Rethinking Naval Arms Control

Robert Dalsjö, Johan Tunberger and Lars Wedin

FOI-R--5184--SE

October 2021

FOI

Robert Dalsjö, Johan Tunberger and Lars Wedin

Rethinking Naval Arms Control

Title	Rethinking Naval Arms Control
Report no	FOI-R--5184--SE
Month	October
Year	2021
Pages	45
ISSN	1650-1942
Client	Swedish Ministry of Foreign Affairs
Forskningsområde	Säkerhetspolitik
FoT-område	Inget FoT-område
Project no	B12528
Approved by	Malek Khan
Ansvarig avdelning	Försvarsanalys

Cover: The amphibious assault ship USS Bataan (LHD 5) and the dry cargo and ammunition ship USNS William McLain (T-AKE 12) transit the Suez Canal, June 15, 2020. Photo: U.S. Marine Corps photo by Staff Sgt. Patricia A. Morris/Released.

Detta verk är skyddat enligt lagen (1960:729) om upphovsrätt till litterära och konstnärliga verk, vilket bl.a. innebär att citering är tillåten i enlighet med vad som anges i 22 § i nämnd lag. För att använda verket på ett sätt som inte medges direkt av svensk lag krävs särskild överenskommelse.

This work is protected by the Swedish Act on Copyright in Literary and Artistic Works (1960:729). Citation is permitted in accordance with article 22 in said act. Any form of use that goes beyond what is permitted by Swedish copyright law, requires the written permission of FOI.

Sammanfattning

I denna återpublicerade studie från 1992 analyseras för- och nackdelar med olika typer av marina rustningskontrollåtgärder, inklusive möjliga strategiska konsekvenser av olika förslag. Därtill utforskas alternativa ansatser för att stärka säkerheten till sjöss. Genom en inventering av föreslagna marina rustningskontrollåtgärder identifierar författarna en rad fallgropar. Dessa faller i huvudsak tillbaka på de betydande konceptuella och verifikationsmässiga problem som uppstår vid försöken att applicera rustningskontrollåtgärder utarbetade för markområdet på det marina området.

För att utarbeta realistiska åtgärder behöver således marin rustningskontroll studeras utifrån sina egna förutsättningar. Ur ett sådant perspektiv framhåller studien att en rad befintliga regler och överenskommelser kan vidareutvecklas för att främja samarbete, minska risker, förebygga incidenter och de-eskalera uppseglande konflikter. En sådan mer pragmatisk ansats utgör ett mer framkomligt sätt att stärka maritim säkerhet än ett övergripande rustningskontrollramverk som kräver långa och politiserade förhandlingar och som bär med sig osäkra strategiska följder.

Nyckelord: Marin rustningskontroll, förtroendeskapande åtgärder, strategisk, marinstridskrafter, marina övningar, incidenter, riskreducering, kontakter och samarbete.

Summary

This study, originally conducted in 1992 and now republished, analyses pros and cons of various types of naval arms control, including the inherent problems and possible strategic ramifications of various proposals. It further explores alternative avenues to increasing security at sea. By undertaking an inventory of proposed naval arms control measures, the authors identify a number of pitfalls stemming from the conceptual and verification problems associated with extending the land-based arms control logic to the maritime domain. A grand naval arms control framework would not only require lengthy and politicised negotiations, it would also probably have major strategic ramifications, some of which may be unforeseen.

Instead of the traditional approach, which stressed structural disarmament and transplanting confidence- and security-building measures (CSBMs) to naval activities, the issue of naval arms control must be studied on its own conditions. From that perspective, the study identifies the further development of certain agreements to facilitate cooperation, reduce risks, prevent incidents and establish rules of disengagements as the most accessible and pragmatic approach to enhance maritime security.

Keywords: Naval arms control, confidence- and security-building measures, naval forces, naval exercises, incidents, risk reduction, contacts and cooperation.

Contents

Foreword

In 2016, then-German Minister of Foreign Affairs Frank-Walter Steinmeier proposed to re-launch a dialogue on conventional arms control and confidence- and security-building measures (CSBMs) in the Organisation for Security and Co-operation in Europe (OSCE). The purpose of the initiative was to rebuild trust and cooperation following Russia's illegal occupation and annexation of Crimea, and its military aggression in eastern Ukraine. Since then, OSCE's participating states have committed to a Structured Dialogue on security and arms control in Europe. Concomitantly, a select group of European countries agreed to establish a Like-Minded Group devoted to support the relaunch of conventional arms control.

In supplement to the renewed policymaking focus on conventional arms control, scholars and experts have produced a steadily growing number of reports, discussing possible aspects that could contribute to a new conventional arms control and CSBM architecture. As part of this renewed interest, the Swedish Ministry of Foreign Affairs has since 2017 tasked the Swedish Defence Research Agency (FOI) with strengthening Swedish expertise on conventional arms control and CSBMs.

In the emerging international debate, some voices identify the current arms control architecture as outdated and unable to address the major points of military tensions at a time of a crumbling European security order. They, therefore, suggest that conventional arms control should not be revamped, but rebuilt. At the heart of this line of thinking is the need to move away from arms control arrangements based on ceilings and limitations of military resources to tailor-made solutions for certain geographic locations, deemed to be particularly sensitive from an escalation point of view. These regions of concern, primarily the Baltic region and the Black Sea, are defined by the seas, leading these voices to advocate the necessity of devising arms control and CSBM measures for the maritime domain, often by transposing concepts or measures originally designed for land forces.

While the maritime domain is excluded from the existing arms control and CSBM regimes – the CFE Treaty, the Open Skies treaty and the Vienna Document – the idea of naval arms control is not new. In the 1980s and early 1990s, naval arms control and CSBMs were subjects of extensive debate and study, including by FOA, the forerunner of FOI.

In light of the renewed interest in naval arms control and CSBMs in the maritime domain, we turned to the archives to find out whether FOA's earlier efforts to take stock of the issue remained relevant for the contemporary situation. While botanising among the reports, we found the manuscript *Rethinking Naval Arms Control: From World War Three to Third World Threat* written by arms control experts Robert Dalsjö, Johan Tunberger and Lars Wedin and printed in a limited edition

in January 1993. Although written during the optimistic time of burgeoning cooperative security immediately after the end of the Cold War, the sea and the character of naval forces remain the same, as do the problems and pitfalls of regulating them. Therefore, the principal arguments, ideas and conceptual discussions advanced in the study remain relevant also in the current political-military environment filled with mistrust and the return of great power rivalry. Thus, instead of reinventing the wheel by undertaking a new study on the topic, we hereby republish this manuscript as a FOI-report almost three decades later.

Rethinking Naval Arms Control has a twofold purpose: On the one hand, it analyses the strategic consequences of proposals for naval arms control. On the other hand, it explores alternative approaches to increasing security at sea. By taking the strategic situation as point of departure, the authors note that navies fulfil an important role as equalisers of security, since "states with mighty and possibly hostile neighbours have implicit or explicit drawing rights on the countervailing influence of friendly navies". Consequently, naval arms control will inevitably have major strategic ramifications, not least for small states in a potentially hostile environment.

Turning to the concrete discussion on naval arms control proposals, the authors reveal a number of pitfalls stemming from the ambition to extend what is essentially a land-based arms control logic to the maritime domain. For example, naval ships are their own garrisons and often at sea, there is no firebreak between "activity and "non-activity" and ships can switch from friendly to hostile action in a very short time. Likewise, while verifying the presence or absence of a tank regiment in a given garrison or exercise area is relatively straightforward, verifying the presence or absence of submarines in a given sea is much more demanding, if at all possible.

These differences and the conceptual and verification problems following from them, lead to the conclusion that "naval arms control must be studied on its own conditions"; only then are realistic measures likely to emerge. As for constraining naval activities in certain geographic zones, notably the Baltic Sea, as proposed anew by some experts today, the study argues that this would entail territorialisation of the sea and violate the principle of Freedom of Navigation. Instead of a grand framework for naval arms control, requiring lengthy and politicised negotiations, the study sees the extension and exploration of certain agreements for naval risk reduction as a more accessible and pragmatic approach to maritime security.

Johan Engvall, Deputy Research Director, FOI

Robert Dalsjö, Research Director, FOI

Stockholm, September 2021

1 Introduction

In the late 1980s, there were considerable efforts under way in academic and political circles to place naval arms control on the arms control agenda. Recent events, such as the demise of the Soviet Union and spontaneous unilateral reductions, have made the effort lose steam.

Nonetheless, it is still warranted to scrutinize existing proposals for naval arms control as to their feasibility and strategic effects. It is also warranted to discuss the new strategic environment and to explore if and how old or new types of naval arms control might contribute to security.

Most existing proposals and ideas for naval arms control seem to have been modelled on concepts developed for the land environment in a bilateral cold war setting. As will be shown, this approach seems to be of rather limited utility – as it was already in the cold war setting. The latter part of this paper will be devoted to discussing somewhat novel approaches to increasing maritime security, measures often of a softer kind, emphasizing and promoting safety and cooperation.

No doubt, many proponents of naval arms control belong to a school of thought that tends to view armed forces as a primary source of tension and risk and, hence, arms control as an end in itself. On the other hand, there are those, most prominently in the U.S. Navy, who prefer to "just say no" to any form of naval arms control. These circumstances, and lack of acceptable proposals, explain why naval arms control has failed to enter the negotiating agenda.

The approach taken in this paper is that naval forces are neither evil, nor good per se. The same applies to the actual use of force. Judgements on such matters must depend on circumstances and therefore, by necessity, be largely subjective.

An analysis of whether proposed measures meet such criteria as verifiability, and of the general strategic/operational and legal ramifications of such measures, can be made reasonably objectively. However, the process of determining whether the strategic and legal effects of particular naval arms control proposals are desirable or not, can never be free from value judgement.

In our view, maritime strategy and naval issues should never be divorced from time-honoured custom and international law. This set of rules has slowly evolved in response to tangible needs for safety and predictability.

