

FIRE AND ICE

A New Maritime Strategy for NATO's Northern Flank



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HMS Queen Elizabeth conducts night flying trials of F-35B combat aircraft in the North Atlantic (Source: DVIDS/Dane Wiedmann)

Executive Summary

Background: NATO's Northern Flanks and Maritime Strategy

- During the Cold War, the US and other NATO powers developed a range of strategies for the use of maritime power to exert maximum pressure on the USSR should open hostilities have commenced. During the confrontation's closing years, NATO's Concept of Maritime Operations and the US Maritime Strategy were at the vanguard of this approach. The Alliance's northern region – centred on Norway and its adjacent waters – was an area of particular focus.
- Following the end of the Cold War, many of the US and NATO commands orientated towards high-intensity naval operations were disbanded, and key military capabilities allowed to atrophy. Doctrinally, the emphasis shifted towards generic maritime security taskings. Both northern flank and Atlantic missions were de-emphasised.

The Modern Strategic Context

- Following a period of post-Cold War strategic decline, Russia has embarked upon an extensive effort to modernise and restructure its naval, aerospace, ground and nuclear forces so that it will be able to meet what it perceives to be the country's security challenges, with NATO seen as the leading external threat.
- Reform, procurement and operational developments indicate that Russia is orientating its military towards an emphasis on short, high-intensity actions in order to accomplish its policy goals.
- Russian maritime and naval doctrine indicates a more aggressive posture than was the case during the Cold War – particularly in the context of conventional strategic strikes and operations against sea lines of communication (SLOC).
- NATO has made some progress towards meeting the renewed Russian threat, most notably since the 2014 invasion of Ukraine. However, there are still major shortcomings – particularly concerning the need to update its maritime strategy.

The Conflict Scenario

- Amongst the many potential flashpoints between Russia and the West, there is a serious risk that Moscow may take aggressive action against the Baltic states of Lithuania, Latvia and Estonia as part of an effort to distract from domestic problems.
- Despite recent measures taken by NATO, Russia's anti-access and area (A₂/AD) denial capabilities are likely to make the timely deployment of NATO reinforcements to the region against Moscow's wishes unviable in the short term. This may well make a successful defensive operation in the Baltic impossible at limited notice.

A New Maritime Strategy

- NATO will be highly dependent on reinforcements shipped from the US to embark on a major military effort against Russia in Europe. Russian maritime forces are vastly inferior to the collective power of the Alliance, but retain an ability to inflict losses that would be militarily and politically damaging.
- NATO must adopt an approach to neutralising Russia's attack submarine capability that involves halting the vessels' attempts to transit into the Atlantic. The UK is well-placed to take a leading role in patrolling the Greenland-Iceland-UK Gap, with the US and other NATO nations providing forward ASW defence and defence in depth.
- Russia places a high priority on conventional strategic weapons. Notably, both the naval-platform launched Kalibr cruise missile and the air-launched Kh-101 cruise missile would have to be fired from or transit through the northern maritime domain in order to reach NATO's rear area.
- As a defensive measure, the Alliance needs to be prepared to undertake an extensive US-led campaign to both manage the Russian ships and submarines that served as missile launch platforms, and defend the airspace through which air-launched weapons could transit. This would also entail securing the Norwegian Sea and reinforcing Norwegian air and missile defences.
- Russian naval strategy prioritises above all else the provision and support of the country's strategic nuclear deterrent, and the defence of the homeland. Its forces in the Arctic region would play a major role in such an effort.
- The comparative US-led maritime strength NATO possesses over Russia should be exploited to provide the Alliance with the ability to embark upon a campaign of horizontal escalation in the Arctic region to exert pressure on Moscow in a way that would both support an operation in Eastern Europe and encourage the Kremlin to come to peace terms.

The Nuclear Question

- There is little evidence that Russia would resort to the early use of nuclear weapons in a conflict it initiated, and indeed it has been moving in the opposite policy direction in recent years. Conventional strategic weapons and other measures have partly displaced nuclear systems in the deterrent, escalation control and long-range strike roles – although they remain a fall-back option.
- Moscow is fully aware of the potential consequences of the use of nuclear weapons and is no doubt sceptical of how controllable an exchange would be. Any decision on their use would be made in the context of the implications for the survival of Russia's leadership.
- The key threshold at which the use of nuclear weapons became a major risk would have been crossed with the initial Russian aggression against NATO. The new maritime strategy as outlined would be unlikely to decisively increase the probability of a nuclear exchange given the wider context.

Additional Recommendations

NATO

- The Alliance should move forward with the setting up of the Joint Force Command for the Atlantic and an associated afloat command centred upon protecting sea lines of communication and providing anti-submarine, anti-ship, missile and air defence, land attack and amphibious landing capabilities.
- It is desirable to explore the setting up of a NATO patrol force based upon Surveillance Towed Array Sensor System (SURTASS) vessels designed to track Russian submarine movements.
- Routine exercises to test the ability of NATO to escort military convoys across the Atlantic should be implemented.
- Annual exercises centred upon a minimum of one US or UK fleet carrier taking place in NATO's northern region per year and rehearsing the integration of northern European NATO navy escort vessels into larger US and UK-led task groups should be established.
- NATO should establish an exercise series specifically designed to rehearse the suppression and dismantling of hostile anti-access and area denial systems.

US

- It is necessary to re-establish a permanent military presence in Iceland, including maritime patrol aircraft, tactical combat aircraft and surface-to-air (SAM) systems.
- It is desirable to explore the forward-basing of four US anti-ballistic missile-capable destroyers in the UK to ensure their rapid availability for operations in the Eastern Atlantic and the Norwegian Sea.

UK

- The UK should make adequate arrangement to formally take leadership of NATO maritime operations in the Eastern Atlantic region during the early stages of a crisis.



USS Dewey test fires a Tomahawk cruise missile (Source: DVIDS/Petty Officer 2nd Class Devin Langer)

Introduction

NATO can be credited with making significant progress in improving its readiness to meet the renewed threat from Russia since the beginning of the country's war against Ukraine. However, most of these efforts have been focused on land and air military forces, with the naval aspect of the Alliance's preparations receiving short shrift. Whilst the plan to activate a new Joint Force Command to support operations in the North Atlantic, the reestablishment of the US Second Fleet and Exercise Trident Juncture 18 must be seen as significant positive developments, much work remains to be done.

During the Cold War, the sea-facing element of NATO's war plans underwent a continuous evolution as technology, doctrine and political priorities shifted. By the close of the confrontation between East and West, the Alliance had developed a series of complex contingencies that incorporated maritime forces as a crucial component of defensive and offensive strategy. But with the rapid post-1989 decline of Russian military power and the desire for a 'peace dividend', NATO downsized its naval forces and reoriented them towards more generic maritime security functions.

Nevertheless, the Cold War era has much to teach us as the challenge from Moscow's power returns. The ultimate incarnations of the West's plans for a conflict with the Warsaw Pact came in the form of the US Maritime Strategy of the 1980s, and NATO's parallel Concept of Maritime Operations. These both favoured the proactive, forward use of maritime power to support the defence of Europe, with the 'northern flank'¹ – centred on Norway,

Iceland, the Greenland-Iceland-UK Gap and the Soviet bases on the Kola Peninsula – receiving particular attention.

Today, the threats have changed. Russia's forces are no longer quantitatively what they once were. However, the qualitative aspect of their capabilities has significantly increased in key areas, with sophisticated systems being fielded in the maritime domain. Advanced submarines pose a threat to the shipping lanes between the US and Europe. Precision-guided land attack cruise missiles fired from ships and aircraft are capable of striking NATO facilities across Europe, including in the UK. When combined with the re-equipment of its air and ground forces and the precarious position of the Alliance in Eastern Europe – particularly the Baltic states – Moscow is quickly developing the capability to conduct significant offensive action against NATO in pursuit of a wider policy set that seeks to entrench the current government in power.

Yet despite the increasing aggressiveness of Russia's actions, NATO's approach to naval issues has yet to be revised, with the 2011 Alliance Maritime Strategy remaining the most recent update to the organisation's approach. However, as was the case in the Cold War, the maritime offers a route to deter conflict, facilitate the central air-land battle, deny Moscow the type of conflict that plays to its advantages, and help shape the aftermath of hostilities. The time has now come for NATO to return to its previous stance of providing for a forward maritime posture, with the northern region once again being placed front and centre of such plans.

¹ During the Cold War, NATO's concept of its northern flank often included the Baltic Sea. However, except where

otherwise stated, this report will define 'northern flank' as Norway, Iceland and the surrounding waters.

Background: NATO's Northern Flank and Maritime Strategy

The Cold War: 1947-1989

NATO has long recognised the importance of its northern flank. During the Cold War, Allied Forces Northern Europe (AFNORTH) – based in Oslo and tasked with coordinating the defence of Norway, Denmark and northern West Germany – represented one of the Alliance's major subordinate commands. At sea, Allied Command Atlantic (ACLANT) made extensive provisions for operations in the North Atlantic and the Norwegian Sea, with support in the waters adjacent to the English Channel provided by Allied Command Channel (ACCHAN).

As well as being one of only two NATO members to border the USSR, Norway was also subjected to the distinction of a close proximity to key Soviet bases on the Kola Peninsula. Control of the north of Norway by Moscow would have denied the Alliance the use of local airfields for operations, extending the defensive perimeter of the Kremlin's forces and allowing ships and aircraft of the Soviet Northern Fleet to more easily access the Atlantic and strike NATO's rear area. As a result, in the event of a general European war, a swift Soviet advance into the Norwegian counties of Finnmark and Troms was widely expected.

In anticipation of this threat but with resource constraints in mind, Oslo formulated its Cold War strategy. Domestically, it adopted a policy of 'total

defence', creating a military that – while small in peacetime – could be rapidly expanded through mobilisation in a crisis. Nevertheless, Norway also recognised that it would always be dependent on outside support for its security. To this end, a complex plan for deploying NATO air, sea and land reinforcements was developed. Towards the end of the Cold War, some 60,000² Alliance troops and over 200 aircraft were expected to be sent to Norway during the initial stages of a conflict.³

More broadly, the Cold War witnessed a steady evolution of how NATO approached the task of defending its northern region – which also included member state Iceland – and its use of naval power.⁴ During the 1950s, while there was some effort to directly support Norway, the main emphasis was on a policy of 'Massive Retaliation', with NATO's Striking Fleet Atlantic (STRIKFLTANT) being chiefly tasked with delivering nuclear weapons against Soviet targets.

In the late 1960s, a shift towards a doctrine of 'Flexible Response' – with immediate resort to nuclear weapons being replaced with a more gradual path of escalation – resulted in a greater emphasis on both defending Norway from Soviet invasion and ensuring the safety of reinforcement convoys travelling from North America to Europe along the North Atlantic sea lines of communication (SLOC). By the late 1970s, the emphasis began to shift to a more conservative

² The 60,000 figure assumes the fielding of an entire Marine Amphibious Force (now referred to as a Marine Expeditionary Force), the UK/Netherlands Amphibious Force and the Allied Command Europe [ACE] Mobile Force (Land)

³ Lund, J. (1989) 'Don't Rock the Boat: Reinforcing Norway in Crisis and War'. Rand Corporation.

<http://www.dtic.mil/dtic/tr/fulltext/u2/a231546.pdf> pp.66. Accessed 5 November 2018.

⁴ For a complete overview of NATO's Cold War approach to maritime strategy, see Grove, E. (1991) *Battle for the Fjords: NATO's Forward Maritime Strategy in Action*. Ian Allan Ltd, Surrey.

Greenland-Iceland-United Kingdom (GIUK) Gap



Cold War-era GIUK map (Source: US Government)

strategy of convoy defence, with halting Northern Fleet submarines at the Greenland-Iceland-UK (GIUK) Gap being the key goal.

However, it was during the 1980s that NATO's use of sea power reached its zenith. The Alliance's 1981 Concept of Maritime Operations (CONMAROPS) outlined a series of campaign plans: Atlantic Lifeline (the Atlantic SLOC), the Shallow Seas (the North Sea and Baltic Sea), the Mediterranean Lifeline (the Mediterranean SLOC) and Eastern Mediterranean. All of these contingencies were designed around three principles: enemy force containment, defence in depth, and retaining the initiative. The subsequent US Maritime Strategy⁵ was a plan for global naval operations against the USSR, but

⁵ The CONMAROPS encompassed the wider elements of NATO's seaborne tasking, and the Maritime Strategy was global in nature. However, it is for the emphasis on the Atlantic and NATO's northern flank that they are most noteworthy. For details of the Maritime Strategy, see

incorporated the same basic concepts – albeit in a more aggressive incarnation. It envisaged a four-stage global campaign plan: Phase I: Deterrence or the Transition to War; Phase II: Seizing the Initiative; and Phase III: Carrying the Fight to the Enemy. In the context of the northern flank, these plans would have seen the forward use of maritime forces to defend Norway, counter any attempt by Soviet naval forces to attack the North Atlantic SLOC, and undermine the USSR's wider ability to wage war.

At the heart of this late Cold War northern strategy remained NATO's STRIKFLTLANT – albeit this time in a role that was less centred on nuclear operations. This multi-national formation was headed by the US-led Carrier Striking Force (CARSTRIKFOR), with a UK-

commanded Anti-Submarine Warfare Striking Force (ASWSTRIKFOR) acting as the fleet's protective vanguard and an Amphibious Striking Force (AMPHIBSTRIKFOR) providing an ability to land reinforcements in Norway. The latter capability was supported by a 1981 agreement to pre-position a brigade's worth of equipment for the US Marines in central Norway, allowing them to be quickly flown into the country in the event of a crisis. When combined with Oslo's substantial (when mobilised) military and the wider NATO plans for air and land reinforcement, the Alliance was well-placed to respond to any Soviet aggression against Norway.

Hattendorf, J.B., Phil, D. and Swartz, P.M. (2008) 'U.S. Naval Strategy in the 1980s: Selected Documents'. Naval War College Press, Newport. <https://fas.org/irp/doddir/navy/strategy1980s.pdf> (Accessed 25 October 2018)



Naval Air Station Keflavik in 1982, hosting P-3 Orion maritime patrol aircraft, F-4 fighters, E-3 airborne early warning aircraft, plus a variety of in-flight refuelling and transport aircraft (Source: DoD/ MSgt. Michael E. Daniels)

The maritime posture in the wider northern theatre aided the protection of NATO's SLOC. Maritime patrol aircraft and fighters based in the UK supported a barrier defence of the GIUK Gap. Similar aircraft stationed in Iceland under the US Icelandic Defence Command further added to the defensive chain. Supporting the war against Moscow's submarines was the Sound Surveillance System (SOSUS) network of fixed underwater sensors and a group of Surveillance Towed Array Sensor System (SURTASS) ships carrying towed sonar as part of the Integrated Undersea Surveillance System (IUSS). Formations of NATO ships would engage in ASW and air defence missions in the North Atlantic and the Norwegian

Sea, while US and British nuclear submarines would seek to interdict the surface vessels and attack submarines of the USSR's Northern Fleet further forward near the Kola Peninsula.

Although NATO's CONMAROPS favoured forward defence and keeping the initiative, the US Maritime Strategy went explicitly further, stating that as a final step (once Norway and the SLOC were secure) US Navy units led by carrier groups could be moved forward – potentially all the way into the Barents Sea – and used to strike Moscow's strategic assets. This may have included carrier aircraft and cruise missile attacks on northern land bases, and attempts to sink Soviet ballistic missile submarines (SSBNs). Although hazardous⁶, such actions would

⁶ Posen, B.R. (1987) 'US Maritime Strategy: a Dangerous Game'. *Bulletin of Atomic Science*, September 1987. goo.gl/ZNciCw pp.24-28.



USS Nimitz off the coast of Norway during the 1986 edition of Exercise Northern Wedding (Source: DoD/Ronald Beno)

have pinned down surviving Soviet naval forces in a defensive posture, forced the USSR to divert assets from the Central European theatre to aid with defence, and put enormous pressure on the Kremlin to bring the war to a conclusion, ideally in a way that reflected the West's interests – an end goal referred to as 'favourable war termination'. In part, this shift to an *offensive* maritime strategy was facilitated by US naval intelligence identifying that the Soviet naval strategy was more *defensive*, i.e. bastion and homeland defence took priority over SLOC interdiction, than had previously been thought.⁷ As such, it would have been possible to divert assets away from sea lane defence and towards destroying the strategic assets whose protection the Soviets believed would determine a war's outcome.

The plans for NATO's operations in the Atlantic and northern waters were meticulously practised.

Exercise 'Ocean Safari' focused on transatlantic convoys, 'Northern Wedding' on the English Channel and the North Sea, and 'Teamwork' on the Norwegian Sea. These rehearsals were vital, not only to ensure that wartime contingency plans could survive the real world, but as a deterrence to Moscow whereby the Alliance communicated NATO's ability to utilise maritime power to favourably influence the outcome of a wider European conflict.

Post-Cold War: 1989-2014

The fall of the Berlin Wall and the collapse of the USSR heralded a drastic shift in the threat facing NATO both in the north and at sea in general. The multi-division Soviet ground force that long threatened to overrun northern Norway was in the 1990s quickly whittled away to a few barely functional brigades, with the air assets of what was

⁷ Ford, C.A. and Rosenberg, D.A. (2007) 'The Naval Intelligence Underpinnings of Reagan's Maritime Strategy', *Journal of Strategic Studies*, Vol.28 No.2, pp.379-409



The Nimrod aircraft was the RAF's primary means of countering hostile submarines between its introduction in 1969 and retirement without replacement in 2010 (Source: Dale Coleman)

then the Leningrad Military District suffering a similar fate. On the Kola Peninsula, the once mighty Northern Fleet rusted at anchor, with many older vessels being sold for scrap.

Norway responded to the reduced threat by cutting and restructuring its own forces. Notably, at the end of the Cold War, the Norwegian Army was structured to be able to grow to a fully mobilised strength of thirteen brigades. By 2008, this had fallen to one brigade as a result of budget cuts and a shift from territorial defence to expeditionary missions. The Royal Norwegian Navy suffered a similar contraction in size as the anti-invasion mission fell away, although the Royal Norwegian Air Force maintained much of its strength.⁸

NATO's commitment to Norway continued to be sustained in the form of military exercises, although they were of a far smaller scale than during the Cold War. Perhaps the most practical continuing effort in support of Norway's territorial defence was the maintenance of the US Marine Corps stockpile of pre-positioned equipment, although even this was allowed to become depleted as other missions took priority.

The US and UK – two nations that had committed substantially to both NATO's Cold War northern flank defence and maritime strategy – both experienced drastic cuts in naval force structure. Notably, from a 1987 peak of 594 vessels, the US Navy had fallen below 300 ships by 2003 – including

⁸ Ulriksen, S. (2013) 'Balancing act – Norwegian security policy, strategy and military posture'. Stockholm Free World Forum. <http://frivarld.se/wp->

<content/uploads/2013/07/St%C3%A5le.Ulriksen.pdf> pp.7-10. (Accessed 22 October 2018).

a drop from 14 to 12 (and by 2014, 10) carriers.⁹ The US focus on the Middle East and Asia has made the presence of major units in European waters a rare sight.

From the end of the Cold War to 2014, the number of destroyers and frigates in UK Royal Navy service fell from 50 to 19, and all of the force's aircraft carriers were decommissioned. Major reductions in strength were also suffered by other key northern NATO navies such as those of Germany, the Netherlands and Denmark.

In 2004, the US withdrew its fighter and maritime patrol aircraft from Iceland, in the process disbanding Icelandic Defence Command and closing Naval Air Station Keflavik. Subsurface Arctic submarine operations fell out of fashion as the US and UK SSN fleets shrunk and other priorities took precedence. Additionally, the SOSUS network was declassified and the resources for operating it were cut, while all SURTASS ships were transferred to the Pacific to focus on China's fleet. In 2010, the UK Royal Air Force retired the last of its maritime patrol aircraft.

The changes to NATO's command structure after the end of the Cold War also reflected shifting priorities. AFNORTH was closed down in 1994, ACLANT followed in 2003, and STRIKFLTLANT was disbanded in 2005. The US Navy's Atlantic-based Second Fleet was stood down in 2011. In 2012, NATO's Maritime Command (MARCOM) – based in the UK – was placed in the lead for all Alliance naval operations, with support provided by Naval Striking and Support Forces (STRIKFORNATO) in

Portugal. There are also five High Readiness Force (Maritime) (HRF(M)) headquarters provided by the US, UK, France, Italy and Spain – each capable of commanding a task force and assigned on a rotational basis to lead the maritime component of the NATO Response Force.

These moves reflected a doctrinal shift, with NATO seeking to place a greater emphasis on non-state challenges. The 2011 Alliance Maritime Strategy gives NATO's maritime forces the role of providing deterrence and collective defence, crisis management, cooperative security, dialogue and cooperation and maritime security.¹⁰ The strategy served to synchronise NATO's maritime approach with the Alliance's 2010 Strategic Concept – a document which stated that: "Today, the Euro-Atlantic area is at peace and the threat of a conventional attack against NATO territory is low", and itself sought to address a broad variety of non-existential issues.¹¹

It is important to emphasise that the 2011 Alliance Maritime Strategy did not regard conventional threats as inconsequential, noting as it does the proliferation of advanced weapons systems and the importance of NATO's ability to contribute to nuclear deterrence and maintain a conventional maritime response force. Nevertheless, the broader tasking list ensured a dilution of the Alliance's traditional mission. This was reflected in the real world through Operation Ocean Shield, an anti-piracy mission which ran off the Horn of Africa from 2009-2016; and Operation Active Endeavour, an anti-terrorist mission in the Mediterranean which ran from 2001-2016. The four NATO ongoing

⁹ US Ship Force Levels: 1886-present (2017) Naval History and Heritage Command. <https://www.history.navy.mil/research/histories/ship-histories/us-ship-force-levels.html> (Accessed 27 September 2018).

¹⁰ Alliance Maritime Strategy (2011) NATO. https://www.nato.int/cps/on/natohq/official_texts_75615.htm (Accessed 23 September 2018).

¹¹ 'Strategic Concept For the Defence and Security of the Members of the North Atlantic Treaty Organisation' (2010). NATO. <https://www.nato.int/lisbon2010/strategic-concept-2010-eng.pdf> (Accessed 24 September 2018).

maritime taskings – two Standing NATO Maritime Groups (SNMG) and two Standing NATO Mine Countermeasure Groups (SNMCMG) – have continued, but have often been starved of resources.

Of significant relevance to the impact of NATO's maritime posture was the reduction in size of its land forces in mainland Europe. Notably, in the late 1980s, the US Army had 193,000 troops in two corps on the continent, plus pre-positioned equipment for several more divisions whose personnel could be airlifted in from the US in a crisis. By 2014, this had fallen to just 24,000 soldiers in two brigades.¹² US Army tanks left Europe for what was then expected to be the last time in April 2013.¹³ While Alliance drawdowns were partly balanced out by the withdrawal of Moscow's forces from Central and Eastern Europe, the extension of NATO membership created new demands for territorial defence. The sustainability of such low land force levels is dependent on both adequate strategic

warning of a new threat from Russia, and an ability to ship forces across the Atlantic – with the latter depending on NATO's control of its maritime approaches. However, real-world rehearsals practising such reinforcements – embodied during the Cold War by the annual 'REFORGER' (Return of FORces to GERmany) exercises – ended shortly after the USSR's collapse.

By the beginning of 2014, NATO was no longer configured nor equipped to face a major state-based threat to Europe at short notice. Even the US military had allowed many of its core warfighting skills to atrophy through a focus on counterinsurgency and cost-cutting. The Alliance as a whole had developed a focus on expeditionary operations – with Afghanistan being the flagship effort. But just as the major combat phase of that mission was drawing to a close, the peace of Europe was about to come to an unexpected end.



Norwegian soldiers in Afghanistan, 2008 (Source: ISAF Headquarters Public Affairs Office)

¹² Hicks, K.H., Conley, A.C., Samp, L.S. and Bell, A. (2016) 'Evaluating US Army Force Posture in Europe: Phase 2 Report' Center for Strategic and International Studies. https://csis-prod.s3.amazonaws.com/s3fs-public/publication/160712_Samp_ArmyForcePostureEurope_Web.pdf, pp.14-15. (Accessed 23 September 2018).

¹³ Vandiver, J. (2013) 'US Army's last tanks depart from Germany'. *Stars and Stripes*. <https://www.stripes.com/news/us-army-s-last-tanks-depart-from-germany-1.214977>. Accessed 23 September 2018.

The Modern Strategic Context

The New Cold War

Just as the beginning of the Berlin Blockade in 1948 ended any realistic hope that a post-war accommodation could be met with the Soviet Union, the 2014 decision by Russia to seize the Crimean Peninsula and facilitate a violent rebellion in the east of Ukraine erased almost any prospect of positive relations between Moscow and the West for however long the current Kremlin leadership remains in power. The subsequent 2015 Russian intervention in Syria and 2016 interference in the US presidential election has only cemented this position further. While previous episodes¹⁴ –

including cyber-attacks, the 2008 conflict between Russia and Georgia, various spy scandals, document leaks, missile defence, and the Kremlin’s crackdown on protesters following the 2011 elections – worsened the situation, it was the war in Ukraine that acted as the decisive break.

These increasingly strained relations between Moscow and the US-led West have run in parallel to a major redevelopment of the Russian Armed Forces. Although still far from the juggernaut of the USSR’s military, the end result has been the development of a force that is well-suited towards the two leading priorities of the Kremlin – domestic



Russian troops in unmarked uniforms on patrol in Crimea in February 2014 (Source: VOA/ Elizabeth Arrott)

¹⁴ For an overview of recent points of tension between the US and Russia, see Nichol, J. (2014) ‘Russian: Political, Economic, and Security Issues and U.S. Interests’.

