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Policy Brief

Managing Hazardous Incidents
in the Euro-Atlantic Area:
A New Plan of Action

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EXECUTIVE SUMMARY

Dangerous military-military and military-civilian incidents involving ships or aircraft of Russia, NATO member states, and third parties continue to pose a serious threat to Euro-Atlantic security. They bring an inherent danger of loss of human life. Moreover, their broader escalation potential should not be ignored, especially at the current period of high Russia-West tensions.

Building on consultations with experts and officials from several NATO member states, Russia, Finland, Sweden, the OSCE and NATO, this report aims to be the most comprehensive public study of the problem to date. It includes a thorough audit of existing agreements on managing dangerous encounters and their implementation, as well as a number of detailed national case studies.

The research shows that, despite the maintenance of several bilateral agreements on incident management between individual NATO member states and Russia, there are significant gaps in their coverage, not least because some NATO countries, including Poland and Romania and non-NATO states Finland and Sweden, do not have such agreements with Russia. The restricted nature of existing agreements and their failure to properly account for civilian activities is also a serious cause for concern.

Concluding that the existing mechanisms are inadequate in modern circumstances, the report collates a number of options through which to stabilise the Euro-Atlantic security environment and makes the following recommendations:

- The parties to existing agreements need to ensure that their provisions are known to and applied by their armed forces;
- There should be zero tolerance for reckless behaviour of individual military commanders and tactical personnel, especially by the Russian leadership;
- It is necessary to begin work on a thorough review and update of existing bilateral agreements in the Euro-Atlantic space, as well as to conclude additional agreements between Russia and the states most exposed to the danger of dangerous incidents and with relevant military capabilities;
- Expert-level dialogue on the safety of military-civilian encounters over the Baltic Sea, under International Civil Aviation Organisation (ICAO) cover, should be continued and expended to other regions;

- Re-activating and adapting the Cooperative Airspace Initiative may be helpful for preventing incidents and monitoring regional activities;
- As long as Russia-West relations remain tense, the conclusion of new or modernized multilateral agreements remains difficult. Still, the modalities of such arrangements for avoiding and managing hazardous incidents should be examined in more detail by joint groups of experts, possibly as part of Track 2 effort. This includes the update of the OSCE's Vienna Document and work towards a NATO-Russia agreement on managing dangerous incidents;
- Political leaders should become more closely interested in the issue of avoiding incidents, and authorize civilian bureaucracies and militaries to work to improve management of incidents.

INTRODUCTION

On 24 November 2015, NATO-Russia relations reached a new low after a Russian SU 24 tactical bomber was shot down by the Turkish Air Force near the Turkey-Syria border.¹ According to Turkish officials the Russian pilot disregarded multiple warnings to change course before his jet was brought down by Turkish F-16s.

It can be assumed that both Russia and NATO have a vested interest in avoiding any major conflict and would aim at de-escalating, rather than escalating, any incident taking place. However, at present, there is no mutually agreed and universal mechanism in place to minimise the probability of close encounters or incidents between their militaries, and manage them effectively if they happen. The existing mosaic of bilateral arrangements on preventing incidents does not cover all relevant states; it is partly outdated and inadequate to deal with new advances in military technology.

This paper begins with an assessment of the gravity of the problem. It highlights a dangerous increase in the number and seriousness of incidents involving NATO, its partners and Russia since 2014. It then proceeds with a section which reviews the existing agreements and arrangements relevant from the viewpoint of avoiding dangerous incidents. Particular attention is devoted to the Incidents at Sea Agreements and the Agreements on Preventing Dangerous Military Activities which remain in force between Russia and particular NATO countries.

In the following section, the paper presents an overview of the implementation of the agreements, based on information gathered through outreach and interviews with relevant policy-makers, government officials, military practitioners and experts. To ensure a fuller picture, it also describes the arrangements between non-NATO Sweden and Finland and Russia.

The final section presents the main findings and discusses the options for the future. These include: continued reliance on existing arrangements, with a possible update; commencement of work on new bilateral agreements between specific NATO states and Russia, further developing OSCE-related instruments, increasing the safety of civilian-military encounters, or exploring a multilateral track through the NATO-Russia Council, for example through work on a Memorandum of Understanding on Avoiding and Managing Dangerous Incidents in the Euro-Atlantic Area. The strengths and weaknesses of each option are presented together with recommendations.

¹ Turkey's downing of Russian warplane - what we know, BBC News, 1 December 2015, <http://www.bbc.co.uk/news/world-middle-east-34912581>, Accessed October 2016

PART 1: THE NATURE OF THE PROBLEM

1.1 Military-military Incidents

Despite the fact that the November 2015 shoot-down was the first incident between a NATO member state and Russia since the Cold War that resulted in the death of military personnel, it was neither unforeseen nor unavoidable. A month prior to the shoot down, several other incidents of a similar nature took place, all relating to Russian violations of Turkish airspace. On 16 October, 2015 a Russian-made drone was brought down as it entered Turkish airspace.² A few days earlier, on 3 and 4 October respectively, Russian Su-30SM and Su-24 jets violated Turkish airspace repeatedly over the same province where Turkish officials claim the Su-24 entered their airspace before it was shot down.³

The period following the annexation of Crimea has seen a significant increase in military activity across the Euro-Atlantic area, and close encounters between Russian and NATO-member state armed forces have become worryingly frequent. First highlighted by the European Leadership Network in November 2014, the intensity and gravity of incidents has grown visibly: over 60 such incidents were documented between March 2014 and March 2015 across several regions including the Baltic Sea, Black Sea, and Atlantic Ocean.⁴ These incidents have included airspace violations of NATO countries (Estonia and Lithuania) and their partners (Sweden and Finland); two near collisions between civilian airliners and military aircraft; armed Russian fighter jets flying within 10 metres of a Swedish plane; NATO warships being harassed by Russian aircraft; and several hunts for Russian submarines suspected to be operating in the territorial waters of another state. In some cases, Russian air force exercises seemed to simulate attacks against specific targets on the territories of NATO or its partners, for example June 2014 exercises reportedly targeting Danish Bornholm. The incidents also extended beyond maritime and air encounters, for example when Russian agents abducted an Estonian security operative on Estonian territory.

2 Turkey shoots down unidentified drone near Syrian border, The Guardian, 16 October 2015, <http://www.theguardian.com/world/2015/oct/16/turkey-shoots-down-drone-near-syrian-border>, Accessed October 2016

3 Analysis: Downing of Russian jet hardly a surprise, Aljazeera, 25 November 2015, <http://www.aljazeera.com/news/2015/11/analysis-turkey-downing-russian-jet-151124163107795.html>, Accessed October 2016

4 Thomas Frear, Łukasz Kulesa, Ian Kearns, Dangerous Brinkmanship: Close Military Encounters Between Russia and the West in 2014, European Leadership Network, November 2014 <http://www.europeanleadershipnetwork.org/medialibrary/2014/11/09/6375e3da/Dangerous%20Brinkmanship.pdf>.; Thomas Frear, Łukasz Kulesa, Ian Kearns, Russia – West Brinkmanship Continues, http://www.europeanleadershipnetwork.org/russia--west-dangerous-brinkmanship-continues-_2529.html; The full list of incidents is available here: <http://www.europeanleadershipnetwork.org/medialibrary/2015/03/11/4264a5a6/ELN%20Russia%20-%20West%20Full%20List%20of%20Incidents.pdf>, Accessed 12 January 2016

Details from the 2016 NATO Secretary General's Annual report suggest that this dangerous dynamic continued throughout 2015. The report acknowledged over 400 intercepts by NATO of Russian aircraft around Europe in 2015, of which 160 were conducted by the Baltic Air Policing Mission.⁵ According to the Russian military, its submarines 'almost doubled' the time they have spent conducting patrols and on combat duty since 2015.⁶

According to Russian officials, the activity of NATO militaries in the vicinity of the Russian border, including surveillance flights and force deployments, increased significantly from 2014, requiring Russia to react.⁷ Russian officials insist that the activities of their armed forces, including interceptions of foreign aircraft and the identification of ships, are conducted in a professional way and "in accordance with international regulations on the use of airspace".⁸ More recently, Russia has also brought to attention the fact that NATO member states conduct some flights close to its borders without their transponders switched on. Yet, while Russia treats NATO activity as provocative and cites it as the reason for increased tensions and the multiplication of incidents, there is no official information or indication that NATO forces have ever engaged in dangerous military brinkmanship activities similar to the Russian actions described in this chapter.

Even though incidents were taking place prior to 2015, the risks increased following the launch of the Russian military campaign in Syria. The November 24 incident is but one example of potential errant behaviour. That incident demonstrated vividly the real dangers surrounding the lack of established mechanisms for managing situations where Russian and NATO militaries come into close contact with one another. The shoot down caused significant damage to the relations between the two countries, prompting the suspension of several joint projects and the introduction of sanctions.⁹ Turkish imports to Russia were halted, tourism to Turkey drastically curbed and the planned gas transit pipeline Turkish Stream was suspended. While subsequent efforts towards normalising Turkish-Russian relations (which included the Turkish President offering condolences to the family of the de-

5 The Secretary General's Annual Report 2015, NATO library: http://www.nato.int/nato_static_fl2014/assets/pdf/pdf_2016_01/20160128_SG_AnnualReport_2015_en.pdf, Accessed October 2016

6 K. Soper, Russia confirms higher level of submarine activity, *HIS Jane's Defence Weekly*, 23 March 2016; <http://www.janes.com/article/58992/russia-confirms-higher-level-of-submarine-activity>

7 Russian And NATO States' Military Flights (2014 Fact Sheet), Permanent Mission of the Russian Federation to NATO, 29 January 2015, http://www.missiontonato.ru/en/news/657/?sphrase_id=681, Accessed October 2016

8 'Stay away from Russian borders or keep transponders on': Russian MoD on US spy planes in Baltics, *RT*, 30 April 2016, <https://www.rt.com/news/341495-russian-borders-defense-baltics/>, Accessed October 2016

9 Executive Order on measures to ensure Russia's national security and protection of Russian citizens against criminal and other illegal acts and on the application of special economic measures against Turkey, Official website of the President of Russia, 28 November 2015, <http://en.kremlin.ru/events/president/news/50805>, Accessed October 2016

ceased pilot, but no apologies for the incident¹⁰) seemed to de-escalate the crisis, it should not be a reason for complacency. Another incident between a NATO member and Russia would have similar economic and political ramifications, and it would cause further tension in their already strained relationship.

Additional serious incidents have been recorded in 2016. On 30 January 2016, the Turkish Foreign Ministry reported that the day before a Russian Su-34 violated Turkish airspace even following several warnings issued by Air Traffic Control.¹¹ Furthermore, on 11 April 2016 a Russian fighter jet and a helicopter conducted dangerous manoeuvres in close proximity to the USS destroyer Donald Cook whilst operating in the Baltic Sea.¹² On 17 June, the destroyer USS Gravelly, while escorting an aircraft carrier, sailed in close proximity to the Russian frigate Yaroslav Mudry (which was shadowing the US formation) in the Eastern Mediterranean. A few days later the same Russian frigate approached within 150 yards of another carrier, the USS Dwight D. Eisenhower, while it was conducting flight operations.¹³ In July, Bulgaria reported an increase in the number of Russian military and civilian aircraft in the vicinity of its airspace and accused Russia of ignoring international airspace regulations, a charge denied by the Russian Ministry of Defence.¹⁴ In early September it was disclosed by the Pentagon that a Russian fighter made an 'unsafe close range intercept' of

10 Erdogan Expresses Regret Over Russian Pilot's Death, Radio Free Europe/ Radio Liberty, 27 June 2016, <http://www.rferl.org/content/russia-turkey-apologizes-shooting-down-plane/27823334.html>, Accessed October 2016

11 No: 33, Press Release Regarding the Violation of Turkish airspace on 29 January 2016 by a RF aircraft, Turkish Ministry of Foreign Affairs, 30 January 2016, http://www.mfa.gov.tr/no_-33_-30-january-2016_-press-release-regarding-the-violation-of-turkish-airspace-on-29-january-2016-by-a-rf-aircraft.en.mfa, Accessed 4 February 2016

12 Russian attack jets buzz US warship in riskiest encounter for years, The Guardian, 13 April 2016, <http://www.theguardian.com/us-news/2016/apr/13/russian-attack-planes-buzz-uss-donald-cook-baltic-sea>, Accessed October 2016

13 Shouldering Incident Reminiscent of Sea of Japan Bumpings, Naval Historical Foundation, 30 June 2016, <http://www.navyhistory.org/2016/06/shouldering-incident-reminiscent-of-sea-of-japan-bumpings/>, Accessed October 2016

14 Bulgaria Insists Russia Violated International Aircraft Rules Over Black Sea, Radio Free Europe/ Radio Liberty, 27 July 2016, <http://www.rferl.org/content/bulgaria-insists-russia-violated-international-aircraft-rules-over-black-sea/27883512.html>, Accessed October 2016

a US anti-submarine aircraft over the Black Sea¹⁵ while the Estonian Ministry of Defence accused the Russian air force of airspace violations.¹⁶

The risk of unintended escalation remains high despite claims by all sides that they are exercising caution in their activities. This is particularly dangerous in the context of the heightened pace of military deployments and exercises taking place close to borders and adjacent areas.

