western navies are declining in size and capacities, while many Asian states are growing their naval budgets. For Norway, with its large maritime domain in the High North and limited naval resources, it is natural and necessary to prioritise its obligations and address possible challenges so as to protect its maritime interests, prevent crises and maintain a credible resource management in northern waters. It will become even more important if the Arctic ice continues to recede, opening new areas for energy exploitation and transportation, but also increasing the likelihood of undesired incidents.

Consequently, the area of operations and spectrum of tasks of the Norwegian Navy (of which the Coast Guard is a branch), will grow significantly. It is crucial for a coastal state like Norway to maintain sovereignty, naval presence and situational awareness around the clock. Coast Guard and Navy vessels, aircrafts, border guards and other sensors are always operational (Bruun-Hanssen 2012, 26). Inasmuch as Norway's allies are downscaling their navies and, in consequence, capabilities, their presence in the High North will gradually decline, too. The relative importance of the Norwegian Navy will therefore increase. As the presence of Asian commercial and naval vessels in Arctic waters will probably become more common, new players will doubtless seek to challenge Norwegian interests in the area.

One way of prevent or mitigating tension would be to take measures to strengthen multilateral and bilateral confidence on maritime issues. Examples are the operations in the Gulf of Aden and the Pomor exercises with the Russian Navy, including the exchange of officers, common exercise procedures, port visits and dialogue to facilitate greater

mutual understanding and cultural awareness. Having said all that, the Norwegian merchant marine, other maritime industries and the international community expect wealthy Norwegians to do their bit in peacemaking, peacekeeping and stabilisation operations directed by the UN or NATO. By modernising the Norwegian Navy and Coast Guard, exemplified by the new Nansen class frigates, the country is better able to take part in international operations. How the Norwegian authorities balance between 'home' and 'abroad' will continue to be a significant challenge. In any event, international policing operations are likely to become more frequent.

A global survey of naval trends: the British approach

Geoffrey Till

Naval planners always have a difficult time, but things are now particularly difficult as the problems they face seem so much more complex than they were. Although the mix of problems and the particular effects they have vary from country to country, these problems are near universal in their application and their consequence. Seven basic issues and problems, which are much inter-connected, seem to afflict them, and this paper will go through each in turn.

PROBLEMS

1. *An unknowable future seen 'through a glass darkly'*

The editor of one review of the possible 'futures of war' recently quoted J.B. Haldane: 'This is my prediction for the future – whatever hasn't happened will happen and no-one will be safe from it.' He went on to conclude that 'in the dynamic security environment, an assessment of the future is truly only as valuable as its facility for being up-graded' (Tangredi 2008, 145, 59). It is always difficult to sketch out the future that defence planners need to prepare for but never more so than now, since in addition to the usual sets of challenges to do with the rise and fall of nations and the deadly quarrels so often associated with this (which may well be hugely exacerbated by the perfect storm of shortages in energy, food and water foreseen by some by the 2030s), we also have to grapple with a range of asymmetrical threats from a variety of non-state actors including terrorists and pirates. And then there are the faceless threats and challenges brought about by climate change – such as the increased propensity for catastrophic weather events or the rising importance of the increasingly ice-free waters of the High North both of which could have both a direct and an indirect impact on Alliance security. The cur-

rent growth of European interest in the strategic and resources potential of the Arctic, indeed, is becoming a matter of concern and likely rivalry (Depledge and Dodds 2011). To paraphrase Lord Salisbury, if you believe defence analysts, nothing is safe. Because that does seem to be the way it is, planners have instinctively to assume that as complete a range of military capabilities as possible is necessary, so it is extremely hard to identify capabilities that can be safely cut.

Within this situation, though, defence planners have continually to adapt to new circumstances. As Secretary Clinton recently said 'You don't win by fighting the last war. And NATO cannot continue to succeed by looking in the rear-view mirror' (Clinton 2010). The general tendency, then, is to guard against the difficulty of prediction by building general purpose fleet capabilities that can be adapted to respond to unexpected events and trends. Planners will try to do so, at least to the extent that available resources make possible.

2. *Deciding the balance between traditional and non-traditional tasks*

Navies around the world have been hugely affected by the impact and the consequences of globalisation. Globalisation, for all its faults, is generally accepted as the basis for the world's peace and prosperity. It is a global system based on sea-borne trade that links all parts of the world together, such that troubles in one part of the system inevitably impact on all the rest. It is a system that has failed before and it faces a variety of serious threats today. In many ways the world's navies are assuming non-traditional tasks that are intended to defend the system against what threatens it. These tasks include the maintenance of the kind of non-dominating Sea Control that ensures that the ocean remains freely available to all forms of legitimate use. This implies the maintenance of good order at sea, and very possibly the conduct of expeditionary operations in situations which threaten the system's stability and the conditions for trade. The successful performance of these tasks requires collaborative action between navies and often a specific mix of capabilities, normally aimed at the conduct of operations at lower levels of intensity than would commonly occur in advanced inter-state war.

The problem is that alongside this, there is still a perceived need to deter standard inter-state conflict, and so many, if not most, navies also feel they have to invest in higher-intensity capabilities of the sort needed to deter, or worst case to conduct, inter-state conflicts of the traditional sort. In the doctrinal statements of most countries, this possibility is listed as one that is unlikely, but, at the same time, one that cannot safely be ruled out.

The navies of the Asia-Pacific Region (APR) face a particularly acute dilemma in this regard, because, alongside many common interests which draw them together in collaborative action against, for example, piracy and other forms of maritime crime, they operate in an area riven by serious maritime disputes (such as are to be found in the South and East China Seas) and long-held historic antipathies and mutual suspicions.

The sinking of the ROKS *Cheonan* by the North Koreans and the ferocious response of the Chinese to the American response to this (which initially took the form of what the Chinese regarded as a planned 'intrusion' into the Yellow Sea by a US carrier battle group led by the USS *George Washington* in the spring of 2011) exemplifies the point.

As a result, the naval planners for the region have a particularly difficult issue in deciding where to strike the balance between these alternative sets of traditional state-based and non-traditional system-based tasks.[1]

3. The challenges of new technology

New technology always presents problems as well as opportunities. The most obvious of these is the increasing expense and complexity of new technology. Around the world, the acquisition of new technology (in the shape of platforms, weapons and sensors) is therefore depressingly often both late and hugely over budget. In the Second World War for example, the 14,000 ton amphibious support ship USS *Mt McKinley* commissioned 90 days after contract. Today, major projects can take decades to see through providing opportunities for constant changes of mind and requirements, political meddling, unexpected currency movements and the like. As a result of this near constant level of failure to deliver on budget and in time, there is strong political pressure to speed up and reform the acquisition process itself – at least once every four years – which in itself creates continuing instability of course. In addition to all this, there is in much of the APR a problem of corruption among the decision-makers and a lack of clarity about strategic priorities over the long term.

The proliferation of asymmetric technologies which potentially narrow the gap between the strong and the weak presents real dilemmas for planners too. Nowadays, for example, the US Navy has to cope at the one end of the scale with the Anti-Access Area Denial ship-killing ballistic missiles of the Chinese, with the swarming tactics of the Iranian Revolutionary Guard and the prospect of threats from suicide bombers on jet skis. The fact that they have to divide their resources among these different types of technological threat of course evens up the balance that even the strongest naval power in the world can manage against each. In the case of the delicate balance between the Chinese and US navies, this could have potentially important consequences for the status quo in the APR.

4. *The emerging problems of maritime law*

Far from simply resolving tensions and disputes, international maritime law can often be a cause of them, when it comes to agreeing what the law is, interpreting it and applying it. Even in the less controversial area of the global counter-piracy campaign, the deficiencies in national jurisdiction make dealing with the problem much more difficult now than it used to be in the age when one simply staked out captured pirates between the low and high tide-lines. In the APR, maritime disputes such as that over the South China Sea

are a major cause of tension and at the very least encourage and help shape naval development. It has also fed a developing row over the status of the EEZ, most particularly, though not exclusively, between the US and China, as to what foreign warships may, or may not, do in other people's EEZs. For such reasons, the traditional freedom of navigation assumed by the likes of Mahan is under serious threat these days, and this must be a matter of major concern, particularly to the maritime countries of the West who strongly adhere to the notion of the 'freedom of the seas' for a whole variety of cultural and strategic reasons. Particularly in the APR, developing notions of the international law of the sea frame maritime policy, provide sets of naval tasks and capabilities and could very well spark conflict with others. Indeed, with the pointed exchanges between the US and China over the former's developing interests in the South China Sea, with Chinese harassment of Vietnamese and Philippine vessels, and with furious exchanges between Japan and China over a number of incidents in the East China Sea in 2011, the prospect of conflict has got significantly closer. One result of this is a redoubling of efforts to manage (rather than seek to resolve) such conflicts more effectively. Another though, has been to accelerate the modernisation and shape the deployments of the navies of the region.

5. *Problems of strategic identity*

These problems revolve around the question of what sort of country and what sort of national strategy should shape the navy's operational priorities and composition. Uncertainty here is commonplace and this can be decidedly malign in its effects. Even in the APR, where awareness of the centrality of maritime concerns is now significantly higher than it often seems to be in Europe, this lack of clarity about strategic identity can be a major problem.

The Navy of the Republic of Korea for example is currently torn between two, or maybe even three, competing visions of what its operational priorities should be. Firstly, in dealing with the implacable hostility of its northern neighbour as evidenced by the sinking of the ROKS *Cheonan* and the recent deadly bombardment of a disputed island in the Yellow Sea, it has pressing issues of territorial defence in and around the peninsula itself. Then, in responding to the competitive pressures of China, Japan, Russia and the US in its dangerous strategic neighbourhood, it has a distinctive *regional* agenda. Finally, its increasing economic stake in the global trading system impels the country to assume wider global responsibilities, such as participating in the Proliferation Security Initiative and the counter-piracy effort in the Gulf of Aden. But the type of naval force required for each of these three alternatives are far from identical and so pose dilemmas of choice for ROK naval planners (Till and Yoon 2011).

6. *The economics of seapower*

Mahan painted an encouraging picture of the manner in which naval strength underpins and encourages economic prosperity and then feeds from it in a kind of virtuous circle. Arguably, we are witnessing such a process in the APR, where the rise of its relative naval power seems intimately connected with the rise of the region's sea-based economic endeavour in the shape of its many and various shipping and trading industries.[2] As the latter rise, then so will naval expenditure; and as naval expenditure rises, so will the conditions for trade improve. This assumption is core to most conceptions of maritime strategy.

But the arrows go both ways. As the economy dwindles or fails, then the resources available for navies dwindle, too. The circle turns vicious, in other words. Naval planners are then faced by constant cutbacks in expenditure, and eventually at any rate, a required downsizing of operational aspiration. Here the current experience of the substantial downsizing of European fleets, compared to their expansion elsewhere, illustrates the point.

7. *A decline in naval independence*

In the Western tradition, navies have had a fair degree of operational autonomy, especially in those times when fleet commanders left home for months or even years at an end. This, though, sometimes encouraged habits of mind and procedure that made it difficult for them to cooperate synergistically with the army, and then the air force. The British discovered this, or re-discovered it, in the Gallipoli campaign of 1915 and initiated the sometimes very controversial process of developing jointery that is still going on today. Generally, its effects have been notably benign enabling such successes as the Falklands Campaign of 1982, or the recent Sierra Leone operation. But it has also meant that the strategic independence of the Royal Navy, and indeed of most other navies too, is increasingly constrained by the requirement to operate in concert with the other services, and indeed other government departments. In consequence, purely 'naval' priorities may not prevail. Moreover, the necessary equipment and procedural synergies with other navies and other maritime agencies are likely to be more difficult to achieve when navies are primarily focused on inter-operating with armies and air forces.

The same kind of processes are happening in the APR too, but at a much slower rate, and so generally appear to have more control over their destiny. They may very often be over-shadowed by the army, but at least they can state their case on an institutional basis. The revitalisation of the Indonesian Navy seems to show that in the clearly maritime circumstances of that country, this is a considerable advantage.

EMERGING TRENDS

From these seven issues and problems, just two very broad conclusions about the likely trajectory of global naval development seem to emerge. The first is that the maritime strategy of the twenty-first century is likely to be much broader than it used to be in the past, just as the concept of what we mean by 'security' has got broader too.[3] Navies face a much wider range of threats and tasks. Their efforts at and from the sea will need to be integrated into complementary military and civil lines of approach in what NATO calls the 'twisted' rope of the 'comprehensive' approach.

The second conclusion that emerges from this review has to be that the maritime balance between East and West is shifting dramatically, and that this will have crucial consequences for the rest of the world, not least for us here in Europe.

The modernisation of Asian naval forces began in the 1980s as part of a growth in its share of global defence expenditure from 11 per cent in the mid 1980s to 20 per cent in 1995 with a corresponding leap in the region's arms imports (Ball 2010). A natural reflection of Asia's growing economic clout and political confidence – together with a need to replace obsolescent second-hand equipment acquired decades before – this was more a 'festival of competitive modernisation' than a potentially destabilising naval arms race as generally understood. In any case, it was largely brought to a halt by the Asian financial crisis of the late 1990s.

By the early 2000s most countries in the region had recovered from this crisis sufficiently to resume naval modernisation programmes funded by steadily increasing levels of defence expenditure. The US-based naval consultancy firm AMI International anticipates a naval spend in the APR of US$ 173 billion by 2030; the Asia-Pacific naval market as a whole is 'expected to move past NATO countries to become the second largest source of future naval spending after the United States'. Asia already spends more on defence in general than does Europe. According to the French naval armaments firm Direction des Constructions Navales (DCNS), the APR was considered 'as a future centre for defence business.... The defence market in the Asia-Pacific should be, in about 2016, a major market – even above the US (*Straits Times* 2009)[4]

This increase in focus and effort is especially evident in Northeast Asia, an area primarily engaged in the acquisition of platforms, weapons and sensors such as anti-ship/land attack cruise missiles, submarines, anti-submarine capabilities (ASW), sea-based air and missile defence capabilities, electronic warfare capabilities, and so on, which at first glance only really make sense for operations against peer competitors. But with its acquisition of submarines and modern frigates, something of the same behaviour may be seen in Southeast Asia too. The ambitiousness of these acquisition aspirations is also reflected in these navies growing levels of confidence and in their mission structures. For the first time the navies of the Pacific have joined with India in participating in maritime missions far from home – most obviously in the counter-piracy campaign in the Gulf of Aden. The presence of the Chinese air-defence frigate *Xuzhou* lying off Libya, providing

cover for the evacuation of its citizens from the civil war then in progress was a startling if generally unremarked indication of the extent to which naval development in the far off Pacific ocean are likely to impact other regions, Europe included (Lili 2011).

SO WHAT FOR EUROPE?

The world's peace and prosperity are going to depend partly on the consequences of all this. Will this naval expansion lead to competitive naval arms races in the region and possible conflict; or should it be seen as a perfectly natural, indeed benign process, in which the various states of the Asia-Pacific recognise the maritime dimension of their peace and security, accept the strategic responsibilities that go with their increasing economic importance and develop the kind of capabilities needed to perform them? Either way, what transpires in the region will have vast consequences for the rest of the world.

And what will it mean for us here in Europe? How will we be affected by all this, either as helpless bystanders or as participants in the process? One thing of which we can be certain is the need to respond to the US Navy's increasing focus on events in the region. Already much of the US Navy, once a principal guarantor of European security, sees the Atlantic merely as an area that must be passed through on the way to somewhere more important. And this perception is more likely to grow than to diminish in the future.

THE BRITISH RESPONSE

So, finally, to what extent does the development of the Royal Navy, during and after the Strategic Defence and Security Review (SDSR) process of 2010 support and illustrate these premises and suggest a response to them (HM Government 2010)? This paper will take the same seven central problem areas identified above as affecting all navies, not least those in the APR, but in reverse order:

JOINTERY AND THE DECLINE IN NAVAL INDEPENDENCE

In the SDSR process, the Afghanistan campaign was clearly regarded as the 'main effort' for the time being and so took precedence over all other priorities. For this reason, the cuts bore particularly heavily on the Royal Navy and the Royal Air Force, and within the latter on the specifically maritime component of that service, with the cancellation of the Nimrod maritime patrol aircraft replacement. This struck many as particularly perverse, given the fact that 40 per cent of the personnel deployed in Afghanistan at times came from the naval service. The Army's cuts, however, are essentially to be delayed until the Afghanistan campaign is over. Despite the fact that both the Army and Air Force interests have publicly expressed their scepticism over the need for the Royal Navy's new aircraft carriers, the Navy has felt constrained from waging a partisan campaign in defence of its interests, arguing that it would be politically counter-productive to do any such thing in the current circumstances. When expressing his concerns about the Navy's capacity to go on fighting the Libyan campaign indefinitely, with the current level

of naval commitment, the First Sea Lord, for example, was reportedly reprimanded for speaking out of turn. Much the same happened to the Chief of the Air Staff shortly afterwards. The capacity of the services to 'make their case' would now seem significantly less than it was, even though the high regard in which they are held by the general public has if anything been increased by their role in recent events. But against this, and perhaps unexpectedly, one curious consequence of the defence reform programme announced by the previous Secretary of Defence Dr Liam Fox, is that the individual services are likely to be more in control of their own destinies in the implementation if not the deciding of policy from now on.

THE ECONOMICS OF SEAPOWER

Although, until the recent recession, British maritime industries were in a generally bullish state (Chamber of Shipping 2009, 1–2, 4), when compared to past decades, they seem likely to suffer in consequence of the huge spending cuts introduced by the new coalition Government to tackle its budget deficit of some £900 billion; an estimated cut of between 7.5 and 8 per cent in Britain's future defence spending over the next five years was announced. This was on top of a 10 per cent 'black hole' (in which projected and committed expenditure exceeded the money thought to be available) in the defence budget that already existed. Since the Treasury announced it had no intention whatever of filling that hole, the actual total cuts are more like 17.5 per cent than the figure officially announced. In response to criticism for this the Government has claimed its defence budget still to be the 4th largest in the world, that Britain's level of defence effort at just over 2 per cent of GNP is better than most of its allies and that no more can be afforded until the next review in 2015.

CAMPAIGN LOSSES

The RN's consequential losses have been equivalent to those of a substantial defeat during World War II:

- HMS *Ark Royal* and its Harrier aircraft plus one helicopter carrier were cut. While both 65,000 ton Queen Elizabeth class carriers will be built, only the second, HMS *Prince of Wales* will be initially completed as a fleet carrier and will only 'routinely' carry 12 Joint Strike Fighters although equipped for 36. On current plans, the first carrier to be completed – HMS *Queen Elizabeth* – will be commissioned for three years as a helicopter carrier, without fixed-wing aircraft, and may even be sold off. As a result, a ten-year capability gap in 'carrier strike' will open up. It will be a major challenge for the RN to regenerate this capacity when its carriers and aircraft eventually become available.
- One new and operationally busy amphibious warfare ship HMS *Albion* will go into extended reserve

- 4 Type 22 frigates were cut from the RN escort fleet
- 2 replenishment vessels
- 5,000 people

The Trident replacement programme has passed its 'Initial Gate' but 'Main Gate' will be delayed until 2015, and so the decision whether or not to proceed will be that of the next government. Meanwhile, a review into cheaper alternatives is being conducted, at the insistence of the Liberal Democrats in Mr Cameron's coalition.[5]

This sounds bad enough, but many expected it to be worse. The amphibious force has survived, albeit at a somewhat smaller scale, and the Royal Marines have fought off the threat of being taken over by the Army. In addition, the Type 45 destroyers will be completed, and there will even be a seventh Astute class SSN. From 2015, 13 new frigates in the shape of the Type 26 Global Combat Ship, new tankers, landing ships and maritime helicopters will, hopefully, all be joining the fleet in the next few years. The Royal Navy is now getting the VSTOL version of the Joint Strike Fighter the F35B and not the conventional version the F35C. It is hoped in consequence that the the Royal Navy will now be able to operate two carriers not one. A claimed uplift of funding for these programmes is expected from the 1 percent increase (in real terms) in support for Defence Equipment and support from 2015 recently announced.

STRATEGIC IDENTITY

Because of the fixation on Afghanistan, Britain in 2015 will end up at least temporarily with a force ratio of army to the other services of 65 per cent, analogous to the continental mind-set of Germany – and significantly worse from a maritime point of view than the US equivalent figure of 55 per cent. Extraordinary consequences like this for an allegedly maritime power only emerged *after* the review process, not during it. For years now, with the decline of the merchant marine and Britain' shipping industries, analysts have been lamenting the phenomenon of sea-blindness in the country's political classes. But perhaps, if belatedly, the tide is turning. The country's National Security Strategy specifically recognises that Britain is a maritime country[6] and the revival of the British shipping industry is beginning to be recognised – or at least was, before the current economic crisis.

Prime Minister David Cameron has stated that the cuts will not reduce Britain's strategic weight, but it is hard to see how this can possibly be the case once the Afghanistan campaign has ended.[7] There will be at least temporarily a marked reduction in the Royal Navy's ability to meet its increasingly important commitments all around the world, such as its regular participation in the Five Power Defence Arrangements in Southeast Asia. These cuts can be seen as part of the slow drift of maritime power from West to East, accelerating, as many commentators have remarked, the relative maritime decline of the West.

LEGAL DEVELOPMENTS

The UK tends to take the same line on the freedom of navigation as the United States, and seeks in its own modest way to defend that conception against those who would limit it. Its capacity to do this depends on it being able to maintain sufficient ships at sea to exercise and demonstrate the country's understanding of that particular part of the law of the sea. The reduction in what is popularly if inaccurately known as the 'escort fleet' will make this more difficult.

The UK has also run into procedural difficulty in reconciling the demands of its part of the counter-piracy campaign with its position on wider aspects of humanitarian law, especially that summarised under the European Convention on Human Rights. The UK was instrumental in persuading the Kenyans and the Seychelloise to accept the task of prosecuting captured pirates, as a means of getting round this difficulty, but with some difficulty, significant cost and little expectation that this would provide a long-term solution.

TECHNOLOGICAL CHALLENGES

The cancellation of the Nimrod MRA4 replacement programme leaves the Royal Air Force (RAF) without a credible maritime patrol aircraft, for the time being. This programme was admittedly lamentably late – some 144 months behind schedule – and with some £3.6 billion already spent on it, a third more than planned, it had become very expensive and perfectly illustrated apparent deficiencies in the UK's equipment acquisition process. Yet another major programme of reform, associated with the entrepreneur Bernard Gray and Lord Levene and dubbed the Defence Transformation Programme is now underway as a consequence of this kind of failure.

STRIKING BALANCES AND AGREEING PRIORITIES

The RN has made a conscious decision to go for quality over quantity. Over the better part of 20 years it has sacrificed people, minor warships, auxiliaries, submarines and the escort fleet in order to get carriers capable of operating fixed-wing aircraft, the Type 45 destroyer and Astute SSNs. The consequence will be a marked reduction in fleet numbers and a corresponding capacity to defend the country's lower intensity maritime security interests. However good an individual ship may be, and these two programmes are very ambitious, it can only be in one place at a time. The RN currently deploys some 20 per cent of its assets operationally at any one time. This is significantly higher than either of the other services, but even so, a decline in the RN's global footprint seems inevitable given the decline in the number of its ships and people. For this reason, there have been substantial calls from within the maritime community for something of a switch from quality to quantity in future acquisitions.[8]

AN UNCERTAIN FUTURE?

Critics of the SDSR process and more particularly of its consequences for the RN have of course pointed to the unexpected Libyan campaign as an early example of the strategic short-sightedness of the review, with its 'presentist' fixation on Afghanistan-type counter-insurgency. While the RN and the RAF were able to cope with the demands of the Libyan campaign, they have done so by relying on a number of platforms and techniques scheduled for early disposal under the terms of the SDSR. Bearing in mind the scale of the RN's continuing involvement in the Afghanistan counter-insurgency campaign, the continuation of its counter-piracy role off the Horn of Africa, counter-narcotics and HADR tasks in the Caribbean, stabilisation and diplomatic engagement functions in the Gulf and the South Atlantic, the RN effort was surprisingly ambitious and effective. A varying task force of some 13 warships and support ships, including what might be termed two 'light carriers' (HM Ships *Albion* and *Ocean*) and an SSN, extracted 500 civilians from danger, helped enforce the UN arms and oil embargo, control the No-Fly Zone and support NATO air operations, engaged in mine clearance, naval gunfire support against enemy shore batteries, and launched a number of Tomahawk land-attack cruise missiles and helicopter (including Army Apaches for the first time) operations against targets ashore. The statistics demonstrated by HMS *Liverpool* are impressive: 147 days on patrol, 28 action stations, under enemy fire on ten occasions and fired more rounds ashore than any British ship since the Falklands campaign.[9] Given the extreme unlikelihood of the UK engaging in any further major ground-based counter-insurgency operations for the foreseeable future, this type of commitment, though totally unforecast by the SDSR, seems likely to set a pattern for the future.[10] Other European navies were also extensively involved in the Libya operation, moreover, and demonstrated a continued level of 24/7 operational experience which should not be forgotten when comparing the decline in European platform numbers to their increase in the APR.