The principle of the Freedom of the Seas is the linchpin of the Law of the Sea[1], which together with the Rules of the Road, form the basis for the modus vivendi at sea. Economic aspirations and environmental concerns increasingly lead towards additional regulation and territorialisation of the seas.

[1] The Law of the Sea (New York: United Nations, 1983).

Naval forces have unique qualities in complex political and strategic situations, as they are very flexible and have access to all international waters and almost all coastal areas of the world, with or without the consent of the shore-owners, which make naval forces particularly suited for crisis management. States with mighty and possibly hostile neighbours have implicit or explicit drawing rights on the countervailing influence of friendly navies. In such cases, navies constitute an often-vital equalizing factor in unequal "land-locked" sub-regional or regional relationships. Actually, naval forces are the primary non-nuclear means by which global military security becomes truly global; this role as equalizers and globalizers of security seems even more significant in today's unstable strategic situation.

Any reasoning on naval strategy or naval arms control must take into account the character of the maritime environment and the demands that it poses on naval forces. As many proposals for naval arms control have been modelled on measures designed for the ground environment, we seek to outline what makes maritime conditions so different.

Having done so, we strive to assess whether, and why, proposed measures would enhance security and safety, or not. Using relevant criteria, we have attempted to assess their practical feasibility as well as their strategic effects and relevance.[2] Issues relating to legal aspects of warfare at sea, for example the rights of non-belligerents, the validity of exclusion zones etc. will not be covered.

This paper constitutes the first phase of an ongoing project on Naval Arms Control and Nordic Security.[3] The rapid changes in Europe have made it imperative for us to free ourselves from the bipolar, cold war perspective and try to grasp the implications of a more unfocused strategic situation.

[2] The avenue of approach being used in the study is to make an inventory of measures forwarded so far and to determine whether they meet certain basic criteria (military significance, "definability"/verifiability, and compatibility with the maritime environment and the Law of the Sea). Measures which do not meet the criteria have been sorted out, unless they have special significance (i.e. they are widely discussed despite their shortcomings). The strategic impact of the more relevant measures was then assessed more thoroughly.
The more exhaustive deliberations underlying our conclusions, including the testing of all the measures against all the criteria, are documented in spreadsheets and separate working papers not in a form suitable for presentation. In order to make this paper readable, we have tried to present our findings in a less formalised way.

[3] The project "Nordic Security and Arms Control" was launched by the Swedish Institute of International Affairs in November 1990. The project consists of three parts: Naval Arms Control in general, Nordic Security in the changing strategic situation and, finally, an application of Arms Control to Nordic Security. The project is sponsored by the Ford Foundation.

2 The new strategic seascape

States build and maintain navies in order to further and protect their national interests. Thus, naval arms control is bound to affect strategic[4] relationships. This should be self-evident, but the strategic consequences of arms control measures are seldom openly advertised.

Assessing the strategic consequences of naval arms control measures has become even more complicated as the strategic situation is changing rapidly and national interests have not yet re-crystallized.

With the end of the Cold War and the demise of the Soviet Union, the defining political factors of the post-war world have ceased to exist. Naturally, this must have fundamental repercussions for maritime strategy. The U.S. Navy is now the one remaining "blue water" navy with global reach. Now, the New National Strategy forces the Navy to emphasize power projection, deployment flexibility and surge capability.[5]

The risk of global, high intensity war has all but vanished from threat perceptions, although it could reappear should political circumstances change. The threat from C.I.S./Russian submarines is today seen as very low.[6] Consequently, major threats to SLOCs and to Western freedom of operations in the northern Atlantic and northern Pacific are less of a concern. Here, everyday naval confrontation between great powers is less likely than before and carries much less risk of inadvertent escalation, should it take place.

The so-called naval arms race has ceased to be of political concern; indeed, we witness a process of unilateral cuts, with navies struggling on the domestic scene to retain capability.

This sea change is symbolized by the unilateral but politically coordinated withdrawal of tactical nuclear weapons from ships by the United States, the Soviet Union/C.I.S./Russia and the United Kingdom. The British will destroy theirs; R. N. ships and R.A.F. maritime patrol aircraft will consequently lose the capability to deploy such weapons.[7]

---

[4] The term strategic is here to denote general or grand strategy, not only military strategy.

[5] The Honorable H. Lawrence Garret III Secretary of the Navy, Admiral Frank B. Kelso II Chief of Naval Operations and General A. M. Gray Commandant of the Marine Corps, "The Way Ahead", *U.S. Naval Institute Proceedings*, April 1991, pp. 36-47.

[6] Lieutenant General Bernard C. Trainor, U.S. Marine Corps (Retired), "Regional Security: A Reassessment", *U.S. Naval Institute Proceedings*, May 1992, p. 40, 43; Barbara Starr, "USN reconsiders submarine threat", *Jane's Defence Weekly*, 5 October 1991, p. 589.

[7] Conference on Disarmament, document CD/1156, 23 June 1992; *Jane's Defence Weekly*, 18 July 1992, p. 5.

With the demise of the Soviet Union, the disintegration process itself has become the focus of international security attention. The area concerned is largely continental, and little attention is presently given to maritime power in this context – the disputes over the Black Sea Fleet and Russian demands for bases in Estonia being exceptions of sorts.

Maritime aspects could, however, become more important should Russia again strive to secure its access to the sea – all the more important as land communications to the West are now largely controlled by other successor states of the Soviet Union. The sea could also play a part in other conflicts inside the former U.S.S.R., e.g. in the Caucasus. It is notable that even the largely land-locked fighting in the former Yugoslavia has contained naval elements, as has the international action – humanitarian aid, surveillance of embargo – that has taken place.

The end of the cold war means that local or regional conflicts – not only in the so-called Third World – might become more numerous and intense, as local leaders gain greater freedom of action. However, from a Western perspective – although no longer a clear-cut notion – such conflicts are no longer automatically relevant enough to warrant action, unless Western strategic interests are directly involved.

Thus, the strategic map as seen from North America and Europe is being redrawn: interest in black Africa and other poor parts of the world is fading while other areas become more relevant. Among these are Newly Industrialised Countries and regional great powers, such as India.

In the longer run, population growth among the very poor might lead to further strategic changes. In the immediate perspective, Arab states and Islam have taken on renewed importance. This is not only because of instability, population growth and oil, but also because of fears that radical Islam might replace communism as the adversarial value system uniting a hostile bloc.

In this context proliferation of advanced weapons and technology, especially NBC[8] weapons and ballistic missiles, is a special cause of concern.

The flux in international relations and the erosion of spheres of influence, as well as developments within many states, seem to open possibilities for hitherto inconceivable action. Intervention into what was previously perceived as exclusively the internal affairs of sovereign states seems more likely than hitherto.

Concern for human rights, the environment, terrorism, drug-trafficking and the proliferation of weapons of mass destruction are more and more considered legitimate reasons for action – multi-, bi- or unilateral.[9]

[8] Nuclear, Biological and Chemical.
[9] C.f. “Challenges of Change”, the Helsinki Summit declaration of July 10, 1992, paras 12-13.

These, briefly sketched, developments are bound to affect the manifold roles and missions of navies.

In response to political changes, naval funding is dwindling among the great powers and their allies, affecting not only the size of navies, but also their tempo of operations. Furthermore, new strategic conditions warrant changes in the deployment and employment of naval power. In the end, this is likely to influence the structure of navies as well as the characteristics of individual ships.

Fewer warships will cruise the Northern Atlantic and Pacific Oceans, as the East-West conflict recedes. Simple arithmetic indicates that the C.I.S./Russian retreat from the oceans and their repositioning in defence of SSN bastions and coastal defence zones will continue. Western navies will be smaller and relatively more often have missions in areas, which were not central in the old East-West context.

The execution of out of area operations is, however, complicated by the proliferation of advanced weaponry and by the use of low-tech systems, such as contact mines. Today, the size of ships no longer constitute the defining parameter of naval firepower, aircraft carriers being the most notable exception. The size of ships, however, still largely defines their cruising range and endurance. Littoral states with limited economic means can employ sophisticated surface-to-surface missiles from the shore, from fast-attack craft and aircraft. Such missiles and other systems constitute a serious threat to the forces of the mightiest naval power. The difference in intensity between “low intensity conflict” and all-out war might appear insignificant when a missile is closing in.

Naval powers with global strategic interests must be prepared to operate in the zone were littoral states could pose a serious threat – a zone widening due to the increasing ranges of various weapons systems. Therefore, states with global commitments must opt for retaining a substantial core force of potent combatants, capable of suppressing increasingly effective coastal defences. Such combatants must be supplemented by specialized ships for mine counter-measures, supply and, possibly, for amphibious landings.

Fiscal austerity might preclude having capable ships in sufficient numbers to cover perceived needs. Therefore, a high-low mix might be deemed rational – the low end consisting of specialized “presence ships” with limited fighting capabilities, but with a great deal of strategic reach and endurance on station. To operate effectively in crisis and low intensity conflict, presence ships – conceptually similar to the French Floreal class of surveillance frigates – should also have the capability to employ weapons gradually and discriminatingly.

Cost constraints may also reinforce the budding trend towards international naval cooperation outside or beyond traditional alliance structures – ranging from monitoring to peace enforcement and including offshore support for land forces. The

prospects of a viable U.N. and the ambitions of the CSCE,[10] as well as the current interest on the part of NATO and WEU, has made this a matter of some prominence.

All in all, indications are that cumulative strategic trends seem to put a greater premium on naval operations in the littoral zone – and less on "blue water" operations. And the littoral zone is exactly where coastal states increasingly can pose a military threat to seafaring nations.

This could further complicate efforts to achieve naval arms control as there are growing reasons to consider also land-based forces in the naval context. New possibilities for non-traditional approaches to achieve security – a term now given a much broader interpretation than just a few years back – might also open up. It is not certain that the solutions of yesterday are the best answers to the problems of tomorrow.

An ever present problem is that of conflicting goals; a measure might further one goal while inhibiting the achievement of another. Today's more intricate international situation aggravates this problem.

