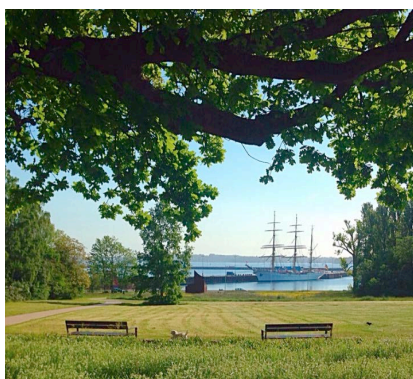


KIEL CONFERENCE



Maritime Security Challenges

2015
BALTIC SEA FOCUS



Conference
Documentation

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Prof. Dr. Joachim Krause

Director Institute for Security Policy
at the University of Kiel (ISPK)

Our inaugural Kiel Conference was a success! This city, at the mouth of the Kiel Canal, is now home to an outstanding intellectual addition of the ever-pulsating, annual Kiel Week.

2015 marked the 150th anniversary of Kiel as a navy town. Moreover, Kiel University celebrated its 350th birthday this year as well. These anniversaries contributed, in part, to the creation of the Kiel Conference, designed as an innovative forum to inform and enhance the necessary debate on current maritime security challenges. It is designed as a cross-sectoral event which brings together international participants from the military, government, industry and academia to enhance professional exchange.

Our maritime focus area of this year was the Baltic Sea, which lay calmly deep below our conference ballroom. We need to continue to develop and enhance our maritime expertise when it comes to great-power conflict in connection with this sea, and the political and operational consequences that follow.

The Institute for Security Policy provides sound academic expertise to next-generation researchers and decision-makers with an interest in maritime and strategic issues. Raytheon Anschutz, the Förde Sparkasse savings bank, and the Stiftung Wissenschaft und Demokratie (Foundation for Science and Democracy) have supported our mission by sponsoring the ISPK's effort in organizing this year's Kiel Conference, and I want to thank them wholeheartedly.

RAdm (sel.) (DEU N) Jan C. Kaack

Director Centre of Excellence for Operations
in Confined and Shallow Waters (COE CSW)



Dear participants and readers!

"Refreshingly different from all the other conferences" – this was the most frequent quote by the distinguished attendees of this year's Kiel Conference. It has been an outstanding inaugural event. That is indeed the main conclusion of the conference evaluation. Everyone was extremely satisfied with the special mix of international participants and speakers from academia, politics, industry, and the armed forces. The high level of expertise reflected in the discussions was underlined time and again.

No wonder, after all the Kiel Conference is made by experts for experts, all with excellent reputations. The concept of the hosts – ISPK and COE CSW – has proven to be compelling. Obviously we have chosen the right topic at the right time – the Baltic Sea! – and the framework of the Kiel Week. In other words, we have also been at the right place, in a very maritime city, with a long naval history.

The outstanding feedback encourages us to carry on. We will further develop the Kiel Conference and will aim at raising it to an even more advanced level. In 2016, we will be focusing on the 'High North' – a very specific and rather neglected area of interest not just with regard to geo-strategic aspects.

I do hope that you will be enjoying this year's conference documentation and be joining us next year here in Kiel.

Conference Agenda

Tuesday, 23 June 2015

Venue: Hotel Maritim Bellevue, Bismarckallee 2, D-24105 Kiel

08:00 – 09:00	Registration , Welcome Coffee & Snacks
09:00 – 09:10	Welcome Address by Prof. Dr. Joachim Krause, Director, Institute for Security Policy at the University of Kiel and by Dr. Philipp Murmann, Member of the German Parliament and chairman of the parliamentary working group 'Coast' (Arbeitskreis Küste)
09:15 – 09:45	Key Note by Vice Admiral (FRA N) Bruno Paulmier, Deputy Commander NATO MARCOM
09:45 – 11:00	<p>Panel One The Role of Sea Power in the Baltic Sea</p> <p><i>Woody Allen once famously remarked that "80% of life is showing up". The same holds true for naval forces, which can ultimately influence through presence to high-end operations in ways that air forces and armies cannot. However, presence needs to be framed in a larger political justification, i.e. strategic leverage is the product of political will and operational capabilities. NATO navies, at the same time, are under budgetary pressures to uphold even the modest rotational presence requirements, posing an arguably larger challenge to NATO's presence than current hostile A2/AD capabilities in any theatre.</i></p> <p>Speakers: Prof. Julian Lindley-French, Senior Fellow, Institute for Statecraft, London Dirk Peters, Project Officer Maritime Capabilities Support, European Defence Agency, Brussels Lieutenant Commander (SWE N) Stefan Lundqvist, Swedish National Defence College</p> <p>Chairman: Prof. Dr. Joachim Krause, Institute for Security Policy, University of Kiel</p>
11:00 – 11:30	Coffee Break

11:30 – 12:45

Panel Two

Naval Mines – Curse or Blessing in Hybrid Warfare

In the often busy, narrow and shallow waters of the militarily and commercially significant littorals, the potential risk through mines is elevated. Insidiously, the mere threat of mine deployments can have the same effect as actually establishing a minefield. Since mines can be laid rather easily by many platforms (even coasters and smaller vessels), it makes them ideal for clandestine employment without directly implicating the perpetrator. In other words, mines can be an especially effective (political) tool in low-level conflicts and hybrid scenarios.

Speakers:

CDR (NDL N) Nico Vasseur,

Director NATO Naval Mine Warfare Centre of Excellence, Oostende

CDR (BEL N) Kurt Engelen, Vice President,

Euro-Atlantic Association of Belgium, Brussels

Nick Childs, Senior Fellow Naval Forces and Maritime Security,

Institute for International Strategic Studies, London

Chairman:

Peter Roberts, Senior Research Fellow,

Royal United Services Institute, London

12:45 – 14:00

Lunch Break

14:00 – 15:15

Panel Three

Influence of Disruptive Technologies on Navies and Operations in a Confined Theatre

With effectors becoming more precise, remotely controllable, and more available, every ship that enters the littorals must be considered expendable. Intelligence, surveillance and reconnaissance are increasingly mission-critical. On top of that, as more operations depend on the support of unmanned and autonomous systems that engage over-the-horizon, the control of the cyber domain becomes more significant for mission success than ever before. With the threat coming from above, from below, from surface and from ashore, what impact does this have on the way today's navies train and fight for the littorals and how does it affect their mindset and their self-image?