CONCLUSIONS

Given the increasing preoccupation of the United States in the APR (Frühling and Schreer 2009, 98–103), the cuts in the Royal Navy have certainly not been welcomed by the US Navy, which has looked on the RN as its principal ally for over 50 years. The decline in the UK's – and indeed NATO Europe's – military power has not gone unremarked in Washington (*Guardian* 2011c).

This brief review of the current situation for the RN suggests that the problems and issues that confront the navies of the APR apply elsewhere too, but perhaps in the case of Europe in a notably more acute form. The current travails of the RN are replicated in many, though not all of the other navies of Europe too, mainly in consequence of the current economic crisis. All this seems to reinforce the two consequential trends noted earlier, namely that:

- Navies around the world have to take on more and more diverse roles as the concept of maritime strategy has broadened to include greater constabulary duties such as Maritime Security and wider tasks in aid of the civil power such as capacity building, humanitarian assistance and disaster response and capacity building and focused engagement in support of national diplomacy. But, in contrast to the situation to be found in the APR, navies in Europe have not been provided with extra resources with which to perform these new tasks.
- The result is a fast developing and historic shift in the naval balance between East and West which is likely to result in substantial but currently unknowable change in the world's security architecture.

For navies, these are indeed interesting times.

NOTES

1 This issue is discussed in my *Seapower: A guide for the 21st century* (2009), 1–19.
2 This is a vast topic, explored country by country by the various contributors to Geoffrey Till and Patrick Bratton (2011).
3 The classic formulation of this point is Barry Buzan (1991).
4 I am indebted to Bob Nugent, Vice-President (Advisory) of AMI International (http://aminter.com), for these figures and for his personal support of this and other projects; *Jane's Defence Weekly* (2009).
5 In the last stages of the previous Labour Government, the MoD conducted an extensive confidential review of these possibilities and concluded that these cheaper options made no sense financially or strategically, but the campaign against Trident renewal continues nonetheless. The MoD's case was effectively made in Tim Hare (2009). But see *Jane's Defence Weekly* (2011).
6 This first appeared explicitly in the *National Security Strategy Update 2009: Security for the Next Generation* (Cabinet Office 2009, 97–99).
7 Nonetheless, we need to guard against exaggerated and decidedly premature verdicts on the British and other European navies such as Arthur Herman in *New York Post* (2007).
8 The clearest exposition of this view is Vice Admiral Sir Jeremy Blackham and Gwyn Prins (2007a and 2007b).
9 For a flavour of this see, *Guardian* (2011a); *Daily Telegraph* (2011a); *Guardian G2* (2011); *Times* (2011); *Jane's Defence Weekly* (2011b); *Daily Telegraph* (2011b); *Guardian* (2011b).
10 I have developed this argument further in Till (2011).

Naval developments in China

Bernard D. Cole

Naval developments in China during the past decade or so are indeed impressive, if sometimes exaggerated in media reports. The People's Liberation Army Navy, or PLA Navy, has been designed and equipped to accomplish specific missions, especially those subsumed in a Taiwan scenario, although other, more demanding tasks, are in the offing. The PLA Navy certainly faces challenges and weaknesses, particularly as wider-ranging assignments are confronted.

Discussions of PLA Navy modernisation typically focus on hardware – on new ships, submarines, missiles and airplanes. That technological emphasis is understandable, but it too often overlooks the key factor in naval effectiveness: the people who maintain and operate the hardware. China's navy in 2011 deploys approximately 290,000 personnel in a 2.3 million-strong military that remains dominated by the Army. The military, including the PLA Navy, also remains an overwhelmingly male-dominated organisation, although women play a role in administration, research and training billets.

These issues and developments constitute the subject matter of this paper, which also includes a brief discussion of navies in China's history and statements emerging from the nation's leaders in support of a modern navy for the Middle Kingdom. Will Beijing emerge as a naval power that will challenge the maritime interests of other nations, or will it cooperate with other navies, including those of NATO allies, as a force for international good?

MISSIONS

The Chinese navy is tasked with national defence 'goals and tasks'. These are prioritised as 'safeguarding national sovereignty', to include national economic development; defence of the homeland, to include 'the security of China's lands, inland waters, territorial waters and airspace, safeguard its maritime rights and interests ... to oppose and contain

the separatist forces for "Taiwan independence" ... and defend national sovereignty and territorial integrity' (Xinhua 2011a).

TRAINING

Addressing the Central Military Commission (CMC) in 1999, President Jiang Zemin stated, 'We must [develop] high-quality talented military people'. Beijing emphasises its concern with military training in China's various Defence White Papers. The 2008 edition, for instance, prioritised the creation of 'a scientific system for military training in conditions of informationisation' as part of 'attaching more importance to Military Operations Other Than War (MOOTW) training in counter-terrorism, stability maintenance, emergency response, peacekeeping, emergency rescue and disaster relief' (Xinhua 2009a).[1]

The Chinese Navy has followed this directive during the past decade of modernisation. Advances in personnel education and training, accompanied by advanced individual and unit exercising, were especially spurred by the loss of the crew of the Ming class submarine hull number 361 in 2003. The deaths of the 70 personnel onboard *Ming* 361 were almost certainly due to inadequate training, with shoddy equipment maintenance apparently contributing to the tragedy.[2]

One result of this accident was a major leadership turnover in the PLA Navy, including the dismissal of the service's commander and political commissar; the commander and political commissar of the North Sea Fleet, of which *Ming* 361 was a unit; and at least eight other senior officers, including the commander of the Lushun Naval Base, who apparently was held responsible for the maintenance work performed on the submarine shortly before its loss.

The succeeding PLA Navy commander, Vice Admiral Zhang Dingfa, was a career submarine officer, which is notable: Zhang's appointment suggests both the Central Military Commission (CMC) dissatisfaction with accepted Navy practices under previous commanders and concern about ensuring the capability of China's submarine force to serve as a primary military instrument in the event of a security confrontation with the United States over Taiwan's status. Zhang's 2004 selection to membership of the CMC was also significant: he was the first navy commander so appointed.[3]

Another notable 2004 event for the PLA Navy was the release of China's Defence White Paper for that year. In it, the PLA Navy was described as

> responsible for safeguarding China's maritime security and maintaining the sovereignty of its territorial seas along with its maritime rights and interests.... [I]ntegrated combat capabilities are enhanced in conducting offshore campaigns, and the capability of nuclear counter-attacks is also enhanced.... [T]he PLA Navy ... reorganises the combat forces in a more scientific way [and] speeds up the process of updating its weaponry and equipment.... [W]eaponry is increasingly

> informationalised and long-range precision strike capability raised. It takes part in joint exercises to enhance its joint operational capabilities and integrated maritime support capabilities. (MNDC 2004)

These words may be viewed as a direct – if somewhat more realistic – stepchild of Mao Zedong's admonition to his military commanders to 'make [the navy] dreadful to the enemy' (Huang 1994).

Statements such as these, and similar sentiments expressed upon notable occasions, are not just politically motivated, but in the arcane world of 'China watching', may serve as guides to future developments. President Hu Jintao's description of the PLA Navy's 'four historic missions' in 2004 has since been buttressed in writing by China's various 'defence white papers' and in practice by military developments, particularly in the PLA Navy.[4] An important thrust of the 'missions' is to point all the services, particularly the Navy, in the directions of post-Taiwan missions: how should the navy be training and equipping itself to deal with missions after Taiwan is reunited with the mainland?

HARDWARE

Material improvements in the PLA Navy are relatively easy to track.[5] From its inception in 1950, when it commissioned its first patrol boats, small combatants (frigates and corvettes) and submarines, China's navy has depended on Soviet/Russian platforms and technology. This dependence continues to a much lesser degree, although in the early 2000s China acquired from Russia four Sovremenny class guided missile destroyers (DDGs), 12 Kilo class conventionally powered submarines (SSs) and 24 Su-30MK2 aircraft for maritime interdiction.

During the past 20 years the PLA Navy has added to its ranks approximately 38 conventionally and 5 nuclear-powered submarines – 3 or 4 of them ballistic missile submarines SSBNs; 15 guided missile destroyers DDGs; 16 guided missile frigates (FFGs); more than 60 patrol craft capable of firing cruise missiles; 2 Yuzhao class landing platform docks (LPD); 24 landing ship tanks (LSTs); and 2 replenishment-at-sea (RAS) ships. This steady, moderate programme of naval modernisation has accelerated since 2000, when all of the four nuclear-powered and 22 of the conventionally powered submarines have been commissioned, as have ten DDGs and six FFGs, all of the 26 amphibious ships and at least 60 (Houbei class) missile patrol boats. In the first decade of this century, China has led the world in submarine construction, building almost three boats per year.

Until about 2005, however, the PLA Navy was still very much 'platform-centric', almost wholly dependent on individual ship and aircraft operations with only rudimentary radio and data-link coordination. At the end of the new century's first decade, China is deploying ships capable of operating in coherent naval task forces able to project power on the seas. These new platforms are the beginning of the first really modern navy that Beijing will deploy as an instrument to deter Taiwan; thwart US intervention; and secure

China's territorial claims in the East and South China Seas, as well as other maritime missions characteristic of a global power.

Three ex-Soviet carriers, *Minsk, Kiev and Varyag,* have also been purchased by Chinese companies, supposedly for conversion to casinos. Construction of *Varyag*, equipped with a 'ski jump' bow to facilitate fixed-wing aircraft operations, began in a Ukrainian shipyard in 1985, but stopped in 1992. The partially completed ship has been in Chinese shipyards since 2002, finally conducting its first sea trial in August 2011 (Reuters 2011).

The same advances in the design and construction of Chinese submarines are reflected in the PLA Navy's newest surface combatants. Since 2003 the Navy has acquired three new classes of DDGs: the Luzhou, Luyang I and Luyang II. The Navy is also acquiring the Jiangkai and Jiangkai II class FFGs, which, while significantly less capable than the DDGs, exhibit the most 'stealthy' characteristics of any PLA Navy ship. These ships were likely designed to operate primarily in littoral waters, but apparently have been performing satisfactorily during extended operations in the Gulf of Aden.

A particularly interesting addition to the PLA Navy's surface force is the Type 022 (Houbei) missile craft. These ships feature a wave-piercing catamaran hull that provides an unusually seaworthy platform for cruise missiles. That this hull form apparently was copied from an Australian commercial design does not detract from China's accomplishment in producing dozens of a relatively inexpensive combatant that might prove very threatening to much larger naval vessels.

In sum, fleet acquisitions since 2000 reflect a dramatic increase in Chinese shipbuilding capability, especially in the technologically challenging field of submarine construction. But China's warships are equipped with many foreign-designed systems: gas turbine engines and super-rapid-blooming off-board chaff (SRBOC) dispensers purchased from the United States and Ukraine; anti-aircraft warfare (AAW) missile systems and combat integration systems from France; helicopters of French and Russian designs; apparently Dutch-designed automatic 30-mm close-in weapons systems (CIWS); Italian-designed anti-submarine warfare (ASW) torpedoes; and ASW mortars and 130-mm guns that are Soviet-designed systems.

The largest surface ships built by the PLA Navy to date are amphibious ships, similar in design, size and apparent capability to a US San Antonio class dock landing ship (LSD). These Yuzhao class (Type 071) vessels displace approximately 18,000 tons and have both a well deck capable of holding four air-cushion landing craft (ACV) and a flight deck capable of handling two helicopters, as well as a hangar. At least two of these ships are in the water, with three to four more planned.[6]

LOGISTICS AT SEA

Perhaps no ships are more important to increasing the power-projection capability of a fleet than those capable of replenishment at sea (RAS). Only five of the PLA Navy's nu-

merous supply and support ships are capable of underway RAS. Each of the three fleets is assigned one or two of these relatively small ships. China has added just two RAS ships since 2000, and these are the first PLA Navy support ships capable of simultaneously providing destroyers and frigates with fuel, provisions and ordnance.

Thus, China has been slow to increase its navy's ability to remain at sea for extended periods. Only two of the PLA Navy's five oilers, the Fuchi class ships, are less than twenty years old, and only one (Nancang, assigned to the South Sea Fleet) is capable of providing more than a single major fueling to a task group composed of four or more ships. This indicates that at least the logistic focus of maritime thought in Beijing remains on Taiwan and other regional situations such as the East and South China seas. Realisation of any talk of a Chinese 'blue water navy' awaits construction of a capable logistic force able to sustain long term operations at sea.

AVIATION

The Navy's most serious aviation shortfalls are in fixed-wing ASW aircraft, tankers and airborne early warning and control aircraft (Airborne Early Warning and Control System [AEW&C], not Airborne Warning and Control System [AWACS]). Naval Aviation did not conduct its first air-refueling mission until 2000.[7] The People's Liberation Army Air Force has been acquiring AEW&C at a slow rate; Naval Aviation has not. The PLA Air Force retains priority for receiving and training in these capabilities. Even more significantly, the navy joins the other Chinese services in its paucity of helicopters.

WEAPONS

China's most formidable naval weapon systems are its anti-ship cruise missiles (ASCMs) – air, surface and subsurface launched. Its indigenous cruise-missile development programme dates back to the late 1950s, before which the PLA Navy had been operating SS-N-2 Styx surface-to-surface missiles (SSMs) provided by the Soviet Union. Later purchases of French-built Exocets provided an additional model for Chinese designers. Long-range – more than 100 nm – ASCMs have been developed and are deployed on submarines. China has developed the capability of designing and manufacturing cruise missiles with close to state-of-the-art features, including supersonic speed, complex manoeuvres and submerged-submarine-launch capability

PROGRESS

The Chinese Navy in 2000 was a modernising force, but one still severely limited in several warfare areas. Its submarine force was the exception, although composed mostly of old boats. That situation has now changed. In fact, the PLA Navy in 2011 is developing into a maritime force of twenty-first-century credibility in all warfare areas – even if marginal in AAW, ASW and force integration.

The surface combatant force has made major strides in the past decade, now mus-

tering its first area-AAW defence destroyers and more capable ASW ships. China is still apparently following its pattern of building successive classes of ships, each numbering in single digits; the next destroyer class is reportedly well into the design process and will represent a significant increase in size, perhaps displacing more than 10,000 tons, which will match the size of the US Arleigh Burke class destroyers.

The numbers of state-of-the-art ships, submarines and aircraft it deploys do not yet give the PLA Navy the ability to dominate East or South Asian waters, certainly when measured against the US Navy or even the Japanese Maritime Self-Defence Force or the Indian Navy. However, measuring total naval forces against one another is not particularly useful in operational terms; what is more meaningful is a Clausewitzian measure: how much (and, we might add, how effective a) naval force China can deploy against a given objective at a time of Beijing's choosing. Whether this mission concerns Taiwan or an East or South China Sea objective, it seems fairly certain that China will be able to seize the initiative when employing its new navy.

Mao Zedong recognised in 1950 that deploying a navy to conquer Taiwan required the development of expertise in amphibious warfare, seaborne logistics and maritime air power, but his plan to organise a strong navy was aborted because of the Korean War and thereafter limited by domestic political events, especially the disastrous Great Leap Forward. Later, naval development was severely impacted during the 1960s by the Sino-Soviet split and the Great Proletarian Cultural Revolution. Only at the end of the 1970s, after the end of the Cultural Revolution and the post-Mao power struggle, was the PLA Navy in a position to 'take off'.

In 2007 the PLA Navy's commander argued, 'We must build a powerful Navy ... to maintain the safety of the oceanic transportation and the strategic passageway for energy and resources, [and] to defend the unification of our nation.'[8] This statement alludes to the fact that almost all of China's primary sovereignty concerns lie in the maritime arena: Taiwan; territorial and seabed resource disputes with Japan in the East China Sea; similar disputes with Vietnam, the Philippines, Brunei, Indonesia and Malaysia in the South China Sea; and sea lines of communication across the Indian Ocean endangered by piracy in the Gulf of Aden. Additionally, the government's authority relies in significant part on continued economic growth, which in turn relies on maritime trade and energy flows.

PLA NAVY SHORTCOMINGS

The PLA Navy recognises its equipment deficiencies as well as the difficulties involved in correcting them. General Cao Guangchuan, director of the General Armaments Department in the 1990s and later minister of defence, complained that poor pay made it 'difficult for his department to retain top-quality scientists and researchers', and that 'the task of developing the Navy's armaments is arduous'.[9] The PLA Navy surface forces suffer in four significant warfare areas.

ANTI-AIR WARFARE

Modern sea power is to a large extent defined by air power, in terms both of aircraft, manned and unmanned, and of missiles, cruise and ballistic. The PLA Navy is finally moving to ameliorate this weakness in launching the Luyang II class DDGs. That ship's Aegis-like system is the Chinese Navy's first to offer an effective area AAW defence; previous combatants offered only a point-defence capability.

The Luda and Jianghu classes were designed without any surface-to-air missile (SAM) system; the four Sovremenny class combatants acquired from Russia are armed with the point-defence SA-N-7 system; the Luhu, Luhai and Jiangwei classes are equipped with the French-built Crotale or its Chinese version, the HQ-6/7 – also point-defence systems. Even the Luyang I and Luzhou classes commissioned with the Luyang IIs in the middle of this decade, while armed with very potent AAW missiles, lack a true area-defence capability.

Anti-submarine warfare

ASW is another crucial PLA Navy warfare weakness. Detecting submarines, especially from a surface ship, is a very difficult process, and the PLA Navy does not appear to be taking advantage of available ASW technology, especially in the field of passive detection – some of it forty years old. Despite promising developments using satellite-based radar to find submarine wakes and airborne lasers to detect submarines at depth, sound transmission through water (sonar) remains the most reliable way to detect a submarine.

PLA Navy ships make almost exclusive use of hull-mounted, active, medium-frequency sonar. This probably represents a financial and operational compromise, because this sonar type is the least expensive and simplest to operate of the various types available. A very few PLA Navy escorts have been equipped with towed, variable-depth sonars in addition to hull-mounted units since 1993. China's navy lacks significant airborne ASW resources, with only a dozen old aircraft assigned to that mission, and there is no open-source knowledge that China has deployed sea-bottom listening arrays in its coastal waters. A serious ASW effort would encompass all these systems, properly integrated and supported by timely operational and technical intelligence.

Systems integration

A warship is inherently a 'system of systems', and the PLA Navy is still in the early stages of integrating its operations across the complex warfare mission areas. This requires the effective integration of shipboard, airborne and shore-based systems in pursuit of the desired operational mission objective. Since 2000, the PLA Navy has made significant progress in this crucial area of integrating sensor, weapon and command, and control functions, but the integration problem is complicated by China's practice of building ships that incorporate a combination of foreign and Chinese-built components within the same system – a French-designed missile system with a Chinese air-search radar, for instance.

Beyond individual ship systems integration is the need for inter-unit integration that maximises the synergy among the systems and units of a task group, a task force and a fleet. The US concept of net-centric warfare presently is the epitome of this paradigm. The PLA Navy is certainly aware of the developments in net-centric warfare, but reported PLA Navy exercises indicate that the force remains on a very steep learning curve towards achieving integration. Effective joint operations require inter-service coordination, but PLA training plans and observed exercises show that it is moving slowly to achieve cross-service and cross-warfare area capabilities.

Maintenance and supply

The PLA Navy also is working to improve maintenance of its front-line ships. Even the newest combatants – the Luzhou and Luyang classes – face supply and maintenance problems attributable to the foreign origin of many of their weapons and sensor systems and propulsion plants. France, the Netherlands, Italy, the United States, Ukraine and Russia have all played a role in the design and/or manufacture of China's newest warships. This causes difficulties in training personnel in equipment maintenance as well as supply support, including acquisition of appropriate test equipment.[10]

These combinations reduce system efficiency and hence decrease warship lethality, and are exacerbated by China's practice of building small classes of two to four ships. PLA Navy officers recognise the benefits of systems integration and equipment commonality, and the slow progress in these areas is probably due to budgetary limitations, the mix of indigenous construction and foreign purchases, and the small number of ships in most PLA Navy classes.

Intelligence, surveillance and reconnaissance

A final notable PLA Navy weakness is intelligence, surveillance and reconnaissance (ISR) capability. This is in part the result of China's highly centralised and rigid command structure and in part because the navy is just beginning to venture into net-centric warfare. This capability is being directly approached from various angles, including submarine detection, helicopter over-the-horizon missions and space-based assets.

The foregoing are 'weaknesses' from a US perspective, however. For instance, the PLA Navy may rely for air defence on submarines and anti-ship ballistic missiles limiting the ability of US aircraft carriers to engage Chinese forces rather than on the expensive development of their own maritime force of fixed-wing aircraft. There is nothing uniquely Chinese about 'asymmetry' in military operations, but no opponent should doubt PLA Navy commanders' ability to adapt and innovate in operational situations.

THE FUTURE FORCE

Admiral Yu Guoquan, director of the Department of Naval Equipment Technology and Warships division in 1995, outlined a vision of twenty-first-century naval systems. New naval weaponry, he wrote, would have six features: (1) improved reconnaissance and observation, precise targeting and better weapon-sensor integration, creating quicker reaction time; (2) increased lethality; (3) increased mobility and speed, and hence shorter engagements; (4) improved protective and survival systems; (5) increased emphasis on electronic jamming and targeting; and (6) multiple dimensions.[11]

By 2020 the PLA Navy will probably number approximately 70 modern surface combatants, between four and six new ballistic-missile submarines and 50 modern attack submarines, perhaps ten of them nuclear-powered. The old submarines – the Han and Xia class nuclear-powered and the Romeo class conventionally powered boats – will have been decommissioned or placed in reserve. The Navy's attack submarine force will include approximately 15 Song, 12 Kilo, 10 Yuan and fewer than 15 Ming class boats. Additionally, the two new Shang class subs will likely be followed by construction of a follow-on SSN class, the Type 095.

The amphibious and logistical force will be more modern, but current building efforts make it unlikely that the PLA Navy will include more than approximately two dozen amphibious ships of 2,000 tons displacement or larger, featuring perhaps four or five LSDs of the Type 071 or a larger follow-on class. At least eight modern RAS ships, two in the North and East Sea fleets and four in the South Sea Fleet, are likely to have joined the PLA Navy.

Naval Aviation's future is shadowed by resource and doctrinal competition with the PLA Air Force and within the PLA Navy among the different warfare communities (surface, subsurface, aviation, Marine Corps). One can easily imagine the PLA Navy losing pride of place to the Air Force in the effort to garner an increasing share of PLA funding for the Navy's surface and submarine communities. Naval Aviation does not appear to occupy a strong position in these bureaucratic battles. A large, US-style aircraft carrier is unlikely to be deployed by 2020, but one to three Varyag type air-capable ships will almost certainly have joined the PLA Navy, providing one carrier to each of the three fleets.

The Marine Corps is unlikely to expand beyond its present two brigades, as the Army trains additional divisions as amphibious specialists. Hence, the Corps will retain South China Sea missions as its primary amphibious tasking while the Army retains primary responsibility for Taiwan. The Corps' role as a 'rapid reaction' unit probably means, however, that its operational assignments will be determined more by the CMC General Staff Department than by the South Sea Fleet commander.[12]

Prospective PLA Navy numbers are large by Asian standards and reflect several specific factors. Firstly, Beijing's number-one 'national security' priority will remain keeping the Chinese Communist Party (CCP) in power. This requires a continued emphasis on

fostering a strong and growing economy, which in turn means that military budgets will increase in proportion to economic growth.

Secondly, Beijing's primary maritime strategic goal of defending China against seaborne invasion is not urgent given the absence of any such threat. Other strategic concerns include the East and South China seas, coastal and regional SLOC defence, and the preservation of offshore resources. All require capable naval forces, and Beijing is allocating the resources to build the requisite navy at a moderate pace. Even concern about Taiwan's status has failed to spur dramatic naval expansion at the expense of army domination of the PLA.