1.2 Military-civilian Incidents

Several of the more serious incidents that have come to light involved near-collision or short-notice avoidance actions linked with Russian military aircraft operating inside civilian air traffic corridors. As has been widely publicised, the fact that such military aircraft are often flying with their transponders switched off makes their detection by civilian air traffic control difficult. The reasoning behind this practice seems to be that this then requires air defence systems to utilise more of their capacity to track the aircraft, allowing more and better intelligence to be gathered. Whilst dangerous, it is not illegal for military aircraft to fly with their transponders switched off, as they are not bound by International Civil Aviation Organisation (ICAO) rules in international airspace.

Whereas military-military incidents and interceptions have been well documented and the figures well publicised by NATO and others, similar studies of military-civilian incidents have received much less coverage. An April 2015 report by the European Aviation Safety Agency (EASA) covering the Baltic Sea records 16 incidents involving non-cooperative military aircraft in 2014 (13 Aerial Proximity or 'AIRPROX' and 3 airspace infringements), an increase by a factor of 3 as compared to 2012, with a further 3 airspace infringements in early 2015 (the number of national airspace infringements increased by 5 times when compared with that of 2012).¹⁷ In two of these cases the pilot and Air Traffic Control reports indicated that if no avoiding action had been taken the chance of collision would have been very high.

15 Russian fighter makes 'unsafe close range intercept' with U.S. anti-submarine aircraft, The Washington Post, 7 September 2016, https://www.washingtonpost.com/news/checkpoint/wp/2016/09/07/russian-fighter-makes-unsafe-close-range-intercept-with-u-s-anti-submarine-aircraft/?tid=ss_tw-bottom, Accessed October 2016

16 Nato: Estonian Ministry of Defence accuses Russian military plane of airspace incursion, International Business Times, 6 September 2016, <http://www.ibtimes.co.uk/nato-estonian-ministry-defence-accuses-russian-military-plane-airspace-incursion-1579995>, Accessed October 2016

17 Report on occurrences over the high seas involving military aircraft in 2014; In response to the European Commission's DG MOVE letter Ref.: Ares(2014)3979879 - 28/11/2014 sent by the European Commission to the European Aviation Safety Agency, 28 November 2014, <http://ec.europa.eu/transport/modes/air/news/>

Whereas maritime incidents involving military or law enforcement vessels and civilian ships have not taken place with the same frequency and with the same level of risk as those in the air, they serve to reinforce the underdeveloped safety mechanisms of the common area. Incidents have included disruption of Lithuanian shipping¹⁸ and the harassment of a Finnish research vessel.¹⁹

doc/2015-04-14-civil-military-coordination/report-on-occurrences-over-the-high-seas-involving-military-air-craft-in-2014.pdf, Accessed October 2016

18 Lithuania Dispatches Warship After Claiming Russian Disturbance, Bloomberg, 11 April 2014, <http://www.bloomberg.com/news/articles/2014-04-11/lithuania-dispatches-warship-after-claiming-russian-disturbance>, Accessed October 2016

19 Finland says Russian navy interfered with Baltic Sea research vessel, Reuters, 11 October 2014, <http://uk.reuters.com/article/uk-finland-vessel-russia-idUKKCN0I00KH20141011>, Accessed October 2016

PART 2: EXISTING ARRANGEMENTS TO MANAGE INCIDENTS IN THE EURO-ATLANTIC AREA

2.1 Military-military Bilateral Arrangements

Even though no NATO-Russia agreement on managing incidents exists, two kinds of bilateral arrangements between some member states and Russia are in force. These are the **Incidents at Sea Agreements (INCSEA-s)** and the **Agreements on Preventing Dangerous Military Activities (DMAs)**. Signed mostly during the Cold War period, the agreements reflected the circumstances and military capabilities at the time. Since the end of the Cold War, some of these agreements have been reviewed and amended to increase the effectiveness of their application.

In the late 1960s and early 1970s, a pattern of confrontation between the US and Soviet Navies emerged after several serious incidents involving combat and surveillance vessels and associated aircraft took place. In May 1967, the US destroyer USS Walker collided twice in two days with Soviet destroyers that were interfering with anti-submarine exercises.²⁰ In 1968, a Soviet Navy TU-16 Badger bomber crashed flying at low altitude near the USS Essex in the Norwegian Sea.²¹ Two years later, in 1970 a US Navy F-4 Phantom aircraft nearly collided with a Soviet TU-16.²² Caused either by miscommunication or intentional aggressive military posturing, these were among the most significant incidents that prompted further discussions on a mechanism to better manage US-USSR military relations. In recognising the potential for further escalation and the possibility that either side could resort to the use of force, negotiations on devising a crisis-management tool led to the creation of the **US-Soviet 1972 INCSEA agreement**.

Currently, twelve NATO Allies – the US, the United Kingdom, Germany, France, Italy, Norway, Spain, Turkey, the Netherlands, Canada, Portugal and Greece, have an INCSEA arrangement with Russia.²³ All the documents follow the format of the original US-Soviet Agreement on the Prevention of Incidents on and over the High Seas, adopting its structure and implementation methods. The documents were devised during consultations between

20 For more details on the incident please see: Winkler, D (2014), Breaking News: Incidents at Sea Did Not End with the Cold War!, Canadian Naval Review, Volume 9, Number 4. The article can be accessed here: <http://www.navalreview.ca/wp-content/uploads/public/vol9num4/vol9num4art4.pdf>.

21 A brief description of the incident can be found in the 1981 comment 'The Game Pilots Play Over The Mediterranean' in the New York Times: <http://www.nytimes.com/1981/08/23/weekinreview/the-game-pilots-play-over-the-mediterranean.html>, Accessed 18 March 2016

22 Ibid.

23 For links to the text of some of these agreements see: http://www.europeanleadershipnetwork.org/agreements-concerning-the-prevention-of-incidents-at-sea-outside-territorial-waters_3349.html.

respective naval officers who would have authority over the implementation of the agreements.²⁴ Such consultations at the military level ensured that the mechanisms agreed upon would be operationally feasible and would address the dangerous incidents and not routine actions. As such the INCSEA-s created a 'code of conduct' for vessels operating in close proximity which increases the predictability and transparency of actions and intentions and reduces the possibility of conflict by accident or miscalculation.²⁵

The overarching commitment of the agreement for exercising 'caution and prudence' is put into practice with a set of instructions for limiting dangerous activities and for communicating how manoeuvres are executed, not only by Navy vessels but by auxiliary aircraft as well.

Exercising military professionalism by avoiding the risk of collision, keeping safe distance and speed (as defined by 1972 Collision Regulations) and restricting operations in areas with heavy naval traffic are the key elements of behaviour prescribed by the document.²⁶ Manoeuvres that might endanger or embarrass the ships of the other Party and actions that interfere with surveillance are prohibited. Parties also agree to exercise 'good seamanship' by not simulating attacks, not using equipment in an aggressive manner or performing hazardous aerobatics of auxiliary aircraft over and near ships. Under the terms of the agreement, both sides also agree to limit their activities when vessels of the other party are 'engaged in launching or landing aircraft as well as [around] ships engaged in replenishment'.

To improve transparency and avoid miscalculations, the INCSEA-s also introduced methods for communicating intentions (in accordance with provisions from the International Maritime Regulations and the International Code of Signals) and append a table with mutually-agreed 'special' signals for further clarification of actions and intentions.²⁷ Also included are instructions for information exchange and activity coordination in case an incident takes place. Finally, the agreements create military committees whose role is to review and evaluate implementation and, if needed, renegotiate the terms.

24 The full text of the agreement is available on the US Department of State website: <http://www.state.gov/t/isn/4791.htm>. The texts of some of the other INCSEA agreements can be accessed through the ELN website: http://www.europeanleadershipnetwork.org/agreements-concerning-the-prevention-of-incidents-at-sea-outside-territorial-waters_3349.html

25 Turkey and Greece have an agreement similar to the INCSEA-s signed in 1988 reaffirming their rights to use the high seas and the international airspace of the Aegean. The document was adopted together with 'Guidelines' on its application preventing harassment, urging caution and limiting interference with surveillance activities.

26 The International Regulations on Preventing Collisions at Sea or COLREGs (also referred to as the Rules of the Road prior to their entry into force in October 1972) are a set of guidelines codified by the International Maritime Organization (IMO) which set out the procedures vessels at sea should follow to avoid collisions.

27 This is the Internationally-recognised system of signals which vessels use to communicate while at sea.

The second kind of bi-lateral arrangements, the **Agreement on the Prevention of Dangerous Military Activities (DMAs)**, was devised after the US Chairman of the Joint Chiefs of Staff and the Soviet Chief of General Staff acknowledged the need for a crisis management mechanism which would complement the INCSEA agreement and address military activities which were not already covered, with special focus placed on the military activities in close proximity to the national territory of the other Party.²⁸

Currently, four NATO member states - the United States, Canada, Greece and the Czech Republic have DMA agreements with Russia.²⁹ These agreements build upon the risk reductions mechanisms in the INCSEA-s and provide more instructions for exercising restraint, managing incidents in case they occur and improving communication channels and procedures.

Unlike the INCSEA-s, which only manage encounters in and over the high seas, the DMAs address possible confrontations over land and territorial waters. By extending the geographical scope of the crisis-management mechanisms, the DMA's code of conduct thus governs activities of all armed forces, not just to Navies or Air Forces.

The DMAs assist in exercising greater restraint by providing details on four specific dangerous activities Parties must refrain from.

Firstly, a key addition to the confidence and security building measures is the creation of Special Caution Areas (SCAs) in which, as the name suggests, vessels, vehicles and personnel are required to exercise greater caution by establishing and maintaining communication with the forces of the other Party at all times. In such areas, each side agrees to not hinder the activities of the other in an effort to avoid damaging equipment or harming personnel. The DMAs also reduce the degree of ambiguity by stipulating that such communication in the SCAs will be done at the level of Task Force commander.

Secondly, even though some INCSEA agreements signed from 1989 onwards prohibit the use of lasers in a hazardous manner, the DMAs establish a more meticulous step-by-step process for preventing situations when lasers could potentially cause damage or harm. In cases when lasers need to be used or are operational, the DMAs provide instructions for notification and methods for terminating their use.

28 Background to the US-USSR DMA included in the opening paragraph of the agreement. The full text can be accessed here: <http://www.europeanleadershipnetwork.org/medialibrary/2015/08/17/1eed3f1b/prevention%20of%20dangerous%20military%20activities.pdf>.

29 The US and Canada signed their respective DMAs with the USSR immediately prior to its dissolution; Russia as successor state inherited them. Greece and Russia concluded their agreement in 1993, Czech Republic and Russia in October 2001.

Thirdly, Parties commit to avoiding any actions that would 'hamper, interrupt or limit' the transmission of signals and information, thus refraining from any interference with command and control networks. The DMAs list instructions for notification and methods for terminating interference (in case it is detected and reported) similar to those in the SCAs.

Fourthly, the DMAs deal with actions that might be considered aggressive in case a Party operates close to or enters the national territory of the other owing to circumstances brought about by force majeure, or as a result of unintentional actions. If an incident does occur, the agreements establish detailed procedures ensuring that no further confrontation takes place. The documents stipulate continuous communication after an incident has happened, provide instructions on subsequent actions, allowing Parties to request assistance with equipment repair, to consult with their respective diplomatic missions and to depart at the earliest opportunity.

Moreover, sections of the DMAs also augment communication procedures initially set up by the INCSEA by assigning radio frequencies for communications at three different levels between Task Force commanders; between ship/ aircraft/ vehicle commanders of both Parties; and between aircraft commanders and air traffic control or monitoring of the other Party. The only radio frequency (a Very High Frequency Radio Channel) mentioned in the INCSEA-s is to be used when flag signals are indistinguishable and light signals insufficient. No INCSEA contains the detail the DMAs provide and any pre-agreed INCSEA radio frequencies were codified only in subsequently signed protocols.³⁰ The INCSEA-s and the DMAs also provide pre-agreed flag and light signals in addition to those prescribed in the 1972 Collision Regulations and the International Code of Signals in order to enhance ship-to-ship and ship-to-shore communications. In fact, the DMAs supplement the INCSEA-s by cataloguing the visual signals, synchronising their meaning with uniform verbal phrases, and prescribing an 'appropriate response' to each.

Confirming the continued relevance of both the INCSEA and DMA, in 2008 the US Chief of Naval Operations issued a document, 'OPNAV Instruction 5711.96C', which provided further clarification on their application.³¹ The document clarified the circumstances and sequence of steps that need to be taken when operating in close proximity to Russian vessels. More

³⁰ For instance the 1998 Norway-Russia Protocol.