Speakers:

Peter Roberts, Senior Research Fellow,
Royal United Services Institute, London

Prof. Dr. Paul Cornish, Director, Research Group Defence, Security
and Infrastructure, RAND Corporation, Cambridge

Prof. Dr. Carlo Masala, Professorship,
University of the Bundeswehr, Munich

Chairman:

Dr. Tim Benbow, Senior Lecturer,
King's College at the U.K. Defence Academy College, Shrivenham

15:15 – 15:30

Wrap-Up and Closing Comments by Captain (DEU N) Jan C. Kaack,
Director, Centre of Excellence for Operations in Confined and Shallow
Waters (COE CSW) and Commander Flotilla 1, Kiel

15:30 – 17:30

Reception





Vice Admiral (FRA N)
Bruno Paulmier



French Navy command and replenishment ship SOMME during Kiel Week 2015.

Key Note Address

by Vice Admiral (FRA N) Bruno Paulmier,
Deputy Commander, NATO Maritime
Command (MARCOM)

"A new security paradigm invites us to think about the Baltic area from a strategic, but first and foremost from an operational perspective."

"We have to recall the so-peculiar regional geo-political landscape and environmental features that frame the Baltic area. These have significant consequences on the employment of naval assets."



The Kiel Conference brings together distinguished experts and international maritime professionals.



Ringing in a new conference format.

"The confined theatre and shallow waters very much affect not only the undersea warfare, but all the activities at sea."

"Importantly, such a narrow theatre entails a joint and combined approach. The very nature of hybrid warfare calls for a comprehensive approach and a deepening of NATO-EU relationships."

"Theatre organisation, maritime awareness, and the importance of a forward presence within such a theatre as the Baltic Sea provide much room for thought."

Panel One

The Role of Sea Power

Fundamental Strategic Changes: The Baltic Sea and 21st Century Maritime Security



Panelists:
Dirk Peters
Stefan Lundqvist
Julian Lindley-French
Joachim Krause (Chair)

Rapporteur:
Joachim Krause

Once again, the strategic situation in the Baltic Sea is facing a paradigm shift. The perception of an area embracing peace and mutual collaboration seems to be superseded by the increasingly provocative military activities of Russian naval and air forces as well as the augmentation of its land forces in the region. Along with the Ukraine crisis, a rising combative Russian stance – especially towards the eastern Scandinavian and the Baltic states – is presently observed.

In fact, since the end of 2013, Russian forces conducted various mock attacks against 'targets' in or at the doorsteps of the mentioned riparian countries. For instance, a number of harassments against state ships even inside their Exclusive Economic Zones (EEZ) have been executed by Russian warships. To highlight one case: A Swedish cable ship was prevented from laying a power supply line between Sweden and Lithuania within the Lithuanian EEZ.

Furthermore, Russian air assets, including nuclear bombers, have significantly increased patrolling the airspace above the Baltic and the North Sea, thus operating in proximity to the territories of many NATO as well as neutral states. Moreover, when not noticed in advance, these aerial maneuvers can pose a considerable danger to civil aviation.

Along with repeated Russian aggressive postures, the increased presence of Russian nuclear arms delivery vehicles in the region, such as Iskander missiles or Bear bombers, is of particular concern – not just with regard to the frequency of their employments but also by the significant rise in their numbers.

Russia's assertive policy: Intimidation or hyperbole?

Although the trend is broadly regarded as alarming, the assessment and conclusions of the present secu-

rity situation are not fully shared by all experts.

Some of them argue that things are not really dramatic. According to this notion, Russia – although its military capabilities are still comparatively limited – should be respected as a great power. In consequence, legitimate Russian core interests should be taken into account. Thus, the response of NATO and the EU is to be regarded as appropriate so far; especially the development of Graduate Response Plans along with the implementation of the NATO Rapid Action Plan will be understood by Moscow as clear signals, reaffirming the validity of the mutual security assistance pursuant to the NATO Treaty, Article 5.

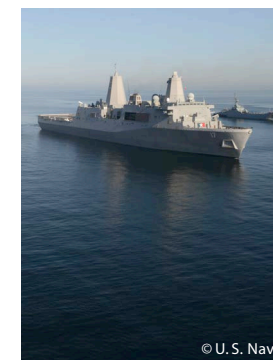
Other experts interpret the massive military muscle-flexing as an indication for a general strategic transformation with the objective of gaining strategic advantages by exploiting western weakness. Accordingly, states such as Russia and China test the resolve of the Alliance by challenging military capacities either on the flanks of NATO – the Baltic and Black Sea – or in remote regions – such as the South China Sea.

Some experts even see the potential for a major conflict if Russia follows a similar approach to its campaign in Ukraine. By threatening and destabilizing smaller neighboring states, the objective of re-incorporating them into the Russian Federation may be pursued, while at least the goal of weakening NATO's



© U.S. Navy/Royal Navy

Maritime forces from 17 nations were underway in formation for BALTOPS 2015, which concluded in Kiel right before the Kiel Conference kicked off. It included the Royal Navy's amphibious assault ship HMS OCEAN (left) and the U.S. Navy's amphibious transport dock USS SAN ANTONIO (above).



© U.S. Navy

The BRAUNSCHWEIG-class corvettes constitute the largest surface combatant of the German Navy homeported in the Baltic Sea area.



influence in the regions bordering Russia may be achieved. In exerting pressure, in particular on the Baltic States, Moscow's aim is assessed to be geared towards imposing a state of limited sovereignty on them.