Thirdly, the Chinese polity continues to change. The revolutionary generation of military-civilian leadership is all but extinct; current and future leaders are and will be *either* civilian or military, barring the unlikely rise of a military officer to national leadership. The PLA will continue to assume a more professional character, a process that may isolate the navy and the other services from China's civilian population. Defence Minister Chi Haotian discussed this as a concern of the national leadership in September 1998, and it was very much a concern to Beijing in 2010. The PLA's senior political officer stressed that 'maintaining the Party's absolute leadership is our military's political priority' and that the PLA must 'resolutely resist … "nationalising the military"'.[13]

China's naval modernisation will continue for several reasons. First is Beijing's determination to gain the respect due to a great power, which includes deploying a great navy. Second is the determination for regional dominance, to ensure that unwelcome policies are not undertaken by regional nations. Third, even following a peaceful resolution of Taiwan's status, Beijing will consider a strategically capable Navy necessary to counter US and possibly Japanese power. The fourth reason is momentum: the current buildup has given rise to a wide range of long-term programmes and powerful interests – perhaps best described as China's military-industrial complex – that have developed a life of their own. A possible fifth reason is domestic politics: no communist system has been able to establish systemic, orderly leadership succession. China may be the first, but that has yet to be proven; any leadership contest will involve the participants valuing the loyalty of a strong military, especially given the PLA's role as a 'party army'.

How China defines its national security interests during the next decade will determine the type of navy it will deploy, but Beijing believes the nation's security objectives require modernising its current naval force. Although not clear in 2011, Beijing may well believe that current maritime concerns are serious enough to change China's historic dependence on continental power. In that case, China might build a navy able to challenge for command of the sea throughout the East and South China seas, the western Philippine Sea and the eastern Indian Ocean.

Although characterised as strategically defensive, PLA Navy doctrine can be operationally and tactically offensive in Western terms in light of the nature of 'offshore defence'. Beijing sees the United States as the primary threat to its strategic interests.

The United States is the world's most powerful naval power and is the dominant power inside the first island chain and hence, the confluence to Beijing of the United States as the guarantor of Taiwan's independence and that island's characterisation as the key in the island chain constraining China.

COOPERATION OR COMPETITION?

PLA Navy has conducted a number of exercises with foreign navies during the past twenty years. The most recent Defence White Paper (2010) issued by Beijing, in early 2011, notes 'joint maritime exercises' with Australia, France, Japan, India, the Netherlands, New Zealand, Pakistan, the Republic of South Korea (ROK), Russia, Thailand, the United Kingdom, the United States and Vietnam (Xinhua 2011b).

China's use of its navy for diplomatic purposes and to counter actual or perceived threats to national interests will become increasingly common as that force gains in credibility and experience. The PLA Navy's self-confidence is an important issue directly affecting the civilian leadership's readiness to employ the navy to defend national interests.

This self-evaluation appears to be modest, as indicated in numerous articles published since 2006. The mantra is congratulatory to a point, but then concludes that 'the quality of our officers and soldiers ... military capability ... modernisation of our military ... weaponry and armaments ... personnel ... logistics ... structure and staffing ... cannot match the requirements of winning information-centric local wars.' Even the 2009 Gulf of Aden operations have been described by Chinese 'experts' as showing that the PLA Navy is 'still a long way from being strong enough to protect China's expanding maritime rights and interests [due to] problems in helicopter maintenance, logistic supplies and telecommunications on the open sea'.[14]

Despite these doubts, the current modernisation path will result by 2020 in a Chinese Navy that is capable across the spectrum of warfare areas from coastal defence to nuclear deterrence. That navy's self-image will almost certainly grow with its capabilities, but its view of its missions and oppositions is less clear. Following a peaceful resolution of Taiwan's status, which now seems likely, the PLA Navy will be in the hunt for additional ways of defending and advancing China's national security interests.

These will likely involve current sovereignty and resources disputes in the East and South China Seas, as well as defence of sea lines of communication. This latter mission offers extensive potential for cooperation with other navies, ranging from that of the United States to those of much smaller Asian and African nations. The PLA Navy presence in the Gulf of Aden since 2009 offers promise of cooperation: the Chinese warships in those waters have at least cooperated with other nations engaged in anti-piracy operations, although they have yet fully to engage in coordinated efforts.

That is just one indicator though its promise is compromised by General Chen Bingde's statement at the U.S. National Defence University in May 2011 that the Gulf of Aden operations were proving too stressful for the PLA Navy to continue. Potential

counter-terrorism operations may offer another venue for Chinese naval cooperation with other nations, especially if related to the defence of SLOCs in Asian waters.

Other missions may allow for cooperation with the maritime forces, the navies and coast guards, of smaller nations, including Norway. At the most basic level, discussions and paper presentations at conference venues, both bilateral and multilateral, are possible. Beijing recently noted that defence and security consultations have occurred with Australia, Egypt, Germany, India, Indonesia, Japan, Mongolia, New Zealand, Pakistan, the Philippines, Singapore, South Africa, Thailand, Turkey, the United Kingdom, the United Arab Emirates and Vietnam (Xinhua 2011c). The United States should be added to this list, through the Military Maritime Consultative Agreement talks, which began in 1998 and have occurred at least annually since then.

Another possible area of cooperation with the PLA Navy is personnel exchanges, between both operational units and military educational institutions. The PLA has conducted such exchanges with many countries around the world (Xinhua 2011d).

Such cooperation will require Beijing to weigh the balance between international interests and national interests that have been deemed to vital to compromise in the interests of multi-national cooperation. The signs here, especially with respect to sovereignty issue such as those in the East and South China Seas, are not encouraging.

NOTES

1 Jiang is quoted in *Jiefangjun Bao* (2000).
2 The normal *Ming* crew is 55; hull number 361 reportedly also embarked its squadron commander and staff, as well as some cadets from the Naval Academy at Dalian. 'Mechanical malfunction' was the official Chinese explanation for the accident; the submarine was semi-submerged when found, indicating that the accident probably involved a failure in ventilation and safety systems that resulted in a lack of internal oxygen when the submarine's diesel engine was started, killing all onboard. See Associated Press (nd), 'Chinese submarine accident kills 70' by William Foreman.(2003); author's interviews with US submarine officers.
3 Two of the many accounts of this personnel upheaval are Ray Cheung, '*South China Morning Post* (Hong Kong) (2003), provided to the author by Cheung, and *Xinhua* (2003).
4 Hu's 'new historic missions' are placed in context in James Mulvenon, (2009).
5 Recommended sources are the various publications from Jane's Information Group, the U.S. Naval Institute, Stockholm International Peace Research Institute (SIPRI) and the International Institute for Strategic Studies (IISS).
6 Author's discussion with senior PLA Navy officer, April 2011.
7 Author's discussion with senior PLA officers, 2003.
8 Admiral Wu Shengli, quoted in Bernard D. Cole (2010), 189.
9 Quoted, ibid., 193.
10 Author's discussions with senior PLA Navy officers, 2004–2007.
11 Quoted in Cole (2010), 197.
12 I am grateful to Dr David Finkelstein, of the Center for Naval Analysis, for this observation.
13 Quoted in Cole (2010), 199.
14 Dennis Blasko, in a PowerPoint presentation on 25 June 2008, offered a series of quotes to this effect, including President Hu Jintao quoted in *Zhanyou Bao* (2008); and *China Daily* (2008). The Gulf of Aden experience is addressed in *Xinhua*.

China's military modernisation and East Asian security

Robert S. Ross

Since the end of the Second World War, the United States has enjoyed near complete maritime dominance and absolute maritime security in the Western Pacific Ocean and the South China Sea. Both the post-Second World War and the post-Cold War East Asian strategic orders reflected US maritime dominance, and contributed as such to enduring stability in East Asia's maritime regions. Where the United States enjoyed supremacy in East Asia, there was a 'hegemonic peace'; on mainland East Asia, however, where France, the United States and the Soviet Union each contested in succession with Chinese power, there were multiple protracted wars.

After thirty years of economic growth, technological development and significant increases in defence spending, the modernisation of Chinese military capabilities suggests that the era of unqualified US naval security may be coming to a close. If China can significantly challenge US maritime dominance, there will be profound implications not only for US security and US–China relations, but also for the security of the smaller states of East Asia, the US alliance system in East Asia and the East Asian strategic order.

The potential challenge to US security and regional stability will not simply reflect the development of the Chinese navy. US strategic presence in East Asia reflects American forward-based naval presence. But China's territorial presence in East Asia allows it to influence maritime affairs with a full array of military capabilities, so that the most significant Chinese maritime assets may not reflect Chinese naval modernisation. In this respect, it can be misleading to focus on China's naval capabilities as the source of Chinese influence in maritime East Asia and of the emerging challenge to the regional security order. Rather, the focus must be on China's maritime projection capabilities, i.e.

not only China's improving naval capabilities, but its improving land-based capabilities as well, and the challenge they pose to US maritime supremacy and the post-Second World War maritime strategic order.

The chapter discusses the potentially important but still technologically immature PLA weapon systems together with the response of the US to China's growing military capabilities, which seeks to minimise the latter's impact on US and regional maritime security. The implications of China's maritime preponderance for the US–China balance of power and regional stability are also explored.

CHINA'S IMPROVING MARITIME CAPABILITIES

China's emerging maritime power depends on three distinct capabilities: its sub-surface ships, surface ships and land-based capabilities. In combination they suggest a developing capability that could destabilise the maritime status quo.

China's capable submarine fleet

In the aftermath of the Cold War, the Tiananmen incident and the US termination of military technology transfers to China in 1989, Beijing turned to Russia for access to advanced military technologies. In 1994, Beijing reached an agreement with Moscow to purchase four Kilo class diesel submarines; in 2002, an additional eight Kilo class submarines were added to the list. These acquisitions indicated that Beijing's maritime priority would be on developing its submarine capability, rather than acquiring surface ships. During this same period, China agreed to purchase just four Russian Sovremenny class destroyers, though the destroyers did come equipped with the capable Russia SS-N-22/Sunburn (R-270 Moskit) anti-ship cruise missile.[1] The Chinese military understood that the US Navy's superior reconnaissance and munitions capabilities and the limited range of the Sunburn missile would limit destroyers' ability to move within target range of US ships, making Chinese surface ships vulnerable to attack by US forces. Russia's quiet diesel submarines were more suited to the challenge posed by a superior US Navy to Chinese security concerns.

China's determination to develop its sub-surface warfare capabilities is another challenge to US naval operations in the Western Pacific Ocean. By the the early twenty-first century, US naval operations within 200 miles of the Chinese coast could no longer ignore Chinese capabilities. China's submarine force was making US naval operations increasingly 'complicated'. To minimise its vulnerability to Chinese capabilities, the US Navy had to plan more circuitous and longer routes for a carrier strike force to gain access to the Western Pacific Ocean, in particular to the Taiwan theatre, in the event of a conflict with China. Moreover, China's acquisition of Russian Kilo class submarines enabled China to develop the expertise to manufacture its own advanced diesel submarines. In 2001, China's first Song class submarine entered naval service. This was followed up in 2010 when China launched an improved version of the Song, the Yuan class diesel

submarine. The Yuan class can be equipped with an air-independent propulsion (AIP) system, enabling extended-duration underwater operations and thus greater ability to avoid detection. These improved capabilities – as well as improved training – have allowed Chinese submarines to operate at increasing distances from the Chinese coast and to carry out increasingly sophisticated operations.[2]

The expansion of the PLA Navy's diesel submarine force marked a significant improvement in China's naval capabilities and in the development of its anti-access capability in its coastal waters. China's submarines have challenged unimpeded US naval operations in the Western Pacific Ocean and undermined US ability to engage the PLA Navy operating in the Taiwan Strait and protect Taiwan from the mainland's coastal water ships and aircraft.

Nonetheless, China's existing submarine force has not fundamentally challenged the survival of the US surface fleet, or indeed of US maritime supremacy, and it has not significantly altered the US–China regional balance. Firstly, diesel submarines are intrinsically slow so that Chinese submarines would have difficulty in engaging US ships in a carrier strike force. AIP cannot mitigate this weakness (Murray, forthcoming, 4). Secondly, Chinese torpedoes have a very short range, approximately 20 nautical miles. Before Chinese submarines could engage a US ship, they would have become vulnerable themselves to US anti-submarine warfare (ASW) capabilities (Murray, forthcoming, 2; Cole 2010, 98). Thirdly, although China's diesel submarines are quiet, the US Navy has improved its ability to identify and carry out surveillance of Chinese submarines. Finally, China's coastal waters are encircled by a dense island chain stretching from the Korean Peninsula to the Philippines. The topography facilitates US tracking of Chinese submarines as they enter the Western Pacific Ocean, and enhances US anti-submarine warfare capabilities (Yoshihara and Holmes 2011; Cote 2011; Cozad 2009, 300).

Nor can Chinese submarine capabilities challenge the US alliance system in East Asia. Insofar as China's submarines possess only a limited ability to threaten directly the territorial security of other countries, they do not extend the PLA Navy's maritime power-projection capability and coercive power against local powers, and thus do not allow China to challenge the strategic alignments between the United States and its maritime security partners or the East Asian security order (Cozad 2009, 292–293).

In apparent recognition of the intrinsic limitations of its submarine force and its torpedoes, China has recently begun to equip its submarines with anti-ship cruise missiles (ASCM). In 2007 the last Kilo class submarine delivered to China was equipped with the Russian SS-N-27B ASCM. The US Department of Defense reports that China has developed its own ASCM and that the missile will be deployed on both the Song and Yuan class submarines (DoD 2011, 2–4, 29–30). Although China's submarines will have to surface prior to launching the ASCM, the greater range of the missiles compared to Chinese torpedoes will enable the submarines to achieve greater surprise and possess greater security from US naval forces, thus increasing the challenge to US operations in the Western Pacific Ocean.

China's surface fleet

China's limited purchase of the Russian Sovremenny class destroyer reflected its understanding of the vulnerability of surface ships equipped with limited-range munitions and with steam turbine engines that limit their acceleration and operational manoeuvrability to US naval forces. China's subsequent development of its own destroyers, including the Luhai and Luyang classes, suffered from similar limitations. Overall, China's surface fleet has so far done little to constrain US naval operations anywhere in the Western Pacific.

In August 2011, China launched its first aircraft carrier, the ex-Russian Varyag, sold to China in 1998. China's first aircraft carrier suffers from many of the same limitations as its destroyers. It is propelled by a steam turbine engine, which limits its manoeuvrability and its ability to remain at sea for an extended period. Developing aircraft for the carrier will also be a challenge. China is still unable to manufacture advanced turbo engines, and is therefore dependent on Russia for its aircraft engines (Madeiros et al. 2005, chapter 4). China's J-15 carrier aircraft remains a project, not a capability, and even if it did become a capability, it may well have to rely on Russian engines and spare parts. Indeed, just learning to operate aircraft from the carrier in all-weather conditions will be a long-term challenge. Management of the carrier and its support vessels will also challenge the PLA Navy's operational abilities. Moreover, as a 'small' 55,000 ton 'ski-jump' aircraft carrier, China's first carrier will be able to deploy relatively few aircraft and only aircraft operating with a minimal munitions payload. Thus, not even the deployment of the Chinese aircraft carrier can contribute to the ability of the Chinese surface fleet to challenge US maritime security. On the contrary, many observers argue that the Chinese aircraft carrier will simply become just one more surface-ship target for the US Navy. Even a Chinese fleet of three carriers would do little to change China's capabilities, except insofar as it diverts funds from more effective PLA Navy programmes (Ross 2009).

But just as China is now configuring its many submarines to deploy ASCMs, it is also configuring nearly its entire surface fleet to carry ASCM launchers. William Murray of the US Naval War College writes that nearly every PLA Navy surface ship carries ASCMs, including the Luyang II class destroyer (sometimes referred to as the Luzhou class), the Russian Sovremenny class destroyer and the new Houbei class fast-attack catamarans. The range of China's ASCMs is 97–151 nautical miles (Murray, forthcoming; see also ONI 2009, 18–20; Cole 2010, 112). The combination of the quantity of China's surface ships and the range of the cruise missiles may compensate for the PLA Navy's limited ASW capability, augment its limited submarine capability and thus significantly expand the PLA Navy's ability to deploy a survivable naval attack force that can challenge the security of the US Navy operating in the Western Pacific Ocean. Rather than try to develop a traditional carrier-centred surface fleet to contend with US naval power in East Asia, China is relying on its development of sea-based missile platforms.

The PLA Navy's acquisition of a substantial number of submarines and surface ships equipped with ASCMs may help it develop over the next decade an ability to move

beyond a coastal anti-access capability for the defence of China's coastal waters in a Taiwan contingency. As China's navy continues to develop advanced technologies and training, it could develop a distant-water capability able to challenge the security of US naval operations in the South China Sea and Indian Ocean.

China's land-based maritime capabilities

In the early post-Cold War era, China's development of an anti-access capability relied not only on Russian submarines but also on the development of land-based coastal capabilities that could challenge US naval ships operating in China's immediate coastal waters. This coastal capability depended on the acquisition of Russian missiles and aircraft.

In 1991 China contracted to purchase from Russia its first batch of S-300 and SA-10 surface-to air missiles (SAM). By 2005, China had taken delivery of nearly 1,500 Russian SAMs, and from 2005 to 2009 it had ordered more than 1,000 additional missiles. China is now manufacturing its own S-300 missiles. Deployed along the Chinese coast across from Taiwan, their purpose is to protect China's major cities and communication nodes. The extended range of the S-300 can defend the airspace up to 120 miles from the Chinese coast (Cliff 2011, 138; Hekler 2011, 247; Cole 2006; McDevitt 2007).

Chinese military aircraft also contribute to China's anti-access capability. Since the early 1990s, China has purchased Russian Su-27 and Su-30 military aircraft. By 2008, it had approximately 170 of these advanced aircraft, most of which have been deployed in proximity to the Taiwan Strait. China is now producing the J-11, its own version of the Su-30, using Russian jet engines and other advanced Russian technologies.

China's land-based air capabilities have transformed the air-defence environment in China's coastal waters and the US–China force-on-force balance in the Taiwan theatre. China's large quantity of highly capable long-range mobile SAMs has made it increasingly risky for US aircraft, including carrier-based F-18s and F-22s operating from Japan and Guam, to patrol over the Taiwan Strait and elsewhere within 100 miles of the Chinese coast.[3]

China also transformed the maritime theatre in the vicinity of Taiwan by deploying land-based short-range and medium-range conventional ballistic missiles against Taiwan. By the early 2000s, it had deployed over 500 ballistic missiles against Taiwan; by the end of the decade, over 1,000 such missiles were deployed against Taiwan. In so doing, China has used its land-based capabilities to degrade the capabilities of US forward naval presence and to transform the Taiwan naval theatre. Because neither Taiwanese nor US capabilities, including missile defence systems, can defend against Chinese missiles, the PLA has the capacity to project coercive power in the Taiwan Strait and across the strait onto Taiwan (Ross 2006).

The combination of Chinese land-based air-defence missiles, advanced land-based

aircraft and ballistic missiles deployed on China's coast on the Taiwan Strait, as well its submarine force, fundamentally altered the strategic environment in the Taiwan Strait. China's modern air defence system has degraded the ability of the US Air Force to protect Taiwan from Chinese aircraft and ships operating in the Strait, and the US military could not prevent Chinese missiles from penetrating Taiwan's airspace and destroying high-value Taiwan targets. US air and naval power could still *deter* mainland use of force against Taiwan, but it could no longer *defend* Taiwan from the cost of war with the People's Republic of China (PRC).

This weakening of US ability to defend Taiwan had a transformative effect on Taiwan's mainland policy. Faced with growing dependency for its security, as well as its economic prosperity, on mainland forbearance and the corresponding development of Chinese coercive military power, Taiwan opted to cooperate with the mainland. In 2008, Taiwan's voters elected Ma Ying-jeou as president. Ma opposed the Taiwan independence movement and advocated closer economic and political cooperation with the mainland. Taiwan's leaders have also increasingly recognised the futility of providing for Taiwan's defence with a large defence budget and expensive high-technology platforms purchased from the United States (RCMND 2011; Mei 2011; Murray 2008). These trends in Taiwan's mainland policy have had implications for US–Taiwan defence cooperation and for US expectations of the reliability of future US–Taiwan security relations.

But it is misleading to equate the rise of Chinese military power in the Taiwan theatre with an emergent transformation of the US–China balance in East Asia. In recognition of the secondary strategic importance of Taiwan in 1949, the United States ceded Chinese control over Taiwan. It only reversed course in June 1950 following the beginning of the Korean War, when the US was waging war against communism and was concerned for its region-wide credibility to resist communist use of force. The contemporary peaceful transformation of the Taiwan defence environment does not challenge US credibility, its ability to protect its regional security interests or the East Asian security order. In many respects, the Taiwan theatre is the least important maritime theatre in East Asia.

More importantly, China's land-based capabilities in the Taiwan theatre are contingency-specific. They do not yield China defensive or coercive maritime capabilities that extend beyond the Taiwan theatre to challenge US naval dominance or its strategic partnerships that are the foundation of the region-wide security order. Its land-based SAMs cannot expand its air-defence capabilities beyond a coastal anti-access capability. The Chinese Air Force has yet to develop aircraft that can contend for air superiority with US aircraft. The J-11 is a Chinese version of the Su-27/Su-30, and it remains dependent on Russian technologies. The J-20 'stealth' aircraft remains a programme rather than a capability. China's jet engine industry continues to confront technological obstacles. And even if China were to develop advanced aircraft, their limited range would limit their impact on the maritime regional order. China will require an extensive system of overseas airbases before it can rely on land-based military aircraft to affect US naval capabilities; it

will need to develop capabilities to project power into distant waters to affect region-wide US maritime superiority and the security of US allies. This will require different capabilities than those that China has used to reshape the Taiwan theatre.

China is now developing new missile systems that may affect US capabilities in maritime theatres. China's anti-ship ballistic missile (ASBM) programme is designed around the DF-21D, a medium-range mobile ballistic missile. The DF-21D has a range of 800 nautical miles, but can be developed with a range approaching 1,500 nautical miles. A land-based ballistic missile that could reliably target US surface ships, especially US aircraft carriers, would give the PLA an ability to transform the maritime balance, not only because it would give China the opportunity to inflict high costs on the US Navy, but also because the ASBMs could neutralise US maritime air assets. This would in turn enhance the PLA Navy's ability to operate securely in distant waters and challenge the security of smaller states without the support of carrier-based aircraft (Erickson and Yang 2009). Moreover, because it is based on land, the ASBMs would be a relative secure platform. Unlike US air attacks against radar systems in Iraq in 2003 and Libya in 2011, US targeting of Chinese interior radar installations with conventional munitions would entail considerable risk of significant escalation, sufficient in all likelihood to deter the United States from attacking China's ASBM sites.

The ASBM has received considerable media attention, but perhaps more significant for the maritime balance is China's development of conventional intermediate-range ballistic missiles that can target distant fixed assets. Such systems are far less technologically challenging than the ASBM, but can have significant political and strategic consequences. China is developing missiles that can target US air and naval facilities in Japan, Singapore and Guam. This capability could enable China to degrade US forward presence and its wartime naval operations.[4] It could also affect US political relations with its regional security partners. Just as Chinese short-range and medium-range ballistic missiles undermined Taiwan's security by diminishing the ability of the US to defend Taiwan, and thus re-shaped Taiwan's mainland policy, Chinese conventional intermediate-range ballistic missiles could have a similar coercive effect on US security partners elsewhere in East Asia and could thus erode US peace-time strategic presence in maritime East Asia and undermine the stability of the regional security order.

OBSTACLES TO CHINA'S DEVELOPMENT OF MARITIME CAPABILITIES

China has made considerable progress towards developing capabilities that could challenge US naval dominance. Nonetheless, China has yet to develop an operational capability whose relative gains are sufficient to transform the regional maritime balance and the US alliance system in maritime East Asia. It faces obstacles of a technological nature and in terms of US counter-measures.

Limits to China's technological development

Rather than compete with the United States by developing a modern naval fleet that could challenge the US Navy, China has focused its resources on developing the missile as the one military platform that can effectively challenge US maritime supremacy. Given China's level of technological and organisational sophistication, this is a sensible policy. Firstly, missiles rely on a narrow and accessible technology that can contribute to effective military capabilities against any adversary, in contrast to the multiple technologies that must be developed and integrated to enable development of sophisticated naval power. Secondly, effective operation of missiles requires far less organisational and managerial sophistication than that required to deploy effectively a naval fleet. Thirdly, missiles are far less expensive than ships. Despite the growth of the Chinese GDP since 1978 and the corresponding significant growth of the Chinese defence budget, given the size of the Chinese ground force army and the many domestic and national security missions that China's PLA must prepare for, cost is not an insignificant consideration for the PLA.

Nonetheless, China still faces many significant technological obstacles before it can be confident that its sea-based and land-based missile forces can effectively contend with US naval capabilities. The most difficult challenge remains the targeting of a moving object in a large ocean, in which there are many moving objects. China's long-range surveillance system depends on over-the-horizon (OTH) radar systems. Yet OTH radar systems possess intrinsic accuracy limitations associated with the technology and operating environment. A surveillance system for both ballistic missiles and sea-based anti-ship cruise missiles that can reliably target moving objects at sea will depend on a dense system of low-earth-orbit surveillance satellites. China has deployed very few of these satellites (Cote 2011, 16, 14, 23–24).