[10] Conference on Security and Co-operation in Europe.

3 Operational considerations

Land is natural to man, the sea is not. At sea, man needs technical means to not only move and fight, but also to survive. In order to endure and to operate in adverse weather on the oceans, or to conduct sustained operations far away from friendly ports, ships of a certain size are necessary. Therefore, arms control measures affecting the physical size of ships could have critical- and asymmetrical effects on capabilities.

Another distinction is that land is always owned or claimed, while the sea cannot be, although coastal states have special right to exploit the natural resources within the Exclusive Economic Zone (EEZ). Naval activities outside a rather narrow strip of territorial water are unrestricted. While the physical encounter of ground troops from potentially hostile countries in peacetime is rare indeed, such encounters between ships are routine. Importantly, this means that the maritime domain is fairly transparent – the legal possibilities of monitoring the activities of other states are much greater at sea than on land.

The battleground on land is characterized by the presence of natural and man-made assets and obstacles. This fact bestows greater military value to some parts of the terrain than to others.

The sea has few obstacles. With the right equipment, the sea is a means more than a hindrance. The sea itself is not the object of naval battle. The term "Command of the Sea" does not imply possession, but rather unimpeded access to the sea – in some cases at the expense of others. As to Sea-Lines Of Communications, it is important to note that this term refers to the movement of ships along these lines, but not the "lines" themselves. Naval warfare, at least in principle, is global in character.

In practice, of course, the horizon is not always free. Straits, ports and islands have directly influenced naval warfare and strategy – in this sense there is a "terrain" which influences operations. For ASW[11] and submarine operations, special hydrographic and hydroacoustic conditions also play a major role. The often-intense commercial activities in the coastal zone – shipping, fishing, oil-exploration – create new tactical possibilities and problems for all types of naval operations.

In confined seas, such as the Baltic, naval warfare would always be affected by "terrain", and "terrain" would often be the object of naval operations. The fact that land based forces can affect naval operations and civilian shipping far outside the coastline suggests that also such land-based forces should be taken into account.

Naval activities cover the entire spectrum of diplomacy and war, from port visits via police-type operations to general nuclear war. The U.N. study on Naval Arms

[11] Anti-Submarine Warfare.

Control[12] offers the following list of naval missions: strategic nuclear deterrence, power projection, sea control and sea denial, affirmation of sovereignty, naval presence and surveillance, and public service.

Public service should not be overlooked. For many navies these missions have the highest priority in peacetime – for some navies, e.g. the Irish, they constitute their primary *raison d'etre*.

*

Some naval strategists see the Projection of Power ashore as the ultimate objective of naval warfare.[13] The technological evolution, with missiles and carrier-based air power, has made this type of mission perhaps the most visible of all naval missions. The parallel increase in capabilities for "Inverse Power Projection", i.e., the projection of power from land to sea, is not as visible, but is no doubt highly relevant. This is not only because power projection would become more intense and costly but also because inverse power projection is a potential threat to the freedom of navigation.

The Iran-Iraq war showed that shore-based systems, such as anti-ship missiles, can be used for other purposes than defensive – to attack sea lines of communications or to harass non-belligerents. Thus, shore based systems cannot be excluded from the naval balance of power, or from discussions of naval arms control.

*

Gone is the time when a fleet consisted of ships operating within sight of each other. The range of modern weapon-systems demands and permits a tactical dispersion over wide areas. The different platforms and weapons systems are tactically connected in a pattern ever growing in size and complexity. This is a result of modern C3I (Command, Control, Communications and Intelligence). The dispersed – in the air, on the surface and under the water – and tactically inter-dependent systems form a complicated web.

Naval forces are composed of weapon systems, platforms and personnel, tied together by organisation, tactics, and doctrines. It is important to distinguish between the weapon systems and the platform.

The platform must be adapted to the environment in which it should serve. The demands put on a surface ship capable of operating in the North Atlantic for months, continuously ready to encounter the forces of a great power, are very

[12] *The Naval Arms Race* (New York: United Nations, 1986), pp. 37-40. The study also seems to consider "operations in sea areas covered by ice" as a mission.

[13] For example, Admiral Castex in *Théories Stratégiques*, tome premier 2nd ed. (Paris: Société d'Éditions Géographiques, Maritimes et Coloniales, 1937), pp. 168-169; Garret et al, "The Way Ahead", p. 46.

different from those put on a fast-attack craft operating close to its own coast, and with land-based air support

The weapon-systems on the other hand must primarily be adapted to their potential targets. Naval battle is a duel between weapons, which, however, can be of different kinds and based on different platforms.

In addition, there are important differences between naval and ground tactics. At sea, sheer superiority in numbers does not give as much advantage as it does on land; quantity cannot as easily substitute for quality. Neither can the defender "dig in" and wait for the enemy to commit himself; victory often goes to the side that strikes first.

An important fact to note is that a defensive naval strategy often requires offensive tactics, and vice versa. The protection of Sea Lines Of Communication (SLOC), generally considered a defensive task, could be accomplished by attacking the enemy forces which may threaten SLOCs. On the other hand, a major amphibious landing on enemy territory, an offensive task at the strategic or operational level, necessitates the escorting of the landing force – a tactically defensive task.

To amplify this apparent paradox: a minor state trying to deny a major enemy free use of adjacent seas has no choice but to use offensive tactics.

Hence, it is not meaningful, in this context, to divide weapons systems, ships, forces or even tasks into inherently defensive, and thus "benign", and offensive and thus "evil".

In peacetime, ground units spend most of their time in garrison, engaged in e.g., training and maintenance, while a ship is both a mobile garrison and an operational unit. In addition to "garrison duties", naval forces have a wide range of operational missions – public service, surveillance, collection of intelligence, naval presence etc. These missions often make it necessary to operate far away from home shores. Thus, the fact that a ship is not in port does not necessarily mean that it takes part in an exercise or in a military operation. If ordered, it could instantly commence a number of different mission, because it carries the necessary equipment and supplies. The capability to quickly switch from a peaceful cruise to battle is a characteristic of naval forces.

Because of international law, naval forces have great freedom of movement, which make them particularly suited for presence, shows-of-force, and other missions in peacetime as well as low-intensity conflicts. They have access to almost all coastal waters of the world and can, from a position in international waters, influence events on land. This can be done unilaterally, without obtaining the consent of littoral states to basing or transit rights. Such actions may be called intimidation or crisis management, depending on one's point of view, but are an important part of the strategic pattern.

As important as the flexibility with which naval forces can be employed is the parallel flexibility with which they can be withdrawn. Once ground or air forces are deployed, they tend to cement a commitment, while naval forces can sail away as easily as they deployed.

*

In the following, we will present the more significant results and conclusions to come out of our detailed analysis.

4 Structural arms control

Structural arms control follows the classic disarmament concept. In the naval context this means limiting naval forces, e.g., by total tonnage, number of ships, banning or limiting certain categories of ships or weapons systems.

This approach was tried in the Washington and London treaties and the London Protocol of 1922, 1930 and 1936, respectively. The ramifications of these agreements partly explain why structural naval arms control has a bad reputation, although the net effects are still being debated.[14]

Nonetheless, it seems indisputable that they provided a framework for the amicable transition of naval pre-eminence from the United Kingdom to the United States. However, in the end they did not prevent a naval arms race or war. This suggests that such agreements can work in a bona fide environment, but might not when good will is lacking.

It could also be argued that the agreements were instrumental in achieving a more rapid modernization of the major navies at the time – resources freed by the agreements were channelled into aircraft carriers.[15] The inter-war experience clearly demonstrates that it is hard to presage the effects of structural naval arms control agreements. This is even more relevant today when there is less clear a connection between the size of ships and their firepower.

The inter-war agreements were struck between the then preeminent naval powers. In trying to reach arms control agreements between states with diverse interests, even five is a high number. The argument could be made that the largely bipolar cold war period offered better possibilities for striking an equitable deal.

The fact that structural naval arms control was never on the serious agenda after World War II is perhaps best explained by pointing to the geopolitical asymmetries, and therefore widely divergent interests between the maritime Western alliance and the continental Soviet empire. A strategically "equitable" agreement would have appeared highly asymmetrical in terms of numbers – significant arms control agreements in fact reached in the cold war period (SALT, INF, CFE)[16] rested on symmetric numbers symbolism as well as on a measure of shared interests.

The break-up of the bipolar security pattern as well as the growing number of states possessing advanced naval weapons systems – if more rarely "blue water" platforms – indicate that efforts to reach an equitable structural arms control

[14] Rear Admiral J. R. Hill, *Arms Control At Sea* (London: Routledge, 1989), p. 31.
[15] Major John T. Hoffman, "The Building Holiday", *U.S. Naval Institute Proceedings*, July 1991, p. 36.
[16] Strategic Arms Limitation Talks, Intermediate Nuclear Forces, and Conventional Forces in Europe.

agreements would become an overwhelming task. In fact, a treaty would presuppose a clear understanding on what were the globally recognized strategic interests of scores of states in widely differing geopolitical circumstances. It would also require agreement on naval requirements and on the distribution of tonnage, ships, weapons systems, etc. It is not mere mockery to conclude that such a compact would presume a world order in which formal negotiations were not called for in the first place.

*

It seems warranted to draw the conclusion that it is an arduous task to draft structural limitations – other than crude measures restricting the total tonnage of a navy – which would be both militarily significant and verifiable.

Should it be possible to, somehow, overcome these technical obstacles, the strategic effects of tonnage restrictions would be substantial. The size of platforms is a key parameter when it comes to the reach of a ship. A navy with faraway missions and missions requiring endurance cannot pack so many weapons systems into a given tonnage as can a navy with sea denial mission requiring limited reach. Structural limitations therefore, ceteris paribus, tends to favour the navy with less need for reach and endurance.

*

The end of the cold war and the ensuing strategic commotion, of course makes it exceedingly difficult to attempt to judge what the strategic effect of specific naval structural arms control measures would be. In addition, there presently seems to be very little interest among nations in pursuing structural naval arms control.