Especially experts taking this latter view criticize the hesitant reactions of Western capitals to the obvious militarization of Russian policy. By hanging on to the increasingly false notion of Russia being a partner nation and without any sufficient posture that may deter further aggressions (by refraining from any posture that bears the slightest potential of escalation), Russia may be encouraged to keep provoking strategic confrontation with the Alliance and continue testing how far it can go militarily, since continuous signs of restraint would likely be interpreted in Moscow as an indicator of weakness and disunity of the West. Instead, leading Western states appear to continuously proceed in tai-

loring their defense efforts primarily according to budgetary constraints instead of aligning them to the rising threat at hand.

Conceptual reassessments: Maritime security, conventional deterrence, and hybrid scenarios

There is widespread common belief that the 21st century will be a maritime age. Additionally, there is also no doubt about an ever closer interlinking of economies that increasingly demand for free trade, thus an unhampered flow of goods and hence secure sea lanes of communication. The renaissance of the maritime domain as a vital global commons is mirrored by the rise of new sea powers such as China or India and the reinvigoration of the Russian Navy. At the same time, western naval capacities are still shrinking although we are obviously observing the margins of a fundamental shift.



Questions from the audience: strongly encouraged!

In 2011, NATO promulgated the Allied Maritime Strategy promoting collective interests of the Alliance across the broad spectrum of defense and security challenges. An important strand is strengthening NATO's engagement in cooperative security that may be illustrated by the common achievements of a multinational engagement of naval forces from NATO, the EU, the Combined Maritime Forces and other nations working towards the common goal of preventing piracy in the wider Horn of Africa region.

With the release of its maritime security strategy in 2014, the EU has also directed attention to the vital role of cooperative maritime security. The primary aim is to strengthen cooperation between different sectors, Union bodies and national authorities in a comprehensive, coherent, cost-efficient and cross-sectoral approach to maritime security in order to enhance the EU's response to risks and threats in the maritime domain. Essential strands are boosting joint efforts on improving Maritime Situational Awareness as well as creating and improving capacities in the areas of doctrine and training.

In this context, the question may be raised whether the strategic orientation of NATO and the EU adequately addresses the new challeng-

es to Maritime Security especially in the Baltic and Black Sea. The question must be answered whether and to what extent the concept of deterrence with a nuclear emphasis would carry in the face of a new facet of Russian military strategy that is hybrid in nature. Against the background of global strategic asymmetry between Russia and the West, Moscow's approach seems to be logical, whereas it is worrisome how effectively the Russian government manages to exploit disunity and political weakness in the Western hemisphere. Thus, it is obvious that traditional concepts of deterrence in the face of the new paradigm remain only partially relevant. On the bottom-line, a rapid adaption to the new situation is mandatory by drawing appropriate conclusions for a deterrence doctrine in a fundamentally changed scenario.



More than 70 participants attended the inaugural Kiel Conference.

Panel Two

Naval Mines – Curse or Blessing in Hybrid Warfare

An unlikely return: Challenges and Opportunities of Mine Warfare

Panelists:
Nico Vasseur
Kurt Engelen
Nick Childs
Peter Roberts (Chair)

Rapporteur:
Sebastian Bruns



A couple of weeks before the inaugural Kiel Conference, just some hundred nautical miles away from the Baltic maritime focus area, a patrol boat of the Ukrainian Coast Guard was sunk by an explosive device in the Black Sea off Mariupol; one officer was killed.

The freely accessible evidence is not sufficient to determine whether this tragic incident was caused by an improvised explosive device [IED] or a naval mine. The latter scenario cannot be ruled out but rather seems to be the likely case. Hence, the ramifications were clear to many analysts and observers, as well as to participants of the Kiel Conference: Naval mines, almost lost from view,

are back on scene. Their employment must be anticipated at any place and time in a conflict again. Moreover, Western naval forces have conveniently reduced their mine warfare [MW] assets for the better part of the post-Cold War era. Thus, they are well advised to reconsider the significance of mine-counter-measures [MCM] and to adapt their MW capabilities accordingly.

The Baltic Sea, constituting a confined and shallow water environment, is the perfect arena for the use of naval mines, as the history of the 20th century has impressively demonstrated. But in addition to the traditional offensive or defensive use of mines in war, nowadays an employment in an unconventional way must also be seriously taken into account. There is no doubt about such explosive devices being a challenge, particularly in a hybrid scenario where military means are used asymmetrically in conjunction

with concerted propaganda, cyber-attacks, without insignia, and outside of the statutory provisions of the international law. A sudden incident such as downing a vessel by an explosive device displaces commercial shipping and significantly influences any naval operations.

In this context, the relations between the European Union respectively the NATO littoral states bordering the Baltic Sea, on the one hand, and the Russian Federation, on the other hand, are to be reflected. As the Alliance expands eastwards, Russia perceives itself being encircled by NATO and therefore seeks to oppose this anticipated confinement. Facing inferiority in conventional forces, Moscow is left with a choice between its strategic weapons arsenal and Special Forces, along with non-conventional means. The cumulative impact of these factors places Russia in a position that balances the military shortcomings and allows Moscow to gain the initiative whilst NATO is forced to react to surprising actions.

Everything old seems new again

To this day, the use of naval mines in armed conflicts is fundamentally governed by five principles: military necessity, a particular distinction,

proportionality, operational limitations, and legal regulations. Moored, or ground mines – and even maritime IED – may be deployed offensively in other nation's territorial waters, defensively to control or deny transit of opposing forces, or protectively to secure own coastal infrastructure, ports, beaches, and sea lines of communication from an adversary. Although the Baltic Sea riparian states are no strangers to mines, dating back to the remains of World War ammunition rusting away on the seabed, any redeployment of such lethal explosives would have significant consequences for the whole area. Without a doubt, whatever type of mines or IEDs are used, trade along the Baltic would be seriously affected, posing a huge chal-



U.S. Navy explosive ordnance disposal divers in action.

© U.S. Navy

German Navy minehunter
FGS Homburg and a drone
hunting for mines.