China has made considerable progress towards developing an ASBM system. It has tested the missile on land and developed various surveillance technologies (Hagt and Durnin 2009; O'Rourke 2011, 9–16). Nonetheless, it is not clear whether China will develop the necessary integrated system of multiple technologies that will enable deployment of a reliable system that can yield the PLA operational capabilities that can fundamentally affect US naval operations.

Similar technological obstacles also impede China's development of an ASCM naval force. Before Chinese submarines and surface ships can fully operationalise a ship-based ASCM system that can target a US aircraft carrier, for example, Chinese ships must first be able to locate the carrier and communicate its location to the ship. OTH radar systems are just as inadequate for long-range targeting for ship-based ASCMs as they are for land-based ASBMs. Moreover, real-time communication of targeting information to submerged submarines remains a challenge.

US counter-measures and the maritime balance

China is rapidly developing land and naval capabilities that will increasingly complicate US naval operations. This trend is inevitable, and it will continue. But even if China were to master the many complex technologies and systems necessary to operate an effective anti-ship missile capability, there is no 'magic bullet' that can fundamentally overturn the maritime balance in East Asia. This is because even as China develops its own advanced military technologies, the United States is devising counter-measures and continuing to modernise its own advanced military capabilities.

The United States possesses various options to degrade China's surveillance systems. Existing camouflage/obscurants and electronic warfare capabilities can interfere with advanced surveillance technologies that support Chinese land-based and sea-based missile systems.[5] Moreover, the irony of China's development of advanced military technologies is that the resulting capabilities make China's military vulnerable to the same non-kinetic, 'asymmetric' measures that China could presumably use against the superior US military. Advanced surveillance technologies that enable the location of ships at sea and missile targeting are vulnerable to US cyber warfare technologies and anti-satellite capabilities. Thus, the United States could degrade much of China's ability to target US naval assets without having to physically attack Chinese territory. Assuming the 'worst case' of mutual blinding of surveillance and targeting capabilities, the superiority of US air and naval platforms would enable the United States to retain maritime supremacy and significant naval operational freedom (Cote 2011, 23–25).

But the advent of new technologies that jeopardise the survivability of large surface ships also requires the United States to transition to less vulnerable maritime platforms.[6] The United States has already begun this process with the development of next-generation naval platforms; it deployed its first nuclear-powered cruise missile submarine (SSGN) in 2007, and in June 2010 it simultaneously deployed four SSGNs in the Pacific Ocean. Each SSGN can carry 154 Tomahawk cruise missiles and special operations forces. The United States is also developing sophisticated unmanned aerial vehicles (UAVs). It is developing the Unmanned Combat Air System (UCAS) for deployment on surface ships. The UCAS will enable the development of smaller, faster, stealthier and less expensive aircraft carriers that can elude surveillance systems better than existing aircraft carriers. United States UAV Predator and Reaper missions over the Pakistan–Afghanistan border region have established the effectiveness of UAV combat missions. The United States is also developing unmanned underwater vehicles (UUVs) for ASW missions and payload delivery, which will challenge the effectiveness of China's diesel submarine force and its surface fleet, including their ASCM capabilities (DoN 2007; O'Rourke 2006).

These emerging technologies will also enable the United States to offset the vulnerabilities of its fixed naval facilities in East Asia. Numerous, smaller and less vulnerable platforms can deploy from more distant and more secure facilities without sacrificing

capability. The political challenge for the United States will be to transition to these less visible, smaller naval platforms and more distant basing arrangements without seemingly ceding the region to Chinese power and thus degrading the credibility of its commitment to defend the maritime states in East Asia and undermining its regional alliance system.

The United States possesses many critical advantages that enable it to respond effectively to ongoing advances in China's maritime capabilities. The challenge for the United States is to carry out a timely transition to a twenty-first-century navy that depends less on large, expensive and vulnerable surface ships that carry unnecessary and expensive manned aircraft which in turn depend on expensive and vulnerable forward-based facilities. This is a political and organisational challenge, rather than a technological or financial one.

CONCLUSION

The modernisation of Chinese maritime capabilities is a significant development in great power politics in East Asia. The PLA Navy has developed far greater ability to impose significant costs on the US Navy, so that the US naval can no longer sail East Asian waters unimpeded by a competitor navy. Force protection is an increasingly difficult task for the US Navy.

But China's ability to impose increased costs on US naval forces does not provide it with a war-winning capability *vis-à-vis* the United States that can transform Chinese risk-taking or with a coercive capability that can threaten the security of US strategic partners and US maritime alliances and destabilise the regional security order. Well into the twenty-first century the United States can retain conventional military superiority in maritime East Asia. Moreover, at stake in the emerging US–China maritime competition is the balance of power in East Asia. There is no great power interest more likely to elicit major war than the regional balance of power, so that US resolve and credibility to contend with improved Chinese capabilities should not be in doubt.

The PLA is no longer a mere Third World military force. It now poses a major challenge to the operational freedom of the US Navy. But nor has the PLA become the most powerful military force in East Asia. The United States retains numerous significant advantages that enable it to approach the People's Republic of China with confidence, rather than with exaggerated alarm, and to sustain its regional alliances and the post-Cold War regional security order. Such confidence and strategic advantages can inform not only US defence strategy for East Asia, but the full range of US diplomatic and political relations with its East Asian security partners.

NOTES

1 For a recent discussion of China's inventory of naval ships, see O'Rourke (2011). On China's acquisition of Russian ships and its development of indigenous technologies, see Cole (2010), chapter 5.
2 The *Song* is discussed in Goldstein and Murray (2004); Murray (2007); and Cole (2010), 95–97.
3 For a discussion of the survivability of China's SAM batteries, see Vick, et al. (2001).
4 For discussion of the capability for US naval basing in Japan, see Yoshihara (2010).
5 On obscurants, see Culora (2010).
6 On the declining utility of aircraft carriers, see Rubel (2009).

Naval developments in Japan

Yoji Koda[1]

In 1952, only seven years after the end of Second World War, the Japan Maritime Guard was established as a rudimentary defence organisation for the nation. The leaders of the Japan Maritime Guard were determined that the organisation would be a navy, not a reinforced coast guard. These leaders were mostly combat-experienced officers (captains and below) of the former Imperial Japanese Navy, and had a clear understanding of the difference between a coast guard-type law-enforcement force and a navy. Two years later, the Japan Maritime Guard was transformed into the Japan Maritime Self-Defence Force (JMSDF) with leaders whose dream it was to build a force which had a true naval function was stronger than ever.[2] However, they also realised the difficulty of re-building a real navy in light of the strict constraints imposed by the new, post-war constitution.[3]

Nonetheless, the JMSDF has built its forces and trained its sailors vigorously with this goal in view, and is today one of the world's truly capable maritime forces in both quality and size. In order to understand the true nature of the JMSDF, and the maritime power of Japan, it is best to start by examining its defence strategy.

STRATEGY OF JAPAN AND JMSDF

Since the founding of the Japan Self-Defence Force (JSDF), and within it the JMSDF, in 1954, Japan has based its defence strategy on the Japan–US Alliance. This posture was clearly established by article 4 of Japan's Basic Policy for National Defence, which was adopted by the National Defence Council and approved by the Cabinet on 20 May 1957 (Asagumo Shinbunshya 2009a; MoDJ 2000, I-1-(4), 17). Four major defence policy documents have appeared since then and been approved by the Security Council and the Cabinet: National Defence Programme Outlines of 1976 and 1995, and National Defence Programme Guideline of 2004 and 2010. They have all confirmed that the basis of Japan's national security and defence is the capability of the JSDF and the Japan–US Alliance (MoDJ 2000, I-1-(4), 19–50).

Fully complying with this concept, the military strategy of the JSDF has been to build and maintain the defence posture of Japan through cooperation with US forces under the alliance. Exceptions would be the outbreak of a military conflict, or limited aggression against Japan, in which case the JSDF would be solely responsible for appropriate military measures. Thus the operational concept of the JSDF with respect to US forces has been one of complimentary mission-sharing, in which US forces concentrate on offensive operations, while the JSDF maximises its capability for defensive operations. In other words, the two forces form what is known as a 'spear and shield' relationship.

Under this policy, the Japan Ground Self-Defence Force (JGSDF) remains on Japanese territory and prepares for an enemy invasion, while the US Army and Marine Corps prepare for and conduct expeditionary operations against enemy forces outside Japan. In the event of an invasion, these three ground forces would fight together on Japanese soil.

Similarly, the Japan Air Self-Defence Force (JASDF) is to be engaged solely in defence of Japanese air space, while ensuring the safety and security of the Japanese people, and of US forces in Japan. Thus, the Japan Air Self-Defence Force relieves US Air Force of the heavy burden of air-defence around Japan, enabling Air Force units to allocate extra assets for strike and other operations against the enemy.

As for maritime operations, ensuring the safety and security of the waters around Japan is the most important mission of the JMSDF. In this way it ensures that Japan can receive American reinforcements from across the Pacific Ocean; it guarantees the safety of US naval forces operating around Japan; and enables US carrier strike groups to concentrate on strike operations against enemy naval forces and land targets. At the same time, for Japan, as a country of few natural resources and little domestic food production, the safety of merchant shipping is a matter of national survival in a crisis or wartime. All of these operations are grouped under the heading of protection of sea lines of communication (SLOCs) in the north-western Pacific. The JMSDF has accepted these simple realities as the essence of its strategic objectives.

Proceeding from this defence strategy, the main missions of JMSDF have consistently been defined as the protection of SLOCs and the defence of the homeland in case of direct invasion. In support of this defence strategy and its two main missions, in turn, the JMSDF has set anti-submarine warfare (ASW) as its main task. The operational concept under the Japan–US Alliance is that, in the case of a national or regional contingency, the US Navy would deploy carrier strike groups into the seas surrounding Japan, to provide strike capability lacking in the JMSDF, thereby obliging the enemy to give up its intention to invade Japan or attack its SLOCs. It would be necessary to exclude the enemy's submarines, which could be the greatest threat to carrier strike group operations in Japanese waters, as indeed to the safety of SLOCs around Japan. As a result of this logic, anti-submarine warfare was the main pillar of JMSDF missions. Even in the present security environment, 20 years after the end of the Cold War and the threat of invasion from the Soviet Union, two factors remain unchanged: the Japan–US Alliance, and Japan's

dependence on imported natural resources. Therefore the protection of SLOCs has continued to be a main mission for the JMSDF.

Homeland defence, of course, remains as a mission as well, however unlikely its occurrence. It is based on a scenario of a direct invasion of Japan by enemy ground forces. This would certainly be a state of national emergency, and each branch of the JSDF should do its best to repel the enemy. At the same time, homeland defence operations would involve many unforeseeable factors, such as how and where enemy forces will invade, and how US forces would assist the JSDF. Projecting counter-measures and courses of action for all possible scenarios is complicated. In any case, certain operations associated with the protection of SLOCs – for example, establishing and maintaining conditions necessary for US forces arriving in the waters around Japan – also contribute to homeland defence.

In other words, it is inappropriate to consider separately the operations required for each mission. Accordingly, the JMSDF has made it a basic policy to address the homeland-defence mission by giving full priority to the warfare capabilities, especially anti-submarine warfare, required for the SLOC-protection mission, in the belief that it can best contribute to Japan's homeland security by defeating invasion forces at sea.

JMSDF IN THE TWENTY-FIRST CENTURY

The real capability of the JSDF, in all warfare areas, is to fight modern combat wars – either unilaterally, or bilaterally with US naval forces under the Alliance umbrella. This capability has improved substantially over the years. At the same time, there are two new factors in the security environment of the 1990s, and the first decade of the twenty-first century.

One was the many side effects of the end of the Cold War and demise of the Soviet Union and Eastern-bloc nations, around 1990. In the military community, new types of non-combat missions, which used to be considered as secondary ones, such as humanitarian assistance and disaster relief operations and counter-trafficking/illegal immigration operations, became the main or at least semi-main missions of military. At the same time, peacekeeping operations became important military missions as well. In this environment, a new form of international military cooperation, 'a coalition', became the standard framework of multinational cooperation after the First Iraq War.

The second factor was the rise of China. Firstly, China emerged as a economic power from early 1990s; then it grew to be an economic superpower, whose GDP equalled that of Japan by the mid-2000s, surpassing it in 2010. China's extreme economic growth has supported a substantial and sustained military build-up and modernisation of the People's Liberation Army (PLA).

When we shift our view from global to domestic change in Japan, there is another factor to consider. The Japanese economy, which had supported ambitious JMSDF modernisation programmes in the 1980s and '90s, stalled in the mid-1990s, and has never

recovered. Japan's defence budget has also been continuously decreased, by about 1 per cent per year, since 2000.

JSDF and JMSDF took these three new factors, two international and one domestic, into consideration, and started adjusting strategies and force build-up programmes. New strategies were outlined in the 2005 and 2010 National Defence Guidelines Programme, which emphasised three common policies for the twenty-first century.

- The continued importance of the Japan–US Alliance
- A determined intent to build and maintain a reasonably-sized and capable JSDF, which would fully meet future security challenges
- A new initiative to actively participate in various international security activities. The basic idea was that while keeping the Japan–US Alliance as a building block of national and regional security, Japan would play a larger role in world and regional security affairs (MoDJ 2011, 161–162)

For the JMSDF, the following are the basic components of its new posture and force strength, which takes into consideration the above-mentioned revised strategy and force build-up policy. With regard to force strength of front line equipment, there have been some reductions in size, but the quality of each force should be improved on a continual basis.

Surface force

The size of the surface force was reduced, but new ships and programmes have been maintained. For example, the new third-generation Hyuga class helicopter destroyer (DDH) (two ships, 20,000 tons, 30 knots, 10 helicopters, 350 personnel), has replaced the aging Haruna class first-generation helicopter destroyers. The remaining two second-generation helicopter destroyers will be replaced by larger helicopter destroyers (25,000 tons, 30 knots, more than 15 helicopters and 350 personnel) in the current five-year programme. Two more Aegis guided missile destroyers (10,000 tons, 30 knots, 300 personnel) with latest combat systems have joined the fleet. There are six Aegis guided missile destroyers and two Tarter guided missile destroyers in the fleet. JMSDF plans to replace these remaining two Tarter guided missile destroyers with the latest Aegis guided missile destroyers in the next five-year programme.

There have been continued efforts to improve the destroyers. As the first-generation of new destroyers needed improvements, 12 Hatsuyuki class (4,000 tons, 30 knots, one helicopter with 220 personnel) and eight Asagiri class (4,500 tons, 30 knots, one helicopter with 220 personnel) destroyers were built in the 1980s and early 1990s, followed by the second generation of new, larger and more capable Murasame type (nine ships, 6,200 tons 30 knots, two helicopters and 160 personnel) and improved Takanami class destroyers (five ships, 6,300 tons, 30 knots, two Helicopters and 160

personnel), built in the late 1990s and early 2000s. The third generation was developed in 2007, consisting of the improved Akizuki class destroyer (7,000 tons, 30 knots, two helicopters, 160 personnel).

At the same time, due to budget constraints and changes in the regional security environment, the coastal defence destroyer force was reduced from ten divisions of 30 ships (3 destroyers for each division) to four divisions of 16 ships (four destroyers for each division). Also, one flagship was discontinued in 2007. The total strength of the destroyer force has thus been taken down from 63 to 48 ships under the new 2010 defence concept (i.e. National Defence Programme Guidelines).

Aviation

There is a new aviation programme which intends to develop follow-on maritime patrol aircraft to the current large fleet of P-3C maritime patrol aircraft. The development of this new maritime patrol aircraft (P-1) started in 2001, and was subsequently successfully completed. The budget for the first four new maritime patrol aircraft was approved in 2008. According to a media report, about 70 P-1s will replace 80 P-3Cs. The faster speed and longer endurance of P-1 aircraft will make up for some of the reduction of the overall inventory of P-1 in the Self-Defence Force.

The up-grade programme for the anti-submarine warfare (ASW) helicopter differs. In the 1980s, JMSDF used the HSS-2B as the first-generation ASW helicopter to improve fleet capability, which was closely linked to the first generation of Hatsuyuki-class destroyers. Then, in the 1990s, the JMSDF shifted from the HSS-2B to the SH-60J whose airframe and engines were the same as United States Navy's SH-60s. The on-board mission-avionics system of this helicopter was domestically developed to meet the JMSDF's unique operational requirements; the aircraft was designated 'SH-60J' within the JMSDF. SH-60 was a multi-purpose aircraft, with the latest ASW capability; it was very satisfactory except for its small fuselage and cabin. JMSDF therefore started an upgrade programme in the mid-1990s, which included enlarging the fuselage, adding infra-red forward-looking equipment, short-range air-to-surface missiles, and a 7.62 mm (0.30 inch) calibre machine gun; as well as self-protection systems (chaff and flare). This upgraded helicopter was designated 'SH-60K', and started entering fleet service in 2005.

Submarine force

The submarine force also kept on improving. Following the Harushio class, built from 1990 to 1997 (seven boats, 2,700 tons), eleven Oyashio class (3,000 tons) boats were built, from 1998 to 2008. The new characteristics of the Oyashio sister boats are the latest command and control, as well as an improved display system. The next generation boat, the Soryu class (3,300 tons), was planned in 2005, and completed in 2009. It is the first JMSDF submarine to be equipped with an operational air-independent propul-

sion system. There are several improvements including installation of X-shaped rudder and satellite communication system, from the preceding Oyashio class boats, and large numbers of this class will be built as core boats for the JMSDF's submarine force.

One noteworthy development is the JMSDF's intention to increase the number of its submarines from 16 to 22 boats. This is considered to be a new initiative to prepare the JMSDF for the recent and quick expansion of the PLA Navy. Not least, JMSDF submarines could be a 'trump card' in denying the activities of the PLA Navy in the waters surrounding Japan.

Mine counter-measure force (MCM)

In the mine counter-measure community, one essential change has taken place, the merging of the two existing MCM flotillas into a single Mine Force (MF: the Japanese designation is still the 'Flotilla'). Along with this move, the number of MCM divisions was reduced to eight, while that of MCM vessels fell to 24. At the same time, more focus was placed on an unmanned mine-neutralisation system. The JMSDF succeeded in strengthening the MCM force, both in quality and quantity, by the early 2000s. The JMSDF then committed itself to improving the safety of the MCM force by developing the latest unmanned and autonomous MCM system, which would be unilaterally capable of searching, detecting, locating, identifying, classifying and neutralising sea mines. This system is designated 'S-10' and was first installed on a new type of MCM vessel, completed in 2008. MCM helicopters were upgraded from the old MH-53E to the latest MCH-101 (European) model .

NEW INITIATIVES

In addition to the aforementioned changes to force strength, other initiatives have been pursued and developed by the JMSDF. One has been the introduction of ballistic missile defence (BMD) capability to the Self-Defence Force by fully utilising its Aegis guided missile destroyer fleet. The most serious concern of Japan, after the end of the Cold War, has been over North Korea's development of nuclear and ballistic missiles in the 1990s. North Korea's aggressive actions have caused serious concern among the Japanese people, especially North Korea's attempt to test launch a ballistic missile in August 1998, which triggered the decision to build an effective ballistic missile defence network in Japan (MoDJ 2011, 238).[4] Based on this decision, Japan and the US agreed to jointly participate in bilateral ballistic missile defence efforts at that time. Thanks to the US Navy's already-launched BMD development efforts with its Aegis ships, it became quite clear that the Aegis guided missile destroyer fleet of the JMSDF would also become an integral part of Japan's ballistic missile defence programme. Four guided missile destroyers were modified to become BMD-capable ships in the mid-2000s, and live launch and engagement tests were successfully conducted at US Navy's Hawaiian test range.

A second initiative is the creation of a Special Force unit within JMSDF (BDH of

2006 (2009), 582–588). This new unit is called a Special Boarding Unit, and is intended to be deployed in an armed resistance environment involving North Korean clandestine boat operations around Japan. The size of the special boarding unit today is very small, that is, it has a headquarters unit and several ready platoons, some training platoons, and about company-size Special Force capable personnel. In harmony with the establishment of the special boarding unit, JMSDF also built six surface-to-surface missiles equipped high-speed patrol craft to prepare to counter North Korea's actions near the coastal waters of Japan. These boats are capable of more than 40 knots, displace about 400 tons and will be a primary reaction force against clandestine operations from North Korea.

As the JMSDF will expand non-combat international operations such as counter-piracy activities or other maritime interdictions, there will be a growing need to expand the size of its capable Special Force. At some point in the future, there will certainly be a possibility of expanding the special boarding unit into a US Navy SEAL-type real Special Force.

CHALLENGES: THE MODERNISATION OF THE PLA NAVY AND JAPAN'S STRATEGIC SHIFT FROM THE NORTH TO THE WEST

A new concern for Japan in the twenty-first century is the rise of the People's Republic of China. China has been enthusiastically modernising its army and navy for the last ten years. Especially the PLA Navy's modernisation and its expanded activities in the north-western Pacific, East China Sea, South China Sea and Indian Ocean, have generated serious concern in neighbouring nations and their navies. The JMSDF is not an exception. The National Defence Programme Guidelines, published in 2010, clearly shows a strategic shift from a 'Strategy in Cold War days (1950 to 1990), and the following unstable 1990s', to a 'new strategy focusing on growing People's Republic of China'. This shift is quickly summarised as a 'shift from North to West' in Japan (MoDJ 2011, 521).

However, for the JMSDF in this new security environment, its main missions are still to protect Japan's SLOCs and to support US Navy operations in the north-western Pacific and surrounding waters. Similarly, JMSDF's strategy in the Cold War days was also to conduct defensive operations in the north-western Pacific and in the surrounding waters of Japan. So, for JMSDF, this strategic shift of primary 'nation of concern' from the Soviet Union to China had little impact on its strategic planning. In other words, the north-western Pacific and surrounding waters of Japan have been JMSDF's main theatres of defence operations in the past, and will remain so in the future.

Contrary to the JMSDF, the Japan Ground Self-Defence Force and the Japan Air Self-Defence Force allocated most of their forces to the northern part of Japan during the Cold War. These two services will thus have to reallocate and relocate their fighting forces from northern to western Japan.

Otherwise, there are small changes for the JMSDF in the strategic shift. It is still

very important for JMSDF today to maintain its capability, developed and improved to meet the new challenges of the 1990s and 2000s. This will surely mean contributing to protecting vital SLOCs and providing support operations for the US Navy, as well as conducting homeland defence of Japan.

At the same time, there are several new developments, considerations and key concepts in the PLA Navy's strategy, which are listed here.

- Anti Access/Area Denial and Anti Ship Ballistic Missile
- Area of core national interests: The South China Sea and the East China Sea
- Territorial disputes and natural resource competition
- String of Pearls: South China Sea and Indian Ocean
- Island Chains: Island Chain of Okinawa and that on Ogasawara of Japan
- New naval base in Hainan Island in South China Sea
- Aircraft carrier programme
- Naval Strategic Arms
- Asymmetric warfare

The JMSDF needs to respond to these challenges and maintain sufficient maritime capabilities against the PLA Navy. In this process, the JMSDF should cooperate closely with the US Navy, because the main focus – or strategic objective – of China's and the PLA Navy's strategy, is directed at the US Navy. China and the PLA Navy have strong intentions to create favourable situations which will erode Washington's intention and determination to intervene in Asian areas, and, if possible, to prevent the deployment of US naval forces in this region at any time, even in peace time. So, there is a lot for JMSDF and US Navy to do to deny and neutralise China's strategic ambitions.

One favourable situation is the fact that the current JMSDF's strength and capabilities are so well-designed to support US Navy operations in the East Asia region. JMSDF's current strength, in terms of its capability to conduct non-nuclear maritime operations, is probably second only to the US Navy's in the world. So, for the US Navy, there is a robust JMSDF force, whose size and non-strike defensive operation capabilities are almost twice as large as that of the US Navy's 7th Fleet. It is as if there are two additional fleets, operating in the north-western Pacific in support of US strike and expeditionary forces in this region. So, if the two navies coordinate and cooperate well, they will surely be able to handle the PLA Navy's growing forces. If not, our future could be devastating.

PROSPECT FOR COOPERATION WITH SMALL MODERN NAVIES IN DIFFERENT SCENARIOS

Policy of the Government of Japan: Reluctant and restrained

The basic policy of the Japanese Government on military cooperation between Japan and foreign nations has been very restrained. This is mainly due to the so-called 'Pacifist

Constitution', which was enacted after the Second World War. The Constitution prohibits Japan from

- declaring any form of war, and using forces as sovereign rights of the nation to settle international disputes
- having of military forces for above purpose, and
- sending any forces to foreign territory[5]

At the same time, the Government's interpretation of 'collective self-defence' is another negative element of this reluctant policy. The Government's policy on this subject is that in light of the fundamental tenets of the Pacifist Constitution, Japan as a sovereign nation has both rights of self-defence and collective defence; however, given the fundamental spirit of the constitution, while the exercise of the right of self-defence as a sovereign nation is constitutional, exercising the right of collective defence is counter-constitutional. Based on this reading, the Government designated the JSDF as a military power solely for the defence of the nation, which has been recognised as a constitutional force under the post-war Pacifist Constitution (Asagumo Shinbunshya 2009b, 582–588).