³¹ OPNAV Instruction 5711.96C, Department of Defense, 10 November 2008, The document is available on the Department of Defense Issuances webpage - <https://doni.daps.dla.mil/opnav.aspx?RootFolder=%2FDirectives%2F05000%20General%20Management%20Security%20and%20Safety%20Services%2F05%2D700%20General%20External%20and%20Internal%20Relations%20Services&FolderCTID=0x012000E8AF0DD9490E0547A7DE7CF736393D04&View={CACF3AEF-AED4-433A-8CE5-A45245715B5C}> and the full text of the instruction can be accessed here: https://fas.org/irp/doddir/navy/opnavinst/5711_96c.pdf, Accessed October 2016

specifically, OPNAV Instruction 5711.96C confirms that submarines are only governed by the INCSEA regulations when they are operating on the sea surface. With regards to the DMA, the document confirms that some of its provisions apply to US personnel and vessels even if they are under NATO command – namely the restrictions on using lasers in a hazardous manner. However, it makes clear that such restrictions do not extend to vessels and personnel of the armed forces of other NATO Allies.

2.2 Multi-lateral agreements and arrangements

In addition to the INCSEA-s and the DMAs, the Organization for Security and Cooperation in Europe's (OSCE) Vienna Document and the Treaty on Open Skies include some provisions on managing military encounters.

The **Vienna Document** includes instructions on how to respond to incidents, but does not stipulate how to manage them in real time. The relevant provisions in the document are included in Chapter III and relate to the consultation mechanism on unusual military activities (III.16), the 'Mechanism for Consultation and Co-Operation as Regards Unusual Military Activities', (III.17), 'Co-Operation as Regards Hazardous Incidents of a Military Nature' (III.18) respectively.³² All of these risk-reduction provisions, however, are devised to ensure communication only after an unusual activity or an accident has taken place.

Similarly, the **Treaty on Open Skies** only provides instructions for responding to 'aviation accidents involving observation aircraft on the territory of an observed Party'.³³ It does not contain any details on preventing dangerous incidents, but it signals the need for restraint in certain areas. The Treaty establishes 'hazardous airspace(s)' within which prohibited, restricted or danger areas are designated 'in the interests of flight safety, public safety and environmental protection'. In practice, however, instructions on the conduct in such hazardous areas only stipulate that the observation activity will be either coordinated or suppressed.³⁴

Lastly, the **Cooperative Airspace Initiative (CAI)**, which was set up by a NATO-Russia Council working group in 2002 in response to the September 11th terrorist attacks, should

32 Vienna Document 2011, Organization for Security and Cooperation in Europe, 30 November 2011, <http://www.osce.org/fsc/86597?download=true>, Accessed October 2016

33 Treaty on Open Skies, US Department of State, 24 March 1992, The full text of the Treaty is available here: <http://www.state.gov/t/avc/trty/102337.htm> and on the OSCE website: <http://www.osce.org/library/14127?download=true>. The relevant information can be found in Article VIII, Section III.

34 Ibid.

be mentioned in the context of managing incidents.³⁵ The CAI was intended to provide increased transparency, early notification of suspicious air activities, and rapid coordination and joint responses to security incidents in European airspace.³⁶ This was to be achieved through real-time exchange of radar tracks and a shared picture of air traffic, establishment of dedicated lines of communication, and commonly agreed procedures for notification and coordination of suspicious air activities.³⁷

Air Traffic Control (ATC) Area Control Centres were set up by NATO (Bodo, Norway; Warsaw, Poland; Ankara, Turkey) and Russia (Murmansk, Kaliningrad, Rostov-on-Don) respectively, with coordination centres in Warsaw and Moscow. The primary basis of the CAI was the Information Exchange System (IES) between these coordination centres.

Crucially the CAI made use of software that “combined and linked several civilian surveillance and military³⁸ sensor data sources to provide a Recognised Air Picture”.³⁹ This, combined with the direct telephone connection between the coordination centres of the CAI network, enabled the “sharing [of] real-time radar data and standardised voice communication procedures between the CAI member nations”.⁴⁰

The CAI became a live system in 2011, certified through the Vigilant Skies 2011 exercises, in which NATO and Russian control centres and interceptor units jointly managed a situation involving a hijacked civilian aircraft (a similar exercise took place in 2013). Operationally, the highpoint of the CAI was switching to high alert in order to provide enhanced coverage of the February 2014 Sochi Olympics. Yet, following the suspension of the practical cooperation in the framework of the NATO-Russia Council in April 2014, the CAI has ceased to operate.

35 Development of the CAI also reflected a long-standing US concern that, as elucidated by a Department of Defense official during the development of proceeding Regional Airspace Initiative, “...without close military/civilian coordination and cooperation and cooperation, you introduce artificial constraints into the airspace and those constraints reduce our ability to grow capacity and in some ways may affect air safety.” Airspace Plan Paves Way for Safer Skies Jane’s Defence Weekly 8 October 1997

36 NATO-Russia Cooperative Airspace Initiative (CAI), Factsheet, June 2011, http://www.pata.pl/aap/CAI_07.06.2011_eng.pdf, Accessed October 2016

37 Ibid.

38 However due to concerns expressed by the Baltic States the full Recognised Air Picture, inclusive of military data, was never operationalised.

39 The people keeping the NRC safe from air terrorism , The NATO-Russia Council, 23 September 2016, <http://www.nato.int/nrc-website/EN/articles/20130923-nrc-cai-operators/index.html>, Accessed October 2016

40 Ibid.

2.3 Military–Civilian Mechanisms

Of equal importance to the review of military-to-military confidence and security building measures is the analysis of the mechanisms that govern the interaction between military and civilian operators within international airspace and on the high seas.

With regards to military-civilian incidents, there seem to be serious omissions in the management of international airspace in the NATO-Russia common area. This issue is also absent from the bilateral military agreements currently in place. The European Aviation Safety Agency (EASA) expressed concern that civilians and military personnel are not trained to respond to close encounters in the same manner and may well be ignorant of the other's response procedure.⁴¹ It is to be expected that this concern is exacerbated in interaction involving the Russian military. Technological discrepancies have also been observed to inhibit military-civilian communication. Furthermore, the vague wording of international documents, in particular the International Civil Aviation Organisation (ICAO) requirement that military aircraft show 'due regard' for civilians, also creates some risk.⁴² Finally, EASA noted that there are no harmonised measures to classify and deal with AIRPROX across the Europe Union, and, it is to be extrapolated, across the greater European area inclusive of Russia. This lack of consolidated data makes the formulation of an appropriate response very difficult.

Recognising that lack of military-civilian coordination and information exchange represents an increasingly worrisome problem a 2011 ICAO Circular (330) volunteered ICAO as a regularly convened forum for discussion and coordination.⁴³ It noted that 'More and more multinational military operations that cross international boundaries require complex coordination and planning processes to avoid unnecessary segregation or restrictions and to achieve the required level of safety.'⁴⁴ This harmonization should take place on a regional or, ideally, a global basis. The lack of implementation of this initiative should be regarded as a serious

41 Report on occurrences over the high seas involving military aircraft in 2014, In response to the European Commission's DG MOVE letter Ref.: Ares(2014)3979879 - 28/11/2014 sent by the European Commission to the European Aviation Safety Agency. 28 November 2014, <http://ec.europa.eu/transport/modes/air/news/doc/2015-04-14-civil-military-coordination/report-on-occurrences-over-the-high-seas-involving-military-aircraft-in-2014.pdf>, Accessed October 2016

42 Convention on International Civil Aviation, ICAO, 7 December 1944, http://www.icao.int/publications/Documents/7300_orig.pdf, Accessed October 2016

43 Civil/Military Cooperation in Air Traffic Management, Circular 330-AN/189, ICAO, 2011 http://www.icao.int/APAC/Meetings/2012_CMC/CIR330_en.pdf, Accessed October 2016

44 Ibid, p.3

failure and a direct precursor to the military-civilian near-collisions in the Baltic Sea and elsewhere.⁴⁵

Recognizing this weakness, the Baltic Sea Project Team was established under the auspices of ICAO, with three meetings convened in 2015. The meetings brought together civil and military experts from Denmark, Estonia, Finland, Germany, Latvia, Lithuania, Poland, Sweden, and Russia, as well as NATO, EASA, and EUROCONTROL. It discussed specific ways to increase flight safety over the Baltic Sea, including broader information exchange, clarification of air corridors, forwarding of flight plans, maintaining communication, and avoiding flying without active transponders. Later in 2015 the Baltic Sea Project Team came up with a set of technical recommendations and understandings, to be implemented at the national level.⁴⁶

Regarding bilateral military agreements, whilst the DMAs determine that the communication mechanisms contained therein are to be viewed as a compliment to those outlined in the 1944 Convention on International Civil Aviation (the Chicago Convention), it is concerning that the regulations of the latter are not binding on military aircraft. In reality existing international agreements, including INCSEA-s and DMAs, provide little binding regulation relating to the management of military-civilian interaction.

Whilst efforts have been made to harmonise NATO operating procedure with that of EASA, Russia remains outside of this framework and it is improbable that Russia would take similar measures to equalise its military procedures.

Regarding maritime incidents, the INCSEA agreements provide that military operators broadcast information and warning to all mariners, not less than 3 to 5 days in advance as a rule, including notification of actions on the high seas which represent a danger to navigation or to aircraft in flight. Russian snap exercises involving the Baltic and Northern Fleets have repeatedly ignored this provision.⁴⁷ Incidents in the Baltic Sea have included disruption

45 A more specific concern for reducing risk in the NATO-Russia area remains the status of the Crimean peninsula. Whilst it is not to be expected that NATO states recognise Russian jurisdiction over the territory the fact remains that its airspace must somehow continue to be managed in a safe manner. Suspension of flights to the territory from outside of Russia reduces this problem somewhat, but the parallel claims of Russian and Ukrainian Air Traffic Control and the confusion this could create is not sustainable.

46 Report Of The Fifty-Seventh Meeting Of The European Air Navigation Planning Group, ICAO, 23-26 November 2015, See pp. 12-13; http://www.icao.int/RO_EURNAT/EUR%20and%20NAT%20Documents/EANPG%20Reports/EANPG%2057/_EANPG57%20RPT.pdf, Accessed October 2016

47 Frear, Thomas, Anatomy of a Russian Exercise, 12 August 2015, http://www.europeanleadershipnetwork.org/anatomy-of-a-russian-exercise_2914.html, Accessed October 2016

of Lithuanian shipping⁴⁸ and the harassment of a Finnish research vessel.⁴⁹ These examples are prescient as neither Lithuania nor Finland maintain an INCSEA with Russia, leaving a dearth of mechanisms with which to manage such incidents in real time. This latter episode involving the Finnish vessel would clearly have benefited from the INCSEA provision to 'Make increased use of the informative signals contained in the International Code of Signals to signify the intentions of their respective ships when manoeuvring in proximity to one another.'

48 Lithuania Dispatches Warship After Claiming Russian Disturbance, Bloomberg, 11 April 2014, <http://www.bloomberg.com/news/articles/2014-04-11/lithuania-dispatches-warship-after-claiming-russian-disturbance>, Accessed October 2016

49 Finland says Russian navy interfered with Baltic Sea research vessel, Reuters, 11 October 2014, <http://uk.reuters.com/article/uk-finland-vessel-russia-idUKKCN0I00KH20141011>, Accessed October 2016

PART 3. IMPLEMENTATION OF EXISTING BILATERAL AGREEMENTS AND OTHER INSTRUMENTS FOR MILITARY-TO-MILITARY CONTACTS

This section presents in more detail the state of implementation of the agreements outlined above, as well as examining other methods of military-to-military contacts that could be relevant for the purpose of avoiding and managing incidents.

The case studies presented in this section are based on information obtained through research and direct interviews with government (MFA, MoD) officials, academia and think tank experts from the respective countries. Russian experts' views on the implementation of the agreements were collected during a study trip to Moscow in July 2016. Some additional information and clarifications on the implementation of the agreements were obtained during a September 2016 expert workshop, conducted in Brussels.⁵⁰

The chapter focuses on bilateral relations between selected NATO states and Russia, looking at the experience of the United States, United Kingdom, Norway, and Germany. It also looks at relations between Russia and non-NATO Finland and Sweden. These countries do not have bilateral incident prevention agreements with Russia but have developed their own approach and mechanisms for maintaining contacts with the Russian side and managing incidents.

While the review of selected case studies does not present a complete picture, it allows to make a number of observations regarding the utility of the agreements and, more broadly, the similarities and differences of approach of specific countries towards the risk reduction agreements.