© NATO MARCOM

lenge for NATO members to engage in MCM including force protection and guidance to shipping in the area. Intensive crisis management would start. In addition, deployed NATO forces such as the the Very High Readiness Joint Task Force [VJTF] or strategic sea transport require secure sea lanes into Poland and the Baltic States, if the Alliance would decide to employ such measures.

Whereas the numbers of naval mines in the depots of countries around the Baltic Sea perimeter are largely unaccounted, two aspects can still be asserted: First, there is little chance that the massive stockpiles of ammunition – especially mines – that the Soviet Union once held have been significantly reduced. A conservative estimate puts the Russian mine stock at 200,000, with another 100,000 mines unaccounted for. Second, the number of naval assets in general, as well as those tasked for MCM, has di-

minished considerably. Although the Russian Navy is a shadow of the former Baltic Red Banner Fleet, it remains fully capable of laying minefields. Other Baltic riparian states have shrunk their navies as well; in this context it is critical that some have totally abolished their MCM capabilities.

Conceptualizing Mine Warfare in the early 21st Century

In light of the substantial conventional superiority of NATO and partner nations in the Baltic Sea along with the overall strategic situation in this region, hybrid scenarios alike the ones witnessed in the Black Sea become increasingly possible. Following the logic of Russian 'New Generation Warfare', the unconventional use of naval mines is a plausible option in addition to the lawful classic employment of mines in case of crisis or war.



During Panel Two.

The localization of just a single mine respectively an IED at one sea line of communication or a harbour entrance, even worse, any damage to a vessel caused by such explosive devices, would have a major public and economic impact. Hence, these weapons must be regarded as being perfectly suited for a hybrid approach, all the more as an unambiguous allocation of a mine strike is extremely difficult. A number of such incidents along with 'pirate-like' attacks on merchant ships, carried out with commercial speedboats by military trained people without insignia, would easily translate into a potential nightmare scenario and fundamentally alter the perception of the Baltic Sea as an area of free trade routes, mutual cooperation, information-sharing, and peaceful coexistence.

It does not require much fantasy to realize that such types of provocations and hybrid acts could be used to legitimize a more robust military involvement, for example pretending to employ forces for the noble purpose of upholding maritime security in the region.

Under these premises, NATO member states must be capable to offer the full scope of MW options for policy-makers when it comes to crisis prevention, conflict manage-

ment, deterrence, and containment. Thus – given the geography of the Baltic Sea – not just protective and defensive mining remain to be a useful tool for limiting an adversary in fully exploiting own territorial or international waters, but especially state of the art MCM assets in sufficient quantity are imperative for dealing with any kind of mine threat. The latter demand represents a global challenge as MCM resources might be required elsewhere at the same time, for instance in the Arabian Gulf, the Mediterranean, or the Black Sea.

Naval mines, and the threat they pose, are back on stage. Besides posing a significant risk of causing severe collateral damage they also endanger the personnel conducting MCM. Nonetheless, naval mines remain an indispensable military means in conventional warfare which is also well suited for any hybrid employments.



View of the plenary.

Panel Three

Influence of Disruptive Technologies on Navies and Operations in a Confined Theatre

Adaptation and Transformation for the 21st century warfighter

Panelists:
Carlo Masala
Paul Cornish
Peter Roberts
Tim Benbow (Chair)

Rapporteur:
Adrian J. Neumann



A 'disruptive technology' presents more than a familiar incremental change; rather, it poses a fundamental challenge to how navies perform one or more of their core functions, or perhaps even its ability to carry them out at all. There have often been claims that such a moment had arrived, for example, due to the innovations of the 19th and 20th centuries (such as torpedo boats, submarines, aircraft, nuclear weapons, or anti-ship missiles). Historically, surface combatants were often considered too vulnerable to perform their accustomed role. Each time, the claims by the 'true believers' of disruptive technologies proved to be flawed and the chal-

lenges were exaggerated. In addition, the ability of navies to adapt (and the willingness of states to invest in this adaptation in view of continuous sea control) was often underestimated. However, although disruptive technologies of the past were managed well, this does not necessarily imply that this will remain so in the future – some would currently argue that we are now precisely at this tipping point.

At the tactical level, there are advances in anti-ship missiles, submarines, mines, and autonomous underwater vehicles. At the operational level, there are concepts to link up these capabilities such as 'anti-access and area denial' (A2/AD). At the strategic level, there are novel approaches variously referred to as non-linear, unrestricted, or hybrid warfare. Are these developments as much of a challenge as is claimed, or can they be countered, or even adopted by navies to their advantage.



© PIZ Marine/Hegenbart

Across all three levels of war, cyber warfare is an important issue – and the term cyber 'warfare' is preferable to cyber 'war', because it is neither the whole of war nor decisive in its own right (it also includes other activities such as espionage). It is seen as a core component of the Information domain (alongside sea, land, air and space). It is a new, but not an entirely separate element, building as it does on over 100 years of electronic warfare. The Cold War understanding of deterrence, emphasizing denial and response, has uncertain application to cyberspace due to the latter's anonymity and deniability.

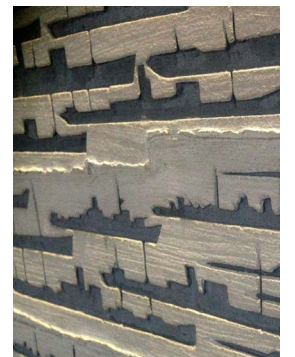
Efforts to effectively regulate cyberspace are hindered by the popular analogy of the oceans as another ungoverned space, but this does not fully hold up as cyberspace is not a physical space and thus defies jurisdictional limits. Such efforts should not look to the UNCLOS model with

the equivalent of legally defined sea areas, but should rather consider another model with a different maritime parallel, namely that of open trading routes/sea lines of communication.

An increasingly accelerating business

The pace of technological change in a number of key fields is accelerating. The key areas have been referred to as 'BRINE', for Biometrics, Robotics, (artificial) Intelligence, Nanotechnology, and Electrical (re)generation. These present a range of challenges. They can produce unintended consequences, as it may well be the case with hyper spectral sensing technology that will help to make the ocean virtually transparent when it comes to getting maritime domain awareness right. It is already being tested up to depths of 30 m (100 m water are in the pipeline), and its key

Homeported at Eckernförde Naval Base, the 212A-type submarines of the Germany Navy can be a state-of-the-art tool to address established and innovative maritime challenges in the Baltic Sea area.