The relationship between JSDF and US forces under the alliance is influenced in basically the same manner. In theory, and under the above-mentioned interpretation, the two forces will fight together in an emergency or situation of aggression, under a common OPLAN[6] developed as part of the US–Japanese Alliance agreement; however, in a tactical situation, there are two different independent command structures, which coordinate and cooperate. No single commander commands these two forces fighting together against a common foe, on the same battlefield. Rather, they have to fight under independent commands to establish common goals.

Also, the JSDF cannot execute its right of collective defence; and in some extreme scenarios, the JSDF cannot directly protect US forces coming under attack. Of course, even in this difficult scenario, JSDF will attack and destroy enemy forces which attack US forces, but in theory, JSDF attacks the same enemy force for self-defence, not for the protection of US forces under attack.

This is the relationship between the JSDF and its single allied partner, the US. From the US side, this policy has been very disappointing. For example, it is frustrating to the US that US forces will defend the JSDF in a combat situation, but a combat-capable JSDF will not protect US forces in jeopardy, simply due to Government's abstract policy. This is one of several convincing tenets behind the currently influential 'Japan is a free rider or cheap rider' school of thought. Having said this, however, practical relations between the JSDF and US forces, especially between the JMSDF and the US Navy, have been extremely good at almost all periods of the Alliance. This navy-to-navy relationship has been widely accepted as a centre-piece of the Japan–US Alliance. From the JMSDF's

foundation and past the end of Cold War, the US Navy has practically been the only navy to fully exchange and maintain a close relationship with it.

Overseas training cruise

In the context of these unique Government defence policy interpretations, it is natural that the Government becomes more cautious and puts restraints on military exchanges and cooperation with foreign nations other than the US. Due to this negative policy of the Government, the JMSDF's relationship with foreign navies has also been at a low ebb for many years. Except for the annual 150-day overseas training cruise for newly commissioned ensigns – which was a long-maintained tradition of the Imperial Japanese Navy – there have been practically no other opportunities for JMSDF to establish close relationships with other navies than the US Navy.

From this view point, for the JMSDF, overseas training cruises have presented a unique but limited opportunity for building relations with other navies, especially from first cruise in 1957 to the early 1990s. Basically, the annual cruise can take one of five routes: Pacific and Oceania; North America; South America; Indian Ocean, Middle East and Africa; and round the world (including the Mediterranean Sea and Europe).

The JMSDF's Training Squadron, which carries about 180 newly commissioned ensigns on three ships, takes one of these routes, and visits about ten nations every year. For the JMSDF, this overseas cruise is not only a simple exchange opportunity with regional navies, but also a means to show its strategic presence in waters remote from where the JMSDF normally operates as a real self-defence force. In the 1990s, after the end of Cold War, military exchanges became one important measure to enhance mutual understanding among regional nations. The JMSDF started inviting junior officers or midshipmen/naval cadets of visiting regional nations to join these training cruises, fully or partially. The result of this exchange has been evaluated as extremely productive by the JMSDF and its counterparts.

Bilateral confidence and security building measures

A new worldwide initiative towards and after the end of the Cold War, culminated in measures aimed at building confidence and security. The US and Soviet navies started and realised this initiative in the late 1980s, and concluded a Prevention of Incident at Sea agreement. Many nations and navies followed suit and started promoting various confidence and security building activities. The JMSDF started several exchanges with the Russian Navy in the early 1990s. Ships visit each others' ports, take part in joint search and rescue exercises, all considered good at promoting confidence and security building.

The JMSDF has been trying to start search and rescue exercises with the PLA Navy; however, due to political sensitivity in China, this initiative has yet to be successfully realised yet. There was only one mutual Japan–China naval ship visit in 2007, and no more

after that. In addition to this, the visit of the JMSDF's Training Squadron to Shanghai in 2011 was cancelled at the last moment, due to China's discomfort over the Senkaku issue in September 2010.

OTHER BILATERAL COOPERATION

There are several more successful bilateral exchange and cooperation exercises with other friendly nations. However, it is not easy for Japan to establish close relations with Asian nations. There are still strong historical and psychological issues to overcome, arising from the wariness of many Asian nations, caused by the bitter experiences of the Second World War. The JMSDF first approached the Royal Australian Navy in the early 1990s; then the Republic of Korea Navy in the late 1990s. The Australian Navy has played an important role in bridging the divide between the JMSDF and Asian navies, such as the Singaporean Navy, the Royal Malaysian Navy and Indonesian Navy. Bilateral relationships with these navies have been very good since the mid-1990s. So, it may not be surprising that the JMSDF's relationship with regional Asian navies is not an old one with a long history, but still a relatively new one, developed after mid-1990s.

New cooperative framework: Western Pacific Naval Symposium

The Western Pacific Naval Symposium is a good multilateral and intra-regional framework to discuss common maritime subjects among member and observer navies. The first symposium was held in 1988, and the JMSDF started participating in 1994. One of the reasons for the JMSDF's delayed participation is the above-mentioned restrictive policy of the Japanese Government regarding international military exchange. However, the JMSDF's first participation convinced the Government of the positive nature of the symposia, and there were no objections thereafter from the Government on this subject. The JMSDF hosted two symposia in Tokyo in 1996 and 2002. Under the umbrella of the Western Pacific Naval Symposium several programmes were organised to promote mutual understanding and facilitate productive relationships. The submarine rescue exercise and mine counter-measure exercise are two extremely successful programmes developed under this framework. At the same time, there are several forums for junior and mid-career officers, and personnel exchange programmes among participating navies, which are also regarded as very effective measures to meet symposium objectives. The symposium framework really provides various opportunities to JMSDF to establish and promote mutual understanding and cooperative postures with regional navies.

THREE MAJOR INCIDENTS IN THE TWENTY-FIRST CENTURY

Operation Enduring Freedom

The terrorist attacks against the United States on 11 September 2001, also caused a radical change to the Japanese Government's policy on international contributions. At that time, the Government took full consideration of the Japan–US Alliance, and interna-

tional efforts in the war against terrorism. And, in November 2001, the Government sent JMSDF units to support maritime interdiction operations, a part of Operation Enduring Freedom, conducted in the northern Indian Ocean and Arabian Gulf. The composition of the deployed JMSDF units was normally one or two fast combat support ships, i.e. fleet oiler and supply ships, and one to three escorting destroyers with helicopters. This operation lasted about eight years, and was terminated in January 2010 by the Government formed by the newly-elected Democratic Party of Japan (MoDJ 2011, 521).

During this period, JMSDF units delivered mainly fuel and fresh water to ships from the US, UK, Canada, the Netherlands, Spain, France, Germany, Greece, Italy, Japan and New Zealand. Pakistan's Navy joined these customer navies in later years. The eight-year-long deployment was the first opportunity JMSDF had had to cooperate with many European/NATO navies.

In this operation, the JMSDF units joined a coalition force, and close coordination with US 5th Fleet/COMNAVCENT made JMSDF's support operation with non-US navies proceed very smoothly. The JMSDF had strong confidence in conducting this type of support operation with unfamiliar European friendly navies, which use a common operational standard.

Humanitarian assistance and disaster relief (HADR) operations in Sumatra, Indonesia

While maintaining JMSDF's support force for Operation Enduring Freedom, the Government reacted comprehensively to the 26 December 2004 earthquake and tsunami disaster in Sumatra, Indonesia. The Government responded quickly and sent a joint humanitarian assistance and disaster relief force composed of units from the three services of the JSDF. These forces included one JMSDF tank-landing ship which carried the Japan Air Self-Defence Force's three CH-47 and two UH-60JA helicopters, as well as the tank-landing ship's own two air-cushion landing craft. The JMSDF also sent one fast combat support ship and one helicopter destroyer, which carried three SH-60J helicopters. The Japan Ground Self-Defence Force also sent medical support teams and the Japan Air Self-Defence Force was engaged in transport operations between Japan and the tsunami-hit areas using several C-130 transport aircraft and U-4 Gulf Stream utility aircraft.

The JSDF's units joined the international HADR team which came from almost all over the world, and the JSDF accumulated precious experience and learned a lot from this multinational HADR operation. This was the second opportunity for the JMSDF to cooperate with many foreign navies, some from Europe. The JMSDF thereby developed stronger confidence in future cooperation with foreign navies.

Counter-piracy operations in the Gulf of Aden and waters off Somalia

Japan started to send JMSDF units to the Gulf of Aden and waters off of Somalia in March 2009. The JMSDF has deployed both escorting destroyers and P-3Cs to conduct

counter-piracy operations. JMSDF's counter-piracy operations are different from Operation Enduring Freedom support operations. Due to the Government's concern over collective security, the JMSDF units operate independently in their own counter-piracy operations. In order to fully comply with the Government's collective security policy, the Government also prohibited JMSDF units from receiving any command from foreign commanders. However, there has been practical cooperation and coordination among many coalition navies, especially with the US Navy and other independent navies such as PLA Navy and the Russian Navy.

One experience is the fact that wide-area ocean surveillance information provided by JMSDF's P-3Cs has been an indispensable element in the overall counter-piracy operations in these waters. This operation is another opportunity for JMSDF to improve its cooperation capability in the future.

CONCLUSION

The JMSDF, which is uniquely constrained, has long been a bilateral maritime force with the US Navy. At the same time, the JMSDF has built a robust 'tailored' fleet, which meets the strategic requirements of Japan. The JMSDF today has become a well-balanced maritime force built around a strong anti-submarine war capability, which is indispensable to carry out its strategic tasks. The JMSDF's missions are to protect Japan's SLOCs, support the US Navy's operations in the north-western Pacific region, and contribute to its own homeland defence. From these points of view, the JMSDF today has become a world class navy, both in quality and quantity.

However, with regard to its operations, the JMSDF has very little experience in international cooperation. Except for its overseas training cruises, and several joint exercises and training operations with the US Navy in US waters, the JMSDF had almost no international experience until the end of the Cold War. The JMSDF, together with the Government's new policy, started expanding its international cooperation from the early 1990s. Hence, the JMSDF's experience and history in this area are relatively short (about 20 years) and limited.

Simultaneously, the JMSDF has also participated in several key international collaborative efforts during the last 20 years, and accumulated much valued experience and lessons. Generally speaking, the JMSDF is a capable navy able to join any form of non-combat international cooperative venture anywhere in the world. In order for the JMSDF to accomplish and succeed in this type of international mission, close cooperation and coordination with the US Navy will be a key. In the past, the US Navy has been a strong supporter of this type of JMSDF operation. This is one of the benefits of more than half a century of the Japan–US Alliance.

Having said so, it is true that there are some new areas which the JMSDF could improve on. If the JMSDF takes future international cooperation with small to medium modern navies seriously, in different scenarios and in different areas, then it needs to

develop a new strategy and force development concept for this purpose. This type of international cooperation in remote areas has been considered as an alien operation to the JMSDF's traditional missions and areas of responsibility. In this context, the JMSDF is not designed to function in the new missions, such as Operation Enduring Freedom, humanitarian assistance and disaster relief and counter-piracy, as discussed in this article. In order to meet this new challenge, parts of JMSDF's strategy and force build-up concept should at least be reviewed. This could include positioning of international cooperation in JMSDF's tasking and adjusting the size of its required force strength for this purpose. And the most important factor here is the Government's policy and support of such operations. In most scenarios in the foreseeable future, the JMSDF, supported by the US Navy and other navies in a deployed area, will be able to conduct and establish its given tasks by fully utilising its capabilities.

NOTES

1 This article represents the personal opinions of the author and not any official position of the JMSDF or the Government of Japan.

2 The Japan Maritime Guard was established in the Japan Maritime Safety Agency (later Japan Coast Guard) on 26 April 1952. On 1 July 1954, the JMSDF was inaugurated within the Japan Defence Agency together with the ground and air self-defence forces. See MoDJ (1987) 542–43.

3 The new constitution of Japan, which replaced the Meiji constitution of 1889, came into effect on 3 May 1947 in occupied Japan. Article 9 prohibits Japan from having armed forces: 'Aspiring sincerely to an international peace based on justice and order, the Japanese people forever renounce war as a sovereign right of the nation and the threat or use of force as means of settling international disputes.
In order to accomplish the aim of the preceding paragraph, land, sea and air forces, as well as other war potential, will never be maintained. The right of belligerency of the state will not be recognized.' (Website of the Japanese Government: www.kantei.go.jp)
The government's interpretation of article 9 is that the constitution bans 'wars of aggression', not 'wars of self-defence'. Accordingly, the Japan Self-Defence Force (JSDF) – designed to act only in the defence of the nation if attacked – is purely a constitutional entity. This was the collective view of the Hatoyama Cabinet, submitted 22 December 1954, and reprinted in Boei Handbook of 2009 (JSFD 2009a), chapter 12, 'Position of the Government of Japan on Defence of Japan', 604.

4 The Japanese Ministry of Defence does not officially designate Chinese threats in the White Paper. However, if we take all security elements in the region into consideration, it is clear that the Ministry and the Japanese Self-Defence Force have started a realignment of the strategic front from north to west of Japan.

5 See footnote 2 above.

6 OPLAN = a military operation plan by the United States and South Korea for the defence against a North Korean invasion whereby Japanese bases are available if the US goes to war with North Korea.

Naval developments in India and multilateral cooperation

Vijay Sakhuja[1]

There is a strong belief among the Indian elite that it was the neglect of the seas that led to India's domination by the colonial powers during the fifteenth to the nineteenth century, first by the Portuguese, then by the British and French. Significantly, the colonial supremacy came from the sea, to the littorals and into the heartland. Therefore, it is important for India to build an autonomous maritime military capability to preclude the dominance of the littorals by any external power.

Since independence in 1947, India has engaged in land wars with China (1962) and Pakistan (1949, 1965 and 1971), shaping India's military modernisation. The Indian policy-makers developed a strong continental mindset which led to the neglect of the Navy. However, India was confronted with two events at sea, both stark reminders of the dangers of external intervention from the sea, and reminiscent of the colonial past. The first was the dispatch of a naval flotilla by Indonesia during the 1965 Indo–Pakistani War to deter India from fighting Pakistan with a threat of opening another war front in the Andaman and Nicobar islands (PNHS 1991, 228–229). The second was the US decision to dispatch Task Force 74 led by USS *Enterprise* in the culminating stages of the 1971 India–Pakistani war (Singh 2002, 63).

For India, the Navy also gains salience by the imperatives of globalisation and economic growth. Over 97 per cent of India's trade by volume and 75 per cent by value is seaborne; if one follows the 'direction of trade', nearly 50 per cent is eastbound, towards the Asia Pacific region, which is the current centre of gravity of global economic power. India imports nearly two-thirds of its energy requirements, the bulk of which is sourced from the Persian Gulf and West Africa. The safety and security of its energy supply chains and sea lanes through the Indian Ocean and the Asia Pacific waters, particularly

the Straits of Malacca and South China Sea, are critical to India's economic growth and prosperity.

There is also a heavy concentration of economic hubs in the coastal region, which constitute the engines of India's economic growth. A number of infrastructures such as ports, shipyards and industrial hubs, have mushroomed in the coastal areas to support a burgeoning trade, which contributes enormously to national economic growth. Thus the naval power of India is also derived from the strategic necessities of globalisation and economic development.

With 70,000 personnel and over one hundred combatants, the Indian Navy is the third largest in Asia after those of China and Japan. The vision of the Indian Navy envisages building robust capabilities to safeguard India's sovereignty and protect national interests. It is acquiring a number of surface and sub-surface platforms capable of long-range, sustained operations supported by manned and unmanned aviation capabilities. In the nuclear domain, Indian strategic thinking pivots on an appropriate response in the form of deterrence from the sea across the peace–crisis continuum.

INDIA'S MARITIME STRATEGY AND FORCE STRUCTURE

India's military maritime strategy identifies the Indian Ocean region as the primary area of interest and operations. This includes sea space encompassing the Strait of Bab-el-Mandeb, Strait of Hormuz, Straits of Malacca and Cape of Good Hope. The Red Sea, South China Sea, southern Indian Ocean and East Pacific region have been classified as secondary areas of interest to the Indian Navy but would gain ascendency should events and incidents in these sea spaces impinge on India's national interests (MoD I 2007, 59–60).

India's maritime doctrine lays out the missions entrusted to the Indian Navy and the capabilities required for a number of tactical missions involving combat actions, coercive manoeuvres and benign operations. The doctrine supports the operational tenets of flexibility, battle space dominance, decisive action through sea control, sea denial, *guerre de course*, naval blockade and combat in surface-subsurface-space-shore (S4) continuum. The doctrine also notes that it is critical for the Indian Navy to protect India's exclusive economic zones that stretch over 2.3 million square kilometres.

The Indian Navy's current force structure comprises nearly 140 vessels, including one aircraft carrier, eight destroyers, 13 frigates, 25 corvettes, 16 conventional submarines, and a large number of smaller combatants. The inventory also includes several logistic support vessels and survey platforms. As far as air assets are concerned, the Indian Navy has a number of long/medium-range maritime patrol aircraft to support reconnaissance and surveillance needs and fighter jets, both ashore and onboard the aircraft carrier, that can prosecute targets at sea and on land. The ship-borne helicopters are designed for anti-submarine warfare, land-attack operations, electronic warfare and search and rescue missions.

Sea-based deterrence finds a prominent place in India's strategic maritime formulations. It is built around the notion that credible deterrence through the dispersal of platforms/payloads can offer survivability and provide an assured retaliatory second strike capability. These formulations resonate in Indian strategic thinking and are exhibited in the quest to develop a robust sea-based nuclear deterrent. 'No first use' of nuclear weapons is the stated policy of the Government of India. In that context, Indian naval planners and strategists view a nuclear submarine as critical, and have argued that '[a nuclear submarine] is much more than just a submarine with a nuclear reactor ... it is the arbiter of power at sea' (Unnithan 2007).

In 1988, India acquired a nuclear submarine on lease from the Soviet Union and commissioned it as the *Chakra*. It was later returned at the end of the lease period. Under the indigenous nuclear submarine programme designated as ATV, INS *Arihant* was launched in 2009 and may be commissioned in 2013 (Sud 2009). The Indian Navy may induct the K-152 Nerpa class submarine acquired from Russia on lease, in 2011/2012 (*Economic Times* 2010). These acquisitions will provide India with the third leg of the nuclear triad.

Similarly, an aircraft carrier finds a prominent place in the strategic and tactical calculus of Indian naval thinking. Indian naval planners and tactical commanders have conceptualised a wide spectrum of missions for the aircraft carriers and exploit the ability of such platforms to transit the sea-space-shore continuum. In 1961, India acquired the *Vikrant* (ex-HMS *Hercules*), a Majestic class light fleet carrier from the United Kingdom that was tactfully deployed in the Bay of Bengal for combat operations in East Bengal (now Bangladesh) during the 1971 Indo–Pakistani conflict. The second aircraft carrier, the INS *Viraat* (ex-HMS *Hermes*), acquired in 1986, is still operational and serves as the only power-projection platform of the Indian Navy. In 2012, the Indian Navy will induct the Russian aircraft carrier, *Admiral Gorshkov*, renamed INS *Vikramaditya*, and currently being refitted in Russia (*Aviation Week* 2011). Meanwhile, India is also building an indigenous 37,500-ton aircraft carrier to be named *Vikrant* (*IHS Jane's Navy International* 2009). The vessel will host the Russian-built MiG-29K and indigenous (Navy) light combat aircraft. The Indian Navy also has plans to induct a third aircraft carrier, to make it a three-carrier force by 2017.

Other than the aircraft carrier, the Indian Navy's inventory comprises indigenously built and Russian-origin destroyers, frigates and corvettes. Likewise, submarines are an important component of the Indian naval force structure. The current inventory comprises a mix of Russian and German-origin boats, the bulk of which are of the Kilo class and four HDW-type 209/1500 boats (two built in India) of German origin. The 30-year submarine construction plan, stretching to 2025, aims at an inventory of 24 submarines, and will boost indigenous production (Mehta 2008, 58). Currently, the French-origin Scorpene class submarines are under construction in India under a transfer of technology agreement, and the first vessel of the class will be delivered in 2015

(*Times of India* 2011). India is expected to announce a global tender for acquiring six next-generation submarines but it will take years to finalize the deal and six-seven years to build six advanced submarines.

India's expeditionary capability has witnessed a phenomenal increase and is built around INS *Jalashwa* (formerly the USS *Trenton*), acquired from the United States, and the indigenously built Magar class vessels. These vessels are capable of hosting helicopters able to land special marine commandos in enemy areas. Besides this, the Indian Navy can charter ships from Indian shipping companies to support expeditionary operations.

The naval air arm is built around Russian, British and French aircraft and helicopters, including the indigenously built advanced light (ALH) helicopters (being produced by Hindustan Aeronautics Limited). The inventory is fairly modern by regional standards and can provide effective air cover to the fleet and for strikes ashore. The shore-based long-range maritime patrol aircraft provide surveillance to the fleet operating far from the shore. The Navy has anti-submarine warfare (ASW), early warning (EW) and missile-capable helicopters that provide both defensive and offensive air capability to support fleet operations. The inventory is spread over 16 naval air squadrons, including fighter jets, both from shore and from the aircraft carrier, maritime patrol aircraft, helicopters and unmanned aerial vehicles (UAVs). India will induct a number of aircraft in the coming years, including 12 P-8I Poseidon from the US, helicopters from Italy and UAVs from Israel (*Pakistan Observer* 2011).

REVOLUTION IN MILITARY AFFAIRS AND THE INDIAN NAVY

The Indian Navy is a technologically advanced force, and the impact of the so-called revolution in military affairs on its force structure is quite visible. There is widespread application of IT and related systems in tactical doctrines, operational deployments, logistics support systems and administrative functions. Indian Navy's network-centric warfare (NCW) strategy envisages a shift from platform-centric to a network-centric force, information technology-driven concepts of operation, entrenchment of information technology across all operational and support functions, development of a C4I grid among command posts both ashore and at sea, including joint command centres for integrated operations.

In that context, the Indian Navy has been able to exploit its technological proficiency and translate the same into operational competence for interoperability with diverse navies that host varying levels of NCW capabilities. Interoperability has facilitated multination joint exercises and *ad hoc* coalitions that bring with them a variety of platforms, personnel, doctrines and operating procedures. The Malabar series with the US Navy and the Simbex series of exercises with the Singapore navy are good examples of interoperability between the navies. Some of the Indian Navy ships are even fitted with special US equipment to connect to its Centrix satellite-based system, enabling the exchange of

audio, video and data between the participating ships (Ved 2007). Similar arrangements are available for the bilateral exercises between the Singapore Navy and the Indian Navy.

ROLES AND MISSIONS

The Indian Navy's roles and missions are closely linked to India's national interests, and in that context, deterrence lies at the core of the Indian Navy's strategic thinking: such capability should be able to deter any naval threat posed by the enemy individually or in concert with other allies. Further, the naval capability should be such that it should raise the threshold of intervention or coercion.

India's naval capability should also be able to deliver to the state and its marine domain the requisite custodial and constabulary functions in this prevalent phase of asymmetric conflicts. It should address maritime threats and challenges, including non-traditional security threats such as terrorism, piracy, gun running, drug smuggling and human smuggling, since these can potentially disturb good order at sea.

Naval diplomacy is an important function of the Indian Navy. It should act as the ambassador of goodwill, build maritime bridges with like-minded states and support national foreign policy objectives. Also, the Indian Navy should be able to underwrite regional stability, promote friendly ties with like-minded nations and provide timely response capability.

As noted above, one of the important roles of the Indian Navy is to engage in naval diplomacy to support India's foreign policy objectives. Since its inception, the Indian Navy has been actively engaged in furthering national foreign policy objectives. It has participated in UN-supported international commitments, provided waterfront security to states, rendered relief during disasters, conducted joint exercises and anti-piracy patrols for preserving order at sea, thus contributing to international efforts aimed at enhancing maritime safety and security in the oceans. It has also developed institutional linkages with several navies with a view to building confidence and trust.

The Indian Navy's role also requires its ships and aircraft to be at the forefront of Humanitarian Assistance and Disaster Relief (HADR) operations by deploying a variety of assets, both human and material, to respond to crises. These platforms serve as excellent staging positions for distributing relief supplies over-the-shore when airports and seaports are damaged or obstructed. In the past, Indian ships have served as command platforms for disaster relief supply chains and overall coordination of operations. Indian naval ships have also served as hospitals and provided emergency medical relief.