Congressional Research Service.
<https://fas.org/sgp/crs/row/RL33407.pdf> (Accessed 25 September 2018).

regime survival, and the linked issue of ensuring Russia is seen as a global player.

Russia

Russian Defence Reforms and Procurement

There were numerous attempts to refashion what became the Russian Armed Forces following the collapse of the USSR, but the first fifteen years of effort only produced modest results. The radical shift necessary only came through a combination of the appointment of reform-minded Defence Minister Anatoliy Serdyukov and the poor performance of Russian units in the 2008 Russia-Georgia War. Whilst the conflict was ultimately won by Moscow, it still identified multiple weak points within the military. Issues included the limited availability of combat-ready troops; poor command, control and surveillance capabilities; and outdated equipment.¹⁵ Reform plans were already being developed prior to the conflict. Nevertheless, the military's questionable performance further convinced the Kremlin that the armed forces – then still largely based upon the old Soviet mobilisation model – was not fit for purpose.

The reform package, launched by Serdyukov in October 2008, included plans to:

- cut the overall size of Russia's armed forces to 1 million personnel – including through the retirement of over 200,000 officers – and a shift towards a more professional model

- enhance training provisions
- eliminate understrength units and ensure that all major force elements were held at a state of permanent readiness
- rationalise the command structure, basing and logistics arrangements
- proceed with a large-scale re-equipment programme

More detailed studies of the process of reform¹⁶ and the overall successes and failures of this effort¹⁷ can be found elsewhere, but there has undoubtedly been a significant degree of progress in implementing the “New Look” model. Problems remain – notably, there is a significant shortfall of personnel and a reliance on conscripts to make up numbers. Corruption is also endemic at every level. Opposition to change from within the armed forces was also thought to be a leading motivation behind Serdyukov's sacking in November 2012. Nevertheless, the Russian military that has undertaken operations in Ukraine and Syria – whilst far from perfect – was in an order of magnitude more capable than that which entered Georgia in 2008. Large-scale exercises, such as the recent Vostok 2018, have further supported the argument that major progress has been made.¹⁸

A major accompanying part of this effort worthy of examination are the outcomes of the two most recently concluded Putin-era military re-equipment initiatives: State Armament Programme 2007-2015 and State Armament Programme 2011-2020.

¹⁵ Bryce-Roger, A. (2013) 'Russian Military Reform in the Aftermath of the 2008 Georgia War'. *Demokratizatsiya*, Vol.21, pp.351-355. demokratizatsiya.pub/archives/21_3_T0320R1173M61414.pdf (Accessed 25 September 2018).

¹⁶ Boltenev, D., Gayday, A., Karnaukhov, A., Lavrov, A. and Tseluiko, V. (2011) 'Russia's New Army'. Centre for Analysis of Strategies and Technologies, Moscow. http://www.cast.ru/files/book/NewArmy_sm.pdf (Accessed 25 September 2018).

¹⁷ Giles, K. (2017) 'Assessing Russia's Reorganized and Rearmed Military'. Carnegie Endowment for International Peace. http://carnegieendowment.org/files/5.4.2017_Keir_Giles_RussiaMilitary.pdf (Accessed 26 September 2018)

¹⁸ Boulègue, M. (2018) 'Russia's Vostok Exercises Were Both Serious Planning and a Show'. Chatham House. <https://www.chathamhouse.org/expert/comment/russia-s-vostok-exercises-were-both-serious-planning-and-show> (accessed 4 November 2018)

Russian Navy

Contemporary developments in the Russian Navy can be split between the surface and subsurface forces. The surface navy has focused on the

procurement of smaller vessels at the expense of destroyers, cruisers and aircraft carriers. Examples of new types entering service have included the *Gremyashchiy* (Project 20385) and *Buyan* (Project

Kalibr-3M14 cruise missile



A Russian Navy Buyan class corvette fires a Kalibr land attack missile (Source: Russian MoD / Mil.ru).

The Kalibr-3M14 (SS-N-30A) land attack cruise missile can trace its roots to the Soviet 3K10/S-10 Granat (SS-N-21 'Sampson') submarine-launched nuclear cruise missile. Its immediate lineage, however, is from a larger family of cruise missiles designed for domestic (the longer range Kalibr) and export (the shorter range Club). They are launched from surface ships (the 3M14T variant) and submarines (the 3M14K variant).

The Kalibr 3M-14 provides Russia with a precision-guided strategic strike system comparable to that of the US and UK-fielded Tomahawk cruise missile. Significant questions remain about the 3M-14, particularly regarding its range, with the US Office for Naval Intelligence giving a figure of 1,500 km to 2,500 km. The lack of exact data on range is important, as it means there is a lack of clarity concerning its capability. This has major implications for NATO's northern region: a 1,500 km range weapon would have to be launched from the central Norwegian Sea to reach most points in the UK, whereas a 2,500 km strike radius would allow for a launch far closer to Russian territory, allowing the firing platform to be more easily protected. The missile carries a warhead of around 500 kg of explosives, and is thought to have entered service in 2012.

Although a subsonic, non-stealth design, the paucity of air defence assets in the GIUK Gap region would mean that until NATO was able to mobilise, an effective defensive effort against weapon would be challenging. The combat capability of the land-attack Kalibr system on both ships and submarines has been repeatedly demonstrated during Russia's war in Syria.

Yasen class SSGN



The Russian Navy submarine Severodvinsk (Source: Russian MoD / Mil.ru)

The Yasen class SSGN (NATO reporting name *Severodvinsk* class) is the successor to the Cold War vintage *Akula* class SSN. The first example began construction in 1993, although budget shortfalls resulted in extensive delays. With the additional resources of the Putin era, the project once again began to move forward, and by late-2018, two examples were in service or on sea trials, and a further five under construction. All are due to become operational by 2024. The planned distribution of the vessels between the Northern and Pacific Fleets are unclear. However, the recent order of six *Improved Kilo* class SSKs for the Russian Pacific Fleet may mean that the Northern Fleet will receive the majority of the *Yasens*.

Reports indicate that the initial Yasen class vessel was built with ten torpedo tubes and eight vertical launch systems – the latter capable of carrying between 32 and 40 Kalibr missiles (sources differ on the exact number), as well as other missile types. From the second example onwards, known as the *Yasen-M* class, this configuration may have been slightly altered, although details are sparse.

US Naval intelligence analysis suggests that these vessels are extremely quiet underwater, although not to the same extent as the US Navy's *Seawolf* and *Virginia* classes. As such, they are likely to prove challenging to detect for NATO forces. As well as posing a threat to Western Europe, Northern Fleet *Yasen* class submarines in the western Atlantic could hold targets on the US eastern seaboard at risk of Kalibr attack.

21630/1) class corvettes, as well as *Admiral Grigorovich* (Project 11356) and *Admiral Gorshkov* (Project 22350) class frigates. Ambitions to build

larger vessels have so far floundered on the grounds of cost and industrial capacity limits. However, it should be noted that most of these smaller types are

capable of launching the Kalibr-3M14 land attack cruise missile, a system with a range of 1,500-2,500 km,¹⁹ as well as the Kalibr-3M-54 (SS-N-27B ‘Sizzler’) anti-shipping variant with a range of around 660km,²⁰ and the 91R1/RT2 anti-submarine variant. As a result, these vessels carry considerable offensive firepower relative to their size. The Kalibr launch system is also compatible with the P-800 Oniks (SS-N-26 ‘Strobile’) and planned 3M22 Zircon (SS-N-33) hypersonic anti-ship missile.

Submarine construction has seen both *Borey* SSBNs (Project 955/A) and *Improved Kilo* (Project 636.3) class SSKs being delivered at a steady rate. Delays have been encountered with the production of the *Yasen* class (Project 885) SSGN – armed with Kalibr missiles and the type expected to pose the greatest challenge to NATO in the Atlantic during the 2020s. However, seven are expected to be operational by 2024.

Additionally, the Main Directorate Deep Sea Research, a department of Russia’s Ministry of Defence, has taken delivery of the ‘special purpose’ submarines *Podmoskovye* (Project 09787)²¹ and *Belgorad* (Project 09852)²² – the latter of which may be armed with a new strategic nuclear torpedo – for operations on the seabed.

It should also be noted that the Russian Navy is modernising existing ships and submarines, including several examples of the *Akula* class (Project 971) SSNs, *Oscar* class (Project 949A) SSGNs and *Kirov* class (Project 1144) battlecruisers. Many of these modernised vessels are expected to

be made capable of carrying Kalibr missiles. Russia’s only aircraft carrier, the *Admiral Kuznetsov* (Project 1143.5), is in refit, but is expected to be back in service in 2022. Russian Naval Aviation has received 24 new MiG-29K ‘Fulcrum-D’ combat aircraft to operate off the carrier alongside the existing Su-33 ‘Flanker-D’ fighter force, as well as upgraded Tu-142 ‘Bear-F’ and Ilyushin Il-38 ‘May’ maritime patrol aircraft.

Most structural change to the navy has been focused on alterations to command arrangements and unit rationalisation.

Russian Aerospace Force

The procurement strategy of Russia’s Aerospace Force has so far focused on acquiring improved models of established types. In total, around four hundred of the Su-30 ‘Flanker-C’, Su-34 ‘Fullback’ and Su-35 ‘Flanker-E’ – all derivatives of the Su-27 ‘Flanker’ fighter – and MiG-29SMT ‘Fulcrum-E’ tactical combat aircraft types are expected to be delivered by 2020, with further orders expected. Additionally, older fast jets are receiving upgrades. Ambitions to introduce a new stealth fighter, the Su-57, have been delayed due to technical and financial challenges. Su-57 prototypes were deployed for testing in Syria in February 2018.

Bomber developments have primarily relied on upgrades to aircraft already in service. Notably, Tu-95MS/MSM ‘Bear’ and Tu-160 ‘Blackjack’ aircraft have been fitted with the Kh-101 conventionally

¹⁹ SS-N-30A (3M-14 Kalibr) (2018) *CSIS Missile Defense Project*. <https://missilethreat.csis.org/missile/ss-n-30a/> (Accessed 27 September 2018).

²⁰ ‘Game changer: Russian sub-launched cruise missiles bring strategic effect’ (2017) Jane’s. http://www.janes.com/images/assets/147/70147/Game_changer_Russian_sub-launched_cruise_missiles_bring_strategic_effect_edit.pdf (Accessed 8 September 2018).

²¹ Sutton, H.I. (2016) ‘BS-64 Podmoskovye - New Russian Special Mission spy-sub’. *Covert Shores*. http://www.hisutton.com/BS-64_Podmoskovye.html (Accessed 17 March). (Accessed 15 September 2018).

²² Sutton, H.I. (2018) ‘Spy Subs -Project 09852 Belgorod’. *Cover Shores*, 7 September. <http://www.hisutton.com/Spy%20Subs%20-Project%2009852%20Belgorod.html> (Accessed 17 September).

Kh-101 cruise missile



A Tu-95MSM carrying eight Kh-101 test missiles (Copyright Dmitry Terekhov (CC BY-SA 2.0))

The Kh-101 is a conventionally-armed air-launched cruise missile that was designed to replace the older Kh-555, and entered service in 2011. Carrying a 400 kg explosive warhead, it was developed in parallel to the Kh-102, a variant of the missile that carries a nuclear warhead. The range of the weapon is estimated to be between 2,500 km and 2,800 km – although some sources have hinted at a range of up to 4,000km.

At present, the Kh-101 is carried by the Tu-95MS/MSM ‘Bear’ bomber (with up to eight missiles carried on external pylons) and the Tu-160 ‘Blackjack’ bomber (with up to twelve missiles carried internally). Like the Kalibr, it is designed to provide Moscow with conventional deterrent and strategic precision strike capabilities. Also like its Russian Navy relative, it had its debut during the Russian intervention in Syria.

From the standpoint of NATO’s northern flank, the weapon’s airborne launch platforms, long range and stealth would present Russia with the option of striking the Alliance’s European rear area by outflanking most of its defensive assets. Fired from the edge of the Barents Sea, a Kh-101 could theoretically hit anywhere in Iceland, Norway, the UK, Denmark, or key targets along the northern coast of Western Europe.

armed cruise missile.²³ Additionally, deliveries of refitted Tu-22M3M ‘Backfire’ aircraft began in

August this year. In January 2018, the first upgraded Tu-160M2 from a newly reopened production line

²³ ‘Kh-101 /-102’ (2018) CSIS Missile Defense Project. <https://missilethreat.csis.org/missile/kh-101-kh-102/> (Accessed 30 September 2018).

‘Upgraded ‘Bear’ goes to war’ (2016) *Combat Aircraft*, 18 November. <http://www.combataircraft.net/2016/11/18/upgraded-bear-goes-to-war/> (Accessed 31 September 2018).

Kh-32 missile



A TU-22M3 carrying two Kh-32 test missiles (Copyright: Sergei Lysenko (CC BY-SA 3.0))

The Kh-32 was designed as the successor to the Cold War Kh-31 (AS-4 'Kitchen') anti-ship missile. However, unlike its predecessor, it also has a capability against land targets. With a speed of Mach 5 and a 1,000km range, it carries a 500 kg explosive warhead.

Entering service in 2018, the Kh-31's launch platform is the Tu-22M3 bomber, with two missiles being a typical load. The Kh-31 is specifically designed to engage US Navy carrier battle groups, with its high speed and flight profile designed to defeat missile defence systems. In wartime, the missile would primarily be used to halt NATO surface ship formations approaching the Russian coastline before they were able to launch their own strikes with aircraft and cruise missiles.

made its first flight, and Russia has ambitions to increase its Tu-160 force size from 16 to at least 50 aircraft. All combat aircraft types have seen an increase in the number of precision-guided weapons at their disposal. Both the Kh-101²⁴ and

other complex munitions have been utilised in Syria.

Ground-based air defence units²⁵ have seen the delivery of new state of the art systems, including the S-400 SAM with a range of up to 400 km, and

²⁴ Ripley, T. (2017) 'Russia uses more Kh-101 cruise missiles in Syria'. Janes Defence, 7 July. <http://www.janes.com/article/72101/russia-uses-more-kh-101-cruise-missiles-in-syria> (Accessed 28 September 2018).

²⁵ These fall under a variety of commands, but are included here under Aerospace Forces for the sake of simplicity.

the shorter-range Pantsir-Si. The introduction of the S-500 system has been delayed due to technical and industrial constraints.

Structurally, the Aerospace Forces have seen unit and basing arrangements rationalised. Command and training arrangements have also been reformed.

Russian Land Forces

Russia's land forces²⁶ have in large part relied on modernising existing equipment or the procuring of newer models of older types to provide capability improvements. For example, the preponderance of tanks delivered under the recent State Armament Plans have been T-72s upgraded to T-72B3 standard (with over 1,000 delivered), and the majority of the new infantry fighting vehicles (IFV) have been BMP-3 models, an evolution of the Cold War era BMP-1 and BMP-2.²⁷ Moscow intends to replace the prevalence of its heavy combat vehicles with the Armata Universal Combat Platform, the most well-known of which is the T-14 tank. Initial series production is expected to begin imminently.

Despite the limitation of new vehicle procurement so far, several systems have recently entered service that have provided Russian ground forces with significant capability uplifts. The most high profile of these is the 9K720 Iskander (SS-26 'Stone')

(frequently referred to as the Iskander-M) – a precision-guided tactical ballistic missile with a range of 400-500km.²⁸ This is supported by the 9M728 (frequently referred to as the Iskander-K) – ground-launched cruise missile, which has a similar range.²⁹ Reports of Russia's possession of an intermediate-range ground-launched cruise missile – known as the Novator 9M729 and an illegal weapon under the Intermediate-Range Nuclear Forces Treaty (INF) – remain unconfirmed. Also of note is the Tornado-S rocket launcher system, with a range of up to 120km.³⁰ The extensive capabilities of Russia's rejuvenated artillery force have been demonstrated in Ukraine.³¹

Of particular importance in the maritime context is the entering into service of the K-300P Bastion-P (SS-C-5 'Stooge') coastal anti-ship missile system. Operated by Coastal Troops of the Russian Navy, the missile has a range of up to 350 km.³²

The Russian land force procurement strategy has been run in parallel with a major reorganisational effort.³³ Structurally, there was a shift away from a Cold War, mass-mobilisation division-based force and towards a brigades-centric structure with a greater number of professional personnel.³⁴ Each manoeuvre brigade is notionally able to generate a high-readiness battalion tactical group³⁵ (BTG) capable of independent operations with their own

²⁶ For definitional purposes, 'Ground Forces' in this report encompasses the Ground Troops, Airborne Troops, Coastal Defence Troops and Special Forces.

²⁷ Persson, G. (2016) 'Russian Military Capability in a Ten-Year Perspective – 2016'. FOI. <https://www.foi.se/rapportsammanfattning?reportNo=FOI-R-4326--SE>. pp.173 (Accessed 30 September 2018).

²⁸ 'SS-26 (Iskander)' (2018) CSIS Missile Defense Project. <https://missilethreat.csis.org/missile/ss-26/> (Accessed 14 September 2018)

²⁹ Ibid.

³⁰ 'Russian rocket artillery to be rearmed with upgraded launchers by 2020' (2018) TASS. <http://tass.com/defense/948241> (Accessed 14 August 2018)

³¹ Scales, R.H. (2014) 'Russia's superior new weapons'. Washington Post, 5 August. <https://www.washingtonpost.com/opinions/global->

https://www.washingtonpost.com/opinions/russias-superior-new-weapons/2016/08/05/e86334ec-08c5-11e6-bdcb-0133da18418d_story.html?utm_term=.a748c8729a6d (Accessed 27 September 2018)

³² Pettersen, T. (2016) 'Northern Fleet gets Bastion mobile coastal missile systems' (2016) *Barents Observer*, 25 February. <https://thebarentsobserver.com/en/security/2016/02/northern-fleet-gets-bastion-mobile-coastal-missile-systems> (Accessed 14 September 2018)

³³ Information on the reform of Russia's Ground Forces reforms taken from Sutyagin, I. and Bronk, J. (2017) *Russia's New Ground Forces: Capabilities, Limitations and Implications for International Security*. RUSI Whitehall Paper 89. Taylor & Francis, Abington.

³⁴ Russian Airborne Forces have retained their divisional structures.

³⁵ Each contains around 800 personnel.

9K720 Iskander missile



An Iskander-E system, the export variant of the Iskander-M (Copyright: Leonidi (CC BY-SA 3.0))

The 9K720 Iskander (SS-26 'Stone') is the most well-known of a family of Russian ground-launched missiles. A ballistic missile fired from a mobile launch platform, it is the successor to the Cold War-era OTR-21 Tochka (SS-21 'Scarab') and OTR-23 Oka (SS-23 Spider). Entering service in 2006, the precision-guided weapon is capable of carrying a variety of conventional and nuclear payloads weighing up to 700 kg to a range of between 400 km and 500 km while evading missile defence systems.

The missile saw its combat debut in 2008, when several weapons were fired at targets in Georgia. The Iskander has since been widely fielded within Russia's ground forces, and has featured several times in tensions between Moscow and NATO – most notably regarding its deployment to the Kaliningrad Oblast and the occupied Crimean Peninsula. During the Zapad-2017 exercise, Iskander missiles were deployed near the Norwegian border. In the event of a conflict, such weapons would be able to hit key Alliance facilities across the north of the country.

integrated support units (artillery, logistics, electronic warfare, etc.). These reforms have not been entirely successful: many units are undermanned and still largely made up of conscripts, as it has proven difficult to recruit

sufficient volunteer personnel. This phenomenon is only likely to worsen as the Kremlin presses ahead with its plans to field additional ground formations, including – in a reversal of previous policy – seven

new divisions.³⁶ Nevertheless, the changes implemented so far have already given Moscow an ability to rapidly deploy units along its periphery to conduct short, decisive operations before enemy forces have had time to fully respond. The most up-to-date information indicates that Russia has a total of 280,000-286,000 land force personnel available, inclusive of the Ground Troops, Airborne Troops, Coastal Defence Troops and Special Forces, although other sources point to a total of around 350,000.³⁷

Russian Nuclear Forces

In addition to the *Borey* class SSBNs and the modernisation of the nuclear-capable bomber fleet outlined above, Moscow's strategic nuclear forces have received recapitalisation in the form of the delivery of silo-based and road-mobile RT-2PM2 Topol-M (SS-27 'Sickle B') and RS-24 Yars (SS-29) ICBMs. The RS-26 Rubezh (SS-X-31) ICBM and RS-28 Sarmat (SS-X-30 'Satan 2') 'heavy ICBM' are currently undergoing testing before entering production.³⁸ As noted above, also of concern are reports that Russia is in the process of deploying the Novator 9M729 (SSC-8), a cruise missile which violates the INF Treaty: it is assumed that this weapon will have a nuclear capability.³⁹

Russia possesses a wide range of non-strategic nuclear weapons, including free-fall bombs, ballistic missiles, torpedoes and surface-to-air missiles. However, beyond the deployment of nuclear-

capable variants of the Iskander and Kalibr missiles, data is lacking on modernisation efforts.

State Armaments Plan 2018-2027

The State Armaments Plan 2018-2027 was formally approved by President Putin in February 2018. Publicly available details are scant at this point. However, the plan is believed to reflect a broad continuation of the previous trajectory. The delayed production of the Armata Universal Combat Platform will slowly move forward, as will that of the Su-57 – although the quantities in which these assets will be purchased is not clear. In parallel to this, the procurement of upgraded variants of legacy systems (Su-30s, Su-35s, T-72B3, etc.) will continue to allow immediate mass modernisation efforts to continue. The 2018-2027 plan is believed to trend towards supporting Russia's ground forces at the expense of the maritime element. However, the construction of submarines is expected to be prioritised.⁴⁰ A total of 19 trillion rubles (\$340 billion) has been allocated to the 2018-2027 programme.

Less 'standard' weapons are also under development. As announced by President Vladimir

³⁶ 'Brigades and Divisions' (2018). Russian Defence Policy Blog, 10 March. <https://russiandefpolicy.blog/category/force-structure/> (Accessed 15 September 2018)

³⁷ Sutyagin, I. and Bronk, J. (2017) *Russia's New Ground Forces: Capabilities, Limitations and Implications for International Security*. RUSI Whitehall Paper 89. Taylor & Francis, Abington. Pp.138-139.

³⁸ Kristensen, H.M. (2014) 'Russian Nuclear Weapons Modernization: Status, Trends, and Implications'. Federation of American Scientists. <https://fas.org/wp-content/uploads/2014/05/Brief2014-Paris-RussiaNukes.pdf> (Accessed 14 October 2018).

³⁹ 'US Official Identifies Missile Believed to Violate INF Treaty' (2017) CSIS Missile Defense Project. <https://missilethreat.csis.org/us-official-identifies-missile-believed-violate-inf-treaty/> (Accessed 14 September 2018).

⁴⁰ Nelsen, T. (2018) 'New submarines, high precision missiles top priority in Putin's new 10-years armaments program'. *The Barents Observer*, 20 December. Available at: <https://thebarentsobserver.com/en/security/2017/12/new-submarines-high-precision-missiles-top-priority-putins-new-10-years-armaments> (Accessed 15 September 2018).

Kh-47M2 Kinzhal missile



A Kinzhal missile mounted under a MiG-31K aircraft (Source: Kremlin.ru (CC BY 4.0))

The Kh-47M2 Kinzhal is an air-launched ballistic missile. Although data on the weapon has remained limited since its March 2018 unveiling, it appears to be a version of the 9K720 Iskander modified for firing from a MiG-31K fighter. Given this aircraft's ability to fly at a high altitude at over Mach 3, the Kinzhal is granted a significant performance boost on firing compared to its ground-launched cousin, with a claimed range of 1,500 km - 2,000km and a speed of Mach 10. It has also been proposed as a payload for the T-22M3.

The weapon is designed to strike both naval and land-based targets with either a conventional or nuclear warhead weighing up to 480 kg while evading missile defence systems. Although it has reportedly reached a limited operational status, plans for wider fielding are unclear.

In a time of conflict, it can be speculated that the weapon would have both an offensive and defensive role. Offensively, it would allow Russia to target NATO infrastructure in Eastern, Central and Northern Europe and parts of Western Europe without the launch aircraft even leaving Russian airspace. Defensively, they could be used against NATO ships approaching the Russian Arctic coast.

Putin during his March 2018 State of the Nation address, Russia is currently moving to field:⁴¹

- the aforementioned RS-28 Sarmat ICBM
- the 'Status 6'/Kanyon unmanned underwater vehicle/torpedo, reportedly designed to deliver a 100-megaton nuclear device to an enemy

⁴¹ Trevithick, J. (2018) 'Here's The Six Super Weapons Putin Unveiled During Fiery Address'. The Drive, 1 March. <http://www.thedrive.com/the-war-zone/18906/heres-the->

[six-super-weapons-putin-unveiled-during-fiery-address](#) (Accessed 15 October 2018)

coastline in order to generate a tsunami and contaminate a vast area with radioactivity

- a nuclear-powered cruise missile
- a hypersonic boost guide vehicle known as Avangard, which would carry a nuclear warhead and be mounted on the RS-26 Rubezh ICBM
- the Kinzhal air-launched hypersonic missile

All of these systems are designed to overcome US missile defences.