3.1 The United States

On 12 April 2014 an unarmed Russian fighter aircraft made 12 passes of the American warship the USS Donald Cook in the Black Sea.⁵¹ Just a few days later, on 23 April 2014, an armed Russian fighter undertook very threatening manoeuvres in the vicinity of an American

50 ELN hosts Expert Workshop on Managing Hazardous Incidents in the Euro-Atlantic Area, http://www.europeanleadershipnetwork.org/eln-hosts-expert-workshop-on-managing-hazardous-incident-in-the-euro-atlantic-area_4143.html, Accessed October 2016

51 Russian fighter jet made repeated passes close to US warship in Black Sea, The Guardian, 14 April 2014, <https://www.theguardian.com/world/2014/apr/14/russian-fighter-jet-repeated-passes-us-warship-black-sea>, Accessed October 2016

reconnaissance aircraft in the Sea of Okhotsk.⁵² Even though the details about the second incident were not published until a few months later, by the middle of 2014 media reports had already started to highlight the dangerous dynamic of US-Russia military encounters. Despite the fact that military vessels and aircraft of the two states come in close proximity to each other on a near routine basis, the Russian behaviour demonstrated during these two incidents is far removed from what would be expected in a relatively low-risk encounter.

While the intensity of incidents and encounters between US and Russian militaries somewhat decreased over the course of 2015, the risk of unintended incidents involving the two states remained high. Following the launch of Russian air operations in Syria and amid instances of Russian violations of Turkish airspace, the need to better manage their military relations was clear, an assertion strengthened by the continuation of incidents into 2016 as highlighted in Part 1.

Existing Agreements

Among all NATO Allies, the United States is the country with the best developed bi-lateral mechanisms for managing the military relationship with Russia. Stemming from the recognition that the frequency of their encounters could lead to unintended escalation and that the consequences following a serious incident between two nuclear superpowers would be severe, the two states have agreed in the past on several military-to-military risk reduction arrangements.

The US administration places significant emphasis on the relevance of the 1972 INCSEA agreement with Russia and recognises the importance of the agreement for managing military-military relations. The continued commitment to the provisions of the agreement has only been reaffirmed with the recent down-turn of relations. The United States trains all of its allies on the operation of its INCSEA agreement when on combined exercises, and NATO, as well, uses the INCSEA standards and supplementary signals during all operations where they might encounter Russian forces.

The 1972 INCSEA also underwent several updates in the years preceding the Ukraine crisis. In addition several amendments have been made to the INCSEA's text over the course of the last 20 years including the introduction of measures relating to the use of new technologies. One such example is the recommended use of VHF radio channel 16. The OPNAV INST 5711.96C document, mentioned in section 2.1, refers to two previous updates of the agreement: a 1973 Protocol and a 1998 Exchange of Diplomatic Notes.

⁵² Pentagon: Russian Fighter Intercepted US Plane , Military.com [online], 4 June 2014, <http://www.military.com/daily-news/2014/06/04/pentagon-russian-fighter-intercepted-us-plane.html>, Accessed October 2016

US officials seem to use the INCSEA procedures as a principal communication method for naval incidents. Formal statements following the April 2016 incident with USS Cook confirm that the INCSEA is considered as the most practical mechanism for requesting information or launching complaints.⁵³ Raising concerns about incidents or encounters through the military attaché at the U.S. embassy in Moscow is a well-established channel of communication which is deemed useful and well-functioning. Moreover, the review meetings stipulated as part of the consultation process continue to take place (with the latest meetings conducted in June 2015 and June 2016 in Moscow) and provide the US with a suitable opportunity to discuss new procedures with their Russian counterparts.⁵⁴

The second bi-lateral arrangement between the US and Russia, the US-Russia 1989 DMA agreement, remains relatively underused. Despite the fact that some of its more comprehensive and potentially useful features, such as the Special Caution Areas, have not yet been activated, the established behaviour regimes and the code of conduct remain in effect. However, according to available information the consultation/review commission of the US-Russia DMA has met only twice since the agreement was concluded.

An additional agreement was reached between the US and Russia concerning the 'deconfliction' of their respective air operations over Syria in October 2015. Whilst the text of this agreement has not been released into the public domain at the insistence of the Russian delegation it is understood to stipulate that aircraft must maintain a safe distance between them; specify the use of specific communications frequencies; and the establishment of a communication line on the ground to be activated if other protocols fail.⁵⁵ The swift negotiation of this agreement and its extension to cover other national aircraft involved in the US-led coalition showcases what can be achieved on a regional basis given appropriate political backing.

Finally, whilst not prescriptive with regards to the conduct of military activities, several other US-Russia informal instruments for enhancing military-military communication and transparency exist. The two states employ most standard mechanisms used to warn others of dangerous activities, one example being the Notice to Mariners. Moreover, naval ships as

53 Press Briefing by Press Secretary Josh Earnest, The Official website of the White House, 14 April 2016, <https://www.whitehouse.gov/the-press-office/2016/04/14/press-briefing-press-secretary-josh-earnest-41416>, Accessed October 2016

54 U.S. Navy Statement on INCSEA, US Naval Forces Europe-Africa/ US 6th Fleet, 8 June 2016, <http://www.c6f.navy.mil/news/us-navy-statement-incsea>; See also: Russia Proposes Mechanism To Avoid Conflict With U.S. Military, Radio Free Europe/ Radio Liberty, 9 June 2016, <http://www.rferl.org/content/russia-proposes-mechanism-avoid-conflict-us-military/27787749.html>, Accessed October 2016

55 U.S., Russia Reach Agreement on Syrian Flights, The Wall Street Journal, 20 October 2015, <http://www.wsj.com/articles/u-s-russia-reach-agreement-on-syrian-flights-1445371698>, Accessed October 2016

well as merchants are expected to act in accordance with international maritime and aviation agreements such as the International Regulations for Preventing Collisions at Sea and the Rules of the Air of the International Civil Aviation Organization (ICAO).

Assessment

The downturn of relations with Russia resulted in a significant increase in the number of incidents in which the norms and regulations included in the INCSEA and DMA agreements can be called upon. More specifically, the U.S. Navy has increased operations in a number of areas, including the Black and Baltic Seas, where close contact with Russian ships and aircraft is likely. The US military treats the existing arrangements and rules, included primarily in the INCSEA, and current formats of communication as the most adequate instruments to manage such incidents, but expects that they be adhered to by both sides.

In order to achieve that, the US seems to have been putting some public pressure on the Russian side to observe the previously-accepted rules of behaviour during the incidents. Hence the emphasis put in US statements on the 'unprofessional' behaviour of Russian pilots,⁵⁶ broad use of video and photo evidence to inform the media of the details of the April 2016 USS Donald Cook incident in the Baltic Sea (involving a Russian jet and helicopter), and the subsequent intervention of US Secretary of State John Kerry who warned that the Russian plane approaching USS Cook could have been shot down.⁵⁷

However, according to some experts interviewed for this paper, too much publicity, and related public pressure to respond in a tough manner to Russian actions, may be counterproductive. While such 'naming and shaming' actions can deliver some public relations benefits, they may undermine the operations of the military-to-military channels such as those prescribed by the INCSEA for managing future encounters.

With regards to broader military-to-military interaction between the US and Russia, the suspension of practical co-operation has translated into the suspension of port visits between the respective navies, a drop in attendance at ceremonial events, and the discontinuation of all programmes for military officer exchanges. Russian navy officials also did not participate in the 2016 International Seapower Symposium, held in the US. These developments limit the opportunity for more informal frank discussions and the exchange of views. Consulta-

56 Navy Ship Encounters Aggressive Russian Aircraft in Baltic Sea , US Department of Defense, 13 April 2016, <http://www.defense.gov/News/Article/Article/720536/navy-ship-encounters-aggressive-russian-aircraft-in-baltic-sea>, Accessed October 2016

57 Kerry, John: we could have shot down Russian jets 'buzzing' US warship, The Guardian, 14 April 2016, <https://www.theguardian.com/us-news/2016/apr/14/john-kerry-russian-military-incident-us-warship-baltic-sea>, Accessed October 2016

tions with US experts confirmed that during the 1990s, the INCSEA was used as a prelude for organising Navy-to-Navy staff talks on a spectrum of issues including training and collaborative projects.

The US position with regards to future modernisation of the agreement is cautious at best. It seems the document already applies to UAV operations, which is among the main areas other officials have indicated as in need of update. Further, expert opinion does not necessarily favour extending the remit of the INCSEA to submerged submarines. Submarine personnel cannot rely on visual and radio communication tools that surface vessels would utilise, indeed the very nature of certain classes of submarines precludes the open exchange of information or direct communication.

On a multilateral basis the US is a participant in the Western Pacific Naval Symposium,⁵⁸ a forum utilised for the agreement of the Code for Unintended Encounters at Sea (CUES). In essence, CUES uses the INCSEA Signals Table for the Western Pacific and serves as a dialogue platform between the Western Pacific states. In addition, the US maintains bi-lateral military-military agreements with other members of the Symposium such as China. The two states agreed a Memorandum of Understanding in November 2014 that embraces CUES but also retain the bi-lateral mechanisms established in the 1998 Military Maritime Consultative Agreement. No similar multi-lateral format that includes Russia exists in the Euro-Atlantic space.

3.2 Russia

In the view of Western governments and the majority of Western experts, Russia bears the chief responsibility for the recent escalation of dangerous incidents. In almost all recorded incidents, it was the behaviour of Russian aircraft and ships which caused concerns and accusations of dangerous or unprofessional behaviour from NATO member states and their partners.

Increased Russian military activity can be explained by a number of factors, some of them pre-dating the current crisis. During the 1990s, the Russian Federation performed very few military exercises, halted its long range aviation flights and reduced naval and submarine operations. As part of his agenda of improving Russia's international position, President Vladimir Putin put a pronounced emphasis on rebuilding and enhancing the combat capabilities of the Russian armed forces, resulting in massive new procurement programmes, the deployment of new weapon systems, and a wide-ranging program of exercises. In 2007

⁵⁸ Official Website of the Western Pacific Naval Symposium Workshop Jakarta, <http://wpns.tnial.mil.id:8080/>, Accessed October 2016

Russia announced the resumption of long-range flights by its strategic bombers,⁵⁹ followed by more frequent patrols by strategic submarines. These efforts were accelerated with the 2008-09 'New look' reform of the armed forces. Importantly, the program of modernisation and the corresponding improvement of training and combat readiness progressed most rapidly in the air forces, which had performed badly during the 2008 war with Georgia.⁶⁰ The Russian experts interviewed for this report noted that Russia is "simply returning", after a long period of weakness, to the level of military activities fitting for its international status and its security interests.

With the renewed set of capabilities and political authorization, the Russian armed forces have become much more assertive in pursuing activities that bring them into direct contact with NATO and partner forces, as well as impacting on civil aviation and shipping.⁶¹ These included the increased tempo of air, naval and land forces operations in the Baltic and Black Sea areas, as well as in the Northern Atlantic; stepped-up surveillance of NATO military activities; efforts to gather intelligence by observing exercises and testing NATO and national radar and air defence systems; and the increased number of flights by Russian long-range aviation. Russia has also reacted to the presence of NATO forces in the common neighbourhood area by conducting deterrence-oriented demonstrations of force and, at times, harassment operations against particular ships and aircraft from NATO and partner countries engaged in operations, particularly in the Baltic and Black Sea. Some of these incidents seemed to go beyond signalling disapproval of specific activities, and can be seen (as in the case of Sweden and Finland) as attempts to intimidate particular countries and pressure them to rethink their policy towards Russia.

The Russian deployment to Syria has opened up a further theatre of operations in which interaction between Russian and NATO military forces is common – especially since it also leads to enhanced Russian presence in the Black and Mediterranean Seas.

Existing Agreements and their implementation

Russia is a party to 12 bilateral INCSEA arrangements with NATO states (Russia also has bilateral INCSEA agreements with Japan and the Republic of Korea) and four DMA agreements, as detailed in section 2. Russia seems to attach particular significance to the operation of INCSEA with the United States and the United Kingdom, due to the significant potential of their navies and the frequency of encounters. With regards to other countries,

⁵⁹ Russia To Resume Long-Range Bomber Patrols, CBS News, 17 August 2007, <http://www.cbsnews.com/news/russia-to-resume-long-range-bomber-patrols/>, Accessed October 2016

⁶⁰ Pukhov, Ruslan, A Proving Ground of the Future, Russia in Global Affairs, 30 March 2016, <http://eng.globalaffairs.ru/number/A-Proving-Ground-of-the-Future-18075>, Accessed October 2016

⁶¹ This report does not discuss Russian operations against Ukraine, which included a naval and air dimension.

Russia seems to judge primarily whether their military capabilities and range of operations make them a suitable partner for talks devoted to the issue of prevention of incidents: until recently it appeared to have little interest in conducting discussions on this topic with its less-capable neighbours.