In the aftermath of the 26 December 2004 tsunami in the Indian Ocean, the Indian Navy played an important role in support of international disaster relief efforts in Indonesia, Maldives and Sri Lanka. It deployed nearly three dozen ships and an equal number of aircraft and helicopters in rescue and relief missions both at home and abroad. India was part of the core group of four countries alongside the US, Japan and Australia, to coordinate aid efforts in the affected areas. The international community acknowl-

edged India's capability and it registered its presence in the tsunami-affected region as a compassionate power capable of helping its neighbours even when its own shores are troubled. In subsequent years, the Indian Navy was again tasked to respond to Cyclone 'Sidr' in Bangladesh in 2007 and in May 2008 to Cyclone 'Nargis' in Myanmar.

INSTITUTIONAL APPROACHES

Currently, India is an active member of several international and regional arrangements for maritime cooperation at both government and non-government levels. It is signatory to the UNCLOS III, member of the Indian Ocean Rim-Association for Regional Cooperation (IOR-ARC), ASEAN Regional Forum (ARF), East Asia Summit (EAS), ASEAN Defence Ministers' Meeting (ADMM), Association for Bangladesh-India-Myanmar-Sri Lanka-Thailand Economic Cooperation (BIMST-EC), South Asia Association for Regional Cooperation (SAARC), Council for Security Cooperation in Asia Pacific (CSCAP), as an observer in the Western Pacific Naval Symposium (WPNS), Regional Cooperation Agreement on Combating Piracy and Armed Robbery Against Ships in Asia (ReCAAP).

Indian naval ships and personnel participate in several maritime security-related events, including defence exhibitions, seminars, symposia and conferences at both Track I and II levels such as the International Maritime Defence Exhibitions (IMDEX) in the Persian gulf and Southeast Asia, Langkawi International Maritime and Aerospace Exhibition (LIMA), International Seapower Symposium in the US and Shangri-La Dialogue in Singapore.

At another level, the Indian Navy conducts events such as MILAN, Indian Ocean Naval Symposium (IONS), International Fleet Reviews (IFR), symposia, seminars and conferences as part of its engagement in naval diplomacy. These engagements are discussed in the succeeding paragraphs.

MILAN AND INDIAN OCEAN NAVAL SYMPOSIUM (IONS)

Since 1995, the Indian Navy has been hosting Milan meetings at Port Blair in the Andaman Nicobar islands in the Bay of Bengal. 'Milan' in Hindi means 'confluence' and these biennial meetings are aimed at fostering closer cooperation among navies of countries in the extended neighbourhood of Southeast Asia and as far as Australia.

Expanding on the Milan, in February 2008, the Indian Navy hosted the Indian Ocean Naval Symposium in New Delhi.[2] The IONS is similar to the WPNS (Western Pacific Naval Symposium) and was attended by naval delegations from 29 countries of the Indian Ocean. The event also included a symposium on 'Contemporary Trans-National Challenges: International Maritime Connectivities', and a two-day conclave for the naval chiefs of the participating countries. In his address to IONS delegates, the Indian Prime Minister observed that the 'need for cooperation among navies of the region in preventing such global crimes is therefore of paramount importance' (*DNA* 2008).

MARITIME MANDALA

In the twenty-first century, India's strategic interests have undergone a profound transformation, overcoming years of ideological rigidity to an interest-driven autonomy clearly showcasing a systemic transformation. This has been possible partly due to India's choices of globalisation, resulting in strong economic growth and a desire to restore some of the glorious historical epochs of political, economic and strategic pre-eminence. These strategic choices and new economic strength have resulted in significant opportunities for increased transactions with the great powers that are fast evolving into new partnerships, multilateral and bilateral engagements and cooperative initiatives.

These emerging strategic and economic strengths also provide for focused naval interactions that offer tactical-operational engagements exemplified by interoperability among the navies. These are translating into technology transfers and have spawned defence-technology relations that have accrued immense dividends and fostered a series of new defence-technological collaborative enterprises. This ensures augmentation of India's existing maritime industrial infrastructure and adds to India's growing technological strengths.

Since the 1990s, the Indian Navy has been nurturing an ascendant strategic profile, with engagements with the United States, Russia, France, United Kingdom, several other EU navies, Israel, Japan and navies in Southeast Asia.

Indic statecraft finds its comprehensive theoretical expression in the ancient Indian classic *The Arthasastra* translated as 'science of politics'. In essence, *Arthasastra* is a treatise in political realism, showcasing how the political world works with firm foundations in self-interest, strategic autonomy and the dynamic nature of alliances (Boesche 2003, 15). Simply put, Mandala is a construct in international relations that signifies the contiguity of region and defines the geo-strategic and geo-political interests and relations of the state. In spatial terms, Mandala denotes a zone. Schematically, Mandala is figurative of concentric circles, which define the relations of the state at the core, with its immediate, intermediate and outer ring of countries.

In the immediate 'Mandala', India's naval engagements with its neighbours, particularly Bangladesh, Pakistan, Sri Lanka and Myanmar, have been problematic due to suspicions and mistrust, and not least the 'big neighbour syndrome' among these countries (*Economic Times* 2011). Also, China's military-strategic-technical support to these countries to balance and box India in the South Asian region has resulted in India's strategic encirclement. India has attempted to hard-balance its immediate Mandala by engaging with several Indian Ocean, Persian Gulf, Southeast Asian and Pacific powers. In that context, the Indian Navy has been in the forefront in supporting political, strategic and economic engagements of seminal significance and purpose. In perspective, India's strategic naval engagement would be an interpretation of the 'Mandala' doctrine.

PROSPECTS OF COOPERATION WITH SMALLER NAVIES

Maritime and naval cooperation provide ambient conditions for states to develop a broad and substantive agenda for building mutual trust and confidence, and, in some cases, translate into strategic partnerships. These initiatives are particularly significant for the smaller navies who are constrained to protect their maritime interests due to lack of resources and capabilities. In essence, cooperative agendas build synergies in joint and coordinated naval patrols and exercises that are usually focused on a specific operational theme and can be leveraged in times of crisis. In that context, the Indian Navy has developed closer relations with several like-minded states across the globe – and these have resulted in 'maritime bridges'.

THE MALDIVES AND SRI LANKA (COUNTER-TERRORISM)

Closer to home, the Maldives and Sri Lanka have benefited from their maritime cooperation with India. For instance, in November 1988, Maldivian dissidents in Colombo and Tamil mercenaries of the People's Liberation Organisation of Tamil Eelam (PLOTE), had attempted to overthrow the Maldivian Gayoom regime (Jain Commission 1997, ch. 1). A quick air and sea response from India resulted in the capture of mercenaries who were fleeing with hostages in a vessel, thus aiding the restoration of the legitimate regime in the capital Malé.

In Sri Lanka, the Liberation Tigers of Tamil Eelam (LTTE), decimated by the Sri Lankan military in May 2009, was perhaps the only non-state actor conducting maritime operations on a large scale. It was able to execute a classical sea control manoeuvre in waters off Jaffna in the north east of Sri Lanka. The LTTE still owns and operates a fleet of deep-seagoing ships that had in the past facilitated logistics support by way of a regular supply of arms, ammunition and other materials. The LTTE has the potential to bounce back and engage in illegal activity.

In fact it was lack of governance and an ineffective maritime security apparatus in the Maldives and Sri Lanka that created the conditions for the growth in terrorism, piracy and other illegal activities. India is vulnerable to asymmetric domination that may have its origins in neighbouring countries. In response, at the functional-operational level, the Indian Navy has engaged both the Maldivian and Sri Lankan navies through bilateral naval exercises, regular ship visits, training, transfer of naval hardware and sharing of intelligence.

Post-2008 Mumbai terror attacks, the Indian maritime security organisation has been revamped, involving major organisational changes, the establishment of the Coastal Command and setting up of joint operation centres. The Indian Navy and Coast Guard are in the process of acquiring cutting edge technologies to enhance littoral security and these could bridge the gap in maritime surveillance and reconnaissance. Sri Lanka has also developed some naval capability which it used very effectively to fight the LTTE, but

it still lacks a surveillance and response capability on the high seas. The Maldivian maritime forces are essentially constabulary in nature and lack combat capability. Further, by all estimates, the current security architecture of Sri Lanka and the Maldives is not robust enough to deter, detect and defeat a challenger, partly due to lack of capabilities.

MAURITIUS, SEYCHELLES AND MOZAMBIQUE (COUNTER-PIRACY)

The Indian Navy's engagement with smaller states in the Indian Ocean dates back to the 1970s. Indian naval ships have called at ports in Mauritius on a regular basis. India even supplied a patrol craft, provided crew to the Mauritius marine wing of the police force and also undertook repairs and maintenance including the supply of spares parts. The Indian Navy conducted a hydrographic survey of Mauritius's territorial waters and EEZ. The Indian president, during her visit to Mauritius, said, 'We are committed to work with the government of Mauritius to jointly fight piracy and enhance security in the Indian Ocean through mutually agreed measures.... [India] will help the Mauritian government in setting up an anti-terrorism cell' (*Economic Times* 2011).

Pursuant to a request by the Seychelles government, Indian Navy ships have undertaken anti-piracy and counter-terrorism patrols on a regular basis in its waters. Seychelles President James Alix Michel announced during his 2010 state visit to India that 'India and Seychelles have agreed to work together in controlling piracy in the Indian Ocean so that we can try to make sure that this area is safer for economic development' (*Indian Express* 2010).

Likewise, India and Mozambique, too, have agreed to work together to improve maritime security in the Indian Ocean. The bilateral agreement provides for joint activities, including maritime patrols along the Mozambican coast, mutual training in military institutes, supply of defence equipment/services and establishment of partnership and transfer of knowhow and technology for assembling and repair of vehicles, aircraft and ships as well as rehabilitation of military infrastructure.

SINGAPORE (TACTICAL EXERCISES)

The Indian and the Singaporean navies established 18 years ago an annual exercise programme code named SIMBEX that has continued ever since. These exercises alternate each year in the Indian Ocean and South China Sea and involve a harbour and a sea phase, indicating that the two navies have reached a higher proficiency in conducting naval operations. These bilateral exercises involve complex air, surface and sub-surface warfare to enhance the interoperability and mutual understanding of the two navies. Further, both sides deploy sophisticated naval platforms, including submarines and long-range maritime patrol aircraft. These exercises are quite similar to those the Indian Navy engages in with the US Navy for the Malabar series of exercises.

NORWAY (HUMANITARIAN ASSISTANCE AND DISASTER RELIEF, COUNTER-PIRACY)

Both India and Norway have long seafaring histories and possess modern navies equipped with sophisticated platforms. The Norwegian Navy has the Fridtjof Nansen class frigates, which are capable of blue water operations, the Ula class submarines and Skjold class corvettes.

The Norwegian Navy's deployment of the frigate *Fridtjof Nansen*, the flag ship of its class, for anti-piracy in the Gulf of Aden in August 2009, and its successful engagement with Somali pirates, is noteworthy. On 30 September 2011, the Norwegian Navy established Camp Skare in Seychelles to support the NATO counter-piracy operation Ocean Shield (defpro.com). A P3-N Orion surveillance aircraft has been deployed for surveillance and counter-piracy operations in the seas along the coast of eastern Africa.

However, the areas of operation of the Indian and the Norwegian navies are quite different; the Indian Navy is more focused on the Indian Ocean and the Norwegian Navy looks towards the Atlantic and Arctic oceans. The Norwegian Navy is likely to be drawn more and more towards the Arctic as the ice cap melts and new shipping routes become popular among shippers. Further, the Norwegian Navy will be called upon to protect its maritime interests in the northern waters. There is a noticeable naval growth among the Arctic littorals, moreover, which are building capabilities for operations in the Arctic.

Nevertheless, the Indian and the Norwegian navies do interact with each other through an ad hoc arrangement called SHADE (Shared Awareness and Deconfliction), established in December 2008. This forum, based in Bahrain, provides a platform for the participants (26 member nations and three coalitions, i.e. Combined Maritime Forces (CMF), EU and NATO) to coordinate activities of the countries and coalitions involved in military counter-piracy operations in the Indian Ocean region.

Although there is no institutional mechanism facilitating interaction, the two navies can develop a bilateral cooperative agenda that could be built around joint exercises in the Indian Ocean or Atlantic Ocean and take part in joint anti-piracy drills. Humanitarian assistance and disaster relief exercises and capacity building of smaller island Indian Ocean states could be another agenda for cooperation.

CONCLUDING REMARKS

The force structure of the Indian Navy showcases high technology platforms, nuclear capable submarines to support the strategic triad and doctrinal and operational advancements. These capabilities are significant for guarding ocean frontiers, securing maritime interests, protecting littoral hubs that form nodes of trade and energy supplies, safeguarding critical sea lines of communication and exercising influence in the region. Further, any maritime contingency that impacts on Indian security interests in the Indian Ocean and Pacific Ocean will be the responsibility of the Indian Navy.

The Indian Navy has successfully deployed its assets to respond to different crises

in 'waters far away from home', as well as for building maritime bridges through operational engagements and capacity building. In the future, the Indian Navy can be expected to continue to support a variety of missions involving international cooperation such as disaster relief and humanitarian assistance, counter-terrorism, anti-piracy and, also, preventing illegal migration.

NOTES

1 Works consulted in the preparation of this paper include Hiranandani (2000); Pannikar (1959, 1971); Naval Headquarters, New Delhi (1998, 2001); ModI (2004, 2007); Sakhuja (2011); UN (1983).

2 'Indian Ocean Naval Symposium', available at http://indiannavy.nic.in/ion.htm accessed on September 17, 2011.

The challenge of understanding the Russian Navy

Mikhail Tsypkin[1]

The Russian naval tradition is torn between the desire of Russian politicians to project the image of a great naval power and the reality of Russia as a great land power. In the course of the twentieth century, Russia and the Soviet Union tried three times to build a true blue water navy – before the First World War, in the late 1930s before the Second World War, and during the second half of the Cold War (from the 1960s until the late 1980s). In each case, the plans had to be abandoned because a blue water navy turned out to be not crucial for the nation's survival. In both world wars, the Russian Navy was useful on the flanks of the great land battles of the Eastern Front, but did not play an independent role. In the first decade after the Soviet collapse, the real – as opposed to the declaratory – missions of the armed forces were to maintain Russia's sovereignty, to preserve its status as a nuclear superpower, to deal with the brushfire wars in the post-Soviet space and in the North Caucasus and, in a political crisis, to defend the current occupant of the Kremlin from challengers. None of these missions requires a blue water navy; accordingly, the Russian Navy, despite regular outbursts of soaring rhetoric from Russian politicians, was allowed to stagnate and deteriorate.

PUTIN'S NAVY

The arrival of Vladimir Putin into the Kremlin, in 2000, appeared to open a new and more ambitious era for the Russian Navy (*Voyenno-morskoiflot* – VMF). Since then, the Navy has been showered with political attention; received several new ships; sent its ships on global cruises for the first time since the collapse of the Soviet Union; heard promises to build several aircraft carriers; seen combat in the Black Sea; and sent its attack submarines, for the first time in more than a decade, to the shores of the United

States. At the same time, the Russian Navy suffered disasters; including the catastrophic sinking of the *Kursk* nuclear attack submarine; was ordered to remove its main staff from the Russian capital of Moscow to the relative backwater of St Petersburg; was downgraded in the plans of military reform; and fell behind on the plans to modernise the sea-borne leg of the nuclear triad. What does this contradictory record tell us about the future of VMF?

Under Putin, the Russian Navy has received a lot of political attention. Within days of assuming the office of the president (on April 3, 2000), Putin signed a detailed document entitled the *Foundations of the Russian Federation's Naval Policy until the Year 2010*. A year later (on 21 July 2001) he approved another major document, the *Maritime Doctrine of the Russian Federation until the Year 2020* (*morskayakollegiya.ru* 2009a; *kremlin.ru* 2001). In 2007, the Russian government adopted the *Strategy for the Development of the Shipbuilding Industry until the Year 2020 and Beyond* (*garant.ru* 2007). The interagency Maritime College (Council) has produced voluminous documentation regarding future plans for the Russian Navy. Russian Navy officers have filled the pages of the *Naval Digest*, their professional journal, with detailed and passionate arguments about the future of the Russian Navy.

In the Soviet era, such abundance of official pronouncements would have been sufficient for a reasonably confident forecast of naval developments. The Soviets had a well-established (however wrongheaded) worldview and goals in international politics; their policy debates were for the most part conducted in secrecy (and thus did not confuse Western analysts) and resulted in settlements that would then be revealed to the world; they also had a mechanism for mobilising resources that could turn, however imperfectly, intentions into capabilities. Russia, in contrast, is still seeking its position in the world, fluctuating between loud hostility to the West and demands to be accepted as its partner. Russia's policy process is opaque and informal: the highest authority, especially in matters of national security, is theoretically vested in the president. The current incumbent at the time of writing (Dmitri Medvedev) however, appears to play second fiddle to the strongman prime minister (Vladimir Putin), who skilfully balances interests of powerful financial-industrial clans closely connected to the machinery of the Russian state. This political system produces endless intrigue and policy debates, often without an obvious resolution and execution. Finally, Russia's economy is much smaller than the Soviet one, and no longer has the mobilisation mechanisms, such as all-encompassing economic planning and disregard for the customers' wellbeing, that allowed the USSR to compete in the military field with more advanced and wealthy countries. Profit-seeking has become perhaps the strongest motive in the activities of Russian elites.

Another difficulty in forecasting Russian naval developments stems from the fact that the current naval force is a product of the Soviet era. Recently we have witnessed an increased level of activity by the Russian Navy. One should not, however, make projections on the basis of what we see today. There are strong reasons to doubt whether

Russian industry will be able to replace the retiring ships. The former navy commander-in-chief, retired Admiral Vladimir Kuroedov, recently observed that the Russian shipbuilding industry has been unable to build new ships in a timely fashion, while research, development and design of new ships capable of deploying far from Russia's shores have been chronically underfinanced (Kuroedov et al. 2009, 17).

Russia's unsettled vision of its place in the world has had a direct impact on its naval policy. Putin has promoted the vision of Russia as a 'great power', erasing the 'humiliations' of the 1990s. The Kremlin's vision is rooted in the Soviet past: being a great power means being taken as an equal by the United States. This vision is irrational, given the economic and demographic realities, but it is driven by a veritable hostile obsession with the US among the Russian elites and public. Russian politicians discovered in the 1990s that the Russian public, while reluctant to have their children drafted for military service, associate patriotism with military power. The Russian Navy represents a particularly tempting subject for public relations games. Big ships look even more impressive than marching infantrymen and rolling tanks. Construction of a capital ship can be rightfully presented as a national achievement. The Russian naval tradition is rhetorically linked to the one relatively positive figure in the Russian history, Peter the Great. The Navy can provide a visible proof of Russia's 'resurgence' and growing international activism by its presence in various areas of the world and port calls. The Russian Navy also includes the platforms for the sea-based leg of the Russian nuclear triad, which is extolled by the Russian leaders and media as the key to national defence and to keeping the status of a great power. And in the realm of naval policy, being a great power requires having aircraft carriers to match the United States.

VIRTUAL AIRCRAFT CARRIERS

The subject of aircraft carriers surfaced in a very tentative fashion in the *Foundations of Naval Policy* (March 2000). At the same time, however, Putin was very concerned about finding ways to fill Russia's treasury by using its natural resources. In response to this imperative, the then Navy Commander-in-Chief Admiral Vladimir Kuroedov (1997–2005) appealed to Putin's obvious interest in the economic dimension of Russia's maritime policies, especially in the exploration and extraction of Russia's natural resources from the seabed, as reflected in the *Maritime Doctrine of the Russian Federation* (approved in 2001). Both the *Foundations* and the *Maritime Doctrine* put emphasis on defence of Russia's sovereignty over mineral and biological resources of the ocean. As far as the Navy's priorities are concerned, these documents stress the traditional importance of ballistic missile submarines (SSBNs), as the sea-based leg of Russia's nuclear triad. According to some reports, in 2004, the Ministry of Defence prepared a plan of naval development up until the years 2040–50, emphasising the defence of Russia's territorial and contingent waters by projecting naval power for about 500 kilometres from the shore – an antithesis of a blue water navy equipped with aircraft carriers (*NVO* 2006). The issue

of blue water navy complete with aircraft carriers was not to be raised prominently until 2005, by which time the Russian financial situation began to improve drastically, and relations with the United States, which had seemed to have picked up after 9/11, began to deteriorate again as a result of Ukraine's 'Orange Revolution' of 2004.

On 25 March 2005, the Kuznetsov Naval Academy in St Petersburg hosted a conference on the *History, prospects of development and combat employment of aircraft carriers in the Russian Navy*. Speakers included industry executives and prominent retired admirals, who were all in favour of equipping Russian Navy with carriers. Carrier enthusiasts argued that Russia needed these ships in order to repulse attacks with cruise missiles – presumably, by the US Navy – against Russia's heartland from the Arctic and Pacific oceans. The likely cost of this undertaking met resistance from the influential finance minister Aleksei Kudrin (*KZ* 2005). On 25 August 2005, Putin, while on board the heavy missile cruiser *Peter the Great*, stated that it was time to start long-term planning (beyond 2020) for new weapon systems; he reiterated his view that the Navy was critically important for extracting resources from the seabed; and said that Navy's financing had been increased to 30 per cent of the defence budget (*kremlin.ru* 2005). Still, there was no apparent rush to build carriers. In early 2006, then Minister of Defence Sergei Ivanov said it was a bit early to discuss building aircraft carriers, although he recognised that the Russian Navy would need them. Further he explained that, until 2015, the armaments programme treated the Navy as being equally important to the strategic nuclear forces; 25 per cent of the weapons acquisition budget in the course of this programme would go to the Navy. (Of course, Ivanov neglected to mention the overlap between the budgets of the Strategic Nuclear Forces and the Navy because of the need to build new nuclear submarines carrying submarine-launched ballistic missiles [SLBMs].) The new Navy Commander-in-Chief Admiral Vladimir Masorin said at the time that no aircraft carriers would be built until 2015, and until then the shipbuilding programme would focus on smaller ships that could escort carriers (*Izvestia* 2006).

Masorin stated that the Russian Navy, given the budget constraints, could not afford any of the 'fashionable' doctrines that their Americans counterparts implemented. Instead, the Russian Navy would devise an asymmetrical strategy to deter use of force. The strategy should enable the Russian Navy to prevent a potential adversary from dominating the theatre of naval operations and guarantee unacceptable damage to the adversary. In the next ten years (until 2015), he said, the main task would be to maintain the existing ships in the state of readiness, and prepare ideas and plans for a new generation of navy ships and an adequate support and logistics system for them (*KZ* 2006). Even conceptual work on the design of aircraft carriers was reportedly not included in the 2006–15 armaments plan (*NVO* 2007a).

As oil prices climbed throughout 2007 and the first half of 2008, and relations with the West deteriorated even further, the rhetoric about aircraft carriers escalated. In May 2007, a meeting of top Navy brass and leaders of the shipbuilding industry considered

the issue of aircraft carriers. A spokesman for the Navy said that the participants believed that Russia needed carriers and that 'building a ship of this class would increase the status of Russia as a maritime power' (*KZ* 2007). Admiral Masorin commented in June 2007 that the new Russian carriers would be relatively small (50,000 tons), nuclear powered and have about 30 aircraft (fixed wing and helicopters). The beginning of their production had been originally planned for 2016/17, but may be undertaken earlier, added the admiral (*NVO* 2007b). A year later, his successor, Admiral Vladimir Vysotsky, announced that beginning in 2012/13 Russia would build 'five or six' aircraft carriers for its Northern and Pacific fleets (*Newsru.com* 2007). On 11 October 2008, then President Dmitri Medvedev visited the *Admiral Kuznetsov* carrier and confirmed that Russia indeed would build aircraft carriers, the first of which would be completed by 2013–15 (kremlin.ru 2009). In November 2008, the media reported that the shipbuilding company Sevmash in Arkhangelsk was selected to build the new carriers and its general manager was already discussing with journalists the upgrades that his shipyard would require to accommodate the construction of carriers (*Prime-Tass* 2008). But a sudden rhetorical turnaround was executed in June 2009, when Deputy Minister of Defence for Armaments Vladimir Popovkin stated that the plans to begin building aircraft carriers in 2012 would be postponed indefinitely (*GTZ.RU* 2009).