One reason for this is probably that the new situation has led to unilateral cuts of the naval forces of major powers. Even one of the few proposals often deemed sensible and workable – that of a bilateral U.S.-Soviet cap on nuclear attack submarines[17] – is now overtaken by events.[18]

Perhaps the most plausible naval arms control scenario would imply a complete role reversal: The pace with which unilateral reductions take place might induce the U.S. Navy to overcome its ingrained aversion to naval arms control – on the presumption that negotiations would soon bog down while “bargaining ships” would be retained.

Yet, there are both academic and more pragmatic reasons to explore the consequences of certain types of structural naval arms control; academic reasons, because the feasibility and verifiability of such measures have seldom been

[17] James L. Lacy, “Attack Submarines: The Case for Negotiated reductions”, *Arms Control Today*, December 1990, pp. 8-13.

[18] Reductions in the U.S. submarine force are discussed in Norman Polmar, “The Seawolf Becomes a Lone Wolf”, *U.S. Naval Institute Proceedings*, April 1992, p. 120.

explored in the literature, and neither have their strategic effects; pragmatic reasons, because informal arms control or unilateral cuts might lead to effects similar to those of formal agreements. Furthermore, it cannot be ruled out that proposals for naval arms control should resurface, should great-power rivalry return.

As indicated, an increasingly pertinent technical complication of structural arms control is that it could be circumvented by developing new weapons systems if only platforms are subject to limitation, or by repackaging systems on platforms not affected by an agreement. In this respect, economically and technologically advanced states would be at an advantage over others. Even long reach could, at a cost, be achieved with the help of unarmed ships – possibly civilian – underway replenishment ships etc. acting as "mother ships" for smaller vessels, each with a specialized role as weapons carrier, sensor carrier etc.[19]

Nonetheless, there are certain platforms and weapon systems with sufficiently definable features to make them, technically speaking, potential candidates for structural arms control.

The most visible example is the aircraft carrier. Somewhat less visible, but nonetheless relevant are specialized amphibious warfare vessels, key assets for the projection of naval power ashore. Until recently long-range land-attack cruise missiles was also a subject of attention in this context.

Catapults, angled deck and arresting gear make CTOL[20] carriers easily definable. Hence, an agreement limiting these flattops would be verifiable and hard to circumvent.

Amphibious ships and landing craft are fairly easily identified as such, and limitations could thus be verified. A limit could be circumvented by substituting civilian ships for the larger specialized ships.[21] But the effectiveness of the former would be lower, especially in case of opposed landings.

However, certain types of smaller landing vessels, e.g. LCM, Pomornik and LST,[22] with over-the-beach capability are hard to replace with civilian assets. Such vessels are also essential for seizing a defended beach and the territory beyond. A limit on such vessels would thus be hard to circumvent as well as significant and verifiable.

---

[19] The French torpedo-boat carrier "La Foudre" was an early example of this concept. A latter-day example is the Iranian use of Landing Ships (officially classified as "Hospital Ships") to carry Boghammar boats for attacks against civilian shipping during the Iran-Iraq war.

[20] Conventional Take Off and Landing.

[21] The U.S. Navy has reportedly been examining the possibility to deploy SLCMs (Surface Launched Cruise Missiles) on merchantmen and on replenishment ships (*Aviation Week & Space Technology*, 24 June, 1991, p. 13).

[22] LCM = Medium Landing Craft, LST = Tank Landing Ship.

In a strategic situation where operations in the coastal zone are becoming the focus of interest, any type of limit or regulation on the aircraft carriers and amphibious ships would have significant strategic ramifications.

CTOL carriers are a prerequisite for truly global, and often even regional, strategic reach of naval forces. Without air cover, even a global naval power would have to think twice before committing naval forces to waters within the tactical range of an adversary's land based aircraft.[23] Thus, a limit would circumscribe the possibilities, especially in a tense situation, of undebatable legitimate actions, such as patrolling international waters or even a U.N.-mandated naval blockade.

Furthermore, the types of ships discussed are almost indispensable for the projection of naval power ashore. While we do not want to suggest that all such actions are legitimate, many are, as demonstrated by the Falklands conflict. The capability to carry out such actions – even if it is not actually used – is essential to the role of naval forces as globalizers of security and equalizers of lopsided sub-regional balances. It is also useful in humanitarian and disaster relief operations.[24]

Should such technically feasible arms control measures limit sea-going forces, it would only be reasonable – for political and strategic reasons – that land-based naval aircraft, and perhaps missiles, also were included in the regime.

The chances of reaching an agreement between all potentially concerned parties seem slim, indeed. This consideration apart, any measure restricting land-based naval aircraft raises the issue of definitions and verifiability. ASW aircraft are usually distinct, but how to discriminate between naval strike aircraft and other strike aircraft? Endless hair-splitting on the properties of weapons and sensor suites, on training practices etc. would probably be the result, even more so as aircraft become more multi-role and their standoff weapons more modular or interchangeable

The cruise missiles debate has largely centred on their nuclear role. The unilateral declarations by Presidents Bush and Gorbachev that non-strategic nuclear weapons, including SLCMs, will be removed from ships have thus defused the issue.[25] Furthermore, the effectiveness of conventional SLCMs, as demonstrated during

[23] The experiences of the Royal Navy off Malacca in 1941 and at the Falklands in 1982 illustrate the fragility of surface ships in the absence of air cover. To fully grasp the implications of the latter example, imagine what had happened if the RN had not had its V/STOL carriers or if the Falkland Islands had been situated 100 nautical miles closer to the Argentinian coast.

[24] A prime example of the latter was the, mainly U.S. task force assisting Bangladesh after the flood in 1991. The fact that the relief force was sea based allowed for a speedy and effective operation, while avoiding political problems concerning deployment. Cf. Lieutenant General H. C. Stackpole III, U.S. Marine Corps, "Angels from the Sea", *U.S. Naval Institute Proceedings*, May 1992, pp. 110-116.

[25] SLCM = Sea Launched Cruise Missile, SLCM(N) has a nuclear warhead.

the Gulf war, makes for strong resistance from powers possessing land-attack SLCMs to proposals to ban all such missiles.

4.1 Naval Nuclear Weapons

The issue of naval nuclear weapons has been fundamentally transformed by recent unilateral moves.[26] The U.S., followed by the U.K. and the Soviet Union, has declared that tactical nuclear weapons, including SLCM(N)s, would be withdrawn from surface ships, attack submarine and land-based naval aircraft. Some weapons were to be destroyed – others stored, mainly SLCM(N)s.[27]

The practical problems of safely taking these nuclear weapons ashore, and destroying a great part of them, will be substantial and take several years. Barring unforeseen events, U.S. and C.I.S./Russia will not normally carry non-strategic nuclear weapons, while U.K. ships will never carry them. The U.S.N. and the C.I.S./Russian Navy will, however, retain the option of redeploying SLCM(N)s. France has, to this day, made no declaration concerning commensurate measures, although an interesting question is to what degree she is bound by the declaration of the 1991 NATO summit in Rome.[28] Should France feel bound by this declaration, she might still keep the option of redeploying nuclear weapons, pre-strategique, on her carriers.

Denuclearization at sea will take place without formal verification. For long time, the verification issue was one of the main U.S. objections to negotiations regarding non-strategic naval nuclear weapons. The Soviets were generally to be distrusted; if verification were to be effective, the regime would have to be so intrusive as to be unacceptable, also to the U.S.N.[29]

The START and INF treaties had highly technical provisions for verification, reflecting an adverse relationship. Now, the main focus of arms control seems to be shifting towards trust and cooperation. One should also note that the opening up of the former Soviet empire, augmented by the Open Skies and CFE treaties

[26] In this analysis we will not discuss SLBMs, as they belong to the central strategic nuclear relationship, although the very fact that these missiles are carried by submarines (SSBN) very much influence naval strategy on the High Seas.

[27] Cf. footnote 7 and *Survival*, Vol XXXIII, No. 6 (November/December 1991), pp. 567-569. Bush's declaration was repeated in the State of the Union address, 28 January, 1992, i.e. after the demise of the USSR.

[28] "The Alliance's New Strategic Concept, Agreed by the Heads of State and Government participating in the meeting of the North Atlantic Council in Rome on 7-8 November 1991", Art. 57 "Sub-strategic nuclear weapons will, however, not be deployed in normal circumstances on surface vessels and attack submarines.

[29] David S. Yost, "The Most Difficult Question, Controlling Sea-launched Cruise-missiles", *U.S. Naval Institute Proceedings*, September 1989, p. 65.

and other CSCE provisions, is providing a general transparency, which permits technical verification provisions to be less stringent.

An indirect method for the verification of non-deployment could be to monitor the absence of nuclear-related procedures on board ships; nuclear weapons aboard require extensive safeguards and special training. Protracted absence of such routines could spell de facto abstention from the option of redeployment, at least on short notice.

Evidently, at least three nuclear powers have concluded that a ban or non-deployment of naval nuclear weapons is attainable, and that concerns about verification is not an obstacle.

For the foreseeable future, it will not be possible to ascertain the non-presence of nuclear weapons aboard a ship by non-intrusive means, even if technological developments promise to make detection of nuclear weapons more effective.[30]

Concerning the Neither-Confirm-Nor-Deny (NCND) policy, a point of contention during the 1980s, no corresponding changes have been declared. It is appropriate to ask whether a continued NCND policy would be compatible with a stated policy of withdrawal. On the other hand, the NCND issue would appear irrelevant when all non-strategic nuclear weapons have been brought ashore.[31]

The abstention from formal verification agreements does not, however, solve today's most pertinent nuclear problem, namely that of nuclear proliferation to hitherto non-nuclear states. In this context, verification – and monitoring – is a problem of another dimension. Although proliferation control is not a specifically naval issue, it might require naval cooperation.

The U.S. and Russia have decided to retain the option to redeploy non-strategic nuclear weapons on board ships. This option raises the question of what role redeployed nuclear weapons would have and has implications for stability in crisis situations.