With regards to the perception of the dangers connected with military incidents and Russia's policy, there seems to have been an evolution in the Russian approach. Between 2014 and early 2016, Russia was largely dismissive about any possible hazards connected with close encounters involving its armed forces. Russian officials focused instead on presenting data that showed an increase of NATO activity since 2014 (Baltic Air Policing, additional aircraft deployed to Central Europe as reassurance measures, naval presence, surveillance flights), citing it as proof that the Alliance is much more active along the common border than Russia.⁶² They also claimed that all Russian actions were performed in strict accordance with international aviation rules, and any claims about the danger to civil aviation caused by Russian flights with transponders switched off were a part of a "tendentious information campaign" launched by the West.⁶³

The Russian authorities also occasionally commented on specific incidents, usually downplaying the threats involved. For example, responding to the coverage of the April 2015 incident in which a Russian fighter flew close to a US surveillance aircraft over the Baltic Sea, a Ministry of Defence spokesman remarked that "no extraordinary situations emerged",⁶⁴ while an expert analysis published shortly afterwards concluded that this was a "routine episode" which was blown out of proportion, as a Russian fighter simply interrupted U.S. aerial surveillance and all the pilots showcased appropriate skills.⁶⁵

Since mid-2016, the approach to the problem of incidents seems to have been modified, perhaps in response to the wave of criticism that Russian activities generated inside NATO states, Sweden and Finland. Some of the Russian experts interviewed for this report also suggested that there has been a clearer understanding that a military incident, blamed on Russia, could deepen the confrontation with the US and NATO.

62 Foreign Minister Sergey Lavrov delivers a speech and answers questions during debates at the 51st Munich Security Conference, 7 February 2015, http://archive.mid.ru//brp_4.nsf/0/4E7CDDD252FDEF1F43257DE60031E493, Accessed October 2016

63 Russian And NATO States' Military Flights (2014 Fact Sheet), Permanent Mission of the Russian Federation to NATO, 29 January 2015, http://www.missiontonato.ru/en/news/657/?sphrase_id=681, Accessed October 2016

64 Russian Defense Ministry rejects Pentagon's interpretation of April 7 Baltic air incident, TASS, 13 April 2015, <http://tass.ru/en/russia/788787>, Accessed October 2016

65 Yermakov, Alexander, Russian International Affairs Council, 16 April 2015, http://russiancouncil.ru/en/inner/?id_4=5694#top, Accessed October 2016

At the official level, the Russian Ministry of Defence still maintains that its actions in specific cases cause no danger, and on a number of occasions it rejected accounts of incidents which blamed the Russian military for risky or unprofessional behaviour.⁶⁶ In June 2016, the Russian Ministry of Defence accused the destroyer USS Gravelly of violating the INCSEA agreement when manoeuvring in close proximity to a Russian ship in the Mediterranean.⁶⁷ Russia also suggested that some actions, including the interdiction of U.S. aircraft and ships over the Baltic and Black Seas, were connected to the fact that, while in international air-space or waters, they approached close to important Russian military installations.

Yet, as a parallel track, Russia initiated a number of diplomatic initiatives that suggest that it aims to reposition itself vis-à-vis the problem of incidents, and is willing to work to minimize the risks connected with them:

- At the review meeting of the US-Russian bilateral INCSEA agreement in June 2016, the Russian side reportedly presented proposals for further modernization of the document, including those points devoted to pre-authorized signals and communication channels,⁶⁸ and also re-introduced the topic of stipulating fixed distances to be observed during encounters between ships and aircraft.
- In July 2016, Russia seized on the suggestion of the Finnish President Niinistö regarding the use of transponders by military aircraft operating in Baltic Sea region and proposed it as a topic for expert discussion at the NATO-Russia Council. The Russian Ministry of Defence announced that it was working on specific proposals and would be ready to discuss the issue with NATO and its member states.⁶⁹
- In August 2016, Russia issued invitations to Latvia, Lithuania, Estonia, Poland, Sweden and Finland to conduct consultations in Moscow, in a bilateral or regional format, devoted to the issue of increased military activities in the region and the prevention of sea and air incidents.⁷⁰ This approach that has thus far proved unsuccessful.

66 'Stay away from Russian borders or keep transponders on': Russian MoD on US spy planes in Baltics, RT, 30 April 2016, <https://www.rt.com/news/341495-russian-borders-defense-baltics/>, Accessed October 2016

67 US destroyer came dangerously close to Russian warship in Mediterranean — defense ministry, RT, 28 June 2016, <http://tass.ru/en/defense/885128>, Accessed October 2016

68 Russia Proposes Mechanism To Avoid Conflict With U.S. Military, Radio Free Europe/Radio Liberty, 9 June 2016, <http://www.rferl.org/a/russia-proposes-mechanism-avoid-conflict-us-military/27787749.html>, Accessed October 2016

69 Shoigu poruchil VKS nachat' izpolzovat' transpondery nad Baltikoy, Lenta.ru, 2 July 2016, <https://m.lenta.ru/news/2016/07/02/mo/>, Accessed October 2016

70 Russia ready for consultations with Baltic states on border activities, Russia Beyond the Headlines, 1 August 2016, <http://rbth.com/news/2016/08/01/russia-ready-for-consultations-with-baltic-states-on-border-acti->

Assessment

While Russia can be criticized for the assertive actions of its forces during specific encounters, it is important to note that several experts interviewed for the report confirmed that Russia considers itself bound by the international obligations stemming from the bilateral INCSEA and DMA agreements. That creates a common platform for engagement on the issue.

The 2016 Russian diplomatic offensive may be primarily linked with the desire to divert attention from the broad range of Russian activities on the ground, and engage NATO countries in discussions over the specific issue of transponders, where the positions of the two sides is more equal (some NATO air forces also conduct some flights without the transponders switched on). It can be judged as a positive development that Russia is ready to interact with NATO countries and partners on 'rules of the road' instead of flatly denying the existence of the problem. It remains to be seen whether it would also be ready to adjust the operational practice of its armed forces to decrease the likelihood of incidents.

3.3 United Kingdom

UK-Russia military encounters seem to take place on a fairly regular basis. This reflects geography, the UK straddles the route Russian ships and aircraft must take into the North Atlantic, but also the UK's status as the pre-eminent European NATO member state. The UK's contribution to alliance naval missions in the Baltic and regular contribution to the Baltic Air Policing (BAP) mission serve to increase the frequency of encounters.

Flights by Russian TU-95 bombers along the periphery of the UK's airspace, in particular off the east coast, are a regular occurrence. These aircraft, with a single documented exception based on unclear sources, are never armed, but may be fitted with signals intelligence (SIGINT) equipment used to collect data on UK air defence systems. These aircraft fly with their transponders off, but due to their rapid interception and escort by RAF fighters pose little risk to civilian aviation. However these flights can still disrupt civilian traffic patterns.⁷¹ Russian naval vessels transiting the English Channel en-route to the Mediterranean or Black Sea are also regularly shadowed by Royal Navy ships.⁷² The Russian navy's predilection for

ties_617101, Accessed October 2016

71 RAF jets scrambled after Russian bombers seen off Cornwall, BBC, 20 February 2015, <http://www.bbc.co.uk/news/uk-31530840> Accessed October 2016

72 British warship monitors Russian naval vessel through Channel, Reuters, 17 February 2015, <http://www.reuters.com/article/2015/02/17/britain-defence-russia-idUSL5N0VR2S320150217> Accessed October 2016

refuelling at the Spanish exclave of Ceuta on the North African Coast may also lead to an increase in encounters with British forces operating from Gibraltar.⁷³

Of more note are reports of increased Russian submarine activity in the waters adjacent to the Clyde Estuary, the exit point for the UK's submarine-based nuclear deterrent.⁷⁴ These incidents correspond with an increase in Russian submarine activity throughout the North Atlantic, with a particular concentration in the Greenland-Iceland-UK (GIUK) gap. Since giving up its fleet of maritime surveillance aircraft, the UK has relied on NATO allies to fill this gap in capability and to coordinate with British anti-submarine vessels in this area. Due to repeated criticism of this arrangement the Conservative government committed to renew Britain's maritime surveillance capability, this renewal will employ the more modern P-8 aircraft with the first due to be operational by 2019.⁷⁵

Beyond the Clyde Estuary the most notable encounters between British and Russian forces occur as a result of the UK's involvement in NATO operations in the Baltic Sea, and as a part of the international coalition engaging the Islamic State.

The RAF is a consistent contributor to the BAP, conducting regular interceptions of Russian aircraft operating on the fringes of the Baltic States' airspace. These are almost all of a routine nature and involve escorting Russian aircraft from Leningrad Oblast to Kaliningrad Oblast, but on some occasions involve investigations of Russian naval vessels or naval aviation operating on the high seas.⁷⁶ It is also not unusual for British units to encounter Russian units as a result of participation in NATO training exercises in the Baltic. These encounters are also routine, involving the investigation of Russian units that are engaged in monitoring the NATO exercises.⁷⁷

73 Ceuta: an unofficial Russian naval 'base' in the Strait of Gibraltar?, El Pais, 28 March 2016 http://elpais.com/elpais/2016/03/28/inenglish/1459157481_130448.html Accessed October 2016

74 UK called on Nato help in sub search, BBC, 9 December 2014, <http://www.bbc.co.uk/news/uk-scotland-30398114> Accessed October 2016; MoD asks for American help in searching for Russian submarine near Scotland, Independent, 8 January 2015 <http://www.independent.co.uk/news/uk/politics/mod-asks-for-american-help-in-searching-for-russian-submarine-near-scotland-9966080.html> Accessed October 2016

75 No date yet for new maritime patrol aircraft fleet to be based at RAF Lossiemouth, Herald Scotland, 6 January 2016, http://www.heraldscotland.com/news/14186399.No_date_yet_for_new_maritime_patrol_aircraft_fleet_to_be_based_at_RAF_Lossiemouth/ Accessed October 2016

76 RAF Typhoons sent to intercept Russian helicopter over Baltic, The Telegraph, 18 May 2014, <http://www.telegraph.co.uk/news/10839095/RAF-Typhoons-sent-to-intercept-Russian-helicopter-over-Baltic.html> Accessed October 2016

77 Royal Navy investigates mystery Russian warship in Baltic, The Telegraph, 24 June 2014, <http://www.telegraph.co.uk/news/worldnews/europe/10922700/Royal-Navy-investigates-mystery-Russian-warship-in-Baltic.html> Accessed October 2016

Existing Agreements

The United Kingdom maintains an INCSEA with Russia that came into force in July 1986. The basic text of this agreement is very similar to the 1972 US-USSR agreement upon which it is based, but has undergone several reviews and updates since it was drafted. This agreement also covers naval aviation, however there is no purely aerial equivalent. UK forces continue to adhere to the INCSEA during NATO operations. The INCSEA as it currently exists appears to be fully operational; however the last annual consultation apparently took place in 2014. At the time of writing there remains a possibility that a meeting will be held before the end of 2016.

An initial post-cold war review took place during 1992-1996, however the results of this process are not clear. The next review was begun in 2000, with the resulting update coming into effect in 2002. The update focused on the following:

- Reappraising, clarifying, and extending the language on the prohibition of simulated attacks and any interference with the landing of naval aircraft
- The prohibition of interference with communication systems
- The procedures surrounding amphibious operations and small craft activity

A further update was initiated in 2014, however the results have yet to be approved by either side; again it is possible that this process may be completed by the end of 2016. Details relating to this update are not publically available, although the UK appears to be awaiting a response to its proposals from the Russian Navy. There has been no discussion as yet on extending this agreement to cover UAVs or submerged submarines, although this is possible through the annual review process. However pending an urgent tactical need this is likely to be a slow procedure. There is no corresponding agreement in place through which concerns about long range aviation activity may be addressed.

There remains an unclassified direct phone link between the operational centre at the MoD and the Russian National Defense Control Center (NDCC). This is an emergency channel to be used only in case of an incident, it does not serve as a 24/7 staffed 'hot line' but as pre-established means of contact for time-sensitive communication. This has only been utilised once with regard to an aviation incident but has never been utilised for a naval incident. There are also lower level links between Navy headquarters and aviation commands. These links appear not to have been effected by the NATO-Russia confrontation. Moreover, MoD officials indicated that there have been no UK-Russia incidents at sea as defined by the agreement since the beginning of the current crisis.

Assessment

It is certainly positive that despite the relative frequency of UK-Russia military encounters all but one (mentioned above) can be classed as routine. The UK-Russia INCSEA, the primary instrument through which encounters at sea are managed, seems to be functioning well and has been regularly updated. The INCSEA also remains in force when UK forces deploy on NATO missions. From the UK perspective, there seems to be little value in developing additional mechanisms provided the INCSEA is followed correctly. There may be some value in a Baltic-specific agreement among regional states, since their forces operate in a small and 'congested' space, but this would be an issue for the concerned states to decide on.

Lack of coverage by the INCSEA of submerged submarine activity may be a concern when renewed Russian submarine activity in the North Atlantic is taken into account. It is reasonable to assume an increase in British Anti-Submarine Warfare naval activity (inclusive of hunter-killer submarines and surface ships) in the waters adjacent to the Clyde Estuary in response. Submarine collisions, whilst rare, do happen, as do efforts by ASW ships to force submarines to the surface. Efforts to address these issues in the Pacific, including discussions of methods of communication and specified 'depth operating zones', take place through the Western Pacific Naval Symposium. It may very well be in the UK's interest to suggest the convening of a North East Atlantic equivalent.

The absence of an agreement similar to the INCSEA for aerial encounters seems an obvious gap, although the UK's adherence to the US-Russia deconfliction agreement in Syria shows that regulations can be adopted quickly on an ad-hoc basis in specific areas. It is also not clear why there is no bilateral DMA between the UK and Russia, as a replication of that between Russia and the US would seem to be a mutual security gain.