The Russian Defence Budget

The extent of Russia's defence spending has been something of a propaganda battle in of itself. Notably, claims that Russia radically reduced defence spending in 2017 are false: these cuts are the result of one off-debt repayments taking place in 2016 rather than a genuine fall in expenditure.⁴²

Moscow has also sought to play down current spending levels. In December 2017, Minister of Defence Sergei Shoigu claimed that spending for 2018 would be "2.8% of GDP or \$46 billion", and highlighted US military funding of over \$700 billion in comparison.⁴³ However, while it is true that NATO vastly outspends Russia, the figures the minister cited only account for part of the Kremlin's total outlay. The most recent data from the Stockholm International Peace Research Institute (SIPRI) registered Moscow's expenditure at \$66.35 billion, or 4.3% of GDP, for 2017; this compares with

\$36.7 billion, or 3.4% of GDP, a decade previously.⁴⁴ The discrepancy between official data and those produced by SIPRI are largely due to the exclusion of certain items of defence expenditure from the core Russian government figure. Moreover, data released in March 2018 indicated that even official defence spending for this year has risen beyond the late 2017 projections, with \$51.35 billion now being 2018 expected official outlay.⁴⁵

Russia's National Security Strategy and Defence Doctrine

The most recent version of Russia's National Security Strategy was published in December 2015.⁴⁶ The document portrays Russia as a re-emerging great power with a crucial role to play in global affairs, and deserving of the respect and influence it believes such a position should command. It also conveys a conspiratorial view in which the US and – to a lesser extent – the EU are attempting to oppress Russia's freedom of action and national sovereignty, and are "seeking to retain their dominance in world affairs" through the exertion of economic, political, military and informational pressure on Moscow.

Russia's most recent Military Doctrine, published in late 2014, provides a significant insight into the Kremlin's perceptions of the challenges it faces.⁴⁷ Externally, it identifies NATO and its presence in areas of Russian interest as the leading military risk to the country. Internally, activities aimed at disrupting the constitutional and social order and

⁴² 'Russia's 217 Defense Spending Cut is Not What it Seems' (2018). Atlantic Council. <http://www.atlanticcouncil.org/blogs/new-atlanticist/russia-s-2017-defense-spending-cut-is-not-what-it-seems> (Accessed 2 September 2018)

⁴³ 'Russia to shell out \$46 bln on defense spending in 2018' (2017) TASS. <http://tass.com/defense/982575> (Accessed 15 September 2018)

⁴⁴ SIPRI Military Expenditure Database (2017) SIPRI. <https://www.sipri.org/databases/milex> (Accessed 15 September 2018).

⁴⁵ Caffrey, C (2018) 'Russia adjusts defence spending upward'. Jane's Defence, 21 March.

<http://www.janes.com/article/78744/russia-adjusts-defence-spending-upward> (Accessed October 2018)

⁴⁶ The Russian Federation's National Security Strategy (English translation) (2015). *Journal of the Spanish Institute for Strategic Studies*.

<http://www.ieee.es/Galerias/fichero/OtrasPublicaciones/Internacional/2016/Russian-National-Security-Strategy-31Dec2015.pdf> (Accessed 21 September 2018).

⁴⁷ 'The Military Doctrine of the Russian Federation' (English translation) (2014) Press Release, The Embassy of the Russian Federation to the United Kingdom of Great Britain and Northern Ireland.

“destabilizing [the] domestic political and social situation in the country” – a reference to a possible ‘Coloured Revolution’ of the types seen recently in Europe and the Middle East – are given the highest priority.

the Kremlin’s effort to undermine Hillary Clinton – who in 2011 headed the US State Department – during the 2016 US presidential election was partly in retaliation for her perceived role in the protests. A further practical manifestation of fears of an



Russian National Guard troops during the 2018 Moscow Victory Day Parade (Source: Kremlin.ru (CC BY 4.0))

It is important for the West to note that Moscow does not consider the issues of internal and external threats to Russia to be compartmentalised. Such a view is conveyed by a perception that the recent overthrow of a number of governments by popular movements – including those in Serbia in 2000, Egypt in 2011 and Ukraine in 2014 – were products of Western intervention rather than domestic actors. Vladimir Putin’s blaming of the US State Department for encouraging protests against his government in 2011 following revelations over voter fraud demonstrates that this stance extends to Russia itself.⁴⁸ It is not unreasonable to assume that

uprising by the Russian population can be seen in the 2016 formation of the National Guard of the Russian Federation – a force of around 350,000 personnel formed through the consolidation of the country’s federal internal security forces. The National Guard is under the direct command of the President of Russia.

Fundamentally, it must be understood that the priority of Russian security policy is not the security of Russia. Rather, it is regime preservation. Whilst this is not in of itself a threat to the West, a toxic mix of paranoia and survivalism risks leaving the

⁴⁸ Elder, M. (2011) ‘Vladimir Putin accuses Hillary Clinton of encouraging Russian protests’. *The Guardian*, 8 December 2011.

<https://www.theguardian.com/world/2011/dec/08/vladimir-putin-hillary-clinton-russia> (Accessed 21 September 2018)

door open to Russia’s internal problems spilling over into the international arena.

Russia’s Naval Doctrine and Maritime Strategy

In July 2017, Russia released a revised Naval Doctrine, *Fundamentals of the State Policy of the Russian Federation in the Field of Naval Operations for the Period Until 2030*.⁴⁹ A successor to the 2012 doctrine, it both reflects increased tensions between Moscow and the West, and incorporates lessons learned during recent military operations. It cites the leading naval threat to Russia on the world’s oceans as “the aspiration of a range of states, primarily the United States of America (USA) and its allies, to dominate on the World Ocean,

including the Arctic, and to achieve overwhelming superiority of their naval forces”.

Elements of the document have been described as overambitious by observers. Most notably, the aim to possess the second most powerful navy in the world implies that Moscow intends for its force to be second only to the US, and ahead of China. Given the growing power of Beijing’s fleet and the problems within the Russian shipbuilding sector, this seems unrealistic. It is also wise to appreciate the political backdrop to the Naval Doctrine: it was published shortly before the funding allocations for the State Armaments Plan 2018-2027 were finalised, and thusly had an interest in putting forward an expansive vision.



Royal Navy destroyer HMS Dragon escorts the Russian Navy aircraft carrier Admiral Kuznetsov in July 2014 (Royal Navy/Crown Copyright) (OGL)

⁴⁹ ‘Fundamentals of the State Policy of the Russian Federation in the Field of Naval Operations for the Period Until 2030’ (English translation by Davis, A.) (2017) Russia Maritime Studies Institute: US Naval War College. <https://dnnlglwick.blob.core.windows.net/portals/o/NWCDe>

[partments/Russia%20Maritime%20Studies%20Institute/RM_Sl_RusNavyFundamentalsENG_FINAL%20\(1\).pdf?sr=b&si=D_NNFileManagerPolicy&sig=fjFDEgWhpd1ING%2FnmGOXqa_H5%2FDEujDU76EnksAB%2B1Ao%3D](https://dnnlglwick.blob.core.windows.net/portals/o/NWCDe/partments/Russia%20Maritime%20Studies%20Institute/RM_Sl_RusNavyFundamentalsENG_FINAL%20(1).pdf?sr=b&si=D_NNFileManagerPolicy&sig=fjFDEgWhpd1ING%2FnmGOXqa_H5%2FDEujDU76EnksAB%2B1Ao%3D) (Accessed 19 September 2018)

Nevertheless, some elements of the doctrine do crossover with ongoing procurement and operational activity, and it is therefore prudent to lend them more credibility. Amongst the primary aims of Russian naval policy is the intention “to provide control over operations within the sea lines of communication on the World Ocean”. Although lacking in detail as to how this may be achieved and where the focus is likely to fall, further clues can be found in Russia’s 2015 Maritime Strategy.⁵⁰ It makes clear a desire to ensure a sufficient naval presence in the Atlantic as part of a wider response to NATO activity, and emphasises the importance of the Arctic in the context of Atlantic (and Pacific) access. The prioritisation of the submarine construction programme and – perhaps most importantly – the increased presence of Russian submarines detected by NATO forces lends weight to the reality of a

significant Atlantic interest, even with a caveat that Moscow knows it could never hope to challenge the Alliance’s sea control outright.

The most proactive feature of the 2017 Naval Doctrine was the emphasis it placed on the fielding of conventional strategic weapons to provide both deterrence and, in wartime, ensure the “destruction of [the] enemy’s military and economic potential by striking its vital facilities from the sea”. In the short to medium term, the focus here is on the fielding of the Kalibr cruise missile, a weapon being installed on new-build Russian Navy corvettes, frigates and submarines, as well as a number of refitted older vessels. As previously noted, this system has already been used during the Russian intervention in Syria, with dozens of missiles being fired at targets in the country.



A Russian Borey class SSBN (Source: Mil.ru (CC BY 4.0))

⁵⁰ ‘Maritime Doctrine of the Russian Federation’ (English translation by Davis, A.) (2015) Russia Maritime Studies Institute: US Naval War College. https://dnnlglwick.blob.core.windows.net/portals/o/NWCDePARTMENTS/Russia%20Maritime%20Studies%20Institute/Maritime%20Doctrine%20TransENGrus_FINAL.pdf?sr=b&si=DNFileManagerPolicy&sig=fqZgUUVRVrRkmSFNMOj%2FNaRNawUoRdhvFJj7%2FpAkM%3D (Accessed 19 September 2018).

[itime%20Doctrine%20TransENGrus_FINAL.pdf?sr=b&si=DNFileManagerPolicy&sig=fqZgUUVRVrRkmSFNMOj%2FNaRNawUoRdhvFJj7%2FpAkM%3D](https://dnnlglwick.blob.core.windows.net/portals/o/NWCDePARTMENTS/Russia%20Maritime%20Studies%20Institute/Maritime%20Doctrine%20TransENGrus_FINAL.pdf?sr=b&si=DNFileManagerPolicy&sig=fqZgUUVRVrRkmSFNMOj%2FNaRNawUoRdhvFJj7%2FpAkM%3D) (Accessed 19 September 2018).

Fundamentally, however, the Russian maritime stance is a defensive one – a task encompassing both the provision of a nuclear deterrent capability, and direct homeland defence. This echoes the posture that led Soviet naval thinking for much of the Cold War. The modern defensive focus is on two priorities: protecting the bastions in which Russia's SSBNs patrol, and defending the maritime approaches to the country – principally from NATO naval formations. On the strategic nuclear mission, the doctrine states that the navy aims to “maintain the combat potential of the naval strategic nuclear forces at a high level”, and that “the capability of the Navy to apply naval strategic nuclear forces in any situation” will be a key test of the success of naval policy. The document also notes that an important naval capability is the ability to deploy non-strategic nuclear weapons. On territorial defence, the Naval Doctrine recognises the “deployment of strategic high-precision sea-based non-nuclear weapons systems, as well as sea-based ballistic missile defence systems by foreign states in the waters adjacent to the territory of the Russian Federation” as a key risk, and identifies the importance of “maintaining naval capabilities at a level that guarantees deterrence of aggression against the Russian Federation from the oceans and the seas”.

Russia and the Arctic

Russia has recently gone to great lengths to make clear the importance it places on the Arctic. The 2014 Military Doctrine was the first version of the document to identify the region as a key area of Russian interest. The most recent editions of the

Maritime Doctrine and Naval Doctrine both prioritise the Arctic – with the latter emphasising the necessity of preventing US dominance in the region.

In part, Moscow's Arctic focus is based upon economic interests. These are principally the opportunities provided by the opening of the Northern Sea Routes as the ice caps melt, and the potential for mineral resource extraction. However, there is also a significant security dimension. The Arctic region continues to host much of Russia's SSBN force, and would provide a defensive barrier to repel any hostile air or missile strikes launched from the Barents Sea and heading for targets in Russia.

In December 2014, Russia established the Arctic Joint Strategic Command (also known as North Unified Strategic Command or Northern Fleet Joint Strategic Command).⁵¹ While the Northern Fleet is the command's lead formation, it also controls ground, aviation and coastal defence units – including two land force brigades recently re-equipped for Arctic operations. These formations have recently received deliveries of new equipment, including S-400 SAMs⁵² and K-300P Bastion-P coastal anti-ship missiles.⁵³ Most of these units are located on or near the Kola Peninsula. There is also reportedly a programme underway to upgrade and further develop Russia's underwater sensor network – reportedly known as Project Harmony – in the Arctic to allow for the more effective tracking of

⁵¹ 'Russia Establishes Arctic Strategic Military Command' (2014) RFE/RL, 1 December. <https://www.rferl.org/a/russia-arctic-military-command/26719491.html> (Accessed 22 September 2018).

⁵² Staalesen, A. (2017) 'Missile complex S-400 on guard in Kola Peninsula'. *The Barents Observer*, 11 January. <https://thebarentsobserver.com/en/security/2017/01/missile-complex-s-400-guard-kola-peninsula> (Accessed 5 October 2018)

⁵³ 'Russian Navy Northern Fleet Receives a New K-300P Bastion-P Coastal Missile System' (2016) Navy Recognition, 23 February. <http://www.navyrecognition.com/index.php/news/defence-news/2016/february-2016-navy-naval-forces-defense-industry-technology-maritime-security-global-news/3602-russian-navy-northern-fleet-receives-a-new-k-300p-bastion-p-coastal-missile-system.html> (Accessed 22 September 2018)

NATO submarines.⁵⁴ Across the Russian Arctic, multiple airfields, radar sites and missile bases have been reactivated and/or modernised, and new garrisons have been established.⁵⁵ Regular exercises now take place to deploy reinforcements to the region, including Airborne Forces.⁵⁶

However, despite the prioritisation of defence, it should also be noted that the Arctic region has a growing importance for Moscow's offensive operations. Almost all submarines and surface vessels which deploy into the Atlantic are based in the Kola Peninsula, and aircraft would have to transit through the area to reach firing positions to attack targets in NATO's rear area. Several recent strike missions against Syria have been undertaken by aircraft based in the Russian Arctic.⁵⁷

⁵⁴ Sutton, H.I. (2016) 'Analysis - Russia seeks submarine advantage in Arctic'. Hostile Shores, 20 September. <http://www.hisutton.com/Analysis%20-Russia%20seeks%20submarine%20advantage%20in%20Arctic.html> (Accessed 17 September 2018).

⁵⁵ Osborne, A. (2017) 'Putin's Russia in biggest Arctic military push since Soviet fall'. Reuters, 30 January. <https://www.reuters.com/article/us-russia-arctic-insight/putins-russia-in-biggest-arctic-military-push-since-soviet-fall-idUSKBN15EoW0> (Accessed 22 September 2018)

⁵⁶ Staalesen, A. (2017) 'More than 300 Russian paratroopers have been on North Pole'. The Barents Observer. <https://thebarentsobserver.com/en/security/2017/01/more-300-russian-paratroopers-have-been-north-pole> (Accessed 27 September 2018).

⁵⁷ Nelson, T (2016) 'Strategic bombers striking targets in Syria departed from Kola'. The Barents Observer, 30 January. <https://thebarentsobserver.com/en/security/2016/01/strategic-bombers-striking-targets-syria-departed-kola> (Accessed 27 September 2018).

NATO

Post-2014 NATO activity: The Northern Flank and the Atlantic

The vast majority of NATO's post-Ukraine effort to reorientate towards the renewed Russian threat has focused on forces in Central and Eastern Europe, with the northern flank and maritime domain having seen little practical activity until recently.

Some of the first steps to highlight the challenge the Alliance faces in its northern region were taken by the Norwegian government. As early as May 2014, Oslo issued a warning about the importance of NATO being vigilant in its northern theatre, with

the then Norwegian Defence Minister Ine Eriksen Soereide stating that: "We are in a completely new security situation where Russia shows both the ability and the will to use military means to achieve political goals", and highlighting that "We need a NATO that has a good understanding of its regional areas".⁵⁸

In April 2015, a report commissioned by the Norwegian government and written by the Expert Commission on Norwegian Security and Defence Policy stated that the Russian intervention in Ukraine marked "the end of the 'deep peace' in Europe", and highlighted the substantial Russian military build-up in its Arctic region, as well as wider force modernisation efforts.⁵⁹ Norway has



A map of Russia's northern defensive bastion (Source: Expert Commission on Norwegian Security and Defence Policy)

⁵⁸ Fouche, G. (2014) 'Wary of Russia, Norway urges NATO vigilance in Arctic'. Reuters, 20 May. <https://www.reuters.com/article/us-norway-defence-russia/wary-of-russia-norway-urges-nato-vigilance-in-arctic-idUSBREA4JoHE20140520> (Accessed 29 September 2018).

⁵⁹ Unified Effort (2015) Expert Commission on Norwegian Security and Defence Policy. <https://www.regjeringen.no/globalassets/departementene/fd/dokumenter/unified-effort.pdf> (Accessed 29 September 2018).

long had a cordial relationship with Moscow at the local level – notably settling a long-running border dispute in 2010. However, the wider geostrategic reality is that Norway sits adjacent to a core Russian defence region, and would be in the front line of a wider conflict. As outlined in the map above taken from the commission report, even Moscow’s defensive posture would seek to either deny or limit access to the NATO region north of the GIUK Gap in wartime. Norway’s 2016 Long Term Defence Plan also made an explicit link between the country’s defence and wider security developments in Europe, noting that in the context of Russia, “while a potential crisis is unlikely to develop in Norway’s immediate region, a conflict erupting elsewhere may directly affect us”.⁶⁰ The plan also notes that: “Long-range precision guided weapons can cause significant damage with little or no warning. Modern air defence systems can deny access to critically important sections of air space.” Given Moscow’s continuing embracing of long-range precision guided weapons and long-range air defence systems, it is not difficult to imagine the threat source Oslo has in mind.

There are also indications that Russia has rehearsed strikes against key locations in Norway, with the head of the Norwegian Intelligence Service stating in March 2018 that Russian aircraft conducted simulated raids against intelligence installations and Bodø main air base in the north of the country, and on NATO vessels undertaking a training

exercise in the Norwegian Sea.⁶¹ Moscow’s Zapad 2017 military exercise also featured the deployment of Iskander-M precision guided ballistic missiles to a location close to the Norwegian border.⁶²

In the wider maritime domain, the communique released following the July 2016 NATO Warsaw Summit stated that: “In the North Atlantic, as elsewhere, the Alliance will be ready to deter and defend against any potential threats, including against sea lines of communication and maritime approaches of NATO territory”.⁶³ Nevertheless, despite the growing importance of the maritime domain, NATO has yet to refresh the Alliance Maritime Strategy of 2011.

In contrast, the US has recently revised its maritime doctrine, in 2015 publishing ‘Forward, Engaged and Ready: A Cooperative Strategy for 21st Century Seapower’⁶⁴ – an updated version of a 2007 document.⁶⁵ The 2007 paper, much like NATO’s 2011 Alliance Maritime Strategy, was broad but unfocused, with concepts such as the policing of the “global maritime commons” dominating. The revision to the strategy was primarily triggered by changing circumstances that emerged prior to Russia’s intervention in Ukraine, with an across-the-board increase in global conflict, a rapid increase in China’s military power and the rapid proliferation of anti-access and area-denial (A2/AD)

⁶⁰ Capable and Sustainable: Long Term Defence Plan (2016) Norwegian Ministry of Defence. <https://www.regjeringen.no/globalassets/departementene/fd/dokumenter/rapporter-og-regelverk/capable-and-sustainable-ltp-english-brochure.pdf> (Accessed 29 September 2018).

⁶¹ Nilsen, T. (2018) ‘Russian bombers simulated an attack against this radar on Norway’s Barents Sea coast’. *The Barents Observer*, 5 March. <https://thebarentsobserver.com/en/security/2018/03/russian-bombers-simulated-attack-against-radar-norways-barents-sea-coast> (Accessed 8 September 2018).

⁶² Ibid.

⁶³ Warsaw Summit Communiqué (2018) NATO Press Release, 9 July. https://www.nato.int/cps/en/natohq/official_texts_133169.htm (accessed 29 September 2018).

⁶⁴ *Forward, Engaged and Ready: A Cooperative Strategy for 21st Century Seapower* (2015) Department of the Navy and the US Coast Guard. <http://www.navy.mil/local/maritime/150227-CS21R-Final.pdf> (Accessed 6 September 2018)

⁶⁵ *A Cooperative Strategy for 21st Century Seapower* (2007) Department of the Navy and the US Coast Guard. <https://www.hsdl.org/?view&did=479900> (Accessed 6 September 2018)



A Russian Su-24M flies low over the USS Donald Cook in April 2016 (Source: US Navy)

systems being leading issues. The new edition of the strategy was, therefore, more robust and threat focused, with the importance of “All Domain Access” being prominent. Nevertheless, while the document mentioned Russia’s force modernisation as an ongoing challenge, it gave only limited attention to Europe overall.

Individual commanders have expressed their concern regarding the threat Russia poses to NATO’s SLOC. In September 2016, the recently retired NATO Supreme Allied Commander, General Philip M. Breedlove, voiced his concerns about the Atlantic SLOC, noting that in his view: “The unobstructed crossing of the Atlantic to fight a war on the land mass in Europe, I think, is a thing of the past”.⁶⁶ This followed earlier comments by former

commander of the US Sixth Fleet Vice Admiral James G Foggo III, who stated that “Russian submarines are prowling the Atlantic, testing our defenses, confronting our command of the seas, and preparing the complex underwater battlespace to give them an edge in any future conflict”.⁶⁷ In March 2017, speaking at a US Army conference, Major General Flem B. Walker, Jr., commanding general of the 1st Sustainment Command (Theater), warned that in the context of US reinforcements to Europe: “...we should know we’re going to lose ships... [and] we’re going to lose brigade combat teams that are afloat on those ships”.⁶⁸

⁶⁶ Freedburg, R.J. (2016) ‘Red Atlantic: Russia Could Choke Air, Sea Lanes to Europe’. Breaking Defence, 19 September. <https://breakingdefense.com/2016/09/red-atlantic-russia-could-choke-air-sea-lanes-to-europe> (Accessed 29 September 2018).

⁶⁷ Foggo, J. and Fritz, A. (2016) ‘The Fourth Battle of the Atlantic’. *Proceedings Magazine*, Vol.141/6/1,360.

<https://www.usni.org/magazines/proceedings/2016-06/fourth-battle-atlantic> (Accessed 27 September 2018)

⁶⁸ Freedburg, S.J. (2017) ‘Army Soldiers Slash Time To Move From Port To Front: Deterring Russia’ Breaking Defense, 17 March. <https://breakingdefense.com/2017/03/army-soldiers-slash-time-to-move-from-port-to-front-deterring-russia/> (Accessed 27 September 2018).

A more novel issue is that of the threat to undersea cables from Russian military vessels. The subject of interference with the fibre optic lines that carry the vast majority of data traffic between Europe and North America has been raised repeatedly in recent years. In December 2017, UK Chief of the Defence Staff Air Chief Marshall Sir Stuart Peach warned that: “There is a new risk to our prosperity and way of life, to the cables that crisscross our sea beds, disruption to which through cable-cuts or destruction would immediately – and catastrophically – fracture both international trade and the Internet.”⁶⁹ As noted, Russia’s Main Directorate Deep Sea Research is increasing the size of its fleet of submarines that are equipped to operate on the sea bed. However, it must also be observed that the transatlantic cable system has a considerable degree of redundancy built in to cope with breakages. As a result, any sabotage campaign

would have to be extensive to cause critical levels of damage.

Despite an extensive delay in major movement towards a strategy to manage the Russian maritime threat, a series of steps forward began to be taken in late 2017. The first was an announcement that the Alliance was to establish a new Joint Force Command to coordinate the defence of NATO’s Atlantic SLOC⁷⁰. This decision was formalised in the July 2018 NATO Brussels Summit.

Simultaneously, the US has moved to establish the Second Fleet to cover the North Atlantic region, with the force being formally inaugurated in August 2018. Its establishment is part of a US pivot towards challenges emanating from Russia and China, as outlined in the 2017 National Defense Strategy.⁷¹



USS Harry S. Truman in the Atlantic Ocean – July 2018 (Source: US Navy)

⁶⁹ MacAskill, E. (2017) ‘Russia could cut off Internet to Nato countries, British military chief warns’. *The Guardian*, 14 December.

<https://www.theguardian.com/world/2017/dec/14/russia-could-cut-off-internet-to-nato-countries-british-military-chief-warns> (Accessed 6 September 2018).

⁷⁰ Haynes, D. (2018) ‘Putin’s submarines spur NATO to boost its UK nerve centre’. *The Times*, 10 January.

<https://www.thetimes.co.uk/article/putin-s-submarines-spur-nato-to-boost-its-uk-nerve-centre-8h2bf95qp> (Accessed 29 September 2018).

⁷¹ Brown, E. (2018) ‘US Navy re-launches Cold War era fleet with an eye on Russia’. *CNN*, 24 August.

<https://edition.cnn.com/2018/08/24/politics/us-navy-fleet-russia/index.html> [Accessed 3 September 2018].

NATO Joint Force Command and the US Second Fleet

Although NATO is keen to avoid accusations of an outright return to a Cold War posture, the new Joint Force Command to support Alliance operations in the North Atlantic will very much be a spiritual successor to the old Allied Command Atlantic. At the announcement of its establishment, Pentagon spokesperson Johnny Michael said: “The return to great power competition and a resurgent Russia demands that Nato refocus on the Atlantic to ensure dedicated reinforcement of the continent and demonstrate a capable and credible deterrence effect.” He added that the new NATO command “will be the linchpin of trans-Atlantic security”.

The headquarters will share many of the core responsibilities of its predecessor, including the all-important securing of NATO’s SLOC. It will be once again based at the US Navy facility in Norfolk, Virginia – in no small part to ensure maximum levels of integration with the US Navy. Additionally, replicating Cold War arrangements, the force will be led by the same US Navy officer in command of US Navy’s Second Fleet.