Conceptualizing maritime security is much more complex than in the past.

Adaptation is what characterizes ships, yards, and maritime security.



impact in the shallow littorals would be on the mind of the commander and decision-maker. For instance, what are the consequences for the political and military leaders (not to mention for the individual unit) when faced with the prospect that their ballistic missile submarines or other strategic reserves were no longer the safe, assured second strike capability they once were assumed to be? How would an opponent respond to this strategic challenge?

Different hazards are created by the technological advances in the development of autonomous underwater vehicles. Soon, these are expected to be up to 6.000 t in size and have an operating range of more than 7.500 nautical miles, including the potential ability to autonomously engage targets without a soldier in the loop. Such use creates potential ethical and legal issues in the eyes of European states, whereas the U.S.A., Russia, or Chi-

na, are apparently dealing with that issue more openly. What are long-term consequences of this difference in view?

Navies must also prepare for the challenges posed by the 'unknown unknowns' that have not materialized but do have to be taken into account in long term planning cycles – even if the very nature of these 'black swans' is unsure.

Wanted: Honest discussions and sound strategic thinking

It should be clear that high spending on sophisticated technology does not replace strategic thinking and cannot replace political will and decisiveness. On the same note, a massive reduction of naval units due to false beliefs or exaggerated expectations in the promises of new technologies must also be avoided. In addition to the basic principles of diminishing marginal utility, an-



COE CSW's Executive Director, CAPT (DEU N) Johannes Schmidt-Thomé (right), discussing the most pressing Baltic security threats.

tiquated manning models and outdated procurement processes may further hinder navies to take full advantage of a potentially disruptive technology.

Some even argue that not just over-reliance, but that technology itself is a major disruption for navies. Navies need an unabashed debate on the purposes of new technologies. Such discussions require a deep understanding of the opportunities and challenges presented

to sea power by technology, as well as innovative minds to blend the prospects of disruptive technology properly.

The current political debate suggests an intellectual hubris in the West, in that their efforts are focused on understanding adversaries; in the meantime, the rest of the world focuses on disrupting their adversaries by engaging them.



A rigid-hull inflatable boat approaches the Royal Netherlands Navy attack submarine HNLMS Dolfijn (S808) on June 15, 2013, in the Baltic Sea during Baltic Operations (BALTOPS) 2013.

Bios

of Speakers and Chairmen
(in alphabetical order)

Tim Benbow



Dr. Tim Benbow is a Senior Lecturer in Defence Studies at King's College London, at the Joint Services Command and Staff College of the UK Defence Academy. He took a BA in Philosophy, Politics and Economics at Brasenose College, Oxford, and then a M.Phil. and a D.Phil. in International Relations at St Antony's College. He also studied at Harvard, as a John F. Kennedy memorial scholar, and at King's College London. After being awarded his doctorate he stayed at Oxford to conduct a post-doctoral research project on the 'revolution in military affairs', while teaching international relations and strategic studies at the undergraduate and graduate levels. He taught at Britannia Royal Naval College from 2002 to 2004, when he joined the Defence Studies Department. He is Director of the Strategy and Defence Policy Research Centre, Deputy Director of the Corbett Centre for Maritime Policy Studies, and Maritime Historian on the Higher Command and Staff Course. His main research areas include naval strategy and history, and the changing nature of warfare. For a list of publications, see:

<https://kclpure.kcl.ac.uk/portal/tim.benbow.html>.

Nick Childs



Nick Childs joined the International Institute for Strategic Studies (IISS) on 1st June 2015 as Senior Fellow for Naval Forces and Maritime Security, responsible for the Institute's analysis in these areas, and for the data on sea power capabilities published in the flagship annual Military Balance. It is also his job to formulate and deliver research projects in these areas, and he contributes in his areas of expertise to other Institute publications and activities, including conferences. It is also his role to strengthen the Institute's engagement with global naval and maritime stakeholders in government, the military, industry, and the academic community. Before joining the Institute, Nick Childs was a BBC journalist for more than 30 years, specialising in covering defence, security and international affairs. His last appointment was as a BBC World Affairs Correspondent. He was also the BBC's first Pen-

tagon Correspondent. Other main assignments included Defence & Security Correspondent and Political Correspondent. He reported on most recent conflicts and crises in the Middle East, as well as those in the Balkans, Sierra Leone, Afghanistan and elsewhere. He has written two recent acclaimed books on the modern Royal Navy, as well as numerous articles for various defence think tanks, journals and magazines, and has presented papers and moderated sessions at various security conferences in the United Kingdom, the rest of Europe and North America. He read Modern History and Economics at St Catherine's College, Oxford.

Paul Cornish

Professor Paul Cornish is Research Group Director for Defence, Security and Infrastructure at RAND Europe. He is a co-director of the Global Cyber Security Capacity Centre at the Martin School, Oxford University, a member of the Advisory Board of the Journal of Cybersecurity, and participant in the UK-China Track 1.5 Cyber Dialogue. His other research interests include national strategy and the ethics of the use of armed force.



Kurt Engelen

Belgian Navy Commander Kurt Engelen holds a Masters in Applied Linguistics from the Higher Institute Francisco Ferrer in Brussels, a General Management Certificate from Cambridge University Judge Business School and a Masters in International Politics from the Centre for European Strategic Research Studies in Brussels. He is a Staff Officer at the Belgian Permanent Representation to the Military Committee of NATO, where he is responsible for Cooperation and Regional Security and Crisis Management Exercises. On the academic side, he is a lecturer in International Politics at the Riga Graduate School of Law in Latvia and at the Royal Military Academy in Belgium. He is also regularly invited as a guest lecturer in various universities across Europe. His research is oriented towards Security and Defence related matters and his fields of expertise include the Common Foreign and Security Policy of the EU, NATO affairs, and neighbourhood and partnership policies of both organizations as well as the Foreign Policy of the Russian Federation. Finally, he is also the Vice President of the Euro Atlantic Association of Belgium, the Belgian chapter of the Atlantic Treaty Association.