With regards to multilateral cooperation, the UK supports modification of the Vienna Document and could welcome greater information sharing through NATO (such as a central incident database), but seem to remain wary of initiating work on new stand-alone instruments.

3.4 Norway⁷⁸

Despite the fact that Norway and Russia share only a small border in the Arctic, Norwegian officials have highlighted the increase in the number and severity of Russian military activities in their shared neighbourhood. According to statements by Norwegian officials

⁷⁸ The authors are grateful to Dr. Ian Kearns who conducted the research interviews upon which this sub-chapter is based.

their Russian counterparts are increasingly 'willing to use military force to achieve political ambitions'.⁷⁹

Towards the end of 2014, media reports disclosed that a Norwegian fighter jet under NATO operational command had performed an emergency manoeuvre to avoid a near collision with a Russian MiG.⁸⁰ This incident took place in the context of multiple accounts of intercepts in international airspace near Norwegian territory which had already highlighted the increased interaction between the two armed forces.⁸¹ One of the intercepts involved an encounter with Russian Su-34 Fullback jets on long-range armed patrol off Norway which was the first recorded Norwegian interception of these enhanced deep strike Russian fighter jets. They were part of a larger formation of 10 Russian planes which included Tu-95 Bear H bombers and Il-78 tanker aircraft launched from the Kola Peninsula.

Furthermore, in the beginning of 2015, the Norwegian Defence Minister, Ine Eriksen Soreide, stated that her government is in the process of planning the restructuring of its military forces and re-opening several military bases in the High North that had been shut down after the Cold War. The increased number and complexity of Russian military activities was emphasised as the primary reason for such action.⁸²

All of this suggests that the likelihood of incidents and encounters between the two militaries has exponentially increased over the course of the last two years. Most worryingly, however, the recorded incidents, and the near collision more specifically, took place despite the fact that Norway and Russia have an operational bi-lateral agreement and several communication mechanisms for the prevention of military incidents.

⁷⁹ Russia-Norway Conflict? Defenses Being Modernized Amid Russian Arctic Military Buildup, IB Times, 1 October 2015, <http://www.ibtimes.com/russia-norway-conflict-defenses-being-modernized-amid-russian-arctic-military-buildup-2123382> Accessed October 2016

⁸⁰ Video shows Norwegian fighter pilot's close call with Russian MiG, CNN, 3 December 2014, <http://edition.cnn.com/2014/12/03/world/europe/norway-russia-fighter-jet-close-call/> Accessed October 2016

⁸¹ RAF intercepts Russian bomber approaching UK airspace, The Guardian, 1 November 2014, <http://www.theguardian.com/uk-news/2014/nov/01/raf-russian-bomber-uk-airspace> Accessed October 2016; Norwegian F-16s took some stunning pictures of Russian Su-34 fighter bombers flying off Norway, The Aviationist, 11 November 2014, <http://theaviationist.com/2014/11/11/su-34-rnoaf-f-16s-photo/> Accessed October 2016; Se Forsvarets egne bilder fra møtene med russerne, NRK, 18 December 2014, <http://www.nrk.no/nordland/se-forsvarets-egne-bilder-fra-motene-med-russerne-1.12109711>

⁸² Norway to restructure military in response to Russian 'aggression', The Guardian, 25 February 2015, <https://www.theguardian.com/world/2015/feb/25/norway-to-restructure-military-in-response-to-russian-aggression> Accessed October 2016

Existing Agreements & Mechanisms

Signed in 1989, the 'Agreement Between The Government of the Union of Soviet Socialist Republics and the Government of Norway Concerning The Prevention of Incidents at Sea outside Territorial Waters' serves as the main mechanism for managing military encounters between the two states and avoiding further escalation. The agreement was also updated in 1998 with an Addendum containing specific radio frequencies for vessel-to-vessel, aircraft-to-aircraft and vessel-to-aircraft communications. It re-committed the Parties to exercising restraint and not interfering with the communication systems of the other side.

Discussions with the Norwegian authorities have confirmed that the agreement is still in force and several recent incidents have been considered in the context of its provisions. The review meetings stipulated as part of the consultation process do take place and the last such meeting was held in September 2015 in Moscow. In addition, recent media reports on Russian naval exercises near Norwegian territorial waters suggest that INCSEA procedures are observed by both sides and the communication protocols are adhered to.⁸³

The Norway-Russia dynamic of managing incidents and unplanned encounters also benefits from additional elements of military-to-military communication that are still operational. Even though wider communications and talks between officials have been suspended, a direct communication link in the High North is maintained. In addition, Norwegian border guards regularly exchange information with their FSB counterparts about the management of the common border. The Coast Guards of the two countries have a similar arrangement.⁸⁴

However, since the down-turn in relations between the two countries and the increase of military activity, several problems have been noted particularly with regards to the operationalisation of the INCSEA agreement. More broadly, the remit of the document is deemed insufficient for current circumstances and military capabilities. An update of the agreement is being considered addressing, in particular, UAV activity and the activity of submarines.

In addition a problem relating to difference of perception has become evident during the agreement's review consultations. Using the INCSEA to address ongoing incidents has proved problematic due to disagreements over the severity of different encounters. Norwegian officials are concerned that insisting that certain Russian activities should be classified as dangerous under the terms of the agreement could result in its revocation. More specifi-

83 Russerne vil øve med fly i Nordsjøen fra onsdag morgen, VG Nyheter, 18 October 2016, <http://www.vg.no/nyheter/innenriks/rusland/russerne-vil-oeve-med-fly-i-nordsjoeen-fra-onsdag-morgen/a/23823619/>, Accessed October 2016

84 Norway, Russia continue Coast Guard cooperation, The Barents Observer, 26 January 2016, <http://thebarentsobserver.com/security/2016/01/norway-russia-continue-coast-guard-cooperation> Accessed October 2016

cally, Russian officials have reportedly expressed the view that if a genuinely dangerous incident takes place under the terms of the INCSEA, then the agreement has failed and is no longer in operation. This contrasts sharply with the Norwegian view that the management of such incidents, as well as the avoidance of them, is precisely what the agreement is there to handle.

Assessment

Evidently, the INCSEA does not fully reflect the complexity of military communications between Norway and Russia. As previously mentioned, the direct military communication channel in the High North, and the procedures for exchanging information between the Border Guards and the Coast Guards of the two countries are maintained. However, no activities between vessels and personnel of these agencies are governed by the INCSEA and no mechanism exists to manage potential incidents between members of these forces. In comparison, the restraint and communication provisions stipulated in the US-Russia DMA agreement apply to the American Coast Guard and the Russian Coast and Border Guards.

Moving forward, whilst not perfect from the Norwegian point of view, the agreement is worth maintaining, with officials placing emphasis on strengthening the document by clarifying its remit and updating it to include provisions on modern equipment and technologies. Moreover, preference is given to strengthening the existing bi-lateral arrangements and extending their reach to more countries rather than to any new multilateral framework.

With regards to governing military activities under NATO Command, a practical method of avoiding incidents and enhancing communication would also be to utilise the existing bi-lateral agreements. The majority of encounters occur in situations led by national militaries or coalitions of partners, all of which could be managed without a multi-lateral instrument.

After the suspension of military co-operation, the underlying conclusion of the Norwegian authorities is that they have lost some of the most reliable methods of understanding what their Russian counterparts are thinking, how they intend to act, and what concerns them. Such a dynamic is fraught with dangers most of which stem from the ample opportunities for misunderstandings and miscalculations; a more robust risk reduction mechanism is clearly required.

3.5 Germany

Before the Ukraine crisis erupted in 2014, Germany was one of the countries pursuing an agenda of constructive engagement with Russia, including in the security sphere. That involved maintaining contacts between the ministries of defence and the militaries, as well as the development of cooperation in the armaments sector, with the involvement of Ger-

man company Rheinmetall in construction of a high-tech combat training centre at Mulino as an important milestone.⁸⁵ This bilateral contact and cooperation was largely suspended after the outbreak of the crisis. The EU's sectoral sanctions against Russia, spearheaded by Germany, included prohibition of future armaments trade, and the German government blocked Rheinmetall from completing the Mulino contract.⁸⁶

Germany supported NATO reassurance measures agreed at the 2014 Wales summit, which included increased deployments and exercises along the Alliance's border with Russia. In 2014 and 2015, German Eurofighter Typhoon aircraft were deployed to Estonia as part of the Baltic Air Policing mission, taking part in intercepting and identifying Russian aircraft approaching the Baltic States' airspace.⁸⁷ German ships participated in NATO naval activities and drills in the North and Baltic Sea, including large-scale BALTOPS exercises. However, despite often operating in close proximity with Russian units, so far there have been no public accounts of any serious incidents involving specifically German and Russian ships or aircraft.⁸⁸

While co-shaping and contributing to NATO's response to the crisis, since 2014 Germany has repeatedly expressed concerns about the broader risk of the escalation of tensions between NATO and Russia following unintended incidents or accidents. The German Foreign Minister Frank-Walter Steinmeier has been personally engaged in raising this issue at NATO. Germany also consistently supported re-establishing dialogue through the NATO-Russia Council and the broadening of channels of communication with Russia as a 'second track' to NATO decisions on strengthening deterrence.⁸⁹ With Germany as the Chairman-in-Office, the topic of responding more efficiently to the hazardous military incidents has also been

85 Wilk, Andrzej, France and Germany are establishing a closer military co-operation with Russia, OSW, 29 June 2011, <http://www.osw.waw.pl/en/publikacje/analyses/2011-06-29/france-and-germany-are-establishing-a-closer-military-co-operation> Accessed October 2016

86 Russian firm to replace Germany's Rheinmetall as supplier of equipment for military center, Tass, 9 April 2015, <http://tass.ru/en/russia/788285> Accessed October 2016

87 German Typhoons have intercepted 7 Russian Air Force combat planes over the Baltic Sea today, The Aviationist, 28 October 2014, <https://theaviationist.com/2014/10/28/german-typhoons-intercept-7-ruaf-planes/> Accessed October 2016

88 According to the media, there have been some non-threatening encounters between Russian and German aircraft operating over Syria, see: German aircraft in Syria 'regularly shadowed' by Russia, The Telegraph, 16 February 2016, <http://www.telegraph.co.uk/news/worldnews/middleeast/syria/12159530/German-aircraft-in-Syria-regularly-shadowed-by-Russia.html> Accessed October 2016

89 Speech by Foreign Minister Steinmeier marking 60 years since Germany joined NATO, 30 June 2015, http://www.auswaertiges-amt.de/EN/Infoservice/Presse/Reden/2015/150630_NATO.html?nn=354800 Accessed October 2016

put high on the agenda of the OSCE in 2016, most notably as part of the Forum for Security Cooperation agenda and in the process of revising the Vienna Document on CSBMs.

Existing Arrangements

Discussions with the German authorities confirmed that the 1988 bilateral Incidents at Sea Agreement remains operational. The German side includes information about the obligations stemming from the agreement in the training of its military personnel. So far, there have been no incidents which could have been interpreted as a violation of the rules stipulated in the agreement. At the same time, the broader patterns of higher numbers of incidents between NATO countries and partners on one side and Russia on the other has been noted with concern in Berlin, which prepared a number of proposals on multilateral mechanisms to address the issue.

In late 2014, Germany proposed the establishment of a “crisis contact mechanism” between NATO and Russia to facilitate direct, rapid military-to-military communication on incidents and dangerous situations.⁹⁰ As a direct line between NATO military authorities and Russian General Staff had reportedly existed before the crisis, the German initiative seemed to involve, in essence, conducting an update and subsequently testing the technical capabilities of the system to fulfil its tasks during a crisis, which was carried out by NATO in late 2014 and early 2015.

Beyond the updated military-to-military contact mechanism, Germany consistently supported a resumption of the meetings of NATO-Russia Council at the Ambassadorial level, with discussions on confidence-building measures and military transparency on the agenda. Foreign Minister Steinmeier explicitly stated after the April 2016 meeting of the NRC that “As recent incidents in the Baltic Sea have shown, it is particularly important for us to reduce the risk of unintentional escalation”.⁹¹ At the same time, it seems that there have been no detailed proposals from Germany regarding new instruments for managing NATO – Russia tensions at the NRC, but rather a general emphasis on dialogue and the need for full implementation of and compliance with the existing obligations.

Germany has attached great importance to the role of the OSCE as a crisis prevention and crisis-management instrument, and a forum for discussing arms control and confidence-

⁹⁰ Germany seeks mechanism with Russia to avoid escalation, EurActiv, 3 December 2014, <http://www.euractiv.com/section/global-europe/news/germany-seeks-mechanism-with-russia-to-avoid-escalation/> Accessed October 2016

⁹¹ Foreign Minister Steinmeier on today’s meeting of the NATO-Russia Council, 20 April 2016 http://www.auswaertiges-amt.de/EN/Infoservice/Presse/Meldungen/2016/160420_NATO-RusslandRat.html?nn=354800 Accessed October 2016

building measures. This increased attention is partly connected with the 2016 Chairmanship, but the German objective of better utilizing the OSCE CSBM toolbox remains a constant part of its foreign and security policy and is likely to continue beyond 2016. Germany supports substantial modernization of the Vienna Document, including the chapter on risk prevention and the managing of hazardous incidents. Its own proposals have focused on Paragraph 16 (Mechanism for Consultation and Co-Operation as Regards Unusual Military Activities), where it proposed, for example, the use of impartial fact-finding missions which could not be blocked by the interested parties.