Barring a return to East-West confrontation, the major argument for retaining some kind of sea-based non-strategic nuclear capability is the potential threat from adventurous third world regimes holding weapons of mass destruction. This argument, which highlights land-attack capability, has been reinforced by the Gulf War, Iraq's secret nuclear weapons program and the prominence of the problem of proliferation in general.

---

[30] Lars-Erik De Geer, *Nonintrusive Verification of Nuclear Weapons on Ships*, FOA Report C 20817-4.1 (Stockholm: FOA, 1990).

[31] The new U.S. standard statement is one of collective denial and individual NCND: "It is general US policy not to deploy nuclear weapons aboard surface ships, attack submarines and naval aircraft. However, we do not discuss the presence or absence of nuclear weapons aboard specific ships, submarines or aircraft." *Jane's Defence Weekly*, 11 July, 1992, p. 6.

However, the latter nuclear mission does not necessitate the retention of a naval nuclear option. The time required for redeployment of SLCM(N)s on ships, and for sailing to the region concerned could be considerable. It could well be argued that aircraft with strategic reach could be employed as effectively and much more timely in this role. Dependence on landing- or overflight rights might be a drawback with such an air-based deterrence strategy, however. "Nuclear allergy"' among allies could cause problems if air manoeuvres were carried out to demonstrate resolve.

The option of redeploying non-strategic nuclear weapons on ships has implications for crisis stability. Redeployment might become a source of contention if the international situation should again grow tenser; there are various possibilities for suspicion or disagreement concerning circumvention or actual violation. The lack of formal verification provisions could well exacerbate compliance disputes.[32]

In this context, the most important consideration is probably whether redeployment would take place covertly, semi-covertly or openly. The purpose of redeployment probably being deterrence, rather than war fighting, it also follows that the move should not be made covertly. Furthermore, the START-related U.S.-Soviet understanding on SLCM(N)s, including exchange of information on planned deployments, suggests that the U.S. and Russia should, as a minimum, inform each other on changes of naval nuclear posture.[33] It also seems reasonable that European allies should be informed about any NATO-related U.S. redeployment.

If redeployment is warranted by a threat from a "Saddam II", the niceties of nuclear etiquette might not apply in full. Nonetheless, as the objective would be deterrence the above reasoning would still apply. The incentive to notify other "official" nuclear powers of the redeployment, in order to avoid misinterpretation, would be very much present.

Thus, most factors seem to indicate that redeployment of nuclear weapons on board ships would not take place entirely covertly. Nonetheless, in the absence of an adequate verification system, a crisis could give rise to fears of the other side gaining advantage by covert deployment, or to the temptation to do likewise. Some

---

[32] Cf. disagreements on limit on the number of new types of ICBMs in SALT, the ABM radar at Krasnoyarsk and the re-classification of ground combat units into naval in order to avoid limits mandated by CFE.

[33] The U.S. declared that it would provide the USSR with a unilateral declaration of its policy regarding (SLCM(N)s and with information regarding planned deployments of, and maximum number of deployed, SLCM(N)s. A confidential list on the types of ships that are capable to carry deployed SLCM(N)s would also be provided. This declaration was made with an understanding that the USSR should follow suit. Tomas Ries, *Consequences of START for the Nordic Region*, IFS Info no. 7-1991 (Oslo: Institutt for forsvarsstudier, 1991), p. 30.
The parties would also provide each other with strictly bilateral information about the number of deployed nuclear cruise missiles with a range between 300 and 600 km. *Official report from the Swedish Delegation to the Conference on Disarmament in Geneva*, dated 16 August 1991.

type of formal verification of non-deployment, e.g., monitored storage of weapons or warheads taken ashore might therefore be beneficial.

5 Confidence- and Security-Building Measures

The objective difficulties in devising viable structural arms control measures in part explain why Confidence- and Security-Building Measures (CSBMs) has attracted considerable attention. The notion of CSBMs encompass a variety of measures from encouragement of contacts to potentially consequential constraints on military activities. Despite our objections to applying land arms control measures to naval forces, this section uses the layout and terminology from the 1992 Vienna Document.

5.1 Information

Proposals have been made to "navalise" the annual information exchange on the organization, manpower, major weapons and equipment systems, agreed upon in the 1992 Vienna Document and the CFE Treaty. Candidates have included i.e. the location of main naval bases, the number and types of major ships and their home-port, as well as the number and types of ship-based helicopters and aircraft.[34]

While much of this information is already available to the public, an information exchange could still be useful as the information would be official and politically visible. The information would only be militarily significant if it contained details on the planned “where and when” of naval forces. Such information, however, could possibly hamper the flexibility of naval forces.

Long-lead information on procurement plans and projected budgets, however, could be beneficial. If validated by intelligence data, such long-term information could reduce uncertainty and hedge against worst-case analysis, thereby contributing to confidence and stability.

5.2 Notification

Advance notification of military activities of land-forces is a pivotal element of CSCE agreements and proposals to transplant the CSCE model to the naval realm have been forwarded.

In principle, two types are conceivable: binding or non-binding regimes. The former is the most ambitious and would aim at not only being confidence-, but also security building.

[34] CSCE/WV.5 1989-07-12. Proposal submitted by Austria, Cyprus, Finland, Liechtenstein, Malta, San Marino, Sweden, Switzerland and Yugoslavia.

To transplant binding measures configured for the land environment to the maritime, however, meets well-nigh insurmountable problems. As binding undertakings, to be meaningful, must be valid also in times of crisis, key concepts such as "activity" must be defined in an unambiguous and verifiable manner. If they are not, compliance disputes and suspicion would be the likely result, contravening the very purpose of confidence- and security building.

Why binding measures are non-starters follows from simple facts: Land forces are normally in their garrisons. Troops in sufficient numbers in the field is what makes an activity notifiable. Naval ships are their own garrisons and often at sea. As has been amplified above, there is no firebreak between "activity" and "non-activity" and ships can switch from friendly to hostile action in a very short time.

As every single movement of every naval ship could not possibly be notified, there is the problem of defining the thresholds that should trigger notification. Notification must, therefore, aim at significant or at least larger naval activities, and, thus, encompass a number of ships. A geographical delineation is meaningless. Ships could take part in the same exercise several hundred nautical miles apart – and at the same time be in transit, training its crew and conduct routine patrolling. Alternatively, they could manoeuvre at close quarters without participating in the same activity.

It should also be noted that an obligatory requirement to notify "exercises" as opposed to other naval activities, such as deployments or transits, is self-defeating. By giving a suitable label to the activity, a state can select not to notify at will.

Thus, the only solution is to define "activity" functionally, as consisting of several ships under a single command. Here we run into the next problem; how does one show that ships are part of the same activity, or not, without divulging highly sensitive ELINT- and other intelligence-data? And how does one support complaints with undisputable data? The CSCE criterion that measures should be provided with "adequate verification" implies that other states should be able to verify compliance.

In sum, it is difficult to define "naval activities" in a meaningful way – meaningful in the sense that a compliance dispute could be raised if need be. The only way out of this conundrum would be to apply a crude geographical criterion, such as the number of ships in a given sea area, rather than a functional. Such an approach would be unacceptable though, as it would entail territorialisation of the sea while still not pinning down what is sought, namely the naval activity. Moreover, there is also a formidable obstacle: "If there is one word that summarises the obstacle to confidence-building measures at sea, it is, quite simply, submarines."[35]

[35] Hill, *Arms Control At Sea*, p. 198.

It can therefore be concluded that the CSCE-approach to politically binding, verifiable notification measures is not achievable at sea.

Anyhow, observation of activities, a prominent feature of Stockholm-type measures, is already a part of everyday life at sea. Because of the freedom of the seas, mariners have the right to observe – including by electronic means – whatever they want to on the high seas, whenever they want to. It is merely a question of acquiring the means to do so – aircraft and ships with endurance and possibly space-based assets.

Though Electronic Intelligence, ELINT can provide valuable information, verification of non-hostile intent often requires observation in situ. However, Stockholm-type monitoring and verification through observation and challenge inspections, respectively, would meet with many obvious practical difficulties. For reasons of secrecy, observers could not possibly be allowed into Combat Information Centres on board ships.[36]

This does not exclude that some type of notification and observation of exercises could contribute to confidence and safety at sea. A regime of voluntary notification – and perhaps – observation is conceivable, where states would be encouraged to notify major exercises.

Voluntary notification of large pre-planned exercises, like the BALTOPS of NATO, would probably not cause major practical problems; notification for safety reasons is already a widely used practice. The publications Notices to Airmen (NOTAM) and Notices to Mariners are regularly used by naval and air forces to give warning of hazardous exercises. The practices, however, vary greatly between different states.

A voluntary regime could build on NOTAM/Notices to Mariners by offering standardized formats and practices for the notification of naval activities.

This may be a humble step, but could have practical value. Such notification would facilitate the planning of observation with national means. It would also be helpful in discerning long-term patterns of training, and, in combination with information about planned deployment and procurement, facilitate prediction of future capabilities. Voluntary notification could also be a way of showing due regard for the legitimate interests of other mariners, such as fishermen, enhancing non-military security at sea.

Voluntary on-board observation might also be conceivable, and it should not be an insurmountable problem to arrange visits on board during notified exercises.[37]

---

[36] Capt. Richard Sharpe, editor of Jane's Fighting Ships has drily observed that "observers in major warships and submarines for prolonged periods is not an option unless they are policed to the point of being effectively under arrest, which is hardly the way to win friends and influence people". *Jane's Defence Weekly*, 26 May 1990.

[37] Hill, *Arms Control At Sea*, p. 194.

Such observation, however, would then have more to do with contacts than with verification. Moreover, a briefing about the exercise during a port visit or at an embassy would not be too difficult to arrange. Such a briefing would be of the same type regularly held during activities ashore, possibly however, with a greater emphasis on safety vis-a-vis other users of the sea.