The Second Fleet’s reestablishment comes some seven years after its 2011 disbanding. Intended to exercise administrative control over forces on the US East Coast and in the North Atlantic, few details about the priorities of the new headquarters have yet been made public. However, addressing the increasing Russian submarine activity and providing an enhanced conventional deterrent in the NATO maritime region are expected to be core areas of focus. Announcing the decision to restore the Second Fleet, Admiral John Richardson, US Navy, said: “We’ve seen this great power competition emerge, the Atlantic Ocean is as dynamic a theatre as any and particular the North Atlantic, so as we consider high-end naval warfare, fighting in the Atlantic, that will be the Second Fleet’s responsibility.”

A clue as to how the new force will operate can be seen in US Secretary of Defense Jim Mattis’ announcement that the US Navy will begin to move away from regular six-to-eight-month deployment cycles and towards less predictable “dynamic force employment” designed to confuse opposition forces and support the type of surge efforts required in times of war or tension. This summer, the aircraft carrier USS Harry S. Truman completed a short 3-month deployment, during which it spent much of its time operating in the North Atlantic. This was followed by a deployment in support of NATO’s Exercise Trident Juncture.

Norway is central to NATO’s northern posture, and the country has embarked on significant efforts to improve its defence provisions. The country’s 2016 Long Term Defence Plan provided for a substantial funding increase for the armed forces, and measures

contained both within it and since announced have included:

- the stationing of a 700-strong force of US Marines in central and northern Norway⁷²
- procuring of new and upgraded surface-to-air missile systems

⁷² Fouche, G. (2018) ‘Norway to invite more U.S. Marines, for longer and closer to Russia’. Reuters, 12 June. <https://www.reuters.com/article/us-norway-us->

[russia/norway-to-invite-more-u-s-marines-for-longer-and-closer-to-russia-idUSKBN1J8149](https://www.reuters.com/article/us-norway-us-) (Accessed 3 September 2018)

Norway's F-35 programme



A Royal Norwegian Air Force F-35A (Source: Royal Norwegian Air Force)

The November 2017 delivery of the first F-35A to the Royal Norwegian Air Force marked a decisive step forward in a programme to provide Norway with a powerful upgrade to its armed forces. The scale of the effort is hard to understate: a purchase of 52 of these \$100 million aircraft by Norway – a country with a population of only 5.2 million – is the equivalent of the UK buying 641 of the jets (against a notionally planned British purchase of 138 F-35Bs, of which only 48 have been firmly committed to). This will result in Norway possessing, on a per capita basis, the most powerful air combat arm in Western Europe. All of the aircraft are expected to be in service by 2024, by which time the current F-16A/B fleet will have been phased out.

Oslo's F-35A force will be equipped to carry the domestically developed Joint Strike Missile (JSM). This stealth cruise missile – thought to have a range of up to 550 km – will provide Norway with a potent conventional deterrent via an ability to strike Russian targets in and around the heavily militarised Kola Peninsula.

- the purchasing of five P-8 Poseidon maritime patrol aircraft
- advancing the purchase of four new submarines

Not all of these moves have been as a result of the renewed Russian threat. Notably, the Norwegian F-16 fleet would have needed recapitalisation. Nevertheless, the large amount of money involved would have been difficult to justify in more benign circumstances. Additionally, Norway is reinforcing its border with Russia, including with a 200-strong Ranger Company on the border directly, and a

mechanised battalion of 400 soldiers in the northern Finnmark region.

For Britain, the major maritime effort is centred upon its carrier programme, which by 2024 should allow it to deploy one of the most powerful surface task groups in the world in support of NATO activities. Importantly, the UK is seeking to restore its high-intensity ASW capability. Most noticeable was the decision in the country's 2015 Strategic Defence and Security Review to purchase nine P-8 Poseidon maritime patrol aircraft.

The UK's aircraft carrier programme



HMS Queen Elizabeth (MoD/Crown Copyright/OGL)

Despite delays, budget overruns and questions over their strategic purpose, Britain's programme to procure a pair of 65,000 *Queen Elizabeth* class aircraft carriers is now well advanced, with the first vessel now deep into sea trials and the second expected to be delivered to the Royal Navy in 2019.

During the closing decade of the Cold War, the Royal Navy would have deployed a task group of ASW vessels led by one or two *Invincible* class light aircraft carriers to the GIUK-Gap to support efforts to halt Soviet submarines from transiting into the North Atlantic. Carrying Sea King ASW helicopters and Sea Harrier combat aircraft, these ships would have arrived ahead of the main US-led Carrier Striking Force to hold the line, and subsequently acted to defend the wider fleet as it advanced north.

In contrast to the *Invincible* class, the *Queen Elizabeth* class were designed with expeditionary operations in mind. As such, it was intended that they would focus on the delivery of fixed-wing offensive air power rather than ASW operations. With the return of the Russian threat, some have questioned whether these are the correct ships for the current era. But for the Royal Navy, the *Queen Elizabeth* class carriers are an avenue to make a major contribution to the NATO's deterrence and defence force on its northern maritime flank, and present a number of significant advantages over their predecessors. Most notably, the air group they will carry – for wartime open-ocean operations expected to be around 24 F-35Bs and fourteen Merlin HM Mk2s helicopters for ASW and airborne early warning and control – will be far more potent than that previously available. Thus, the security of the North Atlantic SLOC could be quickly supported by a Royal Navy carrier group near the GIUK-Gap in a more robust and survivable manner during either a crisis or early in a conflict than was the case during the Cold War. Such an effort would also help mitigate the practical problem of the US now having fewer carriers and a focus on the Pacific and the Middle East, given that these issues extend the time it would take to bring US assets into theatre.

Additionally, the Royal Navy is regenerating its skills in operating submarines under the Arctic ice.⁷³ However, a recent report from the UK House of Commons Defence Committee claimed that the UK needed to commit additional resources to its activities in the Arctic.⁷⁴ It noted that the threat of Russia projecting force from the Arctic region had returned, and that “a comprehensive strategy is needed to meet this threat.” It also raised concerns over the level of ASW capability available to the UK, and called for further details from the MoD on its plans for operating the new aircraft carriers in the region.

In September 2018, the MoD gave details of a new UK Arctic Strategy.⁷⁵ Initiatives included the restoration of formal integration of the Royal Marines into Norway’s defence plan, and the rotational deployment of Typhoon fighter aircraft to Iceland. Furthermore, in July 2018, the UK announced that it would form a new Joint Area of Operations (JAO) for the North Atlantic, signalling that the area will receive greater priority for ship and aircraft deployments.⁷⁶

In the wider region, a further noteworthy development has been the recommencement of US Navy aircraft deployments to the former Naval Air

Station Keflavik in Iceland.⁷⁷ P-8 Poseidon aircraft are now routinely based at what is now better known as Keflavik International Airport. This has recently culminated in the allocation of \$14.4 million of US funding to refurbish the hanger facilities used to support US aircraft stationed at the base.⁷⁸ It has also been reported that there has been an increase in NATO nuclear submarine activity – the vast majority of which will be US Navy vessels – in Norwegian waters.⁷⁹ Looking further ahead, efforts are being made to upgrade the US undersea sensor network under the Deep Reliable Acoustic Path Exploitation System (DRAPES) programme.⁸⁰ Research aimed at fielding unmanned underwater vehicles (UUVs) and unmanned surface vehicles designed to aid in the hunt for submarines is also progressing.

One area that has so far been lacking is the restoration of the large-scale exercises that are necessary both to rehearse operations and to produce a deterrent effect. On the northern flank, exercises such as ‘Cold Response’ and the ASW-focused ‘Dynamic Mongoose’ have continued to take place, but they are far smaller than their Cold War counterparts. 1980’s exercise ‘Teamwork’ witnessed 54,000 NATO personnel deployed to the

⁷³ ‘Submariners get stuck into Arctic role at Alaskan ice camp’ (2016). Royal Navy, 8 April. <https://www.royalnavy.mod.uk/news-and-latest-activity/news/2016/april/08/160408-submariners-get-stuck-into-arctic-role> (Accessed 28 September 2018)

⁷⁴ ‘On Thin Ice: UK Defence in the Arctic (2018). House of Commons Defence Sub-committee, 15 August. <https://publications.parliament.uk/pa/cm201719/cmselect/cmdfence/388/38802.htm> (Accessed 15 October 2018).

⁷⁵ ‘Defence Secretary announces new Defence Arctic Strategy’ (2018). MoD Press Release, 30 September. <https://www.gov.uk/government/news/defence-secretary-announces-new-defence-arctic-strategy> (accessed 15 October 2018)

⁷⁶ Bunkall, A. (2018) ‘UK to expand navy in North Atlantic ‘amidst growing Russian threat’ Sky News, 9 July. <https://news.sky.com/story/uk-to-expand-navy-in-north-atlantic-amid-growing-russian-threat-11430721> (accessed 10 October 2018).

⁷⁷ McKleary, P. (2017) ‘In Return to Cold War Posture, US Sending Sub-hunting Planes to Iceland’. *Foreign Policy*, 4 December. <http://foreignpolicy.com/2017/12/04/in-return-to-cold-war-posture-u-s-sending-sub-hunting-planes-to-iceland/> (Accessed 30 September 2018).

⁷⁸ Snow, S. (2017) ‘US plans \$200 million buildup of European air bases flanking Russia’. *Air Force Times*, 17 December. <https://www.airforcetimes.com/flashpoints/2017/12/17/us-plans-200-million-buildup-of-european-air-bases-flanking-russia/> (Accessed 27 September 2018).

⁷⁹ Nilsen, T (2018) ‘Nuclear submarines inshore Norway 3 to 4 times monthly’. *The Barents Observer*, 27 January. <https://theBarentsobserver.com/en/security/2018/01/nuclear-submarines-inshore-norway-3-4-times-monthly> (Accessed 30 September 2018).

⁸⁰ ‘Listening to the ocean – the secretive enablers in the underwater battle’ (2017) Save the Royal Navy. <http://www.savetheroyalnavy.org/listening-to-the-ocean-the-secretive-enablers-in-the-underwater-battle> (Accessed 30 September 2018)

Trident Juncture 2018

The field phase of Exercise Trident Juncture 18 took place in and around Norway from 25 October to 7 November 2018, with a further command post exercise running from 13 to 24 November. The exercise featured 50,000 personnel, 10,000 vehicles, 250 aircraft and 65 vessels, making it the largest NATO training operation since 2002, and the biggest conducted in Norway since the end of the Cold War. It was made further noteworthy by the late addition of the carrier group led by the *USS Harry S. Truman*. The presence of the carrier marked the first time since 1991 that a US vessel of that type had ventured into the region. The maritime component of the exercise included ASW, mine countermeasure, air defence and amphibious landings amongst its activities.

The exercise was designed to test the NATO Response Force (NRF), including its Very High Readiness Joint Task Force (VJTF) subcomponent, in the context of an Article 5-triggering attack on a NATO member. For Norway specifically, Trident Juncture 18 also allowed for the testing of the country's 'Total Defence' concept, and to rehearse receiving the NATO forces that the country's defence would rely on in the event of a major conflict.

The exercise centred upon an effort to defend Norway from invasion using amphibious and airborne NATO reinforcements. Exercise participants were split into two groups: the northern and southern. On land, the northern force – comprised of troops from Norway, Canada, Sweden and the US – opened the exercise by 'attacking' the southern force, centred on personnel from Germany, Italy and the UK. The southern force, representing the NRF, subsequently counter-attacked to regain the initiative. At sea, the northern force was led by vessels from Canada, Denmark, Norway, Poland, the UK, and the US; and the southern force by SNMG 1 and 2 and SNMCMG 1, which themselves were made up of vessels from Belgium, Canada, Denmark, Finland, France, Germany, Latvia, Lithuania, the Netherlands, Norway, Portugal, Spain, Sweden, Turkey, and the UK.

The exercise was judged a success, but a number of incidents served to highlight the risks of maritime operations in the region. Most notably, the Norwegian frigate HNoMS Helge Ingstad collided with a tanker and almost sank before being grounded on the coast – in the process being damaged beyond likely repair. Additionally, a US Navy ship was damaged by heavy seas, forcing it to miss the exercise entirely.

Alliance's northern region.⁸¹ In contrast, 'Cold Response 2016' included only 15,000 participants.⁸² In the same way, 'Dynamic Mongoose 2017' featured

eleven surface ships,⁸³ while 'Northern Wedding 86' had 150.⁸⁴ Exercise 'Trident Juncture 18' – which took place in and around Norway in October and

⁸¹ Layne, D. (1980) 'Teamwork 80'. *Leatherneck*, Vol.63. No.12. <https://www.mca-marines.org/leatherneck/1980/12/teamwork-80> (Accessed 30 September 2018)

⁸² Exercise Cold Response 2016 (2016) Norwegian Ministry of Defence. <https://forsvaret.no/en/ForsvaretDocuments/Information%20oFolder.pdf> (Accessed 30 September 2018)

⁸³ NavalToday.com (2017) 'NATO submarine drill Dynamic Mongoose starts in Iceland'.

<https://navaltoday.com/2017/06/27/nato-submarine-drill-dynamic-mongoose-starts-in-iceland> (Accessed 30 September 2018).

⁸⁴ Jones, J. (1986) 'NATO launches 'Northern Wedding 86' maneuvers'. UPI, 29 August. <https://www.upi.com/Archives/1986/08/29/NATO-launches-Northern-Wedding-86-maneuvers/1032525672000/> (Accessed 30 January 2018).

November of this year and involved some 50,000 personnel – helped address problems NATO has had operating in the region at scale. However, there have so far been no attempts to revive transatlantic convoy exercises in the style of the Cold War’s ‘Ocean Safari’ series.

Equipment shortfalls also look set to persist. The US Navy’s drive to regenerate its surface ASW capability through its littoral combat ship (LCS) programme has run into significant problems. The successor FFG(X) frigate is more promising, but will not begin to enter service until the mid-2020s. No apparent effort is being made to replace the carrier-based long-range ASW capability that was lost when the S-3 Viking was withdrawn from the role. On more offensive matters, the limited appetite of the US Navy to fit long-range stand-off missiles such as the JASSM to its carrier aircraft is a significant handicap in the face of advanced Russian defences.

The picture from Europe is also mixed. While the UK initiative to commission both of the new *Queen Elizabeth* class carriers will ensure that at least one is always available, the outlook for the wider fleet is less promising. Notably, in 2015, the decision was taken to cut the planned buy of 13 Type 26 ASW frigates to 8, with the difference made up by a new class of light frigate likely to have no ASW capability. Other European navies have similar problems, with Germany having gone as far as to be replacing its *Bremen* class ASW frigates with the *Baden-Württemberg* class – a type that does not even carry a sonar system.

⁸⁵ Brookes-Holland, L. (2016) ‘NATO’s military response to Russia: November 2016 update’. House of Commons Library Briefing Paper. <http://researchbriefings.files.parliament.uk/documents/CBP-7276/CBP-7276.pdf> (Accessed 27 September 2018).

Post-2014 NATO activity: Mainland Europe

In response to the Russian operation against Ukraine, NATO has undertaken a series of actions to ensure it is better prepared to meet the increased threat from Moscow on the European mainland.⁸⁵ Following an immediate increase in the number of aircraft deployed as part of the Baltic Air Policing mission, structural measures to reinforce NATO’s collective defence effort were outlined during the September 2014 NATO summit in Wales. As part of the Readiness Action Plan, it was announced that:

- The NATO Response Force would be increased to 50,000 personnel
- A new Very High Readiness Joint Task Force (VJTF) of 5,000 personnel would be formed to spearhead the Response Force, with lead elements ready to move in 2-3 days
- A rotational presence of NATO forces in Eastern Europe would be established
- Small headquarter units – known as NATO Force Integration Units – would be set up in Eastern European member states to coordinate alliance activity
- The scale and tempo of NATO exercises would be increased

At the 2016 NATO summit in Warsaw – which took place following the Russian intervention in Syria – it was decided that four Enhanced Forward Presence (EFP) battlegroups would be established – one each in Poland, Lithuania, Latvia and Estonia. The Baltic states themselves are also improving their defensive provisions, and are on course to collectively triple their spending on new military equipment.⁸⁶ Additionally, NATO has embarked

⁸⁶ ‘Baltics, fearing Russia, to triple military spending by 2018: report’ (2016) Reuters, 20 October. <https://www.reuters.com/article/us-baltics-military/baltics-fearing-russia-to-triple-military-spending-by-2018-report-idUSKCN12J2S4> (Accessed 22 September 2018).



US Army equipment is unloaded at the German port of Bremerhaven (Source: DoD)

upon a Tailored Forward Presence mission in the Black Sea region which has seen the deployment of ships, aircraft and ground troops.

Most recently, during the June 2018 NATO meeting, defence ministers agreed to the 30-30-30-30 plan: the development of an ability to deploy 30 combat battalions, 30 squadrons of aircraft, and 30 warships within 30 days.⁸⁷ This forms part of the wider initiative to increase NATO's readiness.

Running in parallel to the above is the US European Reassurance Initiative (ERI) – in 2017 renamed the European Deterrence Initiative (EDI).⁸⁸ The programme was modest at first, but by 2018 its budget had grown to \$4.7 billion. The EDI's core efforts, many of which take place under Operation Atlantic Resolve, include:

- the continuous rotational deployment of a US Army armoured and aviation brigade to Europe
- the establishment of additional pre-positioned equipment stocks: this will include sufficient vehicles, equipment and stores for a full US Army armoured division by 2021
- the formation of a new field artillery/air defence brigade
- the staging of additional training exercises
- the development of military infrastructure
- enhancing allied defensive capabilities

As with NATO's maritime posture, a key issue is the lack of large-scale exercises. During the Cold War, the flagship exercise for practising the deployment of reinforcements from North America to Western Europe was 'REFORGER'. These operations saw US troops being airlifted to Europe to join up with pre-positioned equipment before transferring to the

⁸⁷ 'Defence Ministers to agree NATO Readiness Initiative' (2018) NATO, press release.

https://www.nato.int/cps/en/natohq/news_155348.htm (accessed 10 September 2018)

⁸⁸ Marme, E. and White, G. (2017) 'European Defence Initiative: Bolstering the Defence of the Baltic States'.

International Centre for Defence and Security. https://www.icds.ee/fileadmin/media/IMG/2017/Publications/ICDS_Policy_Paper_European_Deterrence_Initiative_Eerik_Marme-Gabriel_White_December_2017.pdf (Accessed 28 September 2018).

front line. Follow-on forces of both troops and equipment would later join them after being shipped over the Atlantic by sea. No plans have yet been announced to reinstate these rehearsals. The US Army leadership has recently voiced an interest in testing a division-level (as opposed to the current brigade-level) deployment to Europe, but resources are thinly stretched due to global commitments.⁸⁹

Additionally, as in the maritime realm, there are ongoing issues with equipment shortfalls. Notably, NATO forces have only limited ground-based air

and ballistic missile defences for use against Russian air and missile systems. This leaves the Alliance's military assets and member state homelands open to attack from Moscow's conventional precision-guided weapons. The US Army is moving to regenerate its air defence capability, and nations such as Poland are now procuring modern systems, but much work remains to be done. Offensive weapons to mirror Russia's short-range ballistic missile force are also absent, although the US Army has identified their fielding as a priority.



German and Norwegian military personnel train with a Patriot surface-to air missile launcher during Trident Juncture 18 (Source: DVIDS/Kevin Schrief)

⁸⁹ Judson, J. (2017) 'US Army may send larger deployments to Europe'. Defence News, 14 December. <https://www.defensenews.com/land/2017/12/14/army->

[considering-larger-deployments-to-europe/](#) (Accessed 27 September)

The Conflict Scenario

There are a variety of ways in which a conflict in Eastern Europe between Russia and NATO could commence. The purpose of this paper is not to examine highly specific ‘what ifs’, but for the sake of the narrative, we will provide a basic scenario.

2024: War in the Baltic

In spring 2024, protests erupt in Russia following the tainted election of Vladimir Putin’s anointed successor. National Guard forces manage to prevent activists occupying some of the most sensitive areas around Moscow, but opposition action continues. The Kremlin believes that the popular protests are being orchestrated by the West.

Faced with a continuing crisis, the authorities have three choices: a violent crackdown, drastic reform, or externalising the problem with diversionary foreign action.⁹⁰ The use of extreme force against protestors in isolation – the ‘Tiananmen Square option’ – is judged to run the risk of provoking defections from the security forces and the certain imposition of devastating sanctions against Russia that it has little ability to counter. Serious reform is out of the question, as only a wholesale dismantling and replacement of the current leadership would be able to produce the desired effect – something unacceptable to the ruling elite.

It is therefore concluded that a catch-all solution to both internal and external pressure is required, and a controlled conflict with NATO is judged to be the best – or rather least worst – option. This is a

contingency the Russian government has spent many years laying the groundwork for amongst the public. As Russian scholar Lilia Shevtosva highlighted in her appraisal of Moscow’s attitude towards the West in 2010:⁹¹

“The Russian campaign to intimidate the West, backed up with “light artillery” [propaganda] on television, has yet another goal: to lay the groundwork for a monumental distraction if the domestic situation in Russia begins to deteriorate rapidly. The militaristic rhetoric, symbolism and pageantry... are clearly intended to create an enemy that Russia will bravely confront when the Kremlin finds itself unable to pull the country out of a future crisis.”

The targets of this war are Estonia, Latvia and Lithuania. These countries have been selected as they are judged to provide the optimal path for securing a rapid and sustainable victory against NATO forces.

Domestically, the primary aim of the offensive is to undercut the protests by generating a ‘rally around the flag’ effect amongst Russia’s population, and provide an environment within which the security forces would be better able to execute an internal clampdown without fragmenting. At the international level, it is designed to act as asymmetric pushback against what Moscow perceives to be the West’s meddling in its internal affairs; undermine (and ideally cripple) NATO by demonstrating that the Alliance lacks the resolve to defend its members; and secure a favourable post-

⁹⁰ A diversionary foreign policy seeks to distract a domestic population from internal turmoil and generate support for the government through the instigation of an international crisis.

The Argentine invasion of the Falkland Islands in 1982 is a modern example of such an approach.

⁹¹ Shevtosva, L. (2010) *Lonely Power*. Carnegie, Washington, D.C., p.152

war negotiating position for Russia. As has occurred in other similar conflicts, the Russian attack will be triggered by a series of false flag strikes against Moscow's interests.⁹²

The Kremlin is under no illusions about the reality of the conflict on which it is embarking. At a minimum, the immediate result will be serious sanctions that will only exacerbate Russia's economic problems. It is also aware that any increase generated in support for the government could be difficult to sustain, as was the case following the Crimea annexation.⁹³ However, it is judged that with the leverage provided by the occupation of three NATO and EU members, Russia would be better placed to negotiate away sanctions than it would be in the aftermath of a 'crackdown only' policy. In the context of the possible limited duration of increased public support, it is concluded that even a window of a few months would be sufficient to suppress the opposition for the foreseeable future and secure the lifting of the expected economic blockade.

NATO's posture: the Baltic region

Despite ongoing improvements, the available defensive forces within the Baltic states remain underwhelming. The three nation's air and naval forces are of essentially no utility in high-intensity combat. This leaves only their ground forces. By 2024, they will comprise of the following manoeuvre brigades:

Lithuania

- Iron Wolf Mechanised Infantry Brigade
- Žemaitija Motorised Infantry Brigade

⁹² Perhaps the assassination of a diplomat or attacks against ethnic Russian civilians.

⁹³ Vice, M. (2017) 'President Putin: The Russian perspective'. Pew Global
<http://www.pewglobal.org/2017/06/20/president-putin-russian-perspective> - accessed 21 October 2018.

- Aukštaitija Light Infantry Brigade

Latvia

- Infantry Brigade (*mechanised*)

Estonia

- 1st infantry Brigade (*mechanised*)
- 2nd Infantry Brigade

All three countries are heavily dependent on the mobilisation of reservists to bring their main land forces to full strength. Additionally, the three nations have lightly armed paramilitary forces available.⁹⁴ To supplement domestic units, NATO provides one EFP battlegroup in each country: the UK leads the force in Estonia, Canada in Latvia, and Germany in Lithuania. Elements of the US rotational force also deploy within the region. Air defence is provided by the eight aircraft Baltic Air Policing force, supplied on a rotational basis by the larger NATO states.

While these land forces may seem substantial, this overview disguises a number of weaknesses. Notably, none of the Baltic states possesses tanks, and the EFP units field only a dozen or so each. There are no attack helicopters permanently deployed to the region, and artillery and air defence resources are weak.

In a crisis, NATO would likely attempt to airlift the lead elements of the VJTF into the region. The nearest heavy ground force available to the Alliance immediately outside the Baltic states are the Polish Land Forces, with the 16th Mechanised Division stationed along the Lithuanian/Polish border.⁹⁵ Also partly based in Poland are the US Army's rotational armoured and aviation brigades.

⁹⁴ The Lithuanian National Defence Volunteer Forces, the Latvian National Guard and the Estonian Defence League.

⁹⁵ This unit is co-located with NATO's Multinational Division North-East, which coordinates the activities of the four EFP units.

Russian's Posture

The land assets stationed in mainland Russia next to the Baltic states are not overwhelming. Near the Russian border with Estonia and Latvia are the following manoeuvre units:

- 76th Guards Air Assault Division
- 25th Motor-Rifle Brigade
- 2nd Independent Spetsnaz Brigade

These are supported by short-range ballistic missiles, SAM and artillery brigades, as well as engineering, logistics and electronic warfare units.