Jan C. Kaack

Rear Admiral (sel.) Kaack is Director, Centre of Excellence for Operations in Confined and Shallow Waters (COE CSW) and Commander German Naval Flotilla 1 in Kiel (Germany). Before assuming command in early 2015, he was Chief of Branch, Navy HQ, Concepts and International Cooperation (Rostock) and Chief of Branch, MoD, Strategy and Operations Division (Berlin). Prior assignments include Chief of Staff Flotilla 1 (Kiel), Director of the International Admiral Staff Officer Course at the Bundeswehr Command and Staff College (Hamburg), and Staff Officer at the Regional HQ Allied Forces North Europe, J5 Division (NL-Brunssum). In 2006, he studied at the U.S. Naval War College in Newport, Rhode Island (USA). Rear Admiral (sel.) Kaack's vast operational experience includes tours as CO of frigate BAYERN (F217), XO of destroyer MÖLDERS (D186), Ops Officer of destroyer ROMMEL (D187), CO of fast patrol boats WOLF (S49) and PANTHER (S50), and serving as PEP Officer for the French navy aboard the helicopter cruiser JEANNE D'ARC (R97). Kaack joined the German navy in 1982. He lives near Kiel.



Joachim Krause

Joachim Krause is Professor for International Relations at the University of Kiel (Germany), a position he has held since 2001. He is also director of the Institute for Security Policy at the University of Kiel (ISPK), the chairman of the German Council on Foreign Relations' scientific council, and a member of the executive board at Aspen Institute Germany. Prof. Krause previously held positions at the Stiftung Wissenschaft und Politik, the Deutsche Gesellschaft für Auswärtige Politik, and the Bologna Center of the Paul H. Nitze School of Advanced International Studies of Johns Hopkins University. He is the editor of the forthcoming volume "Handbook Naval Strategy and Security" (Routledge, 2016).



Julian Lindley-French

Professor Dr. Julian Lindley-French is a leading strategic analyst, author, advisor and commentator who has been appointed to three professorial chairs, has eight books to his name and has written many major articles and reports. Lindley-French is currently Senior Fellow at the Institute of Statecraft in London, Director of Europa Analytica in the Netherlands, Distinguished Visiting Research Fellow at the National Defense University in Washington,

as well as a Fellow of the Canadian Defence and Foreign Affairs Institute. He is Visiting Programme Director at Wilton Park and Honorary Fellow of the Strategy and Security Institute at the University of Exeter, as well as a Member of the Strategic Advisory Panel of the UK Chief of Defence Staff. His blog, Lindley-French's Blog Blast (www.lindleyfrench.blogspot.com), has a world-wide readership. In 2008 he published a book entitled A Chronology of European Security and Defence for Oxford University Press. His massive work The Oxford Handbook of War (Oxford University Press) is regarded as a definitive compendium on the subject the paperback version of which was published in March 2014. In 2015 he published "Little Britain? Twenty-First Century Strategic Challenges for a Middling European Power" which considers the strategy and policy options faced by Britain and its armed forces in the early twenty-first century and "NATO: The Enduring Alliance for Routledge".

Stefan Lundqvist

LtCdr Stefan Lundqvist is a PhD Candidate in Political Science at Åbo Akademi University, Finland, studying the post-Cold War Maritime Security changes among Western states. He is a teacher of Joint and Naval Operations at the Swedish Defence University, specialised in Operations Assessment. He joined the Royal Swedish Navy in 1987 and has served in various staff positions since 1998. His latest publications are "Why teaching comprehensive operations planning requires transformational learning" (2015), Defence Studies, 15(2): 175–201; "Cultivating Regional Maritime Security: Swedish-Finnish Naval Cooperation in the Baltic Sea" (IOS-Press, 2015) (co-authored with J. J. Widen), in Chapsos I. and Kitchen C. (eds.) Strengthening Maritime Security Through Cooperation; "From Protection of Shipping to Protection of Citizens and National Economies: Current Changes in Maritime Security" (2013), Journal of Defence Studies, 7(3): 57–80.



Carlo Masala

Carlo Masala was born on 27th March 1968 in Cologne, Germany. He studied Political Science, German and Romanic Philology at the Universities of Cologne and Bonn. From 1992 to 1998, Professor Masala was a research associate at the Department of Political Science at the University of Cologne, where he received a doctorates degree, writing a dissertation about the



German-Italian relations between 1963 and 1969. 1998 he was appointed to Akademischer Rat for life at the Department of Political Science at University of Cologne. In December 2002, he was granted *venia legendi* in Political Science. After a substitute professorship in summer semester 2002 at Geschwister-Scholl-Department at Ludwig Maximilian University Munich, he changed to NATO Defence College in the beginning of 2004, where he acted as Research Advisor and, from 2006 on, as Deputy Director of the research department. Visiting professorships and research stays led him to the USA (Ann Arbor, Chicago, Washington), to Great Britain (Shrivenham), Slovakia (Matja Belt University), Italy (Rome and Florence) as well as the Eastern Mediterranean University of Cyprus. From June 2014 to July 2015 he has been a Visiting Professor at the Department for National Security studies at the Naval Postgraduate School in Monterey, California. In March 2007, he was offered a professorship at Universität der Bundeswehr München and accepted it on 1st June. Since 2009 Prof. Masala has been a member of the scientific advisory council on the security research program of the Federal Ministry of Education and Research (BMBF). He has been one of the publishers of Zeitschrift für Internationale Beziehungen (ZIB) from 2010 to 2014 together with Prof. Stephan Stetter. He is member of the Editorial board of the Journal for Politics. From November 2011 to July 2014 Prof. Masala has been dean of the faculty for Social Science. Since 2012 he is a member of the Academic Advisory Board of the NDC and since 2012 he is Member of the Advisory Board of the Federal Academy for Security Policy (Berlin). His main research focuses on Theories of International Politics, Security Policy, Transatlantic Relations and Maritime issues.