There is likely no single explanation for the blooming and withering of the enthusiasm for carriers. The most apparent reason – the rise and fall of the Russian economy – is obvious. The rapid growth of the Russian economy during Vladimir Putin's second term as president (2004–08) produced euphoria among the Russian elite. It is possible that the Russian policy-makers, schooled in finance, but not in management of manufacturing industries, failed to appreciate the enormous complexity of building aircraft carriers. They may have seen sufficient financing as the only major condition for such an undertaking. It is likely that the shipbuilding industry encouraged this kind of thinking out of an obvious self-interest, without pointing out to the political leaders that the problems of Russian industry's – an outdated capital plant and a depleted rapidly ageing work force – could not be solved in the short and even medium term simply by an infusion of money.[2] As the realities of the economic crisis set in and forced a sober survey of Russia's economy by policy-makers, the improbability of the aircraft carrier project became obvious to the Kremlin.

It appears that the Russian High Command had no real – rather than rhetorical – plans for building aircraft carriers. In various official pronouncements, the number of carriers fluctuated from 'a couple' to five 'or' six. This 'or' suggests that no plan had ever been approved. Moreover, Admiral Vysotsky, when explaining the Navy's future for the military daily *Krasnaya Zvezda* in February 2009, named as the Navy's priorities the building of SSBNs, attack submarines, multipurpose surface ships, strike and reconnaissance systems, command and control and navigation systems (*KZ* 2009). Carriers were not mentioned. This is a very traditional emphasis on ships that can defend Russia's contiguous waters, as well as on the sea-borne leg of the nuclear triad.

At his 5 June 2009 press conference, the Chief of General Staff Army General Nikolai Makarov warned that rearming the Navy would take longer than the other services because of the huge cost: a capital ship, he said, would cost as much as a fully armed division of the Ground Forces (*KV* 2009). Several days later, Deputy Minister of Defence Popovkin observed that the Russian High Command still had to decide, '[why] do we need these carrier groups? What are our strategic interests in the [distant] regions, what do we have to defend far away [from home]?' (*GTZ.RU* 2009) If the Russian leaders need proof that building carriers would be extremely difficult, the saga of overhauling and upgrading the former *Admiral Gorshkov* for the Indian Navy has definitely provided one. One July 1, 2009, Medvedev visited the Sevmash shipyard, and warned the shipbuilders that they could no longer drag out the *Gorshkov* project, which had commenced in 2004 with an initial completion date of 2008; after huge cost overruns, the completion date has been postponed to 2012–13 (kremlin.ru 2009). All of the above suggests that the discussion of aircraft carriers had no concrete plans behind it.

The discussion of carriers, however, reflected certain realities of Russian politics and economy. One was likely a carry-over from Putin's successful PR campaign of 2007–08: portraying Russia as a great power was one of its central elements. Another factor behind the aircraft carrier hullabaloo may have been purely commercial. One of the main trends of Putin's industrial policy has been the formation of giant, state-controlled industrial holdings (which include privately owned enterprises in which the government owns shares), headed by government officials close to Putin. On 21 March 2007, the Russian government created the United Shipbuilding Corporation (USC), to put under the same roof the research and development and shipyards involved in design and production of naval ships and weapon systems (*VN* 2009a). The first chairman of the USC board was the head of the administration (chief of staff) of the Cabinet of Ministers Sergei Naryshkin, appointed in September 2007 (*Newsru.com* 2009a). In May 2008, soon after Putin had moved to the post of prime minister, the USC top job went to one of the most powerful figures in Russian business and politics, Deputy Prime Minister Igor Sechin (*Newsru.com* 2009b). Sechin reportedly played the central role in the imprisonment of Russia's wealthiest man at the time, Mikhail Khodorkovsky, and has been accused of profiting immensely form the destruction of Khodorkovsky's oil company YUKOS (*Newsru.com* 2008). One of the most important holdings of the USC is the shareholder-owned Sevmash shipyard in Archangelsk. These shareholders could have profited from stories persistently leaked to the media that Sevmash had already been selected to become the prime contractor to build new aircraft carriers (*Izvestiya* 2009).

THE 'NEW LOOK' AND THE RUSSIAN NAVY

The real priorities of the Russian Navy should be viewed in the light of the latest military reform, to which the Russians refer as 'the new look' of the Armed Forces, probably because all the previous military reforms since 1991 changed virtually nothing. The

decision to seek the new look for the Russian military followed the Russo–Georgian war of August 2008, which demonstrated that the Russian Armed Forces suffered from numerous deficiencies. The essence of the 'new look' is a transformation of the hollow Soviet-type military, which would need to mobilise millions of conscripts in order to fight, into a much smaller force ready to fight on a short notice. Its structure is also to change, with divisions replaced by brigades, and operational commands (partially modelled on American combatant commands) established in conjunction with existing military districts. This is a step away from preparations to fight an all out war against NATO towards plans to be ready for regional conflicts along Russia's periphery. This realistic approach recognises that a large-scale conflict with NATO (or, for that matter, China), is highly unlikely, especially in view of Russia's nuclear arsenal.

Russian experts have had relatively little specific to say about the impact of the 'new look' on the Navy. According to Admiral Vysotskiy, the Navy's missions under the new look have not changed. They include the paramount one of strategic deterrence, plus various missions to defend Russia's interests in the contiguous seas, as well as participation in an international force sanctioned by the United Nations. The priorities in procurement, according to Vysotsky, would include SSBNs, multipurpose attack submarines, multipurpose surface ships, as well as reconnaissance, target acquisition; command, control and communications (C3); and navigation systems (*KZ* 2009). This suggests that the future Russian Navy is supposed to operate with confidence in adjacent seas and embark on selected missions further away from home, such as distant port calls and participation in international efforts against piracy, smuggling, etc.

A practical demonstration of what awaits the Navy under the 'new look' has been provided by the recent decision to operationally subordinate the Black Sea Fleet and the Caspian Flotilla to the commander of the North Caucasus military district /operational-strategic command, a Ground Forces officer. This decision was reportedly prompted by the inability of the amphibious assault ships of the Black Sea Fleet to provide support in a timely fashion to the Russian ground forces fighting Georgian troops along the Inguri River and the Kodori Gorge (*NVO* 2009a). The Northern and Baltic fleets will be similarly subordinated to the commander of the Leningrad military district / operational-strategic command, while the Pacific Fleet will be subordinated to the commander of the Far Eastern military district / operational-strategic command (*NG* 2009).

This approach is a nightmare for the proponents of a Russian blue water navy. The tension between them and the authors of the military reform was expressed in an unprecedentedly shrill article in the August 2009 issue of the *Naval Digest* authored by the retired Commander-in-Chief Admiral Kuroedov and two other Navy officers. Tellingly entitled 'We should continue to fight for the Russian Navy', the article blames the decline of the Russian Navy squarely on the domination of the military by the Ground Forces: 'The main cause of this situation is the Navy's complete dependence upon the Army's decision-making mechanism which has resulted in a low level of financing for the Navy.'

Further, the authors claim that during the Putin era the Navy received only 12 to 14 per cent of the overall military budget, a figure much lower than the 30 per cent cited in the past by Putin and Sergei Ivanov. Kuroedov et al. accuse the 'hidebound' resistance of failing to recognise the Navy's independence 'in any sphere of its current existence', which has resulted in a 'tragedy' for the Russian Navy (Kuroedov et al. 2009, 17, 19).

It appears that Minister of Defence Anatoliy Serdyukov wants to make it very difficult for the Navy to lobby for its interests in Moscow. He ordered the main staff of the Navy to move from Moscow to St Petersburg, a decision met with a howl of protest. High-ranking Navy retirees staged open protests and active duty naval officers organised leaks. Moving a government agency from Moscow to St Petersburg gets the agency in question away from the centre of power and makes it less relevant. This is what has happened to the Constitutional Court, a body whose importance in Russia is quite minimal. Moving the main staff from Moscow to St Petersburg would mean rebuilding the C3 system, reserve wartime command facilities for the Navy, etc. There is no military utility whatsoever in the move – but it certainly puts the Navy brass further away from Putin, Medvedev, and their staffs. It also frees up valuable real estate in the centre of Moscow, which the Ministry of Defence can sell, and creates new business in St Petersburg, the home of both Putin and Serdyukov.

As mentioned earlier, the most significant missions of the Russian Navy are strategic deterrence and the projection of power in the contiguous seas. The all-important strategic deterrence mission has suffered a series of setbacks. Currently (2010), the Navy is responsible for 172 submarine-launched ballistic missiles (SLBMs) and 612 nuclear warheads (deployed on 13 nuclear powered ballistic missile submarines [SSBNs]) out of the total of 634 strategic delivery platforms and 2,825 nuclear warheads of the Strategic Nuclear Forces (SNF) (*Pavel Podvig's blog* 2009). If a new arms control treaty between Russia and the United States is signed, the total number of delivery vehicles and warheads of each side will go down to 500/1,100 and 1,500/1,675 respectively; the Russian Navy's share of delivery vehicles may go up to nearly one-half, and the warheads to about one-third of the total. The future of the sea-based leg of the nuclear triad is uncertain, because of continuing failures of the Bulava R 30 SLBM. At issue is not just the solid-propellant missile itself, but also the Borey class SSBN specially built to carry it. If the Bulava has to be replaced by the existing liquid-propellant Sineva SS-N-23 SLBM, the Borey design will have to be changed to accommodate a large missile. This would be very costly, and make resources available to the general-purpose naval forces even scarcer. The cost of the sea-based leg of the strategic triad probably explains the huge discrepancy between the Navy's budget figures cited by Kuroedov (12–14 per cent of the overall military budget) and the 25–30 per cent cited by Putin and Sergei Ivanov. The Bulva SLBM and Borey class SSBN seem finally to be close to production.

Resource allocation for the Navy is a difficult process because of the conflicting priorities when it comes to Russia's four fleets and one flotilla. The geography makes

such decisions nearly a zero-sum game, since one Russian fleet cannot easily reinforce another in an emergency, and an emergency can easily arise, since three fleets (Northern, Black Sea and Pacific) and the Caspian flotilla operate in areas with a potential for border and other conflicts. The main competition for resources is likely to arise between the Northern and Black Sea fleets. The Russians have said much about the importance of the Arctic and of the Northern Fleet. The Arctic is the home of the majority of Russian SSBNs. The Northern Fleet is the least geographically constrained of all the Russian fleets, enjoying relatively easy access to the Atlantic Ocean. The economic potential of the Arctic is deemed to be very considerable: the ice-melting may lead to new possibilities for oil and gas extraction, as well as opening for regular navigation from Europe to the Far East along the northern edge of Russia. The Northern Sea Route (as the Russians call it) could favourably change Russia's strategic situation by improving the tenuous transportation link of European Russia with the Far East, as well as strengthening Russia's position as the transportation link between Europe, Asia and North America.

There is potential for conflict over Russia's claims regarding the seabed in the Arctic. However, in 2010, Norway and Russia solved a long-lasting border dispute in the Barents Sea. Reading the comments made by the Russian naval experts, one may conclude that the militarisation of the Arctic is inevitable (Yakovlev 2008, 28–37; Smolovskiy 2008, 18–21). This is hardly surprising given the self-interest of the Navy, the antagonistic views of the West that have become politically correct since the late 1990s, and the fact that the Arctic is a hiding place of the Russian strategic deterrent, the SSBNs based in the Kola peninsula (see Atland 2007, 521). At the same time, as Katarzyna Zysk observes, the Russian policy in the Arctic so far has been quite pragmatic (Zysk 2009, 106). While the Russians created enormous publicity around the stunt of putting the Russian flag on the bottom of the Arctic Ocean, they have not followed through on their rhetoric by unilaterally claiming a large sector of the Arctic. Russia is strategically isolated in the Arctic region and NATO naval forces have easy access there. While the Russians have shown a willingness to demonstrate that their Navy is 'back', avoiding direct confrontations with NATO has, so far, been as much the heritage of the Soviet era as the dream of a blue water navy.

One of the highest priorities of Russia's foreign policy under Putin has been creating an exclusive sphere of influence in the post-Soviet states (*YZ* 2009). The Black Sea region has seen the sharpest conflict resulting from Moscow's attempts to implement this policy priority. The prime example was the Russo-Georgian war of 2008, in which the Black Sea fleet saw action. The tensions between Russia and Georgia have been intertwined with the tensions between Russia and Ukraine (Russia has been incensed by Ukraine's support to Georgia), and with the fate of the Black Sea fleet that may lose its base in Sevastopol after 2017. However, Russia has now extended its lease of the Ukrainian naval base at Sevastopol until 2035. The Russians would like to keep NATO naval forces out of the Black Sea. Admiral Vysotskiy stated that 'the non-Black Sea na-

tions have no business in the Black Sea'. He emphasised naval cooperation with Turkey (which controls access to the Black Sea) and which goes hand in hand with the Kremlin's wooing of Ankara by various energy projects (*RIA Novosti* 2009a). Unlike in the Arctic, the Russians have more grounds for the hope of keeping the NATO navies (primarily the US Navy) out, thanks, in part, to various provisions of the Montreux Convention.

Russia's decision in August 2008 to recognise Abkhazia and South Ossetia guaranteed continuing tension in the Black Sea area for years, if not for decades. The temptation to use force in the Black Sea is much greater than in the Arctic, since during the Russo-Georgian war NATO's conduct demonstrated that it would not defend countries that are not its members, and also because NATO naval deployments to the Black Sea are limited, with the Montreux Convention preventing aircraft carriers of the Western nations from entering the Black Sea. Recent interceptions of Abkhazia-bound ships by Georgia, and Abkhazian threats to destroy the Georgian ships taking part in such operations, raise the spectre of a naval conflict involving Russia. The possibility of a conflict with Ukraine over the fate of Sevastopol and the Crimea cannot be completely discounted. In view of this, it is logical that the Kremlin has recently stressed the importance of building up the military infrastructure and buying new ships for the Black Sea fleet (*VN* 2009b). The neighbouring Caspian Sea is important for Russia's energy interests and for its influence both in Central Asia and the Caucasus. Thus, the southern flank may very well siphon off resources from the Northern Fleet.

An important recent development indicates the growing interests in littoral operations to support Russia's goals *vis-à-vis* other post-Soviet nations. While attending a EURONAVAL 2008 exhibition in Paris in October 2008, Admiral Vysotsky expressed open interest in purchasing a Mistral class force projection and command ship, built by the French THALES Corp (*RG* 2008). Secret negotiations with the French company began about the same time (*RG* 2009). On 24 June 2009, Admiral Vysotsky said that Russia might start buying ships abroad (*RIA Novosti* 2009b, c). Soon the media began to cite rumours of Russia negotiating a purchase of an aircraft carrier with a French company (*RIA Novosti* 2009c). In late August 2008, the Chief of the General Staff General Makarov confirmed that Russia had indeed entered into negotiations with the French company to buy a Mistral class ship, and hoped to have a contract by the end of 2009 (*Vedomosti* 2009). There is now a contract for four French Mistral class amphibious assault ships.

The Mistral class is 'all-electric ships with an overall length of 199 meters and a displacement of 21,300 tons'.

> The ... concept combines a landing helicopter dock, a floating hospital, an amphibious assault ship, troop transport and a command vessel in a single platform. ... They have a crew of 160, plus 450 troops, endurance of 45 days, and a maximum range of 11,000 nm at 15 knots.... It can carry up to 16 heavy

> helicopters and one-third of a mechanized regiment, plus two ... hovercraft or four ... landing craft. A high-performance communications suite makes the Mistral ideal as a command vessel. The 750 sq.m. hospital features two operating theatres and offers 69 beds. If additional hospital/medevac space is required, the hangar can be converted into a modular field hospital. (GlobalSecurity.org, nd)

Thus, a Mistral-class ship is a potent asset for operations in the post-Soviet space, enabling Russia to carry out amphibious landings and serving as an instrument of psychological pressure: this ship is large, and with its ability to project power on land, any small country would feel threatened if such a Russian ship carrying naval infantry, tanks and helicopters appeared in its vicinity during a crisis in relations with Russia. Moreover, it could do something the Russian politicians craved in vain during the Kosovo war: send a visible signal of Russia's strong displeasure with NATO while reminding it of its ability and willingness to help its friends.

The biggest question concerning the future of the Russian Navy is the condition of the Russian shipbuilding and manufacturing industry in general. According to a Russian expert, the Navy has received only four new ships since the year 2000. It can count on buying, in the foreseeable future, one nuclear attack submarine (the *Severodvinsk*, a Yasen class, project 855); three diesel submarines (the Lada class, project 677); and three corvettes (the Steregushchiy class, project 20380). (This forecast excludes SSBNs.) It has taken nearly ten years to get the *St Petersburg*, the first of the Lada class submarines, to the stage of testing. It took seven years to get the first ship of the Steregushchiy class into service (*NVO* 2009b; *arms-expo.ru* 2009; *submarine.id.ru* 2009). Such a slow rate, not least in a time of increasing defence budgets, suggests serious problems in the shipbuilding industry. Judging from the plans to import the Mistral class ship, the Russian naval command has apparently become quite sceptical about the ability of the Russian defence industry to provide them with all the ships they need.

The condition of the Russian shipbuilding industry, both civilian and naval, leaves much to be desired, but is outside the scope of this paper. Still, some facts need to be mentioned. The Maritime Council concluded recently that 'the shipbuilding industry currently cannot effectively fulfil all the strategic tasks set by the government' (*morskaya-kollegiya.ru* 2009b). Russian shipbuilding exists mostly thanks to Navy orders – more than 70 per cent of its contracts are with the Ministry of Defence (Rumantsev 2009). This has not made the industry as a whole competitive: indeed, the habit of working for the Navy has made the industry unable to control costs (*government.ru* 2009). The formation of the USC so far has not changed the situation for naval shipbuilding. One of the few good, recent results of the Russian shipbuilding industry, the diesel-electric icebreaker *St Petersburg*, was built at the St Petersburg Baltiysky Zavod shipyard by the United Industrial Corporation, and not by the USC (*foxbusiness.com* 2009).

Without attempting a detailed discussion of the subject, I would like to note that the

Russian defence industry as a whole is stuck in transition from the command economy to the market economy. Until this transition is complete, the defence industry will not be a reliable provider of new weapons for the Russian military. The Russian manufacturing industry in general, including the defence industry, suffers from many problems. According to Sergei Chemezov, the general director of the state corporation Rostekhnologii, about 70 per cent of the main equipment of the Russian machine building (including shipbuilding) industry is 20 years old or even older. Only 5 per cent of the machine tools are five years old or younger. 'The defence industry suffers badly because Russia has fallen behind in computer technology', observed Chemezov (*NVO* 2007c). The current economic crisis has hit the defence industry hard: in January 2009 about one-third of defence industry companies were in danger of bankruptcy (*gazeta.ru* 2009). After years of talk about building unmanned aerial vehicles, Russia had to begin importing them from Israel. Now it is about to import Mistral class ships from France, thus spelling an end to Russia's dream of being an autarkic, totally self-sufficient military power. The Russian defence industry is not dead by any means, but Russia is no longer an autarkic defence industrial power. Its ability to arm itself will depend on cooperation with other nations and imports. This would obviously have a major impact on such complex weapon systems as modern surface and subsurface navy ships, and on Russia's ability to conduct a foreign policy independent of the influence of the major industrial powers.

CONCLUSION

The ultimate challenge of understanding the Russian Navy lies not in the capabilities of the Russian shipyards or in plans drawn up by the Main Naval Staff and redrawn by the General Staff. Measuring strength and weakness in conventional terms is a less reliable forecasting instrument than in the recent past. The rapidly and unpredictable changing international scene can provide unexpected leverage to the weaker actors and paralyse the stronger ones. While the Russian Navy is not likely to project its power in a meaningful way over the world's oceans in the foreseeable future, it will be able to serve as an instrument for gaining influence *vis-à-vis* Russia's smaller and weaker neighbours and for defending the maritime approaches to Russia proper. Therefore we cannot rule out the possibility of further naval or combined operations employing the Navy as one arm of the operating forces on Russia's peripheries. Many of Russia's smaller neighbours depend to a considerable degree on the ability of the United States and other NATO members to project power around the periphery of Eurasia to ensure their stability and security.

On the other hand, continuing high energy prices, increased naval budgets and global warming would seem to strengthen Russia's geostrategic position as a link-nation between Asia, Europe and North America. It does not solve its problem with the geographical location of its different fleets, but may enable Russia to deploy naval units more rapidly from European Russia to the Far East. The Far East is of great importance for Russia with its rich fisheries, energy reserves and transportation links to the huge Asian

markets. This fact, combined with the increased importance of Asia in world politics and the unsolved territorial dispute with Japan over the Kurile Islands, makes it probable that the Russian Navy will pay greater attention to the Far East and that at least one of the new *Mistral* class amphibious assault ships will have the Far East as its home base.

NOTES

1 This is a revised version of the paper delivered at the 2009 Seapower Symposium and subsequently published in Blank and Weitz (2010).

2 For details on the situation in the manufacturing sector, see the interview with the director of Rostekhnologii state-owned corporation Sergei Chemezov, see *NVO* (2007c).

Maritime developments in Asia: implications for Norway

Øystein Tunsjø[1]

The shift of the economic centre of gravity towards Asia, the rise of China and India and the primary focus of US security on developments in Asia are testament to the emergence of an Asia-centred world. Changes in the distribution of capabilities within the international system are fuelling a transition towards a bipolar system concentrated on US–China relations. The possible effect of these geopolitical changes on the transatlantic relationship, NATO and Norwegian defence and security policy[2] will be examined.

The wider transformation process taking place in Asia has broader implications, also for a geographically remote country like Norway. This will probably be the case regardless of whether the rising powers in Asia succeed in their economic, political and military ambitions and whether great power cooperation can be promoted and conflicts of interest managed. A number of direct and indirect consequences for Norway as a coastal state with strong maritime interests, not least sovereignty disputes at sea and growing concerns about safeguarding SLOCs will be considered.

NORWAY IN AN ASIA-CENTRED WORLD

Economic, political and military power is becoming increasingly concentrated in Asia. The US, Norway's closest and most important ally, is redeploying military forces from Europe to East Asia. In light of the growing US debt burden, it is worth pondering whether it has the means to maintain a global military presence. The lack of money and resources will force the US to examine its commitments and priorities. The Asia-Pacific Region and the Middle East are likely to figure among the top priorities (DoD 2012).

US defence budgets allocate funding for US carrier and submarine presence in East Asian waters and improving the forward presence of American air power in the region

(Pentagon 2011; O'Rourke 2011; Ross 2004, 267–304, 280–280). Over the last two decades, several US defence posture reviews have mandated Pacific base increases and European drawdowns. and US bases in Asia have been expanded and modernised (DoD 2006, 2010a, 2012).[3] In 2007, for the first time in 60 years, more ships were based in the Pacific than in the Atlantic. Two-thirds of the US Navy used to be located on the East coast and deployed in the Atlantic, but about two-thirds are now located on the West coast and operate in the Pacific. Newly commissioned ships are largely deployed to Asian waters.[4]

One important development in this re-alignment is the US response to more assertive Chinese behaviour (Ross 2012). Pursuing a 'push back' strategy, the US is consolidating alliances in Asia, engaging in closer military cooperation with countries in Southeast Asia and conducting a more active and provocative diplomacy on sensitive questions related to Taiwan, Tibet and the South China Sea (Christensen 2011). In July 2010, three nuclear powered cruise missiles submarines appeared simultaneously at Pusan, South Korea (USS *Michigan*), Subic Bay in the Philippines (USS *Ohio*) and at the strategic Indian Ocean outpost of Diego Garcia (USS *Florida*) in a show of force not seen since the Cold War (*GT* 2010).

While very few people remember the last time an American carrier battle group visited or held exercises in the North Atlantic, three US carrier battle groups were deployed to East Asia following the North Korean shelling of a South Korean island in November 2010. The point here is not to sound alarmist, but to illustrate shifting US priorities and other developments that will shape Norwegian defence and security policy (Tunsjø 2011b).

Geopolitical changes and the fact that China is the only great power demonstrably capable of challenging US power preponderance mean that US military presence in Asia will be a priority of US strategists. Nevertheless, by continuing to emphasise sea power the US retains the flexibility to direct naval power to Norwegian waters and provide assistance to Norway in a wartime contingency. US allies – Norway in particular – have shown an ability to adapt to new circumstances by facilitating, upgrading and sharing much of the costs of accommodating flexible US response units. Norway maintains prepositioned war reserve equipment for US expeditionary Marine Corps, and Norway can be of strategic value if the US looks to expanding its forward military presence in the Arctic in the future. The US will maintain its position as the leading global power for the foreseeable future and will most likely continue to help preserve a benign security environment in Europe while offsetting any great power aggression or regional hegemonic ambitions in Europe.

It would be premature to conclude that Europe is history. The US has always been both an Atlantic and a Pacific power and is still committed to NATO and Europe through institutional ties, shared history, democratic values and cultural factors. Peace and stability in Europe, largely promoted by NATO and the EU along with US presence in Europe,

are essential to the US objective of preventing a two-front situation while it focuses on the rise of China (Tunsjø 2011a).