Finally, in discussing naval notification of any type it is important to realize its limitations: A state cannot solely rely, for decisions concerning its military readiness, on notification given about a naval activity. This is because, as amplified above, naval forces can swiftly be redirected or given a different task, and because the nature and objective of a naval activity is hard to ascertain.

6 Constraints at Sea

Proposals for constraints at sea – often termed operational arms control aim at restricting naval operations – exercises, behaviour, formations, movements, deployment areas and so on.[38]

There are two basic approaches to such "constraining provisions" – one activity-oriented and the other geographic. In the first case, the idea is to limit the size or frequency of naval exercises. In the second case, the idea is to create a zone where certain types of ships, weapons or activities are limited or forbidden. All such proposals aim at restricting the flexibility of naval forces, and clash with the principle of Freedom of Navigation.

Blunt measures – such as limiting the number of combat ships participating in an exercise, limiting the number of major naval exercises, or limiting their duration – have been proposed.[39]

Logically, constraining measures must be binding. Therefore, activity-oriented constraints run into the same fundamental definitional problems as proposals for binding notification, elaborated above – what is an exercise, how large is "major" etc.?

If activity-oriented constraints were attempted anyhow, the definitional quandary would invite compliance disputes. This could raise, rather than lower the level of friction – which would be the opposite of confidence- and security building.

It can therefore be concluded that activity-oriented constraints is not a viable approach.

There have been a number of proposals for geographical constraints, e.g.:

- Peace zones, which is a very loose concept. Generally, the intention is to bar or limit the entry of naval forces from states other than the shore owners.[40] A recent proposal is to demilitarise the Baltic Sea.[41]
- Notification zones, where naval forces from non-littoral states, or from specific such states, would notify the littoral state(s) of their entry into the zone.[42]

---

[38] Cf. Richard Fieldhouse, "Naval forces and arms control", in *Security at Sea: naval forces and arms control*, ed. Richard Fieldhouse (Oxford: SIPRI/Oxford University Press, 1990), p. 7.

[39] CSCE/WV.2 1989-03-09. Proposal submitted by Bulgaria, Czechoslovakia, the German Democratic Republic and Hungary.

[40] Hill, *Arms Control At Sea*, p. 169.

[41] Robin Ranger and David G. Wiencek, "Watching the Old Enemy", *U.S. Naval Institute Proceedings*, April 1992, p. 52.

[42] Reportedly, the Soviet Navy has asked the U.S. Navy to give notification, bilaterally, when its surface ships come within a certain distance of Soviet shores, in order to avoid situations which could embarrass the Soviet Naval Command in front of its masters. Cf. Eric Grove, *Maritime*

- Buffer zones, where only the forces of the two superpowers (or two other adversarial forces) are banned.[43]
- Nuclear weapon free zones.[44]
- SSBN[45] sanctuaries, in which SSBNs of one state could navigate unthreatened, as ASW forces of other states would be banned.[46]
- Restrictions of naval activities in sea areas with intense shipping, fishing and the like.[47]

Obviously, the creation of zones where ships of certain states were excluded would be in contravention of the Freedom of the Seas. Hence, proposals for peace zones, buffer zones and the like do not meet one of the three criteria used in our study. Neither does ideas of "notification only" zones. Although not necessarily limiting freedom of movement – it would depend on the notification regime – this type of zone would also entail a degree of territorialisation of the Sea.

Nuclear weapon free zones (NWFZs) would until recently also have fallen into this category. Problems of verification implied that all nuclear capable ships would have to stay out of such zones, if created. Large parts of the navies of the nuclear powers would then have been forbidden to enter.

The announced – "unilateral but coordinated" – removal of non-strategic nuclear weapons from ships has transmogrified the NWFZ issue from impossible to virtually irrelevant.

There is an abundance of proposals for naval zones in arms control literature. We will, therefore, carry the analysis a bit further, in order to assess the possible ramifications of such zones.

Some arguments against establishing zones barring or restricting entry of naval surface vessels have already been listed. From a strategic point of view, it could also be argued that such zones would have very limited beneficial impact; a state could choose to disregard the zone, if circumstances so warrant.

On the negative side, it should be noted that such a breach of a zonal agreement could in itself have unintended escalatory effects. Furthermore, early deployments, crucial for crisis management, would be politically difficult to carry out.

---

strategy and European security (London: Brassey's, 1990), p. 152: "Within these lines the Soviets have serious concerns and would like to have notification if they were to be crossed by aircraft carriers or ships with cruise missiles."

[43] Hill, *Arms Control At Sea*, p. 172.

[44] Hill, *Arms Control At Sea*, p. 160.

[45] Nuclear-Powered Ballistic-Missile Submarines.

[46] Hill, *Arms Control At Sea*, p. 100.

[47] CSCE/WV.2.

To enter a zone, at least a large one,[48] only after a crisis has become serious, would not only delay operations but also make them much more difficult to execute. All seas have their specific geographic, hydrographic and meteorological features, which must be tactically mastered. Also, for effective crisis management, an out-of-zone force often needs to exercise with regional forces periodically.

Almost all conceivable types of zones would restrict naval deployments, especially those of non-littoral states, or give a certain power special rights in an area – at the expense of other states, perhaps even littoral ones. This could easily shift the local strategic balance – or the perception thereof – reinforcing or creating a local hegemony.

Some categories of zonal proposals could, arguably, be said to reflect the clash of interests between naval forces and other users of the sea. An example is the proposal to prohibit "notifiable naval exercises in zones of intensive shipping and fishing as well as in straits of international significance."[49] Still another is a proposal of voluntary notification of the intent to transit territorial waters.[50]

Areas of intensive shipping and fishing, as well as straits of international significance, are often militarily important and it is hence important there to survey and to exercise. And where but in the coastal zone should a coastal navy exercise?

Where there is a manifest need for restrictions, e.g., in some international straits, routines for traffic separation of civilian shipping are often already in effect.

Furthermore, these areas are where the bulk of public service missions of navies are carried out. The maintenance of an effective mine-countermeasures capability requires continuous surveillance of the seabed in order to have relevant data. ASW, especially in confined areas, is another area where mastery of the hydrographic characteristics are important.

No doubt, behind most proposals put forward by governments there have in reality been motives of a strategic nature rather than the professed environmental, safety and similar concerns. The proposals also have important legal ramifications. This is especially true for the proposal on notification of transit of territorial waters, which would rescind the right of innocent passage.

SSBN sanctuaries constitute a different case. Their underlying rationale is to enhance strategic stability by further protecting the missile carrying strategic submarines – key assets for second-strike capability. Such sanctuaries would have to be large in order not to facilitate pre-emption, nuclear or conventional.

[48] The Indian Ocean and the Baltic are two areas for which proposals have been made.
[49] CSCE/WV.2.
[50] CSCE/WV.5.

The basic idea is to protect SSBNs from all potentially hostile ASW. As most naval units have at least some ASW-capability, this would in effect mean banishing all naval forces of states not "owning" the zone.

Still there would be no assurance against ASW as the non-presence of alien SSNs/SSKs[51] would be impossible to verify. This state of affairs, and the frequent occurrence of false alarms in ASW, would entail risks of misunderstanding and mistakes, which could be very dangerous in a crisis situation. Also, if a neighbouring great power "owned" a sanctuary this would have strategic repercussions for states close to the zone.

To conclude, naval zones could have significant effects on regional strategic balances; and possibilities for low-key crisis management could suffer. The verification problems, especially when it comes to submarines, are so formidable that the result could be friction rather than accord.

6.1 Risk reduction

Two different lines of thought can motivate proposals for naval risk reduction.

One of these holds that naval forces are inherently destabilising, as naval forces often are used as political instruments in crises. For many proponents of arms control, the use of force in crisis management is viewed as something inherently evil, or at least highly suspect.

The second line of thought recognizes the utility of naval forces in crisis management, that indeed it is one of their main missions. In so doing, it focuses on avoiding inadvertent friction, especially in already tense situations.

In this context, one can discern three levels of interaction between ships, or naval forces, of which the two latter might merit further attention:

- The first level is the daily interaction between ships of all kinds. Here we have, since long ago, working agreements – the Rules of the Road, Radio Regulations and so forth.
- The next level specifically concerns naval forces and their special characteristics and behaviour. Here, there is a need for rules, which go beyond normal navigational rules. This need is presently addressed by Incidents at Sea agreements.
- The third and final level concerns tense situations, sometimes the result of minor misunderstandings and judgements of error, which may be interpreted as hostile. Here there is, to our knowledge, presently no agreement.

[51] SSK = Conventionally-powered attack submarine,

In our view, the issue of incidents at sea warrants addressing, even though bilateral agreements already exist and the risk of inadvertent escalation between West and East – for the time being at least – seems rather low.

In 1972, the U.S. and the Soviet Union reached the Agreement on the Prevention of Incidents on and over the High Seas (INCSEA). This agreement has been deemed a great success and has been followed by similar agreements between the U.S.S.R. and the U.K., France, Italy, Norway, among others. An important reason behind the success of these agreements is the very fact that they are bilateral and have a distinct navy-to-navy tinge. This has meant that the annual review meetings have been conducted as professional, secret talks between naval leaders.[52]

The scope of the initial agreement was widened by the Agreement on Preventing Dangerous Military Activities (PDMA) concluded between the U.S.A and the U.S.S.R. in 1989.[53]

Incidents still occur and will continue to do so. Between 1972 and 1989, there were 520 naval incidents at sea, with a fairly consistent average of 25-30 a year. The largest number of incidents, about 41 % occurred in European waters, 36 % in the Pacific and 12 % in the Indian Ocean.[54]

Proposals have been tabled at the U.N. Disarmament Commission on the creation of a multilateral Incidents at Sea Agreement.[55] The proposed rules are, overall, the same as the existing bi-lateral ones but they have so far not led to a negotiation.

One reason why calls for negotiations have been rejected is the generally cautious Western view on Naval Arms Control. Possibly, flag states also find it incompatible with their strategic interests to let the majority of states in. A prominent reason is also the risk that a multilateralization would lead to a highly political negotiation and review process, which would invite political, military and/or economic posturing.