Philipp Murmann



Dr. Murmann is a Member of the German Parliament and Chairman of the Working Group 'Coast' (Arbeitskreis Küste) of the CDU/CSU caucus. He was born in Kiel, Germany in 1964. After his military service in Neumünster (1983–1985), he studied engineering in Munich and later obtained his doctorate in business administration at the University of Kiel in 1994. His business career led him to Nuremberg and Kuala Lumpur. In 2001, he took over the family-owned Zöllner Holding in Kiel as Executive Director and Shareholder. Today, the company employs 140 people and is a leading provider of signaling technology for ships and railroads with subdivisions in Germany, the U.K.,

France, and Spain. As a member of parliament, Dr. Murmann represents that constituency of Plön/Neumünster/Segeberg-Nord in Berlin since 2009. He is married with four children, and enjoys music and sailing.

Bruno Paulmier

Vice Admiral Bruno Paulmier joined the French Navy in 1977 and specialised in underwater warfare. He served as antisubmarine warfare expert on board the ASW frigate ACONIT (1980), the ASW destroyers TOURVILLE (1982–84) and DE GRASSE (1989–91) and assumed command of the light frigate COM-MANDANT BOUAN (1991–93), the frigate VENDEMIARE deployed in the South Pacific (1998–99) and the ASW destroyer TOURVILLE (2001–03). He attended the National High Institute for Advanced Technologies and graduated in electronic science and systems design (1984–86), the Naval Command College in Newport, USA (1994–95) and followed the Advanced Military Studies Centre curriculum in Paris. During his career, he had the opportunity to be assigned to various technical, operational and strategic positions. He led the Fleet Operational Analysis cell in Toulon (development of the French sonar systems 1986–89), was assigned to the ASW group headquarters as deputy chief of staff for underwater warfare, to the Joint Staff as a member of the National Military Strategy and Studies board (1999–2001), to the Directorate of Navy Personal Resources (2003–05) and headed the Plans and Policy Department within the French Navy Staff (2005–07). Promoted rear-admiral in 2007, he advised as deputy Secretary General for the Sea (2008–11) the Prime Minister on all policies and matters regarding maritime areas and maritime security affairs. From 2011 to 2013, as President of the Standing Commission for Programs and Trials of the Fleet, he was responding directly to the Chief of the Navy for testing and commissioning the new ships of the French navy. In September 2013, Vice Admiral Paulmier was designated as advisor to the Minister of Defence and was in charge of the coordination of maritime security issues.

He has been the deputy commander of the NATO maritime command since September 1st 2014.





Dirk Peters

Dirk Peters is a Navy Officer with a background in Public International Law. Former assignments included positions as Section Chief for International Law and Incidents at Sea at the German MoD, Navy Staff and as Planning Staff Officer in the Plans & Policy Section of the German MilRep Staff at the NATO HQ in Brussels. Currently he represents the European Defense Agency as a Project Officer in the field of Maritime Capabilities and a focus on Maritime Surveillance and Naval Training."



Peter Roberts

Peter Roberts is Senior Research Fellow at the Royal United Services Institute. He runs two research programmes at the Institute, in Sea Power/Maritime studies and in C4ISTAR. Peter researches a range of subjects within these themes from strategy and philosophy, Sea Power, Command and Control, Maritime Studies and Naval Weapons Systems, C4ISR, Military Education and Military use of Cyber Warfare. He also oversees conferences, meetings and lectures globally in these areas. Peter's recent publications include, "The Future of Amphibious Warfare", RUSI Journal (160:2) 2015, The Validity of deterrence in the twenty first century, RUSI Occasional Paper July 2015, Ballistic Missile Defence: Drivers and Options, RUSI Occasional Paper August 2015, "Maritime Security in Asia and Europe" in Partners for Global Security: New direction for the UK-Japan defence and security relationship, (ed. Eyl, Tsuruoka and Schwarck) RUSI-NIDS Whitehall Paper (3-15), as well as numerous OpEds and articles in the professional media. His upcoming publications include, ISR in 2035 and beyond (RUSI, 2015) and Sovereignty: updating the concept for defence and security (Taylor and Francis, 2015). He is a commentator for several international news outlets and has provided evidence for various parliamentary bodies both nationally and across organisations. Peter retired from the Royal Navy in January 2014 after a career as a Warfare Officer, serving as both a Commanding Officer and National Military Representative in a variety of roles with all three branches of the British Armed forces, the US Coast Guard, US Navy, US Marine Corps and intelligence services from a variety of other nations. He has served as chairman for several NATO working groups and 5 Eyes Maritime tactics symposia. Whilst the latter part of his career was spent advising foreign governments on military strategy, his final posting was within UK Joint Forces Command

with responsibility for Military Cyber Warfare, Information Operations, Human and Signals Intelligence, and Maritime ISTAR Collection. He has a Masters degree from King's College London in Defence Studies and is a Visiting Lecturer in Strategy at the Portsmouth Business School at the University of Portsmouth, as well as being a Fellow of the Chartered Management Institute.

Nico Vasseur

Nico Vasseur joined the Royal Netherlands Navy as midshipman in 1980. After completing the three-year course at the Naval College in Den Helder, he sailed as Watch Officer, Minehunting Officer and Executive Officer on several mine counter measure vessels. In 1986, he graduated in underwater acoustics at the Naval College, and immediately embarked on the Minewarfare Staff Officers' Course at Eggermolen in Ostend. The following year, he was Staff Officer Operations of both, the North and South MCM Flotillas in the Netherlands. In 1989 he followed the Principle Warfare Officer course, specialising in antisubmarine warfare. He served on her for one year, most of that time, in the Persian Gulf during Operation Desert Shield. In 1991 he took command of a coastal minesweeper. From July 1993 until June 1996 he worked for NATO at the SACLANT Undersea Research Centre in La Spezia as a Programme Officer on ASW and MCM. Before taking command of the MCM vessel HNLMS MIDDELBURG (M858), he was Operations Officer of HNLMS PIETER FLORISZ (F826). At the end of this posting, he enrolled for a year-long Staff Officers' course at the Netherlands Defence Academy. In June 2001 he was appointed Executive Officer on board HNLMS VAN AMSTEL (F831), and during this time he conducted counterdrug operations in the Caribbean, and participated in Operation Enduring Freedom in the Persian Gulf. Promoted to Commander in July 2002, he took command of the Netherlands Minecountermeasures Flotilla in Den Helder. In October 2012, Commander Vasseur was appointed Director of EGUERMIN Naval Mine Warfare Centre of Excellence, in Ostend, where he continues to foster international relationships and promote mine awareness amongst the naval and civilian communities.