While it is also important to remember that tension and disagreement in transatlantic relations are nothing new, the crucial difference, which comes in addition to the disappearance of the Soviet Union and lack of a new common threat as a rationale for NATO's collective defence, is China's rise as a peer competitor. Creating a balance against China is not a priority in Europe, but then China does not represent the same threat to European powers as it does to the US.

In addition to geopolitical changes and the coming of a bipolar system concentrated on US–China relations, US domestic factors reinforce a shift in US diplomatic and political priorities. Ethnic, generational, demographic and educational factors could weaken transatlantic ties. Many US decision-makers are no longer predominantly concerned with Europe. As Richard Haass, president of the Council of Foreign Relations, forcefully argues,

> intimate ties across the Atlantic were forged at a time when American political and economic power was largely in the hands of Northeastern elites, many of whom traced their ancestry to Europe and who were most interested in developments there. Today's United States – featuring the rise of the South and the West, along with an increasing percentage of Americans who trace their roots to Africa, Latin America or Asia – could hardly be more different. American and European preferences will increasingly diverge as a result. (*WP* 2011)

The proportion of US citizens of European origin is in relative decline in the US; Asian and other minorities represent a growing fraction of students at US universities and colleges and more than 100,000 exchange students in the US are from China and India. Europeans have not invested very much on developing expertise in Chinese military and security affairs and are less relevant as partners on issues to do with security in Asia.

Given its preoccupation with China's rise and an Asia-centred world, the US will seek to consolidate ties with Asian allies and partners. The first foreign leader to be welcomed to the White House by the newly installed President Obama was the prime minister of Japan. For the first time in nearly 50 years, the first foreign trip by an American secretary of state in a new administration was to Asia, starting in Japan. In 2009, Obama shelved his plans to attend celebrations marking the twentieth anniversary of the fall of the Berlin Wall on 9 November. He travelled instead to Tokyo where he stated on 14 November 2009, 'there must be no doubt: as America's first Pacific president, I promise you that this Pacific nation will strengthen and sustain our leadership in this vitally important part of the world' (*FT* 2009). With President Obama adopting an 'Asia first' approach, there is little wonder that he has been characterised as the first 'post-Atlanticist President' (*New York Times* 2010).

Accordingly, a 'new division of labour' and allocation of tasks, responsibilities and duties within NATO could be one way of preserving strong ties across the Atlantic in the face of new challenges to transatlantic relations from diverging threat perceptions and an Asia-centred world (Tunsjø 2011c; Deudney et al. 2011). Norway's participation in Operation Unified Protector in Libya is an important example of this new division of labour in a more Asia-centred world.

Norway's participation in the Libya mission demonstrated how a small country and close ally of the US can complement US strategic and political objectives, while simultaneously pursuing its own interests and preserving NATO's relevance in the new global environment. Norway's participation in out-of-area operations and the new division of labour can ensure that bilateral ties with the US remain strong. This new division of labour offers Europe an opportunity to avoid traditionally destructive 'high politics' and conflicts in Asia, while simultaneously promote its neighbourhood policy, take more responsibility for Europe's defence and stability and consolidate and revitalize the EU.

NATO's emphasis on partnership could also help fashion this new division of labour.[5] For example, SLOC protection operations by NATO and Norway's involvement in counter-piracy missions in the Gulf of Aden provide opportunities for Norway to promote and contribute to a global partnership, which again could complement US strategy in an Asia-centred world, enhance the relevance of NATO and be conducive to Norwegian defence and security interests. Nonetheless, it remains to be seen whether NATO will be able to develop a comprehensive and effective partnership with Asian powers.

The financial predicament in which many European states find themselves, one that threatens to undermine the entire EU, needs to be resolved before European powers can take steps to shape great power politics, and promote their interests and the new division of labour that complements US strategies and priorities in an Asia-centred world. Indeed, there is little evidence today of any willingness or ability among NATO and EU members to spend more on defence and contribute more to out-of-area operations in ways that would relieve the US from the burden of tackling non-traditional security challenges. Even Norway, which is in a much better economic position than most of the other European states, could only afford to maintain its 2009 deployment of a frigate to the Gulf of Aden for six months.

NORWAY AND MARITIME DEVELOPMENTS IN ASIA

Sovereignty disputes at sea

There are numerous disputes over sovereignty of Asian waters and territory. According to Statoil's office in Beijing, Norwegian petroleum and offshore companies are well positioned to compete for exploration contracts whenever delineation issues are resolved in the South China Sea.[6] If the parties to the code of conduct originally drafted in 2002 after a series of incidents in the South China Sea agreed to abide by it and addressed outstanding legal issues preventing or complicating commercial activity in the contested

areas, foreign oil and gas companies would have an opportunity to explore and develop offshore energy reserves in the region.[7]

The multiple disputes in the South China Sea have unleashed strong statements and displays of naval strength with implications for Norwegian interests. In the middle of the escalating conflict in the summer of 2011, the Norwegian seismic survey ship *Viking 2*, chartered by the state oil and gas company Petro Vietnam, was deliberately rammed by a Chinese fishing boat, according to the Vietnamese foreign ministry.[8] The ship, manned by six Norwegians, was conducting a seismic survey inside Vietnam's 200 nm EEZ (*Straits Times* 2011). Speaking later to a Norwegian newspaper, the captain downplayed the dramatic headlines. The ship had been operating in international waters, outside Vietnam's EEZ, when the incident occurred. These things happen, he said, and was determined to get out to sea again after a few days in dock for repairs (*Aftenposten* 2011). His version was disputed by the Vietnamese government, however, which insisted the incident had indeed taken place inside its EEZ, further fuelling tensions between Vietnam and China.

Responding to the incident and China's display of its naval strength in the South China Sea, Vietnam conducted a live-fire exercise off its coastal waters. Following the PLA's military exercises off Hainan, which included beach landing drills to retake a seized island, the Philippines government decided to send its flagship BRP *Raja Humabon* to the Scarborough Shoal (*South China Morning Post* 2011). Maritime conflicts continued in 2012, especially in the Scarborough Shoal and the East China Sea. While neither the Norwegian seismic survey ship nor its crew were injured or arrested, the incident off the Vietnamese coast demonstrates how Norway and in particular its maritime and offshore commercial interests are directly affected by maritime disputes in Asia.

The Asia-Pacific is the region with the fastest growing defence budgets, averaging 8.9 per cent p.a. (SIPRI 2010). China has had double digit growth in defence spending for about two decades; its military and naval build up and ambitions for sea power are fuelling tensions among its neighbours and causing geopolitical friction worldwide. Military budgets in Vietnam, South Korea and the Philippines rose sharply recently (*Diplomat* 2011; *Defence Talk* 2010; *Jane's Defence Weekly* 2010); India's defence budgets are increasing; Japan changed its defence posture to highlight China's military modernisation as a rising threat (*kantei.go.jp* 2010a; b); and the Australian government has put forward a more alarmist regional defence review (DoDA 2009, 16, 28–29; *Australian* 2011). The US has a strong forward military presence in the region.

All this suggests continuing tensions, a new arms race and and a mounting potential for conflict, all of which can have implications for Norwegian foreign policy and maritime interests. Looking back 60 odd years, two of the major implications of the 1950–53 Korean War were the cementing of transatlantic relations and "adding the O" to NATO. If a conflict were to erupt in Korea, the Taiwan Strait or the South China Sea today, would it reinforce and revitalise transatlantic relations? Different European and US threat per-

ceptions and strategies for dealing with China's rise suggest that another conflict in East Asia would probably constrain and weaken transatlantic ties instead.

Norwegian interests, and especially maritime commercial interests, are not only affected *directly* by increased tension and conflict in Asian waters or the management of legal claims at sea, but sovereignty and territorial disputes can have *indirect* implications. The degree to which coastal states will continue to respect the full navigational freedoms associated with the high sea within their EEZs is not entirely clear. Around 25 states out of the 157 member states of UNCLOS have already enacted limitations within their EEZ that interfere with the navigational rights and freedoms of other states, and this group is growing (Rothwell and Stephens 2010, 155). As Chinese legal experts contend, the traditional freedoms of the sea have been greatly reduced and coastal state jurisdiction enhanced by extending the contiguous zone from 12 to 24 nautical miles; by expanding territorial waters from three to 12 nautical miles; by clarifying and extending the continental shelf seaward; and by the emergence of the concept of the EEZ (Jilu and Haiwen 2012).

It is 'no longer possible', Wu and Zhang therefore maintain, 'to insist that the principle of freedom of the seas remains the same as it had for more than a hundred years.' The drafters of UNCLOS consciously avoided negotiating the rules applicable to military activity carried out in the EEZ. Nonetheless, Wu and Zhang argue, the new legal regime challenges the view of military activities as falling under the 'freedom of the seas' (Wu and Zhang 2012).[9] It is important to note that China's stand on this issue reflects a degree of contradiction, since China undertakes incursion and surveillance in areas of Japan's EEZ that are not disputed by China (Cole 2010, 41; Valencia 2011).

While China's claims about territorial waters and extended jurisdiction are supported only by a minority of UNCLOS member states, other legal experts claim that if China were to gain support for its view and freedoms to undertake military activities in foreign EEZ were limited, global economic development could suffer and the safety of the world's merchant fleet put at risk. As Dutton has argued, the attempt to create a regional exception must be that law applies everywhere, or not at all. Close to 40 per cent of the world's oceans are covered by EEZs. Accordingly, 'just as the lack of effective governance on land results in the disruptive spill-over effects of failed states on their neighbors, so too at sea would a removal of international authority to provide order result in maritime zones of instability' (Dutton 2012). Such conditions would neither serve Norway's security interests nor the commercial interests of the Norwegian merchant fleet, one of the largest in the world, which relies on safe sea routes for the continued operation of its business around the world.

At the same time, rising naval powers have in the past changed their position on the issue of freedom of navigation for military purposes as they grew more dependent on the global connections provided by the seas and more capable in protecting their global interests at sea. When conflict broke out in Libya in 2011, China decided to send the

missile frigate *Xuzhou*, on counter-piracy missions in the Arabian Sea and the Gulf of Aden, through the Suez Canal. It arrived off the Libyan coast on 2 March in one of the PLA's first deployments to the Mediterranean to assist, facilitate and provide security for the evacuation of more than 35,000 Chinese workers based in Libya by commercial ferries and ships (Xinhua 2011e; *China SignPost* 2011). While this operation is not directly comparable to US military exercises or intelligence gathering in China's EEZ, it shows how China's more global interests need to be protected by military means and freedom of navigation for military purposes inside a country's EEZ and territorial waters. Such actions would signal a watering down of China's stand on national sovereignty.

Another indirect implication for Norway of maritime sovereignty disputes in Asia is that the law of the sea and its conventions, on which Norwegian interests depend, are not static or given, but changing and evolving. Norway does not take issue regarding sovereignty disputes in Asia, such as those in the South China Sea. Legal experts at the Norwegian MFA refuse to comment on the disputes and advise the Government to act accordingly.[10] For example, no official response emanated from the Norwegian Government or MFA to the June 2011 *Viking 2* incident.

Nonetheless, there remain some unresolved maritime disputes in the Arctic where Norway also has strong commercial and security interests (Jensen 2009, 406–424; Hobér 2012). Nor have questions relating to the regulation of access to many of the waterways in the Arctic, such as the Northwest Passage and the Northeast Passage or the right to extract resources from the seabed in parts of the Arctic, been settled. It is not clear whether freedom of navigation in the Arctic will be upheld within EEZs, and there is already a tendency towards creeping jurisdiction in which coastal states are claiming stronger control. As pointed out, a Chinese or an Asian exception to accepted rules of international law could undermine laws guaranteeing freedom of navigation everywhere.

China could end up supporting coastal states in the Arctic that impose restrictions within their EEZs, for example, through the practice of staying silent and accepting rules, regulations and regimes enforced in waters and sea lanes defined by Russia, for example, as internal waters (Weltan 2011).[11] China's own sovereignty and jurisdictional claims in the South China Sea are likely to remain China's primary considerations. China faces a traditional challenge, shared by other coastal states and maritime nations such as Norway, of balancing expanding jurisdictional waters and developing the natural resources in those waters, on the one hand and the desire of major maritime powers to uphold the principle of the freedom of the seas everywhere, on the other. Both China and Norway, although for various reasons,[12] have ended up in practical terms in support of Russia's claims to territorial waters, contrary in part to their own maritime interests and to the preservation of the principle of the freedom of navigation at sea.

Finally, in a long-term perspective, the new SLOCs which are opening up in the Arctic will allow Norway to benefit from a more Asia-centred world and maritime developments in Asia. As Europe and Asia literarily melt together in the future, this could have

commercial, environmental, strategic and military implications for Norway, although the long-term consequences remain uncertain.

Safeguarding SLOCs

Piracy, hijacking and robbery constitute a larger risk to shipping, driving up insurance rates on vessels passing through shipping lanes known to piracy attacks and hijacking. Piracy costs the world economy an estimated USD 7–12 billion per year (*MarineLog* 2011).[13] Safeguarding SLOCs in Asia has recently become one of the operational tasks of the Norwegian Royal Navy. Norway deployed a frigate to the Gulf of Aden to combat piracy in 2009. It operated alongside several other navies from Asia. Norway will send a new frigate to the same area in 2013.

There is not enough space to discuss here whether state-of-the-art surface ships should be used for constabulary tasks. Nonetheless, such out-of-area operations could complement the US strategic pivot to the Asia-Pacific Region, facilitate a division of labour in transatlantic relations, enhance the relevance of NATO and protect Norway's commercial and security interests. They could also provide a platform from which to pursue and refine NATO's partnership ambitions. It would demonstrate NATO's flexibility and capacity to deal with traditional and non-traditional security challenges in the twenty-first century, regionally and globally.

Piracy attacks in Southeast Asia have fallen off dramatically in the past few years, largely thanks to national, bilateral and multilateral measures (Ho 2009a; b).[14] The littoral states of Indonesia, Malaysia, Singapore and Thailand have all taken measures to address the issues of piracy and robbery. They include more naval and coast guard patrols, better surveillance, coordinated patrols by littoral states, capacity building, training, technical assistance, more contact between command centres and the shipping community and a focus on improving people's living standards and welfare in areas bordering the key sea lanes (Ho 2009b).

A multilateral framework has been established under the Regional Cooperation Agreement on Combating Piracy and Armed Robbery Against Ships in Asia (ReCAAP). Seventeen countries are contracting parties to ReCAAP and Norway was the first non-regional country to join this multilateral effort. The important steps taken to deal with piracy activity in Southeast Asia show that it is possible to manage and limit the risk of piracy. Although Norway's role has been limited compared to that of the littoral states, Norway has contributed to and enhanced cooperation in the fight against piracy in maritime Asia, conducive to Norwegian interests.

Many writers have pointed to the differences between Somali and Southeast Asian piracy (Raymond 2012; Bateman and Ho 2008). The most important difference is the lawlessness on land in Somalia and the inability of the Somali government to respond, which encourages the pirates. Few Southeast Asian states are similarly affected, and there are very few places, if any, where pirates can take and hold a large vessel and its crew for ransom and prevent its recovery.

Arming merchant ships at sea

Efforts to curb piracy off the coast of Somalia and in the Gulf of Aden were initially not successful. Several shipping companies and governments have therefore concluded that arming ships is necessary in order to fight piracy. However, under the Norwegian rules and regulations, guards on ships will be armed security personnel hired in from the private sector, not personnel from the Norwegian military. Of course, these security companies prefer to hire former military personnel, including ex-Special Forces officers. Nevertheless, letting shipping companies hire armed private security guards is contrary to a widely held principle in Norway, say the critics, whereby only the police and the military are entitled to bear arms. Contemporary piracy in Asian waters has therefore changed the tradition of not arming commercial ships at sea. Governments have long been urged not to let shipping companies hire private armed guards and the laws of many nations have indeed prevented vessels from carrying weapons.[15]

Nonetheless, as of July 2011, Norwegian shipping companies could ask the government for permission to arm their ships. In their submissions they must present a risk assessment, details on the training, qualifications, recruitment of personnel, and explain how the ship is going to store and use the weapons on board (*Dagsavisen* 2011). Flag state jurisdiction and any laws and regulations imposed by the flag state concerning the use of military guards and private security companies will apply to shipping companies with armed vessels. However, most port authorities refuse weapon-bearing vessels entry, and getting every country to change their regulations would be difficult. And since commercial vessels often stop in a dozen countries during a voyage, even one 'uncooperative' authority would make it hard for them to carry weapons. Coming up with a common international standard will therefore be difficult, because so many countries are involved (*New York Times* 2009).

The decision to arm ships could also lead to an arms race with the pirates and to more violent attacks, possibly risking the lives of ships' crews. It would increase the risk of accidents to ship or cargo, such as a fire resulting of a shoot-out with pirates. Roughly 1,000 Norwegian-owned ships sail through the Gulf of Aden each year, half of which fly the Norwegian flag and it is estimated that between 250 and 300 Norwegians are on board ships in the Indian Ocean every day. If confrontations with pirates escalate, Norwegian ships and Norwegians on board them may face an even greater risk.

Conversely, arming ships has so far proved successful and few ships with armed guards have been hijacked. In addition, the constabulary forces and escort missions have made substantial progress in 2011 and 2012 in curbing piracy attacks. Difficult legal issues and humanitarian considerations remain, however. The ships and the private security companies operating under both Norwegian and international law are obliged to assist wounded pirates and pirate vessels in distress in the event of a failed attack and shoot-out. Several pertinent questions need answers. If the pirates surrender and are captured alive, for instance, what are the obligations of the shipping companies, their ships and the private security companies to bring the pirates to justice, and how is this

going to happen in practice? Where will they be taken? Will the pirates be kept on the ship for weeks or months on end, before being handed over – and to whom? Weapons on ships could possibly be used in terrorist attacks. While Norwegian authorities may enforce strict and transparent rules and regulations, who will control the military guards or private security companies on ships from countries like Iran, Pakistan, North Korea and so forth?

Many countries might be tempted to use military guards and ex-military officers equipped with sophisticated military technology on the thousands of ships from various states plying the critical sea lanes around the world to gather intelligence or undertake covert operations.[16] While the idea is to carry armed guards in seas known for piracy, such as the Gulf of Aden, Southeast Asia and off Nigeria, how and when will the military guards and private operators disembark from the ships? If ships operating in piracy-prone waters in Asia carry military guards, Asian countries may want to do the same in the Mediterranean and even the Atlantic. Asian ships transit Norwegian ports daily and it might be worthwhile to think about the implications if these vessels carried armed military guards.

CONCLUSION

What happens in Asia on the maritime front is of geopolitical, commercial, strategic, military and legal importance to Norway. The re-emergence of great powers in Asia and relocation of power from the West to the East mark the transition towards an Asia-centred world. One of the most important of these geopolitical changes in contemporary international affairs is China's and India's respective drives to become major sea powers. Their quest for sea power strains their mutual relations, while making the US and Japan even more determined to preserve their supremacy at sea. How this unfolds will determine the peace, stability and prosperity of Asia, with consequences of great importance to Europe, transatlantic relations, NATO and Norway.

As the US grows increasingly occupied with security issues in Asia, Norway and NATO may be forced to share more of the burden for defence, security and stability in Europe and in Europe's neighbourhood (the Arctic, Eastern Europe, the Near East and North Africa), instead of seeking to play a role in the great power politics of Asia. If European states can respond effectively to new security challenges in their own neighbourhood, it may be possible to preserve a benign European security environment, safeguard European interests, retain strong transatlantic ties and Europe's relevance in an Asia-centred multipolar system and a new world order. However, it remains to be seen whether European powers are willing and capable to engineer this new division of labour in transatlantic ties.

Norwegian shipping and offshore interests are directly affected by maritime security in Asia. Territorial disputes in Asia could affect the Law of the Sea and its conventions and the development of a legal regime for the Arctic region. Different interpretations of

the law of the sea by the governments of, i.e. China, Russia and the US, will also affect Norway. Relations between great powers at sea are also affected. This was illustrated by the arming of merchant ships at sea, which had an immediate effect on Norway's maritime interests and broader security considerations.

Norwegian maritime interests will always be susceptible to the evolving situation in Asia, and Norway needs to join others to ensure order at sea. Reconciling governments or parties at odds with each other is one way of safeguarding Norwegian interests. That will require joint ventures and partnerships with traditional allies and Asian naval powers, to protect SLOCs and promote rules of engagement at sea. This could prevent great power rivalry from undermining stability and order at sea, facilitate a new division of labour in NATO and transatlantic relations, and ensure NATO's continued relevance despite Washington's preoccupation with Asian power politics and rivalry.

NOTES

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2 The Norwegian Government has issued a growing number of reports addressing geopolitical shifts and a more Asia-centred world. See MFAN (2009); MoDN (2008). For a debate on these reports see *Dagsavisen* (2007a; b); *Dagbladet* (2008a; b). Some researchers have examined ways in which the West and NATO could adjust to a more Asia-centred world while maintaining a robust alliance across the Atlantic. See Tunsjø (2008, 2011a; b; c), Deudney et al. (2011).

3 The 2010 Quadrennial Defense Review was criticised by the Quadrennial Defense Review Independent Panel. 'The absence of a clear force-planning construction in the 2010 QDR', the panel wrote in its final report, 'represents a missed opportunity'. It called for an expansion of the force structure in the Asia-Pacific, depicting the rooting of the structure in a maritime strategy to be essential (QDR Independent Panel 2010, xii–xiii). According to the US Navy's maritime strategy, October 2007, '[c]redible combat power will be continuously postured in the Western Pacific and Arabian Gulf/Indian Ocean' (US Navy 2007). See also US National Defense Strategy (NDS), June 2008 and May 2010 (DoD 2008; 2010b).

4 The US Navy had deployed 31 of 53 its nuclear attack submarines in the Pacific by the end of 2009. See Kan and Niksch (2010).

5 On the importance of partnership see Edström et al. (2011); NATO (2010, 8–10).

6 Interview with Statoil representative, Beijing, August 2009. Statoil, in partnership with British Petroleum, was involved in a major petroleum project in Vietnam in the 1990s. It terminated in 2001–2002.

7 For the declaration text, see *aseansec.org* (2009).

8 Norway has had close contact with Petro Vietnam since the early 1970s through development aid programmes for Vietnam.

9 Restrictions are based on the lack of legal definition of the terms 'military activities', 'the use of the seas for military purposes' and 'navigation'.

10 Two aspects are important in the opinion of the MFA. 1) The government should not take part in these international disputes simply out of consideration for Norway's commercial interests. For example, an official protest in the aftermath of the *Viking 2* incident could have hurt Norwegian businesses operating in China. 2) There is an underlying attitude, based on lessons learned during the Cold War and from working on the law of the sea, that Norway should keep a low profile on law of the sea issues that do not directly affect Norwegian interests. Instead, Norway should promote its interests and pursue its objectives through the appropriate institutions and diplomatic channels.

11 Several Chinese energy and maritime law experts have expressed apprehension in discussions with the author in Beijing and Oslo about Russian behaviour in the Arctic and restrictions within its EEZ during.

12 With the signing of the maritime delimitation treaty regulating the border between Norway and Russia in the Barents Sea with Russia, Norway has settled its sovereignty disputes at sea in the Arctic. For the Joint Statement issued at the time, see *regjeringen.no* (2010). Oslo is reluctant to challenge Russia's interpretation of its internal

waters and restrictions on freedom of navigation because of the importance of maintaining good relations with Russia on issues like the Spitsbergen Treaty, petroleum resources, fishing rights and the need to maintain a benign security environment in the High North.

13 The International Maritime Bureau set up a Piracy Reporting Centre in 2009 (see *icc-ccs.org* 2009).

14 It has been pointed out by some experts that the 2004 tsunami that hit Indonesia and islands in the Indian Ocean in December 2004 probably eliminated several pirate groups, including their supply lines and infrastructure.

15 Historically, one of the reasons for this has been the fear that weapons on board ships could be used by mutineers. In recent times, it has been out of concern about liability and for the safety of sailors, although many captains probably continue to carry weapons on board their ships.

16 Of course, intelligence agencies are not likely to have military guards on merchant ships as their preferred option for intelligence gathering. As one PLA expert pointed out in conversation with the author, the PLA and the CCP would be more concerned about control and command issues. Instead of focusing on potential benefits of using merchant ships to gather intelligence, the PLA and the CCP would probably be anxious over their inability to control of PLA military guards on merchant ships in the event of a crisis or shoot-out, which could backfire on China's broader national interests. Nonetheless, if governments do let merchant vessels carry military guards, they will have more options and greater opportunity to make their presence felt in more distant waters, where their military forces do not normally operate.

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