In our view, these concerns are well founded. Especially, every attempt to "multilateralise" the INCSEAs should strive to safeguard the bilateral, professional review process. Hence, there are reasons to explore other approaches than U.N. negotiations of extending to other naval forces the provisions of existing INCSEA agreements.

A straight approach would be that states that see a need for such agreements should enter into bilateral negotiations, conclude a treaty, and implement it. However, this method would have certain drawbacks. The most pertinent objection is that an

---

[52] Thomas B. Allen, "Incidents at sea", *U.S. Naval Institute Proceedings*, September 1990, p. 45.
[53] Fieldhouse, "Naval forces and arms control", p. 24.
[54] Barry M. Blechman, Gunnar Gunnarsson, *Arms control and Confidence-building in Northern Waters* (University of Iceland: University Press, 1990), p. 25. These are the latest figures available at the time of writing.
[55] Disarmament Commission, General Assembly A/CN.10/121, 10 May 1989.

increasing number of bilateral agreements, with provisions that differ at least somewhat, could lead to ambiguity and confusion as to what rules are applicable in a given situation. The task of a Russian or American ship captain would be complicated immensely: "Which set of rules is the ship on the horizon liable to follow, which should apply?" Another objection is that many small states, i.e. Sweden, traditionally has resisted entering into bilateral negotiations with great powers on security matters.

A different approach would be to build upon the evolution of naval customary behaviour. The bilateral INCSEA agreements have already made their common provisions more or less a part of customary law, or "civilized" behaviour, between at least European navies. This achievement could be used as a basis for an informal multilateralisation. Adherence could perhaps be underscored by unilateral proclamations to this effect.

This procedure would have the advantage that cumbersome and possibly contraproductive negotiations are avoided. As Thomas C. Schelling has pointed out: "rules and understandings that have evolved over time and have become 'traditions' perhaps need no formal expression, and may sometimes even be demoralized by efforts to reduce them to detailed and explicit terms".[56]

Although a pragmatic approach, it has the drawback of still leaving room for ambiguity and differing interpretations as to which set of rules apply in a given case.

Another approach could be termed the role model. One could envision that one of the bilateral agreements of the great naval powers, possibly the most recent one, explicitly could serve as a model for agreements between other countries or on a regional basis.

This raises the question of how to select the agreement, which would serve as the role model. To avoid lengthy negotiations on substantial matters one could envision that e.g., NACC[57] simply adopted one of the INCSEA agreements as the role model for the members. One could also imagine that CSCE could perform the same task.

In this case, the issue of the review process is pertinent. Even if the rules of behaviour were adopted on a regional basis, the most practical solution would probably be to let states agree on conducting periodical reviews on a bilateral basis, should they so desire.

Another approach could possibly be to let an international forum of experts – or the Conference on Disarmament, although the risks of a drawn out process are obvious – adopt one of the INCSEA agreements, possibly with minor amendments

[56] Thomas C. Schelling and Morton H. Halpering, *Strategy and Arms Control* (New York: The Twentieth Century Fund, 1961), pp. 78-79.
[57] North Atlantic Cooperation Council.

as a norm agreement. Once the content of the agreement was decided, it would be up to states to put provisions agreed into effect on a bilateral basis. The review would also be bilateral.

The third, and final, level of naval risk reduction should address tense situations, which might inadvertently escalate. In such cases common rules permitting both parties to demonstrate benign intent and to withdrawal gracefully would be beneficial.

Such a set of rules could be called “Rules of Disengagement”, and contain agreed practices for communicating intent. Moreover, they should include an agreed set of signals and procedures for de-escalation, the aim being to reduce the incentives to pre-empt while still allowing a high state of preparedness for self-defence.

The Rules of Disengagement (RoD) should cover three types of situations:

- An error has been made and the errant party wants to give warning or to apologise;
- A procedure of dialogue to determine whether a perceived breach of the Rules of the Road or other international agreement is intentional, or not;
- A procedure for unilateral withdrawal and restraint in cases of great confusion – i.e. exercise in bad weather during which non-participating ships are taken for parties of the exercise and the officer in tactical command (OTC) feels that the situation is getting out of control.

The elaboration of a RoD structure should be left to naval professionals in order to make the process practical instead of political.

6.2 Contacts and cooperation

6.2.1 Contacts

Military contacts, such as exchange programmes, international seminars, etc., have in latter years received increased attention in the arms control dialogue. Although the value of such contacts are impossible to weigh in objective terms, it is obvious that contacts can contribute to better understanding and the erasing of unfounded *Feindbilder*.

It should be noted that much of the work devoted to fostering military contacts takes place within the framework of the CSCE. To this day, however, naval matters have largely been left out of the CSCE. The future Security Forum, will take a broad approach to security, offering possibilities for negotiations, dialogue and regional approaches as desired. In this context, it might be possible to discuss naval cooperative matters. After all, to exclude them a priori could be seen as implying that security does not have a maritime aspect?

Professional contacts is an area where navies have long experience. Conditions at sea necessitate occasional cooperation between ships from different nations. Ceremonies and traditions are similar in most navies. A long-established type of "contacts" is international port calls, which provide opportunities to observe the quality of ships and men.

International Maritime Symposia constitute a rather recent and successful approach to the subject of contacts. The first was held in Sweden in 1975 and deemed a success.[58] These seminars have given the participating Chiefs of Navies the possibility of meeting personally and of talking "shop" among professionals.

By building on existing traditions, complemented by seminars, on i.e. doctrine and the possibility for observation on board, mutual understanding could be fostered. This, in turn, could enhance confidence, security and safety in day-to-day operations on the oceans.

6.2.2 Cooperation

More or less formalised contacts might not suffice in the present strategic situation. More enterprising undertakings might therefore be called for. International exercises, on a formal tactical level, could be held with the explicit aim of fostering contacts and understanding between different countries. Reportedly, the U.S.A. and the Soviet Union have held such exercises in the Mediterranean.

On a more practical note, cooperation is already a part of day-to-day naval operations; a prime example are regional or bilateral regimes for the coordination of search and rescue operations.[59] On quite another order of magnitude are international humanitarian operations, such as the disaster relief operation in Bangladesh in 1991.[60] Preparations for such vast undertakings is an area where one easily could imagine international exercises outside the context of normal alliances – within the CSCE for example.[61] A much more ambitious undertaking is the Global Naval Force proposed by Michael Vlahos.[62]

The new political and strategic situation might also call for joint naval operations outside the old alliance structures, e.g., for peacekeeping or peace-making purposes. There are of course some practical prerequisites for success; among these are that an operation must be coordinated in order to be effective, there must be

[58] Fieldhouse, "Naval forces and arms control", p. 30.
[59] That is, the agreement between Sweden and the Soviet Union of 24 May 1989.
[60] Stackpole, "Angels from the sea", p. 113.
[61] The Franco-Italian-Spanish-British exercise FARFADET 92 in June 1992 is an example of an exercise outside normal inter-allied cooperation.
[62] Michael Vlahos, "A Global Naval Force? Why Not?", *U.S. Naval Institute Proceedings*, March 1992, p. 40.

safeguards against friendly fire and last, but not least, adequate political control must be secured.

Within alliances and national forces, there are concepts and procedures with exactly these aims – Rules of Engagement (RoE) and standard operational procedures. RoE guide the actions of Commanding Officers in dealing with forces from other navies in peacetime, during crisis and war. By this guidance, the procedures at the tactical level are kept in line with the aim at the political level.

If naval cooperation between non-allies is to become possible, some of these concepts and procedures must be harmonised. If, for instance, a mixed NATO/non-NATO naval force were to have a mission on behalf of the CSCE, then there would be a need for a common set of RoE for this force. To ensure political control, these should be approved by the political taskmasters, in this case the CSCE leadership (the Chairman in Office assisted by an ad hoc group and the Committee of Senior Officials)[63] as an integral part of the crisis management process.

Such an achievement on an ad hoc basis would not be impossible, if the political will were there. However, to facilitate timely international crisis management, standardized sets of RoE should be agreed upon in advance. This could possibly take the form of a harmonization of existing national and allied concepts.

As noted earlier, under the heading nuclear weapons, the proliferation of weapons of mass destruction and of ballistic missiles is a pertinent problem, perhaps more so than many "traditional" arms control concerns. The prospect of adventurous or belligerent third world regimes armed with long-range missiles and poison gas is unsettling, not to mention those of a "Saddam II" possessing nuclear weapons. Not only would nuclear blackmail against neighbours or the West be possible, but also conventional aggression under the umbrella of weapons of mass destruction. The Western potential for crisis management and support of overseas interests, allies and friends would suffer considerably, and – once the genie was out of the bottle – a regional arms race could take place.

The risks thereof and methods of stifling or controlling such proliferation are high on the international agenda. Several international agreements in this field are already in existence, e.g., the Non-Proliferation Treaty, the Missile Technology Control Regime, but the regimes are generally deemed insufficient and in need of strengthening. A ban on chemical weapons is expected, with rather strict rules concerning export.

In this context, naval cooperation could potentially contribute significantly. Much of the equipment and substances subject to controls are usually transported by ship to their destinations. An important factor in many cases of breach of export controls is that merchantmen can easily be re-routed by their owners or captains. Once a ship has left port, it is very hard for national authorities to exercise control

[63] Helsinki Follow-Up Meeting 1992, "Helsinki Decisions", paras 39-42.

over it. In international waters, a ship can only be stopped and searched by a warship or coast guard vessel of the flag state, and few states have a sufficient number of warships patrolling international shipping lines.[64]

This problem could be alleviated by an agreement allowing commercial ships under the flag of a signatory to be stopped and searched in international waters by warships or coast guard vessels from other signatories, under certain circumstances. Such circumstances could be well-founded suspicion, as determined by national legal authorities (court, prosecutor) of a signatory, that the ship was carrying contraband.