Also important in the Baltic contingency are the Russian forces stationed in the Kaliningrad Oblast. These include:

- 7th Detached Motor Rifle Regiment
- 79th Detached Motor Rifle Brigades
- 336th Detached Guards Marine Brigade

Again, all units are supported by short-range ballistic missiles, SAM, artillery, engineering, logistics and electronic warfare units, as well as a coastal defence missile regiment. Additionally, the 136th Detached Special Motorised Regiment of the Russian National Guard is available for support.⁹⁶

Although the above units are limited in capability, recent years have witnessed major steps forward in Moscow's ability to redeploy forces across the country. Between assets in place and units redeployed from Russia's Western Military District, a 2016 report from the RAND Corporation estimated that Russia could field 27 BTG in the Baltic region – the equivalent of around eight brigades – in a way that would only provide NATO with one week's

notice of an attack.⁹⁷ Most of these units would be better equipped than their Alliance counterparts in the Baltic, and would have access to plentiful artillery, ballistic missile, air and air defence support.

A2/AD: Blockading the Baltic

In the context of reinforcement, the core problem facing NATO forces in the Baltic states is that their defensive situation is closer to that of Cold War West Berlin than West Germany. Like West Berlin, access to Estonia, Latvia and Lithuania is essentially at the discretion of Moscow. Although the cordon around the Baltics is rather less tight, the presence of advanced weapons both just across the border with mainland Russia to the east and the Kaliningrad Oblast to the west effectively allows the closing of air and sea routes, and for the disruption of land access. Key systems include:

- *S-400 SAMs*: with a range of up to 400km, missile batteries stationed in Kaliningrad and south of St Petersburg can engage targets over Estonia, Latvia, Lithuania and northern Poland
- *Iskander-M short-range ballistic missiles*: precision-guided and capable of carrying a variety of warhead types over 400km, these weapons can be used against static land targets such as airfields in the Baltics and Poland
- *Bastion-P coastal anti-ship missiles*: these can engage surface vessels to a range of 350km. Launched from Kaliningrad, they can hit any ship in the central Baltic Sea

When combined and coordinated with broader air, land, sea, cyber and electronic warfare assets, these

⁹⁶ Sutyagin, I. and Bronk, J. (2017) *Russia's New Ground Forces: Capabilities, Limitations and Implications for International Security*. RUSI Whitehall Paper 89. Taylor & Francis, Abington. Pp.138-139.

⁹⁷ Shlapak, D.A. and Johnson, M.W. (2016) 'Reinforcing Deterrence on NATO's Eastern Flank'. RAND Corporation. https://www.rand.org/content/dam/rand/pubs/research_reports/RR1200/RR1253/RAND_RR1253.pdf (Accessed 27 September 2018), pp.89-92.

systems could form an A2/AD bubble around the Baltic states.

Russian capabilities generate major implications for the prospect of reinforcing local ground forces. Both the leading land elements of NATO's VJTF and national allied assets such as the US Army's Global Response Force⁹⁸ and the British Army's Air Assault Task Force⁹⁹ would likely be brought into theatre by air if possible. But in a crisis, Moscow could effectively close down the ability to deploy these forces to the Baltics with a public announcement that any aircraft bringing additional military assets into the region would be shot down.

Options for overland reinforcement also exist, but these would take time to organise and face their own problems. The only route from 'mainland NATO' to the Baltics is via the 100 km-wide Suwalki Gap¹⁰⁰ on the Lithuania-Polish border between the Kaliningrad Oblast and Belarus. Even if – as seems likely – Minsk were to remain nominally neutral, Russian forces in the Kaliningrad region could interdict transiting NATO forces with long-range artillery, rocket and artillery-deployed mines, Special Forces attacks and – potentially – even a limited direct push into southern Lithuania. Both Polish and US ground forces would face a difficult time bypassing such opposition rapidly enough to effectively intervene in the wider Russian operation – particularly if Moscow's interdiction efforts included missile strikes on their supporting assets in Poland. There would also likely be inadequate time for US Army troops to be flown to Europe to join up with pre-positioned equipment and move to

the front line, as this process typically takes 9-14 days.¹⁰¹

It would be theoretically possible to bring in ground forces to the Baltics by sea, but this would be complex and time-consuming. NATO lacks any significant amphibious landing assets in the Baltic region, so would have to either wait for such units to arrive or depend on the use of commercial shipping and the availability of functional ports. Nevertheless, even this scenario assumes no attempt to sink the incoming ships by Russian forces – an unlikely situation given Moscow's available anti-shipping capabilities.

At sea, the relative weakness of the Polish Navy means that NATO depends on German assets. However, even if Berlin's military manages to recover from a current state of unreadiness that in late 2017 saw none of its six submarines fit for sea, it would still not offer a route to ensuring access to Lithuania, Latvia and Estonia, or influence the land battle in these countries.

In the air, the same Russian SAM systems that held off NATO's transport fleet would represent a major challenge to Alliance combat aircraft attempting to provide close air support to troops on the ground. RAND has estimated that 18.5 squadrons of combat aircraft could be mobilised within one week,¹⁰² including 13 US military units – the former figure being comparable to the 19 squadrons deployed during the first week of 1990's Operation Desert Shield during a time when the US Air Force was far larger than today.¹⁰³ Although stand-off munitions

⁹⁸ A brigade of the US Army's 82nd Airborne Division.

⁹⁹ A battlegroup of the British Army's 16 Air Assault Brigade.

¹⁰⁰ ERR News (2016) 'New US armored unit to begin rotation in Estonia in February'. <https://news.err.ee/120135/new-us-armored-unit-to-begin-rotation-in-estonia-in-february> Accessed 23 October 2018.

¹⁰¹ Freedburg, S.J. (2017) 'Army Soldiers Slash Time To Move From Port To Front: Deterring Russia' Breaking Defense, 17 March. <https://breakingdefense.com/2017/03/army-soldiers->

[slash-time-to-move-from-port-to-front-deterring-russia/](https://www.rand.org/content/dam/rand/pubs/research_reports/RR1200/RR1253/RAND_RR1253.pdf) (Accessed 27 October 2018).

¹⁰² Shlapak, D.A. and Johnson, M.W. (2016) 'Reinforcing Deterrence on NATO's Eastern Flank. RAND Corporation. https://www.rand.org/content/dam/rand/pubs/research_reports/RR1200/RR1253/RAND_RR1253.pdf (Accessed 27 October 2018), p5.

¹⁰³ 'Project Air Force Assessment of Desert Shield: the buildup of combat power'(1994) RAND Corporation.

such as JASSM and Storm Shadow would offer options to strike fixed sites from a safe distance, hitting mobile Russian assets would prove more difficult. Alliance combat aircraft stationed in Poland would also face the risk of conventional ballistic missile attacks on their bases, with Moscow's cruise missiles threatening airfields further out.

Outcome

The short-term endgame to the initial phase of the fighting would likely be the securing of all key points in the Baltic nations by Russian forces within a few days, with the 2016 RAND report into the defence of the Baltic estimating that Moscow's forces would be able to reach the Estonian capital Tallinn and the Latvian capital of Riga in around 60 hours.¹⁰⁴ There would undoubtedly be a prolonged battle to secure urban areas and continued guerrilla resistance as the many paramilitary units available in the three countries opted to fight on regardless of the wider situation, but the strategic question of who controlled the Baltic states would be decided quickly. The stop line for the Russian advance would plausibly be just north of the Polish/Lithuania border.

Following the halt of the Russian advance, it is likely that the NATO air campaign against Russian forces would continue as combat squadrons from North America and Western Europe moved east. Ground troops from the US would also be arriving by air, both in the form of soldiers meeting up with pre-positioned equipment, and light airborne forces.

https://www.rand.org/content/dam/rand/pubs/monograph_reports/2007/MR356.pdf (Accessed 7 October 2018), p.xiv.

¹⁰⁴ However, this did not factor in the ongoing expansion of the Baltic state militaries or the deployment of the EFP units.

However, neither would have the mass necessary to launch a counter-attack alone.

Meanwhile, Russia would be mobilising regular and paramilitary forces to consolidate its hold on the Baltic region. Operating along internal logistics lines, it would be able to move in ground forces that were the equivalent of multiple tank and motor rifle divisions; with lighter Airborne, Special Forces and National Guard (the latter for 'local pacification' duties) in support. At the same time, Moscow would no doubt be calling for NATO to halt its air operations and wider build-up, and to open negotiations.

The Northern Flank and Maritime Realm

It seems highly unlikely that Moscow would initially seek to launch a major attack on Norway or at sea as part of a Baltic offensive. Much of the value of a campaign against Lithuania, Latvia and Estonia is that it has militarily contained goals that would potentially put Russia in an immediate position to begin negotiations over a settlement against the backdrop of a *fait accompli*. In contrast, an immediate significant operation against Norway or NATO assets in the northern or Atlantic maritime realm would represent an open-ended operation with no obvious achievable end point, and undermine Moscow's undoubted contention that its goals were limited.

Nevertheless, there could be profitability in more limited action. Russia is well aware of Norway's importance in NATO's defensive posture. Signals intelligence stations and radar sites ¹⁰⁵ on the Norway/Russia border provide the Alliance with

¹⁰⁵ Higgins, A, (2017) 'On a Tiny Norwegian Island, America Keeps an Eye on Russia'. *New York Times*, 13 June. <https://www.nytimes.com/2017/06/13/world/europe/arctic-norway-russia-radar.html> (Accessed 25 October 2018)

significant data on Russian activity, as do the surveillance ships of the Norwegian Intelligence Service. Cyber and electronic warfare would present options to counter some of these capabilities, and also serve to help intimidate the Norwegian government and population into not taking part in hostilities.

However, even if we assume no 'kinetic' military action in the north, there would still be plenty of activity. In Norway, local forces would be mobilising and moving to their wartime positions, while US Marine and US Air Force units were flown in to join up with their pre-positioned equipment. Discussions would no doubt begin as to whether Norway should be the destination of other elite NATO units such as the UK's Royal Marines and their counterparts from the Netherlands.

In north-west Russia, a similar mobilisation would be taking place as preparations were made for both defensive and offensive contingencies. While most of the Russian military would be focused on transferring reinforcements to the Baltic front in order to consolidate gains and prepare for a NATO counteroffensive, it is likely that some appropriately trained and equipped units – most likely of the Airborne Forces – would be brought in to reinforce local units along the Norway-Russia border.

At sea, units of the Royal Norwegian Navy would deploy to secure national waters and monitor the movements of the Russian fleet. Although they would be reluctant to take offensive action until additional NATO units arrived, they would still have a critical role to play in ensuring the Alliance had a high level of situational awareness.

As with the bulk of the forces under the Arctic Joint Strategic Command, the Northern Fleet's priority would be on preparations to deter and if necessary combat a NATO counter-offensive. It would no doubt have been given warning to prepare for a 'surge' deployment, allowing the maximum number of available units to be made available. However, the actions taken by Russian forces would be informed by a situation that was in many ways fundamentally different to that which faced the Soviet Union during the Cold War.

Finland and Sweden

The position of Finland and Sweden in the conflict outlined is a complex issue. On the one hand, the two countries are not NATO members, and this situation seems unlikely to change in the near future. On the other hand, they are very much in the 'Western camp' politically. As fellow EU members, they also have obligations to the Baltic states under a defence clause that was included in the 2009 Lisbon Treaty – although it is not formally stated in this clause that defensive assistance should be military in nature.¹⁰⁶ Additionally, both Finland and Sweden regard Russia as the primary conventional security threat they face, and would be anxious to see the country's forces pushed out of the Baltic states to ensure that they did not secure hegemony over the adjacent sea and airspace.

The involvement of Finland and Sweden in any conflict would present major disadvantages to Russia. As noted, Moscow would wish to broadly contain a conflict at a manageable level, and offensive action against neither Finland nor Sweden would bring any benefits. In contrast, the

¹⁰⁶ 'Mutual defence clause: what the requirement to help out other member states means' (2016). European Parliament News, 20 January. <http://www.europarl.europa.eu/news/en/headlines/security/>

20160119STO10518/mutual-defence-clause-what-the-requirement-to-help-other-member-states-means (Accessed 25 October).

downsides would be considerable, with hostilities against Helsinki alone creating an over 1,000 km frontline along the two country's borders that would need to be garrisoned by Moscow. Attacking two non-NATO countries without provocation would also shred whatever moral authority they retained. On a more practical level, Finland and Sweden would have options for retaliation, with even the granting of overflight rights to NATO by Finland creating a major complication for Russia.

Mirroring this, NATO would stand to gain more than it would lose by the involvement of Finland and Sweden in a conflict. The advantage NATO would gain in being granted either basing or overflight rights would be immense, and present Moscow with a nearly insurmountable border

defence challenge. On the deficit side, the proximity of the two countries to Russia would make defending their territory from Russia's long-range conventional weapons – a responsibility NATO would no doubt have to take on in exchange for support from Helsinki and Stockholm – extremely challenging.

For reasons of both simplification and the fact that both Finland and Sweden are largely geographically isolated from the maritime element of the northern flank region on which this report focuses, the role of the two countries in the proposed strategy will not be dwelt upon here. Nevertheless, their presence and their strong lean towards the Alliance will be a factor that must be kept in mind.



An Estonian soldier, pictured during an exercise (Source: DVIDS/Sgt. Shiloh Capers)

A New NATO Maritime Strategy

In the aftermath of the operation outlined above, Moscow's overriding priority would be to ensure that events flowed in its favour, and that any continuation of hostilities played to its strengths. From the Kremlin's point of view, the prospect of a conflict with Russia would ideally be enough to persuade NATO to focus on diplomatic options. Should this fail, their approach would be to take a military path that avoids having to engage in an outright test of strength that they would have little hope of winning. It is also logical that NATO would wish to mirror Russia's strategy by ensuring that the battle took place in a way that capitalised on its own advantages.

The deciding factor in an operation to expel Moscow's forces from the Baltic states would be a large-scale air-land campaign in Eastern Europe. However, a conflict in this form alone would play to neither side's strengths. From Moscow's point of view, it would mean forgoing the opportunity to strike at the Alliance's most militarily, economically and politically fragile points. From NATO's perspective, a battle against dug-in troops on a narrow front would fail to capitalise on Russia's resource limitations or wider strategic vulnerability. From both of these angles, the northern flank and its associated maritime realm would be crucial.

Based on both historical sources and contemporary doctrine, it can be deduced that the wartime order of tasking importance for the Russian Navy is:¹⁰⁷

1. Provision and protection of the SSBN arm of the strategic nuclear deterrent
2. Homeland defence
3. Conventional strategic precision strike
4. SLOC interdiction

Nevertheless, whilst the mission priorities of SSBN provision/protection and homeland defence lead the list just as they did for much of the Soviet era, it is reasonable to speculate that the *relative weight* between these core tasks and other missions has shifted since the Cold War. The reasons for the Soviets giving a low priority to operations beyond home waters were:

- a belief that preserving the nuclear 'correlation of forces' would be a crucial factor even in a non-nuclear war, and that this justified SSBN protection being the top priority¹⁰⁸
- the threat of nuclear-armed US carrier groups to the Soviet homeland demanded a focus on territorial defence¹⁰⁹
- a perception that any conventional war in Europe would conclude before reinforcements shipped in from the US could make a decisive difference on the battlefield¹¹⁰
- a realisation derived from intelligence assets that Soviet nuclear submarines were relatively easy for NATO to detect and track¹¹¹

Today, only the importance of SSBN preservation remains entirely intact. Protecting Russia itself from

¹⁰⁷ The opaqueness of Russian nuclear doctrine makes identifying the prioritisation of and sub-strategic nuclear delivery difficult – see later in this paper.

¹⁰⁸ Ford, C.A. and Rosenberg, D.A. (2007) 'The Naval Intelligence Underpinnings of Reagan's Maritime Strategy', *Journal of Strategic Studies*, Vol.28 No.2, pp.385-387

¹⁰⁹ Ibid

¹¹⁰ 'Soviet Intentions and Capabilities for Interdicting Sea Lines of Communication in a War with NATO' (1981) CIA memorandum.

https://www.cia.gov/library/readingroom/docs/DOC_00002_61312.pdf (Accessed 17 October 2018)

¹¹¹ Hennessy, P. and Jinks, J. (2016) *The Silent Deep: The Royal Navy Submarine Service since 1945*. Penguin/Random House: London. Pp550-553.

NATO naval formations is also vital, although the emphasis is on defending against the Alliance's precision-guided weapons rather than tactical nuclear weapons.

Where things begin to significantly differ from the Cold War era is in the nature of the conflict likely to be fought. Whereas a Warsaw Pact vs. NATO scenario was likely to be a single continuous conflict fought over a brief period in which there would be little time for seaborne forces from the US to make a difference before either a Soviet victory, diplomatic settlement or a degeneration into nuclear war, a modern conflict of the type in our scenario would be less linear. Instead, there is likely to be a fierce initial local engagement, followed by a lull, which in turn would – assuming mediation and other countermeasures failed – develop into a decisive larger engagement. In this context, reinforcements from the US brought in along NATO's SLOC would be vital.

There have also been substantial improvements in Russian submarine capabilities. Even at the end of the Cold War, the Soviet Navy had by various means been able to make their vessels less detectable. There is now a far narrower technological gap between many NATO and Russian submarines, making the latter more survivable. As such, risking part of their force in Alliance-dominated waters may make more sense from a cost/benefit perspective.

Beyond shifts in older priorities, there is also a new offensive option available to Moscow that did not previously exist: precision-guided conventional strategic strike. For the Russian Navy, weapons such as the Kalibr land-attack cruise missile present it with a tool with which to attack the enemy at a distance without resorting to nuclear weapons. Given the net weakness of Russian forces versus a

fully mobilised NATO, this presents additional options to deter and, if necessary, fight a conflict to a conclusion which Moscow judges acceptable.

From a maritime perspective, the Kremlin's assessment in the near-future conflict we are examining would, therefore, likely be as follows:

- The Alliance lacks the peacetime ground force strength in Europe to dislodge Russian occupation forces from their positions without substantial reinforcements from the US which are only practical to bring in by sea: *disruption of seaborne reinforcements (SLOC interdiction) and related action is therefore desirable to aid in the wider effort to forestall an offensive.*
- NATO is militarily and politically vulnerable to long-range conventional weapons launched from or transiting through the northern flank/maritime domain: *the threat or reality of strikes against the Alliance's rear area may contribute to halting the conflict on acceptable terms.*
- Defending Russia's maritime approaches is crucial for both homeland defence and the provision/protection of the SSBN arm of the strategic nuclear deterrent: *every effort must be made to defend the maritime approaches and mainland Russia.*

Facing this, NATO's forces would have to devise a counter-strategy to both manage the maritime threat and support the wider war effort. The following examines a series of potential approaches focused on the northern flank and maritime realm.

Russian Action: *Interdict NATO lines of communication*

The only way to present a major challenge to Russia's occupation of the Baltic states would be through the build-up of a heavy NATO offensive land and air force. Essentially all of the former and much of the support for the latter would have to come into theatre by sea. This would present Moscow with a quandary. On the one hand, it does not doctrinally prioritise SLOC interdiction, although as noted, the latest edition of Russia's Naval Doctrine does identify an ability "to provide control over operations within the sea lines of communication on the World Ocean" as one of its missions. Nevertheless, arguably the single most important lesson derived from analysis of the 1991 Gulf War was that Iraq's inability to fight an anti-access campaign against Coalition forces deploying to the Middle East was a major contributor to its defeat.¹¹² Over the space of six months, despite long and fragile logistics lines, the allies were able to assemble a force that was essentially unbeatable.

Similarly, there can be little doubt that if allowed to deploy unmolested, NATO would be able to dismantle the A2/AD cordon surrounding the Baltic region and ultimately force occupying Russian forces out of the countries. But unlike Iraq, Russia possesses a capability to interdict an allied build-up. NATO's SLOC would present Moscow with both political and military opportunities. Politically, the prospect or reality of taking losses before units even

reached the battlefield would add to the no doubt strenuous objections from some quarters in Washington over involvement in a European war.

Materially, the damage Moscow's forces could inflict on NATO's ships would be limited, and such efforts would likely exert a heavy price on the attacking side. Nevertheless, even sinking a handful of vessels would represent a harder blow than a similar action during World War 2. Modern ships are far larger, and as such are more valuable targets. For example, in January 2017, the vehicles and equipment of the 3rd Armored Brigade Combat Team – deploying to Europe on the first of the US Army's rotational armoured brigade deployments – largely arrived in only three vessels.¹¹³ The loss of any one of these ships would have been the material equivalent of a major battlefield defeat. This is to say nothing of the economic damage a military campaign on one of the world's busiest shipping routes would cause to North America and Europe.

The submarine forces available for SLOC interdiction would be limited for a number of reasons. Firstly, the size of the Northern Fleet's SSN, SSGN and SSK force has fallen sharply since the end of the Cold War. In 1987, it is estimated that 50 SSNs, 38 SSG/SSGNs and 45 SSKs would have been available.¹¹⁴ More recent estimates vary, but a 2016 CSIS study gives 7-9 SSNs, 2 SSGNs and 5 SSKs as the total of vessels in service.¹¹⁵ Based on current refit and ship construction plans, by 2024 the attack submarine fleet may comprise of:

¹¹² Tangredi, S.J. (2013) *Anti-Access Warfare: Countering A2/AD Strategies*. Naval Institute Press: Annapolis, Maryland, pp.27-31.

¹¹³ 'ARC Discharges Army Unit from Three Vessels for Operation Atlantic Resolve' (2017) ARC News, 13 January. <http://www.arcshipping.com/news/arc-discharges-army-unit-three-vessels-operation-atlantic-resolve/> (Accessed 4 October 2018).

¹¹⁴ Williamson, C. (2008) 'Factors Affecting the Feasibility of a Warsaw Pact Invasion of Western Europe. Thesis, Texas

A&M University, p.68.

<http://oaktrust.library.tamu.edu/bitstream/handle/1969.1/6465/Corbin%20Williamson%20Fellows%20Thesis.pdf> (Accessed 12 October 2018).

¹¹⁵ Hicks, K.H., Metrik, A., Samp, L.S. and Weinburger, K. (2016) 'Undersea Warfare in Northern Waters'. CSIS. https://csis-prod.s3.amazonaws.com/s3fs-public/publication/160721_Hicks_UnderseaWarfare_Web.pdf (Accessed 7 October 2018), p.11

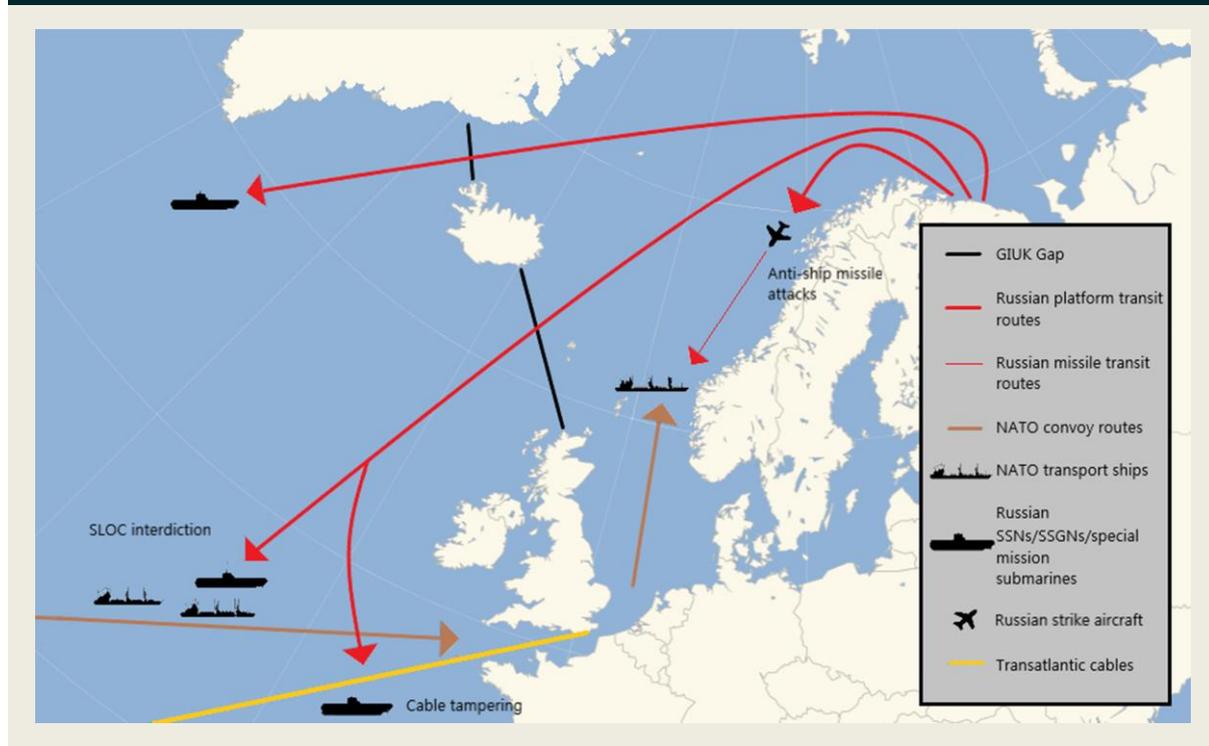
- 4 x *Yasen* class SSGN¹¹⁶
- 3 x *Oscar II* class SSGN
- 6 x *Akula* class SSN
- 3 x *Victor III* class SSN
- 2 x *Sierra II* class SSN
- 5 x *Kilo* class SSK
- 1 x *Lada* class SSK

This would give a total of 18 SSNs/SSGNs and 6 SSKs. However, Russian doctrine would dictate that at least 3 SSN/SSGNs and 2 SSKs would be allocated to the defence of the Northern Fleet SSBN force and its bastion, with a further pair of SSN/SSGNs tasked in the surface group escort and anti-intruder quick reaction roles.¹¹⁷ Assuming around half of the total force was deployed, with the remainder under maintenance/refit or preparing to deploy, this would leave 4 SSNs/SSGNs and 1 SSK for all other

tasks at any one time, including SLOC interdiction. This force is far from overwhelming, but certainly enough to be hazardous.