A warm welcome to Kiel!



Working hard, on maritime security challenges old and new.

Conference Impressions

"The Kiel Conference was incredibly valuable and exceeded my expectations. You will find some surprises, and great new input."

– Oliver Daum, University of Trier (PhD cand.)

"Well organized and fascinating conference. Provided comprehensive and in depth information about the current situation in the Baltic. Strictly necessary to be continued and become integral part of Kiel Week."

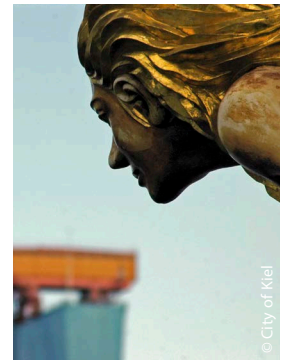
– Hans J. Stricker, Vice Admiral German navy (ret.), President German Maritime Institute

"Thank you for the two wonderful days in Kiel and for the quality of the conference, which I left wiser than when I arrived."

– Kurt Engelen, Belgian Permanent Representation to the Military Committee of NATO



Lively debate during the breaks.



A sailing ship's figurehead with one of Kiel's prominent shipyard cranes.

"I thought it was a great success, and personally found it interesting and immensely worthwhile. Many congratulations on bringing it all together."

– Tim Benbow, King's College London/U.K. Defence Academy

"I was delighted to have been able to take part in such a well-run and valuable conference. I suspect your conference could well prove to be at the heart of the geostrategic debate in Europe over the next few years."

– Paul Cornish, RAND Europe

"I really enjoyed the conference. Well organized, informative and relevant for our work at the Swedish Defence University. It was an excellent opportunity to network with other researchers and practitioners in the field."

– J. J. Widén, Professor, Swedish Defence University

An outlook from the Baltic Sea towards the Arctic region

– Regaining mutual trust

Dr. Philipp Murmann



Dr. Philipp Murmann,
member of the German
Bundestag

I consider the first Kiel Conference a big success! Through this forum, the organizers have created a very important medium for exchange between various actors from academia, politics, the military, and business. The result is a multifaceted discussion of the most pressing maritime security challenges.

Choosing the Baltic region as the focus of this year's conference was in this sense virtually obligatory. Russia's offensive actions in the context of the Ukrainian crisis led to a deep decline in confidence between the West and Russia. This clash has taken its toll on security issues and on cooperation in the Baltic region, which not long ago had been characterized by peaceful and constructive collaboration.

The Baltic countries (Estonia, Latvia, and Lithuania) as well as Scandinavia currently see Moscow as a destabilizing factor for the region. Violations of sovereign aerospace

and national maritime territory, recent large-scale military maneuvers, and the new Russian military doctrine are visible signs of a stronger claim to power by Vladimir Putin's government. The Baltic and Nordic States respond to these developments with strengthened security cooperation and a significant enhancement of their defense budgets. The once comprehensive and trustful partnership at highest political level between West and East is currently deteriorating into mere technical exchange on isolated matters (e.g. environmental issues).

Similar developments can be observed in the Arctic region, where Canada, Denmark and Russia vocally express their claims towards big parts of the Arctic seabed. In addition to oil and gas reserves, significant mineral deposits and metals as well as the search for new trade routes exacerbate the situation. And even though the disputes on terri-

torial claims, reviewed within the respective United Nations Commission, are expected to last for a while, Russia is already presenting facts: a naval unit was stationed in the area, new military airfields are being built, and field trainings are taking place. The message is clear – a substantial portion of the Arctic should become Russian sphere of influence. Canada, Denmark, Norway and of course the United States see this differently. A new, potentially unstable region with maritime security challenges emerges.

One thing is clear – a military confrontation is nobody's priority – especially not a priority for the Western states. This is directly demonstrated by the rather passive approach of the European Union and the United States towards the occupation of East Ukraine by pro-Russian separatists with the support of the Russian military and Russian Intelligence services.

What is to be done in order to prevent further conflict escalation? Above all, we must reestablish the lost trust! Germany needs to take a leading role in this scenario. First, we need to strengthen the technical cooperation in the Baltic as well as Arctic regions. Here, there are clear mutual interests – e.g. in the areas of environmental protection, mari-

time search&rescue, and the maritime and polar research. Second, we need to reestablish the open political dialogue at highest level – e.g. in the frame of the Arctic council, but also in the context of the NATO-Russia Council. Indispensable to this is a recurring and transparent coordination of naval activities such as the deployment of armed forces or the conduct of military exercises.

Surely, the next Kiel Conference would be a good start for opening such a transparent dialogue, thus providing participants from all parties, including Russia, with the opportunity to work on confidence building. I would certainly hope so!

From the Baltic Sea to the High North: Civilian-operated research ships from the Helmholtz Centre for Ocean Research regularly depart from Kiel to explore Arctic waters.



About

Executive Committee

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University of Kiel (ISPK)
Captain (DEU N) Johannes Schmidt-Thomé, Executive Director,
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Disclaimer

The thoughts and opinions expressed in the report are those of the individual contributors alone and do not necessarily reflect the views of NATO, the ISPK, or the COE CSW.

Save the Date

II. Kiel Conference – Focus High North

KIEL CONFERENCE



Maritime Security Challenges

2016
HIGH NORTH

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