Naturally, in order to determine what was contraband there would have to be an agreed list of goods and destinations subject to control, as well as procedures for the granting of export licenses. Such an agreement could perhaps build on existing regimes (NPT, MTCR, COCOM).[65] Agreed procedures for communications, interdiction and searches, including conditions for the use of force, would also have to be laid down.

[64] Blockades/sanctions, as against Iraq, and certain transgression of rules inside an EEZ constitute exceptions. According to article 110 of the Law of the Sea, a warship has the right to search a foreign ship under certain circumstances, i.e. suspicions of piracy and slave trade.

[65] Non-Proliferation Treaty, Missile Technology, Control Regime and Coordinating Committee.

7 Summary and Conclusions

The purpose of this paper is to analyse the new strategic seascape and the possible strategic consequences of commonly known proposals for naval arms control, and to explore alternative approaches to increasing security and safety at sea.

Naval power exists to promote national objectives, i.e. to strategic ends. As naval arms control evidently aims at circumscribing such power, its effects would have strategic repercussions. However, a strategic analysis cannot be free of value judgements, as neither arms control nor strategy is an exact science. There is always an explicit, or (not that unusual) an implicit or hidden, aim. In the view of the authors, naval power and its use may be good or bad depending on the purpose. The use of naval power in support of the Freedom of the Seas and unimpeded access for all nations to the oceans are perceived as good. Its use in crisis management, in support of the Western principles of human rights, democracy and market economy laid down in the Charter of Paris, is also seen as largely beneficial.

The strategic effects of arms control must be seen in the light of the actual strategic setting and will be shaped by the maritime environment. The former is now rapidly changing while the latter is fairly constant.

One of the new strategic factors is the wider concept of security and of arms control as such. Within the CSCE context, military contacts and various confidence-building measures are seen as important parts of arms control, with the understanding that “control” here refers not only to the number and quality of arms, but also to their use.

In fact, with the resources of most navies dwindling, the use of arms seems more promising to study. With the demise of the Soviet Union and the dominance of the U.S. Navy there does not seem to be much future for a negotiated naval disarmament, as such an undertaking needs at least two negotiating parties on roughly the same armament level.

There are also important conceptual objections to structural naval arms control. How to avoid circumvention in a time of rapid technological evolution? How to figure out reasonable levels? “Reasonable defence sufficiency” is a difficult concept on land. It is even more so at sea, as naval warfare is – at least in principle – global

There is, however, one possible field for structural arms control and that is sub-strategic (non-strategic) nuclear weapons. Today, the U.S., Royal and C.I.S./-Russian navies have declared a policy of non-deployment. At least the U.S.N. retains an option, however, for redeployment. A viable (?) regime for the verification of non-deployment could help in avoiding misunderstandings and inadvertent escalation.

As the bipolar world has transformed into a multipolar one, the former threat against Western SLOCs has subsided and so has most of the everyday friction between adversarial blue-water navies. Deterrence is giving way to a more co-operative approach. Cooperation is sometimes seen as an end in it itself, but it might also be useful in dealing with regional and local crises.

There are a number of initiatives that could be taken to facilitate cooperation. A basic idea is to foster personal contacts between naval personnel in order to promote mutual understanding. This can be done by seminars, port calls, exchanges at staff colleges and other more traditional ways. In the new era, new possibilities could open up; like observation on board during exercises and even international exercises on a formal tactical level or in order to train for humanitarian missions.

Mutual understanding will not be enough, however. There is also room for measures that facilitate the day-to-day interaction between ships at sea. We already have the Rules of the Road. The former Soviet Union and a string of Western countries have the Incidents at Sea agreements. There are, in the view of the authors, ways of extending the benefits of such a regime without having to conduct lengthy and possibly highly politicized negotiations. The aim would be to facilitate safe operations of navies on the high seas.

Human errors and miscalculations are possible even in the new strategic seascape. They can lead to difficult situations and possibly to inadvertent escalation – especially if the situation is tense. Here something new is called for – e.g. Rules of Disengagement. Such rules could be seen as extensions of the Incidents at Sea regime and as a practical implementation of the para 18 of the 1992 Vienna Document. They could include agreed upon practices making it possible to communicate intent and a set of procedures for de-escalation.

While measures reducing friction could be beneficial, the new strategic setting seems to require measures facilitating cooperation. In crisis management, timely and effective multinational cooperation, within the force as well as between the force commander and the international political authorities, would require common Rules of Engagement. Such rules exist today as instruments at the national and alliance levels. It should be possible, within international organisations, e.g., the U.N. or the CSCE, to elaborate RoEs for use in multinational missions. This could perhaps be achieved by “harmonising” existing national and alliance rules.

The reduced threats against SLOCs on the open oceans and the increased importance of crisis operations will also have a technical-tactical effect. Operations in coastal waters will have increased importance for the global navies. They will, hence, increasingly operate within reach of small fast-attack craft, coastal defence missiles and land-based aircraft. The mission of projecting power ashore here has its counterpart – “inverse power projection”.

Coastal forces have often been left out of arms control discussions because of their limited impact on war on the high seas. Now, they cannot be ignored. Such forces

have the capability to affect security for both commercial and naval ships. They must be taken into account accordingly. There will be repercussions for strategy and tactics as well as for naval arms control.

Divining arms control measures aimed at threatening weapons systems of certain states without also hitting similar systems important for legitimate self-defence of others seems very difficult. Thus, dealing with threatening coastal forces appears to be a matter better left to strategy and tactics rather than to traditional arms control.

The sea has many features that differ fundamentally from those of the terra firma. Legal, natural, technological and traditional factors have shaped the requirements for navies and ships. Fundamentally, ships operate in an international setting where the often harsh environment demands large platforms if sustainability on the open sea is required. Naval battles are principally duels where quality cannot substitute for quantity.

Of legal importance is the latent conflict between commercial and naval use of the sea, most prominent in coastal areas. The Law of the Sea gives, in principle, everyone the right to unhampered use of the sea provided due regard is taken to the interests of others. As there are several conflicts of interest, e.g., between fishermen and navies, this is more easy in theory than in practice. This has given rise to proposals for rules limiting the freedom of movement for navies, in sharp contrast to the principle of the Freedom of the Seas.

Another type of proposals in this context is the “navalisation” of the information and notification regimes – verification included – of the CSCE.

Mandatory notification of independent naval activities would raise many problems – definition of “activities” to be notified, delimitation of thresholds and areas and other problems related to the question of verification. Such rules would enhance neither security nor confidence. Observation/inspection, as means of verification, are for practical and security reasons not conceivable.

A voluntary approach would on the other hand be useful. Large exercises are preplanned and there is no reason why it should not, in normal times, be possible to give advance warning to international shipping and to nearby states. Any interested state can observe what it wants at sea – provided it has procured the means of doing so. Observation on board is of course more difficult, but could surely be arranged if the aim is limited to foster contacts,

An information regime could risk being largely superfluous. The number of ships and their main armament is common knowledge while their “peacetime location” is an invalid information, as the main characteristics of naval forces are mobility and flexibility. Information about plans and procurement could however be beneficial as future capabilities then could be revealed.

In sum, naval arms control must be studied on its own conditions – in the light of strategic and environmental trends and facts. The traditional approach, which stressed structural disarmament and "navalised" CSBMs, should be dismissed from the agenda. Instead, a broader perspective on arms control should be taken, where the basic characteristics of navies form the point of departure. Then there are prospects for measures – typically naval – that could be beneficial for the world community.

Authors

ROBERT DALSJÖ is a politico-military affairs specialist at the Swedish Defence Research Agency (FOI), with a focus on hard security in Europe. Recent unclassified reports include an assessment of Western military capabilities in Europe, a critical assessment of Russian A2/AD-capabilities, a concept for threshold defence for small states, a survey of Swedish national interests, problems in conventional arms control, and an assessment Baltic defence capabilities. He has previously served as Senior Advisor to Sweden's Ministry of Defence and as Defence Advisor at Sweden's delegation to NATO. He holds a Ph.D. from KCL and an M.S.F.S from Georgetown, and is an active reserve officer.

JOHAN A. TUNBERGER served as Director of Studies and Senior Security Policy Analyst at the Swedish Defence Research Agency in Stockholm, leading a group that studied European security issues including conventional arms control and net assessment. Among a plethora of other assignments, he has also served in the Swedish Ministry of Defence, in Sweden's delegation at the Stockholm Conference on CSBMs, and as Deputy Director of the Swedish Signals Intelligence Agency. He is now retired but remains a member of the Swedish Academy of War Sciences. Among friends, he is sometimes called Cassandra for his knack for foretelling unpleasant developments.

LARS WEDIN is a retired Captain of the Royal Swedish Navy). As a surface officer, commissioned in the Navy in 1969, he served on destroyers and fast-patrol boats and commanded several times at sea. He is a graduate from the Swedish and French naval war colleges. Wedin later served as military advisor in the Swedish Ministry of Foreign Affairs and as Chief of Concepts Branch in the EU Military Staff. His last appointment in uniform was as director of military history. Since retiring in 2004, he has worked as an independent researcher specialising in general and maritime strategy. He is a member of the Royal Academy of War Sciences, the Royal Society of Naval Sciences and an associate member of the French Académie de marine.

This study, originally conducted in 1992 and now republished, analyses pros and cons of various types of naval arms control measures, including the inherent problems and possible strategic ramifications of various proposals. It further explores alternative avenues to increasing security at sea. By undertaking an inventory of proposed naval arms control measures, the authors identify a number of pitfalls stemming from the conceptual and verification problems associated with extending the land-based arms control logic to the maritime domain. A grand naval arms control framework would not only require lengthy and politicised negotiations, it would also probably have major strategic ramifications, some of which may be unforeseen.

Instead of the traditional approach, which stressed structural disarmament and transplanting confidence- and security-building measures (CSBMs) to naval activities, the issue of naval arms control must be studied on its own conditions. From that perspective, the study identifies the further development of certain agreements to facilitate cooperation, reduce risks, prevent incidents and establish rules of disengagements as the most accessible and pragmatic approach to enhance maritime security.

FOI

ISSN 1650-1942

www.foi.se