It is also important to note that even if the SLOC running between North America and Europe receive limited attention due to Russia's prioritisation of defence maritime operations, all but the southernmost area of Norway falls within the outer bastion area to which Moscow wishes to deny access. It would, therefore, probably be necessary to make a forceful effort to defend the SLOC running along the Norwegian coast. The proximity of this region to Russia opens up the possibility that Tu-22M3/M3M bombers armed with 800-1,000km range Kh-32 anti-ship missiles could become involved.

Russian interdiction of NATO lines of communication



Map 1

¹¹⁶ Assuming seven are built and three are allocated to Russia's Pacific Fleet

¹¹⁷ Sutyagin, I. (2015) 'Russia's New Maritime Doctrine: Attacking NATO's Sea Lanes of Communication in the Atlantic - Intent and Feasibility'. *RUSI Defence Systems*, 21

August. <https://rusi.org/publication/rusi-defence-systems/russia%E2%80%99s-new-maritime-doctrine-attacking-nato%E2%80%99s-sea-lanes-o> (Accessed 7 October 2017).

Further complicating these matters is the threat to the West's undersea economic assets. The Russian Northern Fleet operates a number of submarines capable of operations on the seabed on behalf of the Main Directorate for Deep Sea Research. As noted, it would take an extensive effort to seriously endanger the transatlantic cable network. Nevertheless, any attempt at sabotage would demand a response from NATO. The vessels potentially available for seabed operations in the Atlantic could include:

- 1 x *Delta III* class special mission conversion (Project 09786 *Orenburg*)
- 1 x *Delta IV* class special mission conversion (Project 09787 *Moscow*)
- 1 x *Oscar II* class special mission conversion (Project 09852 *Belgorod*)

Each of these submarines can carry a mini-sub of the *Losharik* (Project 10831)¹¹⁸ or *Paltus* (Project 18511) class, plus smaller UUVs.

Mine warfare is a further option for Russian forces to use against NATO, although there are limits to how practical such options would be in the region being examined. Submarines laying mines on the approaches to key Alliance posts could be a possibility, but every mine carried would result in a loss of torpedo and missile capacity. More probable perhaps is the asymmetric option of using civilian vessels to covertly lay mines.

However, this would present its own problems, and if covert operations were to be a feature of such an effort, there are better options than laying mines – notably the sabotage of naval ships at anchor. As such, it is unlikely that naval mines would play a

¹¹⁸ Sutton, H.I. (2016) 'Spy Subs- Project 10831 Losharik'. Covert Shores, 22 September. <http://www.hisutton.com/Spy%20Sub%20-%20Project%2010831%20Losharik.html> (Accessed 17 October 2018).

major offensive role in this phase of the northern campaign.

A more ambitious route for Russia to embark upon would be the utilisation of merchant vessels to deploy offensive weapons. These modern-day 'Q-ships' could be tasked with launching covert strikes against surface ships. Russian industry has openly marketed a ship-launched missile capable of being launched from a shipping container.¹¹⁹ Supporting the wider campaign would be an offensive cyber operation. Primary targets for Russian attacks would be the administrative systems supporting naval and civilian maritime operations.

NATO Response: *Secure lines of communication*

NATO would have two options for countering the threat of Russian submarines in the Atlantic. The first would be the conservative path of providing ASW cover – either directly or at a distance – for ships crossing the region. However, this would risk conceding the initiative. Additionally, a lack of NATO escorts would make the coverage of all but a few formations impossible – to say nothing of the lack of merchant sailors drilled in convoy work. A purely defensive stance would also ignore the problem that – as will be elaborated upon in the next section – the new generation of Russian submarines possess a significant land attack capability, and may seek to focus on this mission from the Atlantic rather than anti-shipping strikes.

The more proactive defensive strategy would be for US and UK SSNs to intercept Russian attack

¹¹⁹ Stott, M. (2010) 'Deadly new Russian weapon hides in shipping container'. Reuters, 26 April. <https://www.reuters.com/article/us-russia-weapon/deadly-new-russian-weapon-hides-in-shipping-container-idUSTRE63P2XB20100426> [accessed 20 October 2018].

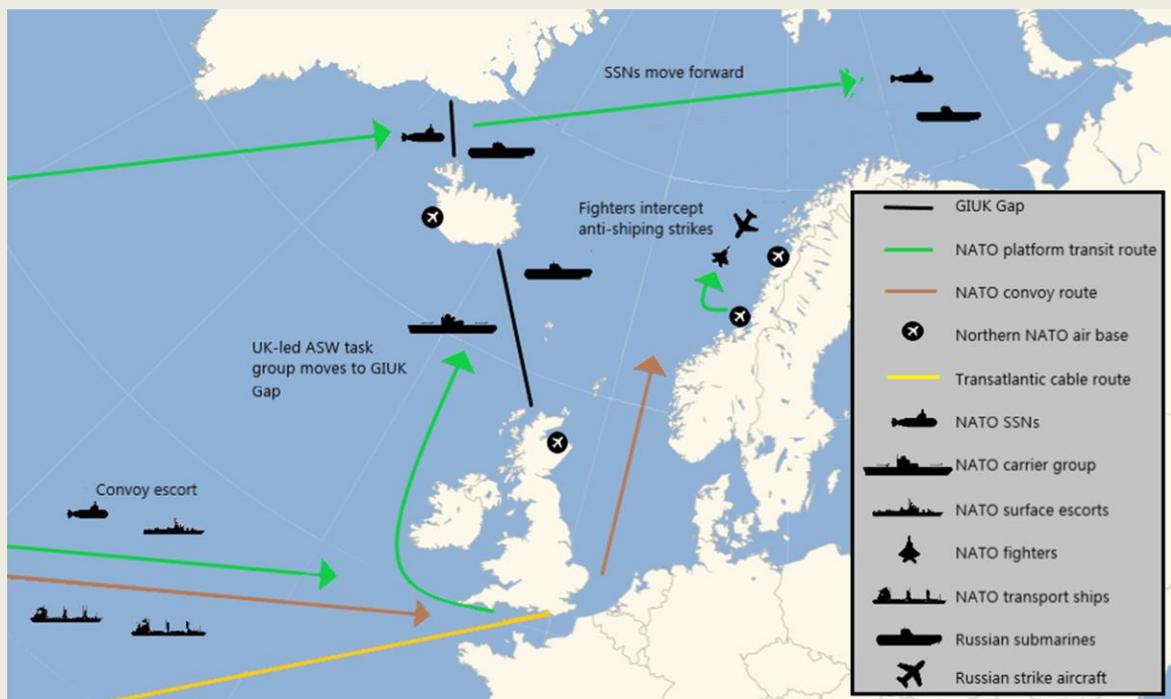
submarines departing their home waters. The US Navy is currently reorientating its SSN force so that 60% of vessels are based in the Pacific. The size of the US SSN fleet is expected to fall to 48 vessels by 2024.¹²⁰ Extrapolating from this and adding in data from European fleets, the NATO submarines available in the Northern Atlantic Region are likely to be:

- 20 x *Los Angelis* and *Virginia* class SSN (US Navy Submarine Force Atlantic)
- 2 x *Ohio* class SSGN (US Navy Submarine Force Atlantic)
- 6 x *Astute* class SSN (Royal Navy)¹²¹
- 6 x *Ula* class SSK (Royal Norwegian Navy)
- 4 x *Walrus* class SSK (Royal Netherlands Navy)
- 1 x *Victoria* class SSK (Royal Canadian Navy)

If we assume half these submarines will be available and the remainder will be in refit, maintenance or engaged in other tasks,¹²² this results in 14 SSNs, 1 SSGN and 6 SSKs available at reasonable notice. Of these, only the 14 SSNs are suited for forward anti-SSN/SSGN taskings. If half of these were retained for surface group escort and operations in the North Atlantic itself, this would leave NATO with 7 SSNs to intercept Northern Fleet SSN/SSGNs in or near Russian waters or lay mines along transit routes. However, many of the US submarines, in particular, would take time to arrive in theatre, leaving the forward SSN force initially limited in number.

Potentially a more rapidly enactable measure would be the creation of a defensive cordon along the GIUK Gap to prevent the transit of Russian

NATO securing lines of communication



Map 2

¹²⁰ 'Report to Congress on the Annual Long-Range Plan for Construction of Naval Vessels for Fiscal Year 2019' (2018) Department of Defense. http://www.secnav.navy.mil/fmc/fmb/Documents/19pres/LONGRANGE_SHIP_PLAN.pdf/9 (Accessed 8 October 2018), p.12.

¹²¹ 7 *Astute* class SSNs are being built, but only 6 are likely to be in service by 2024.

¹²² The US Submarine Force Atlantic provides vessels for use in the Mediterranean, and shares responsibility with the Submarine Force US Pacific Fleet for providing submarines to theatres such as the Middle East.

submarines. By 2024, the UK will be well placed to take charge of this effort through acting as the lead nation of a rapid response ASW task group, potentially featuring:

- 1 x *Queen Elizabeth* class carrier
- 2 x Type 45 class AAW destroyers
- 2 x Type 23 class ASW frigates
- 5 x German/French/Dutch/Norwegian frigates and destroyers
- SSN and SSK support as required

This model would essentially represent a resurrection of the Royal Navy-led ASW Striking Force of the 1980s. This main surface group would be supported by fighters and ASW aircraft based in Iceland, the UK and Norway; additional separate surface ship groups; and further NATO SSNs and SSKs. The tracking of Russian vessels would be supported by an upgraded US IUSS and other assets.

Such a formation would not simply be a call back to the Cold War. During that era, it was expected that US Navy carrier groups would be able to reach Europe relatively quickly. Today, the US Navy has major problems with carrier availability, and has recently struggled to maintain even one such vessel in the Middle East.¹²³ Whilst reinforcements would no doubt ultimately arrive, it could take over two weeks for even one carrier group to reach the GIUK-Gap region. Until then, Europe would have to provide for much of its own maritime defence.

Any Russian submarines that penetrated the forward Alliance SSNs and the gauntlet of ASW surface ships, maritime patrol aircraft and further assets around the GIUK Gap would then face a final layer of defensive units along the SLOC themselves. It may also be an option to station SSNs at key

points along undersea cable transit routes to allow them to rapidly react to any attempt to tamper with them.

This action would likely be adequate to ensure that additional US forces could reach Europe with minimal losses, attempts to interdict undersea cables would be minimised, regular civilian shipping routes could remain open, and access guaranteed to southern Norway.

Less conventional Russian maritime operations would present difficult challenges. The use of offensive naval mines would likely be limited, and NATO has retained a small but highly competent mine countermeasures force to help manage this threat. The issue of using civilian vessels to stage attacks would, however, present major problems – in no small part due to the sheer density of the maritime traffic in the European region. While such vessels could be quickly neutralised once identified, a major effort to generate adequate situational awareness would be required. This would necessitate joint operations between intelligence agencies, coast guards and military units. Beyond limiting allied losses, the priority would be to prevent a chaotic situation from disrupting wider military and economic activity.

Russian Action: *Strike NATO points of vulnerability*

Russia's most recent Naval Doctrine places great importance on the force's role in fielding conventional strategic precision-guided weapons – currently embodied by the ship and submarine-launched 1,500-2,500 km 3M-14T/K Kalibr land

¹²³ Cavas, C.P. (2016) 'Middle East Now Without a US Carrier'. Defense News, 28 December. <https://www.defensenews.com/digital-show-dailies/surface->

[navy-association/2016/12/28/middle-east-now-without-a-us-carrier/](https://www.navy-association.com/2016/12/28/middle-east-now-without-a-us-carrier/) (Accessed 8 October 2018).

attack cruise missile. The Russian Aerospace Forces have a variety of conventionally armed cruise missiles, with the 2,500 to 4,500 km range Kh-101 (which is replacing the Kh-555 in the conventional role) being the flagship weapon. Ground Force capabilities are centred on the 400-500km range Iskander-M ballistic missile and 9M728 cruise missile. Details of the illegal Novator 9M729 – including its range – remain vague.

Russia views its possession of these systems as being as much about deterrent as actual combat capability. In the context of the Baltic scenario illustrated, such weapons would probably have a limited role in the initial offensive. However, their primary task would be to deter NATO from attempting to counterattack by threatening to inflict a level of damage that no modern Western military has experienced for generations and that the wider public may be unwilling to accept.

If deterrence were to fail, much of the offensive effort of these weapons would be directed against NATO forces building up for operations in Eastern Europe, and significant reward would be found in utilising such systems in the northern and maritime realms.

While both the Baltic and the Black Sea Fleets contain vessels capable of launching the Kalibr, by 2024 it is likely that the most capable of such

platforms in the European theatre will sit with the Northern Fleet. By this time, the fleet's Kalibr-capable inventory may consist of:

- 4 x *Yasen* class SSGN¹²⁴ (up to 32 or 40 Kalibr per ship)
- 2 x *Akula* class SSN¹²⁵ (Kalibr loadout unknown)
- 1 x *Kirov* class battlecruiser¹²⁶ (up to 80 Kalibr per ship)
- 3 x *Udaloy I* class destroyers¹²⁷ (up to 16 Kalibr per ship)
- 4 x *Admiral Gorshkov* class frigates (up to 16 Kalibr per ship)
- 4 x *Derzky/Gremyashchiy* class corvettes (up to 8 Kalibr per ship)

It should be noted that in addition to the land attack variant, the Kalibr missile also comes in anti-ship and anti-submarine models, and its launch system is also compatible with the P-800 Oniks anti-ship missiles. In the future, it is likely that the Zircon hypersonic anti-ship missile will also share the launch system. It is, therefore, inevitable that some of the capacity of these ships will be given over to each type. Nevertheless, the emphasis on conventional strategic strike in Russian Naval Doctrine means that a large proportion of the weapons carried by these vessels will often be for

¹²⁴ 'Russian nuclear submarine successfully test fires Kalibr cruise missile' (2017) TASS, 18 August.

<http://tass.com/defense/960882> (Accessed 9 October 2018).

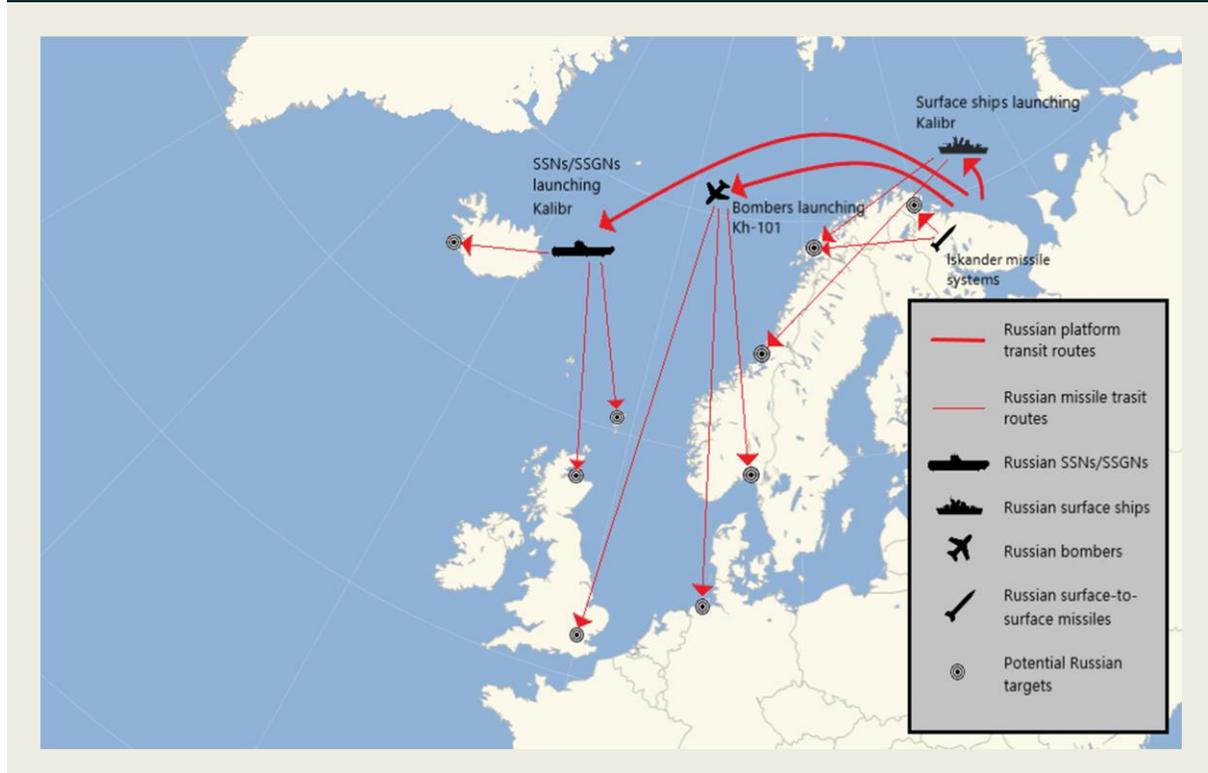
¹²⁵ Two Northern Fleet *Akula* class submarines – Leopard and Volk – are currently being modernised: 'Russian Navy Project 971 *Akula*-class Nuclear-Powered Submarines to Receive Kalibr Missile System' (2017). Naval Recognition. <http://www.navyrecognition.com/index.php/news/defence-news/2016/march-2016-navy-naval-forces-defense-industry-technology-maritime-security-global-news/3732-russian-navy-project-971-akula-class-nuclear-powered-submarines-to-receive-kalibr-missile-system.html> (Accessed 9 October 2018).

¹²⁶ Rogoway, T. (2017) 'Delivery Of Russia's Refit Nuclear Battlecruiser Delayed But Progress Looks Impressive'. The Drive, 31 October.

<http://www.thedrive.com/the-war-zone/15608/delivery-of-russias-refit-nuclear-battlecruiser-delayed-but-progress-looks-impressive> (Accessed 9 October 2018).

¹²⁷ A total of five *Udaloy I* class destroyers are being modernised to carry Kalibr missiles, although it is unclear how they will be distributed between the Northern and Pacific Fleets: 'Russian Navy *Udaloy I*-class ASW Destroyer Marshal Shaposhnikov to Receive Kalibr Missiles' (2017) Navy Recognition, 22 August. <http://www.navyrecognition.com/index.php/news/defence-news/2017/august-2017-navy-naval-forces-defense-industry-technology-maritime-security-global-news/5495-russian-navy-udaloy-i-class-asw-destroyer-marshal-shaposhnikov-to-receive-kalibr-missiles.html> (Accessed 9 October 2018).

Russia striking NATO points of vulnerability



Map 3

land attack use. It is also worth highlighting that while not all of these ships would be at sea at all times, the surface vessels would be able to fire their missiles even whilst in harbour.

Supporting these sea-based assets would be aircraft of Russia's Aerospace Force. The Kh-101 cruise missile can be deployed from:

- Tu-95MS/MSM bombers – 8 Kh-101 missiles carried per aircraft: unknown number of Kh-101-compatible aircraft in service in 2018: perhaps 30 aircraft available in 2024
- Tu-160M/M2 bombers – 12 Kh-101 missiles per aircraft, unknown number of Kh-101-compatible aircraft in service in 2018 with deliveries of upgraded and new production

aircraft continuing: perhaps 18 aircraft available in 2024

Additionally, around 20 Tu-95MS only capable of carrying 6 of the older 3,500 km range Kh-555 cruise missile (as they lack the external pylons required for the Kh-101) may be available. Russia is also developing the shorter (1,500 km) range Kh-50 for use by Tu-22M3/M3M, Tu-95MS and Tu-160M bombers, and potentially the Su-34 'Fullback' strike aircraft.¹²⁸

In March 2018, President Putin unveiled the 'Kinzhal' missile, a hypersonic weapon launched from a MiG-31K fighter with a claimed range of 2,000km. Little is currently known of this weapon or the future plans for its deployment, although it has been claimed to have a capability against land

¹²⁸ Butowski, P. (2017) 'Russian bombers to be armed with new Kh-50 theatre-level cruise missile'. *IHS Jane's Missiles & Rockets*, 21 December.

<http://www.janes.com/article/76602/russian-bombers-to-be-armed-with-new-kh-50-theatre-level-cruise-missile> (Accessed 12 October 2018).

and seaborne targets. If widely fielded, it could prove challenging to defend against – particularly if it is also carried by the Tu-22M3/M3M.

Finally, Russia’s Ground Forces possess a large number of 9K720 Iskander ballistic missiles and 9M728 cruise missiles. Current orders consist of enough Iskander-M systems to equip 11 rocket brigades. Deployment levels of the 9M728 and Novator 9M729 cruise missiles remain unclear.

All of these weapons systems hold an extensive number of NATO targets at risk. Fired from Russian waters, Northern Fleet Kalibr missiles could – even at the missile’s estimated minimum range of 1,500 km – hit key targets in northern and central Norway, including the RNoAF’s F-35A central operating base at Ørland Main Air Station, the F-35A and P-8 base at Evenes Air Station, and the US Marine pre-positioned equipment storage facilities. Launched from submarines in the northern Norwegian Sea, Kalibr missiles can reach all of Norway; as well as targets in Iceland such as Keflavik Airport and the radars of the Iceland Air Defence System; and facilities in the north of the UK such as the fighter and maritime patrol aircraft base of RAF Lossiemouth and the radar site at RAF Saxa Vord.¹²⁹ From the central Norwegian Sea, most of the UK, Norway, Iceland, Denmark and northern Germany come into range. Even locations on the US East Coast could be held at risk by a submarine in the western Atlantic.

The Kh-101 can theoretically hit all of Europe even if launched from an aircraft over western Russia. However, a launch from over the Barents Sea or the northern Norwegian Sea would allow the missiles to

bypass what would, in wartime, become a heavily defended air defence region in Central Europe to hit the less well-defended areas to NATO’s rear. Again, the UK, Iceland and Norway would be prime targets. The Kinzhal air-launched missile and Novator 9M729 ground-launched cruise missiles could also hit most of Europe from Russian territory, but may lack the Kalibr and Kh-101’s ability to outflank much of NATO’s air defence system.¹³⁰

The shorter range Iskander missiles would be used against targets along the Russian-NATO border. In the north, obvious locations for attack in Norway would include the intelligence and surveillance sites on the Norwegian-Russian border, and the Norwegian Army’s garrison of Sør-Varanger.

NATO Response: *Defend points of vulnerability*

The Alliance’s major task would be to defend itself from Russia’s conventional strategic strikes using a combination of defensive and offensive measures. In this context, NATO’s northern flank would be of vital importance. Norway, Iceland and the UK would need to host fighters and SAM systems capable of engaging cruise missiles aimed at the Alliance’s rear area. In the adjacent seas, ships of the US and European NATO navies could cover substantial regions with their long-range air defence missiles.

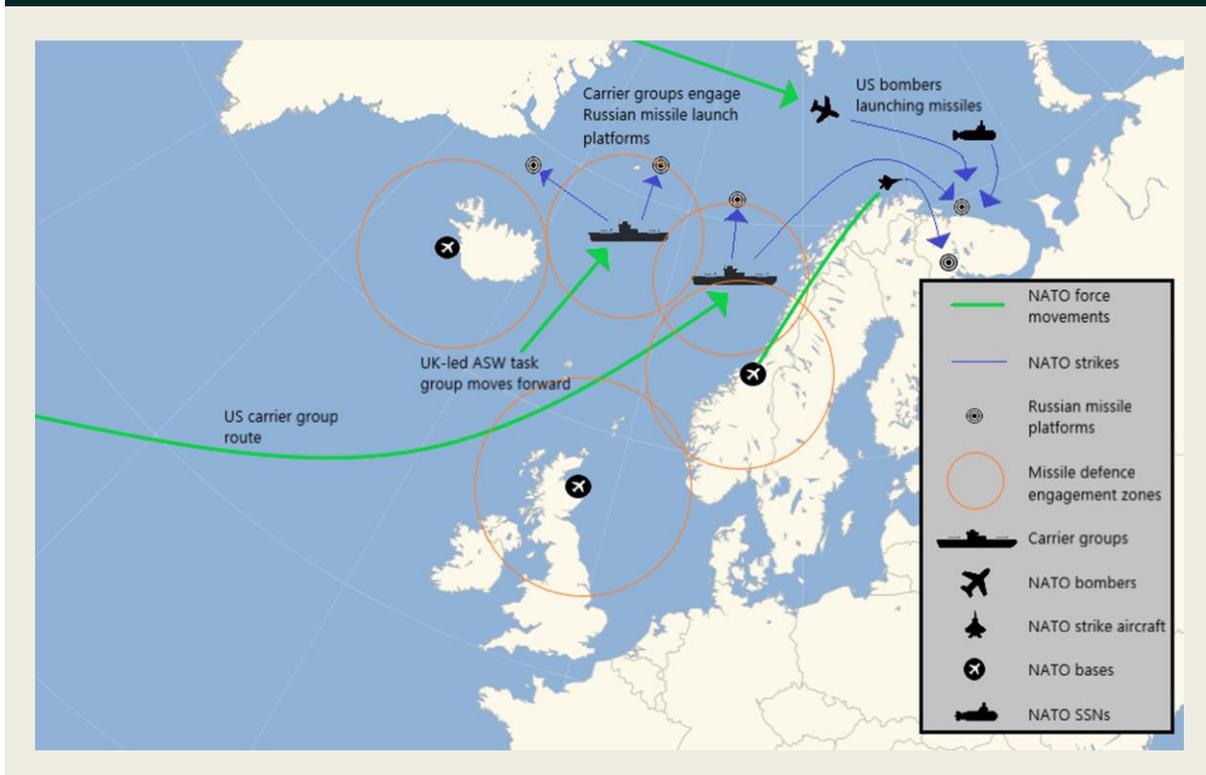
However, more proactive efforts would also be required. At a minimum, reducing the Kalibr threat would require an effort to push Russian launch platforms out of the Norwegian Sea. The

¹²⁹ RAF Saxa Vord is a radar station in the Shetland Islands, which are located off the northern coast of Scotland. The station was closed down in 2006 due to the reduced Russian threat from the north, but is now being re-opened: Harper,

T. (2017) ‘RAF reopens Shetland radar site Saxa Vord to sweep for Russia threat’. *The Sunday Times*, 17 September.

¹³⁰ However, with in-flight refuelling, the MiG-31s could conceivably fly to the northern Norwegian Sea to launch the Kinzhal missile at targets to the south.