Assessment

While Germany is less directly affected than the other countries analysed in this report by the upsurge of dangerous incidents, Berlin is clearly concerned about the situation and the danger of unintended escalation. Consequently, it decided to use the OSCE and NATO / NATO-Russia Council channels to call for multilateral measures to limit the chances of incidents and establish more effective mechanisms and communication channels to deal with dangerous situations. Germany seems to be ready to consider a broad menu of options and ideas which could be helpful in stabilizing and ultimately improving the security situation in Europe.

At the same time, German officials recognize that the chances for progress are limited as long as the broader relationship between Russia and the West remains highly confrontational. Germany remains committed to the NATO policy of strengthening deterrence measures in the East and opposing Russia's assertive military actions. There also seems to be some frustration about Russia's lack of willingness to engage in substantive discussions, especially on the Vienna Document modernization.

3.6 Finland

As a result of the increased Russian military activities over and around the Baltic and the Barents seas, Russian activities near Finnish territory and airspace have notably intensified since March 2014. In considering the Russian military presence in Kaliningrad oblast, the stationing of Russian troops and equipment near the Finnish border, and the rotational deployment of NATO forces to the Baltics, it is reasonable to describe Finland's neighbourhood as one of the most militarised areas in Europe.⁹² Given that the Baltic Sea is among the areas with the highest number of reported incidents, among which are encounters between Russian and Finnish armed forces as well as Russian armed forces and Finnish

⁹² Suomen lähellä on kolme raskaasti aseistettua aluetta – näin Venäjä kasvattaa iskuvoimaansa rajoillaan, YLE, 7 May 2016, http://yle.fi/uutiset/suomen_lahella_on_kolme_raskaasti_aseistettua_aluetta__nain_venaja_kasvattaa_iskuvoimaansa_rajoiillaan/8855345 Accessed October 2016

civilian vessels, it is not difficult to argue that Finland has a vested interest in establishing a risk reduction mechanism with Russia.

With regards to naval encounters, the most serious incident in 2014 was the harassment of a Finnish civilian research vessel by a Russian ship and a submarine.⁹³ Another incident in April 2015 prompted speculations about a 'Russian submarine' having approached Finnish territory after the Defence Ministry confirmed warning depth charges had been fired at an underwater object suspected to be operating near Helsinki.⁹⁴

With regards to air encounters, Finnish and international news outlets reported 5 airspace violations by Russian aircraft in 2014, two in 2015, and two incidents in one day in October 2016.⁹⁵ At the end of 2014 the Finnish air force had warned about the 'unusual intensity' of Russian activity and continues to closely monitor all relevant developments.⁹⁶

More recently, the Finnish defence forces have noted a trend of airspace violations over the eastern border by small aircraft and helicopters flying at low altitudes.⁹⁷ This poses a serious concern since the 'subzone' within which these aircraft and helicopters fly is not

93 Finland says Russian navy interfered with Baltic Sea research vessel, Reuters, 11 October 2014, <http://uk.reuters.com/article/uk-finland-vessel-russia-idUKKCN0I00KH20141011> Accessed October 2016

94 Finland drops depth charges in 'submarine' alert, BBC, 28 April 2015, <http://www.bbc.co.uk/news/world-europe-32498790>; Finland fires warning shots at 'foreign submarine' near Helsinki, The Telegraph, 28 April 2015, <http://www.telegraph.co.uk/news/worldnews/europe/finland/11568042/Finland-fires-warning-shots-at-foreign-submarine-near-Helsinki.html> Accessed October 2016

95 Finland's Fighter Jets on Alert as Russia Violates Airspace, Bloomberg, 29 August, 2014, <http://www.bloomberg.com/news/articles/2014-08-28/finland-puts-fighter-planes-on-alert-as-russia-violates-airspace>; Nato 2014 Summit: Finland 'Ready to Intercept' Russian Planes after Third Airspace Violation in a Week, International Business Times, 29 August 2014, <http://www.ibtimes.co.uk/nato-2014-summit-finland-ready-intercept-russian-planes-after-third-airspace-violation-week-1463186>; Nato reports surge in jet interceptions as Russia tensions increase, The Guardian, 3 August 2015, <http://www.theguardian.com/world/2015/aug/03/military-aircraft-interventions-have-surfed-top-gun-but-for-real>; Finandia zvinuvatila Rossii u porusheni povitryanovo prostoru, BBC, 9 July 2015, http://www.bbc.com/ukrainian/news_in_brief/2015/07/150709_r_finland_russian_jet ; Finland suspects two Russian military aircraft violated its airspace, Tass, 7 October 2016, <http://tass.com/world/904758> Accessed October 2016

96 Russia Baltic military actions 'unprecedented' – Poland, BBC, 11 December 2014, <http://www.bbc.co.uk/news/world-europe-30429349> ; The Effects of Finland's Possible NATO Membership: An Assessment, Finnish Ministry of Foreign Affairs, 29 April 2016, <http://formin.finland.fi/public/default.aspx?contentid=345685> Accessed October 2016

97 Suomen ilmatilassa tunnistamatonta helikopteriliikennettä – matalalla lentävä voi vältellä valvontaa, YLE, 22 January 2016, http://yle.fi/uutiset/suomen_ilmatilassa_tunnistamatonta_helikopteriliikennetta__matalalla_lentava_voi_valtella_valvontaa/8616356 Accessed October 2016

regulated by air traffic control and any encounters with Finnish aircraft could result in an incident.

The issue of air incidents was considered grave enough to become a subject of discussion during the visit of President Vladimir Putin to Finland on 1 July, 2016. Finnish President Sauli Niinistö proposed, as a trust-building measure, reaching an agreement on the use of transponders by military aircraft operating in Baltic Sea region.⁹⁸ Russia not only responded positively to the initiative, but also took action to broaden the discussion by putting a similar proposal to both NATO-Russia Council and to a group of countries from the region, including Finland.

Finland-Russia Military Arrangements

The military relations between the two states are grounded in the tradition of the Finno-Soviet Treaty of Friendship, Cooperation, and Mutual Assistance (FCMA) signed in 1948. Even though the Treaty was in force only until 1992,⁹⁹ it serves as the basis for the two countries' military relations to date. It established Finland's neutrality during the Cold War and confirmed its readiness to repel attacks against the Soviet Union carried out through Finnish territory. No further military co-operation, communication or joint activities were ever agreed or discussed under the remit of the Treaty.¹⁰⁰

Currently, no military-to-military agreement dedicated to incident prevention exists between Finland and Russia and there are no mechanisms for military-to-military communication in real time. The follow-up to military incursions falls under the remit of the Finnish MFA, however there is not and there never has been a hotline between Finland and Russia. The main contact point outside of extenuating circumstances is the Defence Attaché, which, unlike in Sweden, is not excluded from the Finnish military/diplomatic process. Further to this, a bilateral Defence Minister-level meeting was held in Moscow in 2015, with the possibility of further such meetings in future.

There are two bilateral agreements between Finland and Russia that increase military confidence between the two neighbours, both currently operational. The first agreement allows for an additional evaluation visit each year in addition to those stipulated in the Vienna

⁹⁸ Press statements and answers to journalists' questions following Russian-Finnish talks, President of Russia, 1 July 2016, <http://en.kremlin.ru/events/president/transcripts/52312> Accessed October 2016

⁹⁹ Singleton, F., & Upton, A. F. (1998). *A short history of Finland*. Cambridge University Press., p.182

¹⁰⁰ Hanhimäki, Jussi (1997) *Containing Coexistence: America, Russia, and the "Finnish Solution"*, The Kent University Press, p.36

Document.¹⁰¹ However, the Finnish visit is restricted to the Leningrad Military district in the Russian Federation. This is a rolling arrangement, automatically renewed every year unless requested otherwise. The second agreement, concluded in 2002, establishes bi-annual naval exchange visits to Finnish bases at Upinniemi or Pansio and Russian bases at Kaliningrad or Kronstadt. Such visits are arranged according to the provisions of Chapter IV (contacts) and Chapter X (regional measures) of the Vienna Document.¹⁰² Recent visits conducted within the scope of the bi-lateral agreements include inspections in Alakurtti, Russia and Lapland, Finland.¹⁰³ Other exchanges, formerly at high-level diplomatic/military level with expert involvement, were frozen in April 2014 following Russian action in Ukraine and will remain so until a Russian withdrawal.

By comparison more substantive communication procedures have been established by the Finnish and Russian Border Guard authorities.¹⁰⁴ The Finnish Border Guards (a division of the Ministry of the Interior) detect violations and lead the investigation of airspace or border violations (including those by military aircraft or vehicles).¹⁰⁵ The points of contact are the border commissioners responsible for each of the Finnish border sections adjacent to Russia. These commissioners have delegated authority to arrange meetings with their Russian counterparts when they deem it necessary, in addition to a number of fixed meetings, and discuss issues in great detail. In the rare instance when an issue cannot be resolved by the border commissioners the matter will be passed to the treaty-based permanent joint Finnish-Russian border working group.

Co-operation takes the form of meetings, daily exchange of information (over the phone or by fax 24/7), exchange of practical experience, training and common investigations and joint actions. Meetings are scheduled on a monthly basis at which Finnish Customs and the Border Guard meet with the Russian Customs and the Border Guard to process all open border incidents. Furthermore a permanent Finnish-Russian Border Guard working group

101 Lachowski, Zdzislaw, *Confidence and Security Building Measures in the New Europe*, Oxford University Press (2004), p.142, Available: <http://books.sipri.org/files/RR/SIPRIRR18.pdf> Accessed October 2016

102 Ibid, p.149

103 Finland inspects Russian Arctic Brigade, *Barents Observer*, 13 October 2015, <http://barentsobserver.com/en/security/2015/10/finland-inspects-russian-arctic-brigade-13-10>; Russian inspection follows NATO visit in Finnish Lapland, *Barents Observer*, 7 December 2015, <http://thebarentsobserver.com/security/2015/12/russian-inspection-follows-nato-visit-finnish-lapland> Accessed October 2016

104 This process has its basis in the Agreement Concerning the Regime of the Finnish-Soviet State Border and the Procedure for the Settlement of Border Incidents signed in June 1960, and amended in 1969, 1979, and 1997.

105 Suomen ilmatilassa tunnistamatonta helikopteriliikennettä – matalalla lentävä voi vältellä valvontaa, YLE, 22 January 2016, http://yle.fi/uutiset/suomen_ilmatilassa_tunnistamatonta_helikopteriliikennetta__matalalla_lentava_voi_valtella_valvontaa/8616356 Accessed October 2016

meets 3 to 4 times a year to prepare plans and decisions for the months ahead and to coordinate any activities.¹⁰⁶

This otherwise close relationship suffered a severe shock when Russia facilitated the movement of thousands of refugees across the Russo-Finnish border in the high north during January and February 2016.¹⁰⁷ However there remains a deep concern that such hybrid-pressure will be used again in future.

Assessment

None of these agreements are designed for managing military encounters or preventing incidents in real time. In light of the increased Russian activities near Finnish airspace and the airspace violations recorded over the past two years,¹⁰⁸ Finland should have a vested interest in establishing an effective mechanism for communicating with the Russian military. This is even more relevant given that existing confidence-building measures, such as bilateral and multilateral military exercises established through the Arctic Council have been suspended since the crisis in Ukraine.

Despite this the Finnish MoD did not express an interest in any such agreement, whether bilateral or multilateral. It was also confirmed that the Russian side has also not raised such a proposal. Similarly, the Border Guard were clear that they perceived their agreements

106 See Gounev, Bezlov, Faion, & Hristov, *Better Management of EU Borders Through Cooperation: Study to Identify Best Practices on the Cooperation Between Border Guards and Customs Administrations Working at the External Border of the EU*, Center for the Study of Democracy, 2011, pp. 212-213 https://www.google.co.uk/url?sa=t&rct=j&q=&esrc=s&source=web&cd=1&cad=rja&uact=8&ved=0ahUKEWjG1e_pysXMAhWsL8AKHaSiCaUQFgghMAA&url=http%3A%2F%2Fec.europa.eu%2Fdocs%2Fhome-affairs%2Flibrary%2Fdocs%2Fpdf%2Fcustoms_bgs_final_en.pdf&usq=AFQjCNFWxJg3nCVT0z_2sqUubc7afv5zKA&bv=m=bv.121421273,d.ZGg, Accessed October 2016

107 The immediate result of this was a mutual cancellation by the border commissioners of a provision allowing for the transit of the Raja-Jooseppi border crossing by bicycle.