NATO defending points of vulnerability



Map 4

deployment of a substantial naval force in this area north of the GIUK Gap – which due to the threat level would have to be headed by US carrier groups – would also help create a deep air defence zone to allow for the interception of Kh-101 air-launched missiles attempting to bypass mainland Europe’s air defences.

Realistically, such an operation would require the modern equivalent of the NATO Striking Fleet to be deployed. Assuming the NATO force ventured no further than the central Norwegian Sea, its leading US element might comprise of:

- 2 x *Nimitz* or *Gerald R. Ford* class aircraft carriers
- 4 x *Ticonderoga* class cruisers
- 8 x *Arleigh Burke* class destroyers
- 2 x *Freedom/Independence* class LCSs

- Replenishment oiler and stores ships
- SSN/SSGNs from the force already outlined

As with the UK-led ASW force, additional fighter, maritime patrol, surveillance and in-flight refuelling support would be provided by aircraft based in Iceland, the UK and Norway.

Nevertheless, such an attempt to ‘bottle up’ Russian forces in the Barents Sea would be inadequate in isolation. Even if pushed back to their home waters, Kalibr platforms would still be able to strike most of Norway. It would also be desirable to avoid leaving elements of the Russian fleet intact less they attempt to challenge NATO’s control of the Norwegian Sea. For this reason, strikes against Moscow’s ships and submarines in Russian waters and, potentially, even in harbour,¹³¹ would be necessary. In order to limit Alliance losses, weapons

¹³¹ Striking nuclear submarines in port would be extremely hazardous due to the risk of a radiation leak in a populated

area. As a result, only conventionally powered vessels in harbour would be targeted.

that could either be delivered by submarines or fired from a significant distance would be heavily utilised. These would include:

- Mk.48 torpedoes, launched from US Navy SSN/SSGNs: able to strike submarines and surface ships at sea
- Spearfish torpedoes, launched from Royal Navy SSNs: able to strike submarines and surface ships at sea
- RGM/UGM-109E Tomahawk missiles, launched from US and UK SSN/SSGNs and surface ships with a range of over 1,400km: by 2024, the Block IV missiles should have the ability to strike ships both at sea and in port
- Joint Strike Missile (JSM), launched from RNoAF F-35A aircraft and surface ships, possesses a range of 160-480 km: this is a dual-role missile also able to strike ships both at sea and in port
- AGM-158C Long Range Anti-Ship Missiles (LRASM), launched from USAF B-1B bombers and US Navy F/A-18E/F fighters and with a range of 480 km

The robust air defences both aboard many Russian ships and based on the Kola Peninsula would likely prevent a significant number of these munitions reaching their target. Nevertheless, they should be able to inflict the desired attrition on naval launch platforms.

As regards the Kh-101 and the Novator 9M729 cruise missiles (and, potentially, the Kinzhal missiles) the range of the weapons would limit options to eliminate their airborne launch platforms. The difficulties of targeting mobile land-based missile launch platforms such as those used by the Iskander ballistic missile and Novator cruise missile are also

well known.¹³² Nevertheless, the destruction of naval Kalibr platforms would also eliminate much of Moscow's anti-shipping capability. This would allow for the deployment of NATO surface vessels in the central Norwegian Sea, allowing them to cast an air and ballistic missile defence umbrella over much of Norway and its adjacent waters. Key systems would include:

- SM-2: A US ship-based SAM with a range of 140 km – carried by US Navy *Arleigh Burke* class destroyers and *Ticonderoga* class cruisers, German Navy *Sachsen* class frigates and Royal Netherlands Navy *De Zeven Provinciën* class frigates
- SM-6: A US ship-based SAM/terminal stage ABM with a range of 250-450 km – carried by US Navy *Arleigh Burke* class destroyers and *Ticonderoga* class cruisers
- Aster-30: A French-Italian SAM with a range of 120 km – carried by Royal Navy Type 45 destroyers
- SM-3: A US ship-based ABM carried by suitably modified US Navy *Arleigh Burke* class destroyers and *Ticonderoga* class cruisers

Assuming that the securing of the region around northern Norway is accompanied by the deployment of ground force reinforcements led by the US Marines and the UK Royal Marines, it would also be possible to deploy additional ground-based SAM and ABM units, with the US Army's MIM-104 Patriot and Terminal High Altitude Area Defense (THAAD) systems being the clear options.

Combined, these actions would inflict significant attrition on Moscow's long-range precision-guided

¹³² During the 1991 Gulf War, Coalition forces expanded a vast effort on hunting Iraqi mobile missile launchers with very limited success.

weapons systems, and partially mitigate the impact of those that remained.

Russian Action: *Strategic Defence*

Despite the renewed importance of conventional power projection, Russia's 2017 Naval Doctrine recognises the necessity of both countering NATO's naval forces should they enter waters adjacent to Russia, and the crucial need to maintain a seaborne nuclear deterrent. To this end, the defence of the maritime approaches to Russia remains the top naval operational priority.

The 2015 Expert Commission on Norwegian Security and Defence Policy report and US Office for Naval Intelligence report¹³³ on Russia's Navy from the same year both identify that the outer layer/bastion of Moscow's maritime defence in the west begins along the GIUK Gap, around 1,000 miles from Russian territory. This is, not coincidentally, also the distance at which NATO vessels must be held to keep them out of Tomahawk missile range of Russian targets. However, if a campaign against Moscow's naval platforms carrying strategic conventional weapons systems has succeeded, with NATO broadly securing the Norwegian Sea and inflicting attrition on vessels in Russian territorial waters, it can be assumed that the outer layer of Moscow's defences has fallen. This would leave only the inner layer.

Broadly, Russia's defensive force along its western Arctic coastal waters and its adjacent land would consist of a mixed force of combat aircraft, the

surviving vessels of the Northern Fleet, ground-based missile systems, and land forces. These elements would fall under the umbrella of the Arctic Joint Strategic Command. As already noted, Moscow has sought to revitalise its defensive posture along Russia's northern coast. Much of the base construction in the Arctic region has focused on establishing air, missile and radar facilities to detect and engage incoming air attacks. Ironically, this work has pre-empted any significant effort by NATO to take advantage of its maritime supremacy.

The initial inner bastion anti-carrier effort would probably be launched by Russia's Airspace Forces. The key systems would include:

- Tu-22M3M bomber – 2 x 600 km-range Kh-32 anti-ship missiles per aircraft: 30 aircraft available by 2024¹³⁴
- MiG-31K aircraft – 1 x 2,000 km range Kinzhal air-ground/anti-ship missile per aircraft: unknown number of Kinzhal-compatible aircraft currently in service, 50 potentially available by 2024¹³⁵
- Su-34 strike aircraft – 2 x 300 km-range Kh-35 anti-ship missiles: possibly 24 in service with Arctic Joint Strategic Command in 2024¹³⁶

There may also be around 20 unmodernised Tu-22M3 available to support defensive operations.

Were NATO forces able to ride out the air attacks and enter the Barents Sea itself on a significant scale, they would be met by all surviving operational combat ships and submarines that were not directly committed to close SSBN support. Given the previous engagements, it is impossible to tell what

¹³³ 'The Russian Navy: A Historic Transition' (2015). Office of Naval Intelligence, pp.4-5.

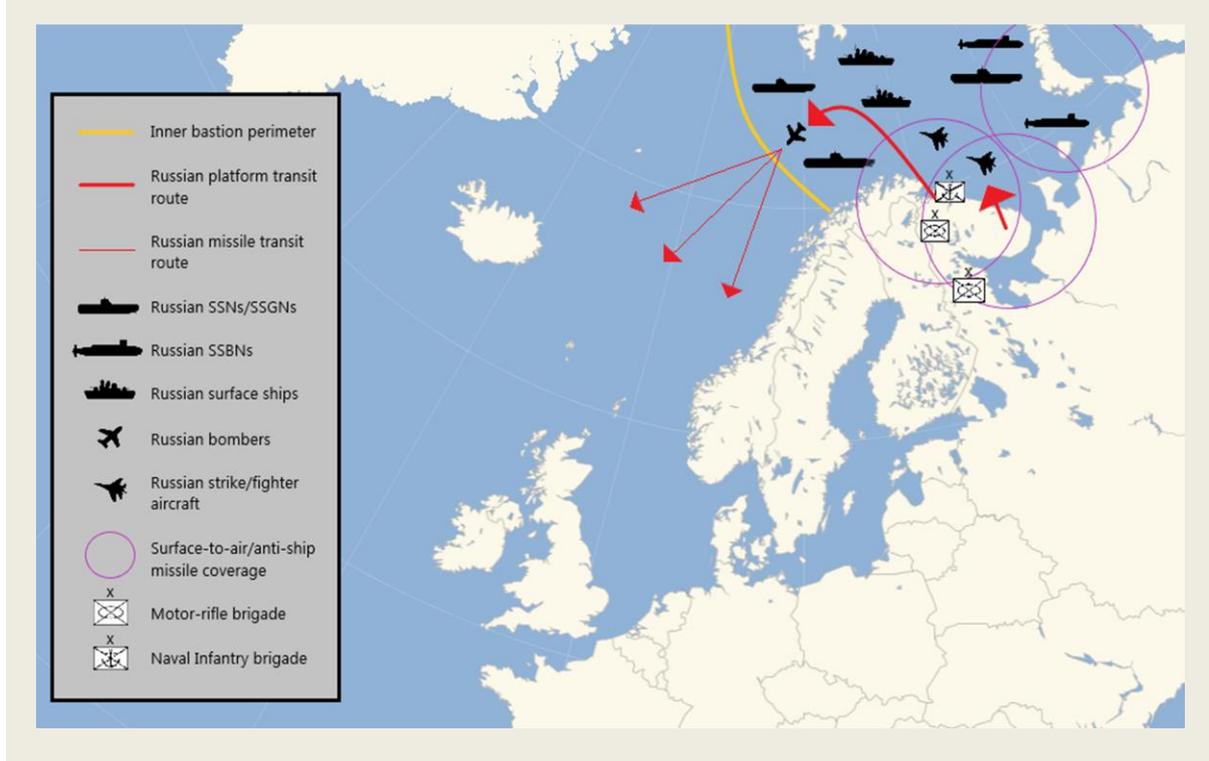
<https://fas.org/nuke/guide/russia/historic.pdf> (Accessed 13 October 2018).

¹³⁴ This assumes aircraft are transferred from other regions to support defensive efforts.

¹³⁵ This assumes aircraft are transferred from other regions to support defensive efforts.

¹³⁶ Assuming that the Su-24 at the Monchegorsk Air Base in Murmansk are replaced by Su-34 aircraft by 2024.

Russian defensive posture



Map 5

these units might be precisely, although it seems likely that certain assets – most notably the Northern Fleet’s *Oscar II* class SSGNs – might have been held in reserve to support anti-carrier operations. It would seem improbable that the Russian Navy aircraft carrier *Admiral Kuznetsov* and its battle group – whose primary wartime focus would be defensive ASW – would survive the NATO anti-Kalibr campaign, but if they did, these ships would also come into play. Supporting this effort would no doubt be a major naval mining campaign to deter entry into Russian waters.

The final line of defence for the Northern Fleet’s SSBN force would be the SSNs and SSKs providing them with a close escort and, of course, the weapons carried by the SSBNs themselves. By 2024, the Northern Fleet’s SSBN force is likely to comprise of approximately:

- 6 x *Delta IV* class: 16 x R-29RMU Sineva (SS-N-23) SLBM, plus torpedoes and anti-ship missiles

- 2 x *Borei* class: 20 x RSM-56 Bulava (SS-N-32) SLBM, plus torpedoes and anti-ship missiles

A decision by NATO to target these vessels would inflict notable attrition on Russia’s strategic nuclear deterrent. Nevertheless, the land-based ballistic missile force would remain intact, as would the SSBN element of the Pacific Fleet if – as speculated below – political and military issues deterred both sides from further expanding the scope of the war.

If attempts to hold NATO forces at a distance fundamentally failed, tactical combat aircraft based in the Russian Arctic would come into play. MiG-31BM/BSM aircraft would also operate in their interceptor role against NATO strategic bombers, cruise missiles and carrier aircraft. Additionally, some or all of the Su-33 and MiG-29K aircraft earmarked for use on the aircraft carrier *Admiral*

Kuznetsov may be operated from land bases.¹³⁷ Given the peacetime weakness of Russia's Arctic fighter force, it is also likely that reinforcements from other regions would be flown in. For as long as some semblance of air superiority could be maintained by Moscow's forces, Tu-142 'Bear-F' and Ilyushin Il-38 'May' maritime patrol aircraft would aid in hunting for NATO submarines in Russian waters.

Further back would be a set of missile defences. On the western Russian Arctic coast, this would include systems such as:

- S-400 SAM and ABM system operated by Russian Aerospace Forces – range of up to 400km
- S-300 SAM and ABM system operated by the Air Defence Troops of the Russian Ground Forces – range of up to 200 km
- K-300P Bastion-P land-based anti-ship missile system operated by Russian Navy Coastal Troops – range of up to 350 km.

Additional air defence units would be deployed further inland to provide a layered protection against any attempt by NATO forces to launch strikes deep into Russia.

On the ground, the Arctic Joint Strategic Command has a total of three manoeuvre brigades available in its north-west:¹³⁸

- 200th Motor Rifle Brigade of the Russian Ground Forces
- 80th Motor Rifle Brigade of the Russian Ground Forces

¹³⁷ One squadron of each type available.

¹³⁸ Sutyagin, I. and Bronk, J. (2017) *Russia's New Ground Forces: Capabilities, Limitations and Implications for International Security*. RUSI Whitehall Paper 89. Taylor & Francis, Abington. Pp.122-129.

¹³⁹ Ibid, pp.126

¹⁴⁰ Staalesen, A. (2017) 'New Russian forces to protect Arctic coast'. *Barents Observer*, 20 January.

- 61st Naval Infantry Brigade

The 200th and 80th brigades are trained and equipped for Arctic operations, and it is expected the two units will either be expanded into divisions,¹³⁹ or form part of a single division in the region.¹⁴⁰ In either case, such a move would have implications for the security of northern Norway as well as for the defensive posture in and around the Kola Peninsula.

NATO's Strategy: *Horizontal escalation*

The final stage of the new strategy represents the linchpin of both the deterrent it provides and its operational utility. The Maritime Strategy of the 1980s greatly favoured *horizontal escalation*¹⁴¹ – the concept of geographically widening a conflict in a way which disadvantaged the enemy. In the context of Cold War Europe, this meant retaliating against a Soviet attack by expanding a war on the Central European front into a global conflict that challenged them in every conceivable region. This would have included threatening the periphery of the USSR with naval forces. In doing so, Moscow would be denied the opportunity to fight a conflict that played to its strengths. Horizontal escalation was considered key not just to an actual conflict, but also to deterrence: if the Kremlin was made aware that it would face consequences that threatened its most vulnerable points, it would be less likely to embark on a war in the first place.

<https://thebarentsobserver.com/en/security/2017/01/new-russian-forces-protect-arctic-coast> (Accessed 15 October 2018).

¹⁴¹ In contrast, vertical escalation involves the intensification of the severity of a conflict – e.g. from the use of conventional to nuclear weapons.

Today, it is desirable for NATO to replicate a similar approach with Russia. This is not because Moscow possesses overwhelming ground forces. Rather, it is because the confined geography of any campaign to liberate the Baltics would play to Russia's advantage by allowing it to utilise its comparatively limited military in a fashion that would inflict maximum stress on NATO units. There is also the risk that the outcome of such a conflict would simply be a return to the pre-war balance of power leaving Russia only marginally strategically worse off as a result of losing the war. None of these scenarios is desirable from either a deterrent or strategic/operational point of view.

In contrast, horizontal escalation presents an opportunity to help mitigate the advantages Russia would hold in an otherwise largely localised conflict, and inflict long-term strategic consequences. Maritime operations on the northern flank would play a vital role in this approach. Such an effort would build on the campaign that would have already largely disabled Russia's Northern Fleet as part of the drive to degrade its precision strike capability described above.

At sea, there would be a need to further reinforce the already substantial fleet that would by now have dominance of the Norwegian Sea. Ultimately, perhaps five carrier groups – four US and one British – would be required. These would be supported by a broad array of aircraft based in northern Norway, as well as a large US-led ground force. Their initial task would be to weather the inner layer of Russia's northern bastion defences which, as already outlined, would comprise of maritime strike aircraft and naval units. Once these attacks had been countered, the force would switch to the offensive. Roughly sequentially, they would be tasked with:

1. Seeking out and destroying the surviving offensive elements of the Russian Northern Fleet and local Aerospace Forces, including through:
 - Anti-ship and counter-air operations – including attacks on bases – utilising carrier and land-based tactical aircraft (e.g. F-35A/B/C, F-16s) carrying advanced air-to-air (e.g. AMRAAM/Sidewinder X) and stand-off air-to-ground munitions (e.g. JSTOW and Joint Strike Missile)
 - Anti-submarine operations against SSNs, SSKs, SSGNs and SSBNs, principally using US (*Los Angelis* and *Virginia* class) and UK (*Astute* class) SSNs
2. Suppressing Russian air defence assets across the Kola Peninsula, led by:
 - Specialist suppression of enemy air defence (SEAD) aircraft utilising E/A-18G carrying the Next Generation Jammers and the AGM-88E AARGM
 - Strikes on air defence and support facilities
 - The use of manned and unmanned electronic intelligence and support assets
3. Executing deep strike operations on non-nuclear strategic targets in the region north of Moscow through:
 - Ship and submarine-launched Tomahawk cruise missiles strikes
 - Strategic bomber (B-1B, B-2 and B-52H) raids using JASSM/JASSM-ER cruise missiles
 - Cruise missile strikes launched from tactical aircraft
4. Inflicting losses on ground forces that held the potential the threaten Norway via:
 - Attacks by tactical aircraft
 - Strikes by surface-to-surface missiles based in Norway (e.g. 300km range ATACMS, 500km range Precision Strike Missile)

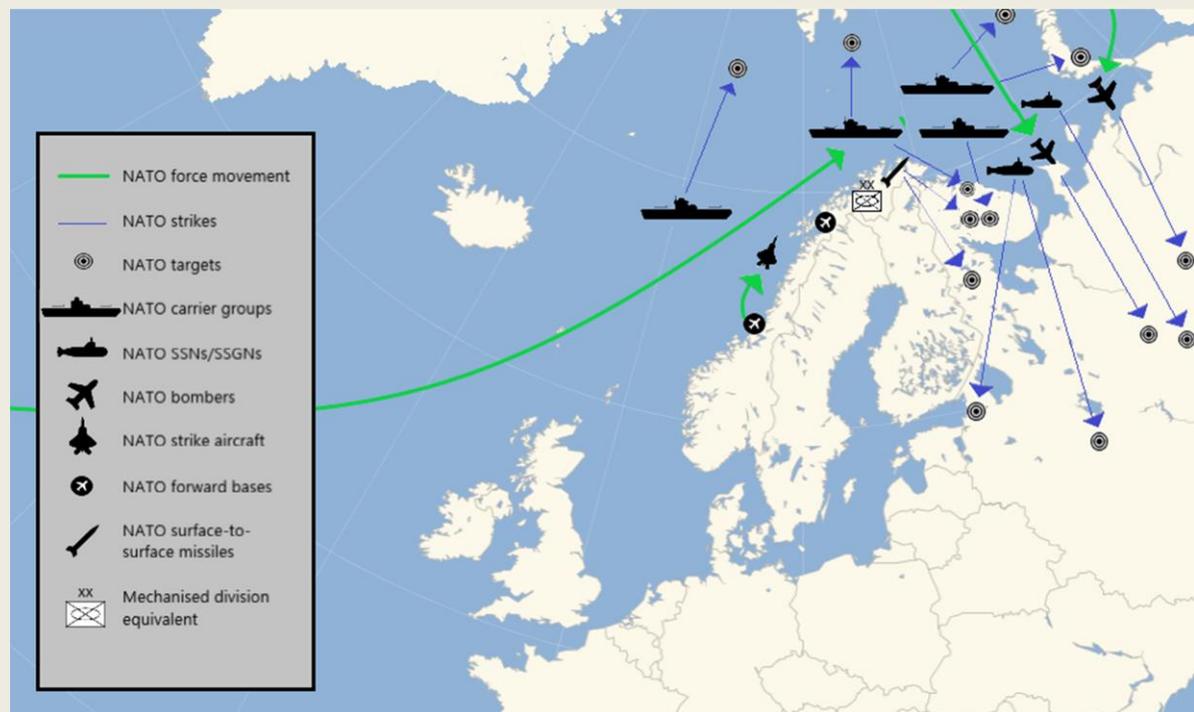
- Artillery operations against Russian troops stationed on the Norway/Russia border
5. Presenting a credible ground threat to the Kola Peninsula through:
- Deploying a full US Marine Expeditionary Force (with supporting allied units) to northern Norway

The above approach would have three benefits. Firstly, if – like the Maritime Strategy – it was presented relatively publically as the Alliance’s wartime plan, it would massively increase the deterrent effect NATO could produce. Such consequences would sit badly with Moscow’s strategy of ‘short, sharp’ wars that placed limited demands on the relatively shallow pool of Russia’s forces.

Secondly, if a conflict came, the only way that Russian forces could conduct a comprehensive

defensive operation against a NATO force in the above campaign would be to divert resources from other parts of the country. This would mean that these assets were unavailable for use in the theatre in which the main operation was taking place – in this scenario, the Baltic region. This would not remove the need for a counteroffensive in Eastern Europe, but it would place stress on Russia’s armed forces and compel them to prioritise. A case study of this can be seen in the Gulf War. In that conflict, the clear intention of the Coalition to mount an Iraq-wide campaign had a significant impact on the defensive posture of Iraqi forces. For example, relatively few strategic SAM systems were deployed to the Kuwaiti theatre of operations, with most remaining in and around Baghdad.¹⁴² This made the situation for aircraft attacking Iraqi ground forces in the region far less hazardous than it would otherwise have been. Although Russia has a more

NATO offensive operations



Map 6

¹⁴² Frostic, F. (1994) ‘Air Campaign Against the Iraqi Army in the Kuwaiti Theatre of Operations’. RAND Corporation.

https://www.rand.org/content/dam/rand/pubs/monograph_reports/2006/MR357.pdf (Accessed 11 October 2018) pp.2-3.

extensive array of air defences than Iraq possessed in 1991, every missile battery devoted to a task outside the Baltic region would reduce the strain on NATO's forces in Eastern Europe. This would also be the case for any air and ground units that had to be detached from the central conflict to manage a threat from the north.

Thirdly, a broad conflict would also ensure that the cost to Russia would be long-lasting. Again, looking to the Gulf War, alongside the expulsion of Iraqi forces from Kuwait, a further objective was to destroy as much of Baghdad's offensive capability as possible to reduce the future threat it presented to the region. Clearly, the scope to do this with Russia would be more limited than it was in the case of Iraq. There would also be a need to hold back less a threshold be crossed that resulted in a nuclear response (*see later section*). Nevertheless, targets that supported key components of Moscow's conventional offensive arms – including aircraft and armoured vehicle production facilities, shipyards and research centres – could face attack were the conflict to be protracted.

As previously noted, neither NATO's 1981 CONMAROPS nor the US Maritime Strategy was exclusively focused on the issues surrounding the Alliance's northern flank. Similarly, there would be a broader range of challenges to be managed in a modern conflict. It is therefore worth a brief wider examination of the other maritime regions of relevance.

Other Maritime Theatres

The Baltic Sea

Paradoxically given that the conflict outlined in this report would be centred on the Baltic, the NATO naval operations in the Baltic Sea would be of only limited importance to the wider liberation

campaign. As with the northern flank operation, a crucial initial move for NATO would be the elimination of the land attack missile capability of the Baltic Fleet. By 2024, newly delivered combat ships will include:

- Approximately 10 x *Buyan/Steregushchiy/Karakurt* class corvettes (up to 8 Kalibr missiles)
- 2 x *Lada* class SSKs (Kalibr loadout unknown)

These would be supported by around a dozen older frigates, destroyers, corvettes and fast attack missile ships, and at least one older *Kilo*-class submarine. This force would be granted a measure of protection by the aforementioned A2/AD defensive bubble protecting the Kaliningrad Oblast and denying access to the wider Baltic region. However, most of the effort to eliminate the offensive maritime force in the Baltic Sea would fall to the Alliance's land-based airpower, with NATO ships and submarines playing only a secondary role.

Nevertheless, whilst carriers would be superfluous in the Baltic Sea, and SSNs too large to be used effectively, smaller surface ships and amphibious landing vessels would play a vital role in supporting the land operation. From escorting convoys to their disembarkation points to providing air and missile defence support, naval power would provide a variety of capabilities. Amphibious landings would also provide additional options for a ground offensive – although they would be hazardous given the magnitude of Russia's shore-based anti-ship missile capability. Maritime forces in the Baltic Sea would also add to Russia's wider strategic defensive problem: launched from the western Baltic Sea, conventionally-armed cruise missiles fired from surface ships would have the range to reach St Petersburg and Moscow.

The Black Sea

The Black Sea represents the most interesting of the secondary theatres. Russia's recently modernized Black Sea Fleet has the ability to project power across south-east Europe using ship and submarine-launched cruise missiles. It can also challenge maritime access to NATO members Bulgaria and Romania. New vessels to be delivered by 2024 will include:

- 6 x Improved *Kilo* class SSKs (Kalibr missiles carried as part of a mix of 18 torpedoes and missiles)
- 6 x *Admiral Grigorovich* class frigates (up to 8 Kalibr missiles)
- Approximately 8 x *Karakurt/Gremyashchiy/Buyan* class corvettes (up to 8 Kalibr missiles)

Additionally, there will be around a dozen older frigates, corvettes and fast attack missile ships. The fleet itself resides in the highly militarised (and illegally occupied) Crimean Peninsula – which like the Kaliningrad Oblast also hosts a potent A2/AD force of long-range SAMs and anti-ship missiles.¹⁴³ Ukraine can be isolated along its maritime approaches using missiles based in the Crimea alone. Suppressing both the naval and land-based Russian capabilities in this region would prove vital to securing NATO's southern flank, and – assuming Moscow's intervention in Ukraine remained ongoing – might even provide cover for Kiev to attempt to liberate its eastern territories, further adding to Russia's list of problems.

How a Black Sea campaign would proceed would hinge on Turkey's role. If Ankara fully supports a NATO counteroffensive, Russia's assets in the

region could be eliminated relatively quickly using a combination of Turkish air and naval power, together with NATO air assets based in South-East Europe. A refusal by Ankara to partake in an operation would, however, leave the task to the air power of other Alliance nations. There would also be added complications for NATO given that the Montreux Convention severely limits the level of military shipping countries that do not border the Black Sea can bring into the region through the Bosphorus Straits and the Dardanelles. Given the weakness of the Romanian and Bulgarian navies, the Alliance would find itself at a significant seaborne disadvantage that would have to be compensated for with aircraft. As with the northern flank operation, this would force Russia to make further difficult choices as to where it deployed its defensive assets.

The Mediterranean

The Mediterranean element of a conflict would largely depend on how Russia chose to manage its strategically weak position. It is true that Moscow has established a permanent military presence in the region, the maritime element of which draws on the ships and submarines of the Black Sea, Northern and Baltic Fleets, and uses facilities in Syria to provide forward support. A number of these vessels have the ability to fire Kalibr missiles. Like the Kaliningrad Oblast and the Crimean Peninsula, Syria's coastal region also plays host to a A2/AD force of SAMs and anti-ship missiles that allow for a projection of power in their own right. However, in a major conflict, Russia would have severe difficulty in either supporting these forces or withdrawing them to safer locations once hostilities had commenced.

¹⁴³ Sukhankin, S. (2017) 'Russia Pours More Military Hardware Into 'Fortress Crimea'. *Eurasia Daily Monitor* Volume: 14 Issue: 147.

<https://jamestown.org/program/russia-pours-military-hardware-fortress-crimea/> (Accessed 21 October 2018).

In contrast, NATO's presence in the Mediterranean is led by the two significant naval powers of France and Italy, and would be supported by the US Navy. Depending on how the politics of a crisis played out, they may also be supported by the forces of Greece and Turkey and – potentially – US units based in the Middle East. Facing the ten or so Russia Navy frigates, destroyers, landing ships, submarines and logistics craft Moscow would have in the region would be a NATO force likely centred upon a French carrier group, an Italian carrier group, a dozen modern SSKs and SSNs, and over 20 modern destroyers and frigates. To this could be added overwhelming land-based air power. There would also be an option for land operations in Syria to eliminate the Russian presence there, although a decision to do so would depend on wider priorities.

The Pacific

Russia's Pacific Fleet represents its second largest naval force, and consists of a balanced fleet including SSNs, SSGNs, SSBNs and large surface ships. Nevertheless, its involvement in any conflict would likely be limited. An unprovoked military offensive against sovereign states in Eastern Europe would leave Russia diplomatically and economically isolated. China would probably remain officially neutral (although still disapproving), but as the price for continued cooperation – particularly in the economic sphere – Beijing would likely make it clear to Moscow that it would not be willing to tolerate a spread of the conflict to the Pacific. This would effectively rule out the use of Russian's eastern military assets to strike US interests in the region. Similarly, the US would likely be reluctant to add to

the economic problems caused by the war by expanding operations into East Asia. Militarily, Moscow would probably wish to avoid adding yet another theatre of operations to its already long list of commitments, and the US would also not wish to overly extend its forces.

Outcome

The ultimate aim of the NATO liberation campaign would be to end the conflict on terms favourable to the Alliance, acceptable to the Kremlin, and with the territorial integrity of all the nations involved restored and with Russia's ability to mount similar aggressive operations in the immediate future severely curtailed. The maritime element would facilitate this by:

- enabling the build-up of the ground and air forces required for the central campaign
- protecting critical Alliance facilities from enemy strikes
- forcing the diversion of significant military assets from the central theatre
- degrading Russia's core military potential
- exerting psychological pressure on enemy national decision makers

The task of ending the war on a basis that is acceptable to all involved is vital, given the possession of nuclear weapons by the conflict's main parties. However, while the risks of a nuclear exchange should not be downplayed, it is important not to exaggerate the additional stress in this area that a forward maritime strategy would add.

The Nuclear Question

The major spectre hanging over the outlined maritime strategy is the scope for Moscow to retaliate using nuclear weapons. Russia's nuclear doctrine is intentionally opaque. At the most basic level, the country's 2014 Military Doctrine states that:

*"The Russian Federation shall reserve the right to use nuclear weapons in response to the use of nuclear and other types of weapons of mass destruction against it and/or its allies, as well as in the event of aggression against the Russian Federation with the use of conventional weapons when the very existence of the state is in jeopardy."*¹⁴⁴

To the Western eye, this places the 'use threshold' extremely high. Indeed, given that it is currently near inconceivable that any power could invade and occupy a substantial portion of Russia – the most obvious interpretation of a threat to the "existence of the state" – it is tantamount to a policy of 'no first use'. However, it is unclear exactly how the Kremlin defines "existence of the state". Whilst part of this is due to deliberate ambiguity, it also raises cause for concern. Russia also explicitly abandoned the USSR's (admittedly likely notional) policy of no first use in 1993, eleven years after it had been announced by then Soviet leader Leonid Brezhnev.¹⁴⁵

Closely linked to the above is the fact that it has become popular amongst analysts to claim that

Russia has developed a doctrine of 'escalate to de-escalate' – a concept by which a limited number of nuclear weapons are used to prompt a conflict's termination on terms favourable to Moscow. This idea emerged during the 1990s, when it became clear that Russia's conventional forces were hopelessly outmatched by NATO. The 2000 edition of Russia's military doctrine stated that the country reserves the right to use nuclear weapons "in response to large-scale aggression involving conventional weapons in situations that are critical for the national security of the Russian Federation and its allies".¹⁴⁶

However, there is limited actual evidence that such a strategy is currently in place today – a point reflected in the more restrained 2014 doctrine. Indeed, if anything, the situation seems to be moving in the other direction, with conventional strategic forces – many of which are under the control of the Russian Navy – being increasingly emphasised in the context of deterrent and escalation management.¹⁴⁷ A major part of this has been made possible by the acquisition by Russia of precision-guided weapons that can now play a role formally allocated to nuclear weapons. Indeed, Russian strategic theorists have outlined how non-nuclear assets can now be used to conduct both demonstration strikes and inflict unacceptable damage on an enemy.¹⁴⁸ Evidence that Russia is making a serious investment in tactical nuclear

¹⁴⁴ "The Military Doctrine of the Russian Federation" (English translation) (2014) Press Release, The Embassy of the Russian Federation to the United Kingdom of Great Britain and Northern Ireland.

¹⁴⁵ Schemann, S. (1993) 'Russia Drops Pledge of No First Use of Atom Arms'. *New York Times*. <https://www.nytimes.com/1993/11/04/world/russia-drops-pledge-of-no-first-use-of-atom-arms.html> (Accessed 23 September 2018)

¹⁴⁶ Sokov, N. (2000) 'Russia's 2000 Military Doctrine'. NTI. <http://www.nti.org/analysis/articles/russias-2000-military-doctrine/> (Accessed 22 September 2018)

¹⁴⁷ Fink, A.L. (2017) 'The Evolving Russian Concept of Strategic Deterrence: Risks and Responses'. Arms Control Association. <https://www.armscontrol.org/act/2017-07/features/evolving-russian-concept-strategic-deterrence-risks-responses> (Accessed 22 September 2017)

¹⁴⁸ Bruusgaard, K.V. (2017) 'The Myth of Russia's Lowered Nuclear Threshold'. *War on the Rocks*, 22 September.

weapons is mixed, although it should be noted that many of the conventional precision strike systems highlighted here – including the Iskander and Kalibr – are capable of delivering nuclear warheads. Whatever investment is ongoing, however, is small in scale when compared to the huge and public drive to enhance Russia’s strategic nuclear force. Whilst this does not necessarily mean a great deal as Moscow still retains the largest and most diverse tactical nuclear force in the world, it does give cause for scepticism with regards to Russia’s intentions in terms of ‘limited’ nuclear warfighting.

In order to gauge the nuclear risk presented by the strategy outlined in this document, the following questions should be raised:

1. Would Moscow use nuclear weapons to halt a NATO operation to liberate foreign territory Russia had captured?
2. Would Russia use nuclear weapons in response to the elimination of much of its conventional maritime force and conventional strategic capability?
3. Would Moscow use nuclear weapons in response to attrition being inflicted on the seaborne element of its strategic deterrent (e.g. the sinking of Northern Fleet SSBNs)?
4. Would Russia use nuclear weapons in response to conventional air attacks on the Russian homeland that did not threaten breakdown level damage to the state?

All of the above represent potential departure points for the limited use of nuclear weapons, but none of these proposed NATO actions would represent a mortal threat to the Russian state as the definition might be traditionally understood. Furthermore, they would have been anticipated as a

major risk by the Kremlin prior to its embarkation on hostilities. As such, believing that Russia would be provoked into the use of nuclear weapons in the outlined scenarios carries the inbuilt assumption that Moscow began a conflict with the stance that the use of nuclear weapons was a price worth paying for its policy goals.

Whilst nuclear weapons would probably not be used early, they would doubtless represent a fallback option if other countermeasures failed. It is possible to claim that the outlined maritime strategy would make such a development more likely. For example, the ‘anti-Kalibr’ campaign would represent the elimination of much of Russia’s non-nuclear strategic capability, potentially provoking a turn to more extreme alternatives. The destruction of the Northern Fleet’s SSBNs fleet probably carries the greatest risk given the importance Moscow places on its strategic deterrent. But we would ultimately return to the same point: Russia is not naive about the potentially civilisation-ending consequences of the use of nuclear weapons, and it is unlikely to risk such a path under anything but an existential threat. Even the loss of a percentage of its strategic deterrent would not represent such a scenario: Russia would still retain sufficient nuclear weapons to guarantee its post-war survival as an independent power. Probably more importantly from the Kremlin’s point of view, the fate of Russia’s leadership would remain a domestic matter. At the most basic level, it is far more likely that they would risk their chances against their own population than intentionally burn the world down around them.

But what if these assumptions are wrong, and Moscow is indeed preemptively prepared to use nuclear weapons to ensure policy success? In that

<https://warontherocks.com/2017/09/the-myth-of-russias-lowered-nuclear-threshold/> (Accessed 22 September 2018).

instance, the outlined maritime strategy would make little difference to such decision making. If the leadership were in such a frame of mind, it is unlikely that Russia would choose *not* to use the nuclear option to halt a NATO assault in Eastern Europe, but suddenly change its mind due to a northern flank operation. The prospect of the loss of certain strategic assets and conventional attacks on the homeland – plus the inevitable ‘fog of war’ such actions would add to an already complex, tense and confusing situation – might tip a finely balanced decision in favour of nuclear use, it would not be the bedrock on which such a move rested.

At the practical level, Russia’s Naval Doctrine highlights that the navy holds a non-strategic nuclear role, stating: “During the escalation of military conflict, demonstration of readiness and determination to employ non-strategic nuclear weapons capabilities is an effective deterrent.”¹⁴⁹ It adds that the navy must possess: “the capability... to damage an enemy’s fleet at a level not lower than critical with the use of non-strategic nuclear weapons”.¹⁵⁰ The Russian Navy is assessed as being the largest user of the country’s tactical nuclear weapons, with around 760 warheads for use on torpedoes, depth charges, cruise missile and anti-submarine rockets.¹⁵¹ The maritime context would also involve the nuclear capable anti-ship missiles employed by the Russian Aerospace Forces.

Potentially, the use of nuclear weapons at sea could also offer Russia the opportunity to escalate with less risk of a major exchange. However, the theoretical utility of nuclear weapons at sea would remain constant whether or not a forward maritime strategy was adopted, and would still leave NATO with little option but to respond in kind.

Fundamentally, a conflict between NATO and Russia would still amount to a war between two major (and two mid-ranking) nuclear powers, with all the risk of escalation that would entail. The more proactive use of conventional forces does not meaningfully risk making an already extremely dangerous situation worse providing it does not clearly cross an existential threshold. The transition to what most would consider an environment in which the risk of the use of nuclear weapons became unacceptably high would have occurred when hostilities were initiated.

¹⁴⁹ ‘Fundamentals of the State Policy of the Russian Federation in the Field of Naval Operations for the Period Until 2030’ (English translation by Davis, A.) (2017) Russia Maritime Studies Institute: US Naval War College, p.12. [https://dnnlglwick.blob.core.windows.net/portals/o/NWCDepartments/Russia%20Maritime%20Studies%20Institute/RM_Sl_RusNavyFundamentalsENG_FINAL%20\(1\).pdf?sr=b&si=DNNFileManagerPolicy&sig=fjFDEgWhpdIING%2FnmGOXqa](https://dnnlglwick.blob.core.windows.net/portals/o/NWCDepartments/Russia%20Maritime%20Studies%20Institute/RM_Sl_RusNavyFundamentalsENG_FINAL%20(1).pdf?sr=b&si=DNNFileManagerPolicy&sig=fjFDEgWhpdIING%2FnmGOXqa)

[H5%2FDEujDU76EnksAB%02B1A0%03D](https://www.tandfonline.com/doi/pdf/10.1080/00963402.2017.1290375) (Accessed 19 September 2018)

¹⁵⁰ Ibid, p.16

¹⁵¹ Kristensen, H.M. and Norris, R.S. (2017) ‘Russian nuclear forces, 2017’. *Bulletin of the Atomic Scientists*, Vol73 No.2, p.123. <https://www.tandfonline.com/doi/pdf/10.1080/00963402.2017.1290375> (Accessed 23 September 2018).

Conclusions

The primary purpose of NATO's actions in relation to Russia is to provide deterrence that conveys that aggression – no matter on what level conducted or with what initial degree of success it meets – will ultimately not reward the perpetrator. A reinvigorated maritime strategy has a vital role to play in this mission. In peacetime, providing Moscow with a clear picture of the Alliance's readiness and ability to act will have a far greater impact if it is made plain that NATO is both ready to respond to any contingency and to escalate action to a level outside of the Kremlin's comfort zone. Should conflict come, the contingencies outlined will provide the Alliance with a pathway to help secure the primary goal of ensuring the territorial integrity of its members, and – just as importantly – ensure that the postwar environment presents Russia with fewer options to threaten the peace.

The measures proposed here are not to be taken lightly. Any form of military conflict between the NATO powers and Russia presupposes a number of major policy failures, and at the minimum a significant risk of a nuclear exchange. Yet it would be wrong to allow the future to be held hostage because certain contingencies are unthinkable. With actions from Syria to Salisbury, Moscow has shown time and again that it is willing to act outside the expectations of its opponents. During the 40 years of the Cold War, NATO publically prepared on land, in the air and at sea to counter the Warsaw Pact at all levels. Whilst significant progress has been made since Russia began its action in Ukraine, much remains to be done. Most significantly, there remains a yawning gap in the Alliance's escalation ladder. Clear provision is in place to fight a limited conflict in Eastern Europe, and to engage in a

strategic nuclear war. Contingencies for the in-between remain largely unrehearsed and confined to the filing cabinets of NATO headquarters. Most importantly, they may lack credibility in the eyes of Moscow. This gap represents one of NATO's greatest weaknesses, and hence a point of vulnerability that the Kremlin may choose to exploit. Moscow places a major emphasis on seizing the initiative and controlling escalation, and the Alliance does not at present have a well-rehearsed set of options to hand to deny them this advantage.

The threat posed by Russia does not, of course, exist in isolation. Even ten years after the financial crisis, budgets are still stretched, and the politics of many nations are in flux. The US also faces the challenge of a rising China and the resultant need to commit to the Western Pacific. As a consequence, there is no realistic path that would allow NATO to rebuild a vast peacetime air-land war machine of the type that helped deter a Soviet incursion into Western Europe for four decades. But maritime power has an important role to play in countering such limitations.

Transitioning the options outlined in this document from a paper plan into a viable deterrent and warfighting concept would not require a prohibitive level of resources. Notably, all of the equipment outlined as necessary for the plan is either already in service or in production. The additional exercises that would be required do come with an attached cost, but not a ruinous one. Perhaps most importantly, the structural reforms that are shifting the major militaries of the West away from post-Cold War counterinsurgencies and peacekeeping and back to interstate warfighting are already in

progress: the key will be to shape this change, as opposed to initiating it.



The carrier USS Harry S. Truman sails alongside the Norwegian frigate HNoMS Thor Heyerdahl during exercise Trident Juncture 18 (Source: DVIDS/Petty Officer 2nd Class Scott T Swofford)

Additional Recommendations

Having presented the policy outline, we will now propose a number of further policy recommendations. Whilst by no means exhaustive, they will provide a useful guide to the necessary future general direction.

NATO

Move forward with the establishment of a Joint Force Command (JFC) centred upon protecting NATO's sea lines of communication in the Atlantic, and provide an afloat headquarters for offensive anti-submarine, anti-ship, air defence, missile defence, land attack and amphibious landing operations

The plans for the establishment of a new JFC will de-facto reinstate ACLANT. When it was initially announced, Russia's envoy to NATO, Alexander Grushko, stated that the new organisation would be:

"...a copy of the structure that existed until 2002 and was responsible for the deployment of US forces from the United States to Europe, ensured defense and protection of existing naval communications, engaged in organising anti-submarine warfare and in general with the whole array of issues related to ensuring timely and safe reinforcements of this kind".¹⁵²

Although intended as a criticism, he was actually understating what this organisation should be tasked with accomplishing. As this study has highlighted, whilst SLOC defence is a vital part of a new maritime strategy, far more comprehensive measures are also required. ACLANT was tasked not only with overseeing transatlantic reinforcements,

but also had oversight of the more offensively orientated STRIKFLTLANT and its subordinate carrier, ASW and amphibious groups. It is vital that the new Atlantic Command is given a similar role in planning and rehearsing major operations. Part of this should be the resurrection of a seagoing command to replicate the capabilities of STRIKFLTLANT.

Explore the setting up of a NATO patrol force based upon Surveillance Towed Array Sensor System (SURTASS) vessels designed to track Russian submarine movements

Situational awareness has been a key issue in the Atlantic and northern realms in recent years, particularly in the context of ASW. Effort is now being invested in improving NATO's understanding of Russian activities, with the UK's investment in new maritime patrol aircraft and the US' programme to update its underwater sensor system being two major steps forward.

However, an additional measure that could be taken is the reintroduction of SURTASS vessels into the North Atlantic region. At present, the US Navy's Military Sealift Command possesses five such ships, but all are currently based in the Pacific. Although the advanced sonar they carry have been adopted by regular naval surface ships in recent years, civilian-manned SURTASS ships still represent an economical way to deploy such sensor to sea for sustained periods. A joint NATO effort to fund and field a squadron of such vessels in the North Atlantic would drastically improve the Alliance's

¹⁵² 'NATO creates new military command structures under Cold War-era blueprints — Russian envoy' (2017). TASS, 10

November. <http://tass.com/politics/974921> (Accessed 29 September 2018)

situational awareness and create new avenues for information sharing.

Establish routine exercises to rehearse the escorting of military convoys across the Atlantic

A major crisis in Europe would entail the transporting of military reinforcements across the Atlantic. Yet whilst the US has instigated a programme of regularly mobilising and deploying an armoured brigade combat team to Europe every nine months, no effort has been made to restore the type of Ocean Safari and REFORGER exercises to rehearse the defence of such ships.

At a minimum, the rotation of the US Army’s brigades into Europe should be accompanied by an exercise to train surface units and merchant mariners in long-range escort work. Larger rehearsals could be conducted on a bi- or tri-annual basis, with the latter potentially coinciding with the transport of US assets to take part in NATO’s Trident Juncture exercises.

Ensure at least one exercise centred upon a minimum of one US or UK fleet carrier takes place in NATO’s northern region per year, and rehearse the integration of northern European NATO navy escort vessels into larger US and UK-led task groups

A key factor which inhibits NATO’s reaction to Russian aggression in the northern region is the lack of readily available vessels on both sides of the Atlantic due to both an absolute decrease in numbers and other global commitments. The return of the UK to fleet carrier operations from 2020 onwards and the additional investment the US is planning for its navy will help reduce the pressure, but a renewed effort in the theatre will still be required.

In order to ensure both a visibly credible deterrent and a base of experience in operating in the region, it is important that at least one carrier participates in at least one major exercise in the GIUK Gap and the Norwegian Sea per year. Furthermore, it is vital that NATO is prepared to help mitigate the limited number of escort vessels that will be available during the early stages of a conflict by integrating the ships of smaller navies into US and UK-led task groups.

Establish an exercise series specifically designed to rehearse the suppression and dismantling of hostile A2/AD systems

A common feature of all major naval theatres NATO forces can be expected to fight in is the presence of A2/AD assets. Whilst the problems such systems cause during the opening stages of hostilities may be difficult to counter, the Alliance needs to be adept at their dismantling in order to regain the initiative. Although much of this task will fall to air and land forces, the maritime contribution will be crucial. Notably, much of NATO’s electronic warfare, air defence, missile defence, air defence suppression and cruise missile capability will be delivered by naval platforms. It is vital that all force branches are well-drilled in the necessary joint operations.

US

Re-establish a permanent military presence in Iceland

Since 2014, the US Navy has recommenced regular deployments of maritime patrol aircraft to Keflavik in Iceland, and funding to upgrade facilities has been included in the latest European Deterrence Initiative budget. There are also occasional deployments by NATO fighter aircraft under the Icelandic Air Policing programme.

However, it is unavoidably the case that this is inadequate for the purposes of sustaining situational awareness or force readiness. It is therefore desirable that the US takes a lead on re-establishing a permanent military footprint in Iceland – ideally, one that encompasses a SAM presence to provide defence against cruise missile strikes. Facilities should also be expanded to support a large deployed force were it to become necessary.

Explore the forward basing of four US Navy anti-ballistic missile-capable destroyers in the UK to ensure their rapid availability for operations in the Eastern Atlantic and the Norwegian Sea

The US Navy currently forward deploys four *Arleigh Burke* class destroyers fitted with the Aegis Ballistic Missile Defense System to Rota Naval Station in Spain to function as part of the region's missile defence shield. The basing also has the added advantage of reducing ship transit time in the event of a regional crisis.

Given the growing threat on the northern flank, it would be sensible to replicate this deployment at a facility in the UK. This would allow for ships with an anti-ballistic missile, air defence and land attack capability to be available to support the Royal Navy during initial hostilities.

UK

Formalise the UK's leadership of NATO operations in the Eastern Atlantic region during the early stages of a crisis

As was the case during the Cold War, the current era of tension would see the UK as the most significant Eastern Atlantic maritime actor during the initial stages of a conflict. The introduction of a number of new systems, including the outlined *Queen Elizabeth* aircraft carriers, *Astute* class SSNs and P-8 and F-35B aircraft will shortly place the country in a strong position to counter Russia's force projection efforts. Whilst the British armed forces are numerically limited, it is well placed to take the lead early in a conflict as part of a wider NATO force.

The recent decision to augment NATO's MARCOM in the UK to better support naval operations is to be welcomed. However, there is also a case for establishing a co-located headquarters to specialise in supporting Alliance operations in Northern European waters, with a British Admiral in the lead. At sea, it would be desirable to support the command with a UK-led afloat headquarters that replicates the function of the Cold War ASW Strike Force. It should be possible to partially fulfil this function by re-assigning the assets previously dedicated to the UK's NATO High Readiness Force (Maritime) headquarters to head a North Atlantic/Norwegian-centric force. This headquarters would be capable of commanding an independent force during the early stage of a conflict, and then re-orientating to supporting a large US-led force once it arrived.



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