108 In July 2015, the Finnish authorities noted that Russian aircraft violated their airspace 6 times since May 2014, see: Finland confirms 6th Russian airspace violation in just over a year, YLE, 9 July 2015, http://yle.fi/uutiset/finland_confirms_6th_russian_airspace_violation_in_just_over_a_year/8143705; Moreover, in December 2015 Finnish authorities shared their suspicions that a Russian helicopter had entered Finland's airspace without authorisation, see: Russia Violates Finland Airspace? Unidentified Helicopter Breaches Skies Near Russian Border, Finnish Officials Say, *International Business Times*, 12 November 2015, <http://www.ibtimes.com/russia-violates-finland-airspace-unidentified-helicopter-breaches-skies-near-russian-2221663>; Suomen ilmatilaa loukataan yhä useammin – puolet venäläiskoneiden tekosia. MTV, 16 August 2015, <http://www.mtv.fi/uutiset/kotimaa/artikkeli/suomen-ilmatilaa-loukataan-yha-useammin-puolet-venalaiskoneiden-tekosia/5260772> Accessed October 2016

with Russian to be functioning effectively and contained enough flexibility to proceed without amendment.

Finally, while Finland is reticent to share military information, it would welcome increasing the level of security of military flights in the Baltic Sea region. The approach by President Niinistö to President Putin regarding the use of transponders in July 2016 was received positively;¹⁰⁹ Putin subsequently instructed the Russian air force to begin preparations to start operating with this effect. This proposal was presented by Russia at the July NATO-Russia Council meeting and welcomed as a positive step.¹¹⁰ President Niinistö also welcomed Russian bilateral approaches to regional states (these approaches were subsequently rebuffed) and expressed surprise that Finland had not received a similar approach, indicating an ongoing willingness to address the issue of incidents.¹¹¹

3.7 Sweden

Sweden has been the focus of substantial Russian activity throughout the ongoing confrontation. This has taken place in the air, at sea, and in the informational sphere.

Russian areal activities targeting Sweden have been of a particularly aggressive nature, involving deliberate airspace violations,¹¹² overtly threatening interceptions of Swedish reconnaissance aircraft (on some occasions firing flares at them¹¹³),¹¹⁴ and most conspicuously the threat to civilian lives posed by uncommunicative Russian flights.¹¹⁵ Swedish territory

109 It is likely that the conceptualisation of this approach took place during the formation and subsequent meetings of the Baltic Sea Project Team initiated by ICAO in 2015. Russia has been a key supporter of this group so it is probable that the administration was pre-warned and amenable to the proposal before the formal Finnish approach.

110 NATO and Russia: Balancing defence with dialogue, NATO, 19 July 2016, http://www.nato.int/cps/en/nato-hq/opinions_134210.htm Accessed October 2016

111 Presidentin kynästä: Suomen ulko- ja turvallisuuspolitiikkaa tehdään huolellisesti, President of Finland, 18 August 2016, <http://www.tpk.fi/public/default.aspx?contentid=349791&nodeid=44809&contentlan=1&culture=fi-FI> Accessed October 2016

112 Two Russian attack planes intentionally violated the Swedish airspace to probe local air defense, The Aviatorist, 19 September 2014, <https://theaviationist.com/2014/09/19/su-24-violated-swedish-airspace/> Accessed October 2016

113 Swedish military chief says Russian jets released flares, AP, 30 June 2015, <https://www.yahoo.com/news/swedish-military-chief-says-russian-jets-released-flares-100428077.html?ref=gs> Accessed October 2016

114 Russian jet flew 'metres' from Swedish plane, The Local, 3 October 2014, <https://www.thelocal.se/20141003/russian-jet-soars-metres-from-swedish-plane> Accessed October 2016

115 Russian plane has near-miss with passenger aircraft over Sweden, The Guardian, 13 December 2014, <http://www.theguardian.com/world/2014/dec/13/russia-plane-near-miss-passenger-aircraft-sweden> Accessed Oc-

has also featured prominently in Russian military exercises, with indications that the Zapad 2013 exercise included simulated nuclear strikes against key Swedish command and control nodes whilst a March 2015 exercise involved the targeting of the island of Gotland.¹¹⁶

These incidents have exposed major deficiencies in the capabilities of the Swedish air force. In particular the 2013 simulated nuclear strike went unchallenged by Swedish aircraft, with the Russian formation instead being intercepted by two Danish F-16s operating as part of the Baltic Air Policing Mission. Swedish aircraft remained grounded due to a public function, a reaction which it must be assumed Russian planners anticipated due to the high concentration of Russian intelligence operatives in Sweden.¹¹⁷ Swedish Air Traffic control also appears vulnerable, with a serious outage in November 2015. Whilst officials publically blamed a solar storm, an anonymous NATO leak suggested this was a result of a cyber-attack by a group linked to Russian military intelligence (GRU).¹¹⁸

The behaviour of Russian fighters towards Swedish reconnaissance aircraft, that, unlike their Russian and NATO counterparts, operate whilst transponding their position on channels accessible to civilians,¹¹⁹ is also noteworthy.

Swedish airspace has also been infringed upon by NATO aircraft, with documented incidents including a violation by a US reconnaissance aircraft fleeing Russian interceptors,¹²⁰ and the interception of a French aircraft several kilometres inside Swedish airspace.¹²¹

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116 Lucas, Edward, *The Coming Storm: Baltic Sea Security Report*, Center for European Policy Analysis, 2015, [http://cepa.org/sites/default/files/styles/medium/Baltic%20Sea%20Security%20Report-%20\(2\).compressed.pdf](http://cepa.org/sites/default/files/styles/medium/Baltic%20Sea%20Security%20Report-%20(2).compressed.pdf) Accessed October 2016

117 Russia 'biggest threat' to Sweden over past year, *The Local*, 18 March 2015, <http://www.thelocal.se/20150318/russia-was-biggest-threat-to-sweden-last-year> Accessed October 2016

118 Sweden issued cyber-attack alert, *AldriMer*, 12 April 2016, <https://www.aldrimer.no/sweden-issued-cyber-attack-alert-as-its-air-traffic-reeled> Accessed October 2016

119 Här jagar ryskt jaktplan svenskt FRA-flyg, *Svenska Dagbladet*, 1 October 2014 <http://www.svd.se/unik-bild-visar-rysslands-aggressiva-upptradande-mot-svenska-flygningar> ; Swedish Spyplane "caught" flying off Russia's Kaliningrad Oblast, *The Aviationist*, 24 November 2014, <https://theaviationist.com/2014/11/24/swedish-spyplane-flies-off-kaliningrad/> Accessed October 2016

120 To Evade Russians, Plane Crossed Into Sweden, *New York Times*, 3 August 2014, http://www.nytimes.com/2014/08/04/world/europe/to-evade-russians-american-reconnaissance-planecrossed-into-swedish-air.html?_r=0 Accessed October 2016

121 French plane spotted in Swedish airspace, *The Local*, 17 November 2014, <https://www.thelocal.fr/20141117/new-claims-russia-was-in-swedish-airspace> Accessed October 2016

The increase in Russian activity has also resulted in several antagonistic naval incidents involving Sweden. The widely-covered October 2014 hunt for a supposed Russian submarine operating in territorial waters adjacent to Sweden's Stockholm archipelago is a prominent example, during which the Swedish Supreme Commander underlining a willingness to use armed force to bring the vessel to the surface.¹²² Less well known but with serious ramifications for regional stability is the harassment of Swedish and Lithuanian civilian vessels engaged in laying underwater electricity cables connecting the two countries by the Russian Navy. Diplomatic protests were lodged but no reply was forthcoming.¹²³ This has happened on multiple occasions and at one time the Lithuanian vessel was forced away from the cable site for 10 hours.¹²⁴

Existing Agreements

Sweden does not have any bilateral military-military agreements with Russia, nor are there any cooperative military programmes in place. Furthermore, on government instruction Russian military attaches are not invited to meetings hosted by Swedish officials. A negotiation was underway relating to an agreement on submarine rescue but this was terminated as a result of Russian actions in Ukraine.

It is important to note that in the past Sweden has proposed cooperative solutions to the challenge of military incidents. In May 1989 Sweden submitted a working paper to the UN General Assembly calling for a multilateral incidents at sea agreement among Baltic littoral states.¹²⁵ This would have built on the bilateral agreements already in place whilst filling the gaps in existing agreements' coverage. This agreement did not receive widespread support and was ultimately shelved.

122 What lies beneath, *The Economist*, 22 October 2014, <http://www.economist.com/blogs/charlemagne/2014/10/swedishsubmarine-hunt> ; Sweden bathes in echoes of cold war drama as submarine hunt continues, *The Guardian*, 21 October 2014, <http://www.theguardian.com/world/2014/oct/21/sweden-cold-war-submarine-hunt-russia-vessel-military> ; Sweden submarine search called off, *BBC*, 24 October 2014, <http://www.bbc.co.uk/news/world-europe-29752368> Accessed October 2016

123 Increasingly Frequent Call on Baltic Sea: 'The Russian Navy Is Back', *New York Times*, 10 June 2015, http://www.nytimes.com/2015/06/11/world/europe/intrusions-in-baltic-sea-show-a-russia-challenging-the-west.html?_r=0 Accessed October 2016

124 Undersea Electricity Cable Generates Friction Between Russia and Baltics, *The Wall Street Journal*, 6 May 2015, <http://www.wsj.com/articles/undersea-electricity-cable-generates-friction-between-russia-and-baltics-1430931797> Accessed October 2016

125 A Multilateral agreement for the prevention of incidents at sea: Working paper submitted by Sweden, United Nations General Assembly, 10 May 1989, [https://disarmament-library.un.org/UNODA/Library.nsf/0bb8a163b66d627f85256beb0073f596/058896abb41473cb8525786500506884/\\$FILE/a-cn10-121.pdf](https://disarmament-library.un.org/UNODA/Library.nsf/0bb8a163b66d627f85256beb0073f596/058896abb41473cb8525786500506884/$FILE/a-cn10-121.pdf) Accessed October 2016

On a multilateral basis Sweden is an active signatory of both the Vienna document and Open Skies, through which it conducted flights over Ukraine in March 2014¹²⁶ and Russia in August 2015.¹²⁷ In August 2014 Sweden deepened its cooperation with NATO through a Memorandum of Understanding on Host Nation Support, this would allow NATO troops to be deployed to Sweden under certain circumstances and provide them with Swedish logistical support. This agreement was strengthened by a bilateral accord with Denmark that permits Danish fighter aircraft to transit Swedish airspace in extenuating circumstances.¹²⁸ It is unclear whether this agreement could be used to have Danish fighters intercept Russian aircraft on Sweden's behalf.

In addition Sweden has responded to Russian actions in Ukraine by developing or strengthening bilateral cooperative agreements with Finland, Norway, and Poland. Of these, that with Finland - detailing the possibility of joint defence - is the most relevant with regards to Russia.¹²⁹

Assessment

Sweden has proven particularly vulnerable during the ongoing confrontation. Whilst some actions have been taken to address this vulnerability, for example redeploying units to Gotland and negotiating agreements with NATO as a whole and bilaterally with individual member states, it is notable that a framework for managing encounters with Russian units is none-existent.

The forward deployment of the Swedish air force may well increase the number of encounters with Russian aircraft with no pre-established communication mechanism, whilst the lack of a Swedish-Russian INCSEA means that encounters at sea must rely on basic rules of the road. This has clearly proven inadequate when dealing with Russian interference with shipping (Finnish vessels have experienced similar impositions). However the key role played by military attaches in agreements such as INCSEA-s makes their institution in

126 The Vienna Document, the Open Skies Treaty and the Ukraine Crisis, Brookings, 10 April 2014, <http://www.brookings.edu/blogs/up-front/posts/2014/04/10-vienna-document-open-skies-ukraine-crisis-rowberry> Accessed October 2016

127 Swedish air force to fly through Russian skies, The Local, 12 August 2015, <http://www.thelocal.se/20150812/swedish-air-force-to-fly-through-russian-skies> Accessed October 2016

128 Sweden and Denmark Reach Bilateral Defense Agreement, Defense News, 21 January 2016, <http://www.defensenews.com/story/defense/international/europe/2016/01/21/sweden-and-denmark-reach-bilateral-defense-agreement/79112018/> Accessed October 2016

129 Finland, Sweden Consider Treaty-based Defense Union, Defense News, 4 March 2016, <http://www.defensenews.com/story/defense/international/europe/2016/03/04/finland-sweden-treaty-defense-union-bilateral/81307724/> Accessed October 2016

Sweden a difficult prospect in present circumstances. Re-raising the Swedish suggestion of a multilateral INCSEA may be a worthwhile effort to explore ways of circumventing these problems.

Finally the lack of an agreement relating to submerged submarines has an important relevance in Sweden's case due to suspected Russian activity within its territorial waters.

PART 4: OPTIONS FOR THE FUTURE

The picture emerging from the review of the existing incident-prevention agreements and arrangements, as well as their implementation, is a mixed one. On the one hand, it is clear that a number of bilateral channels of communication exist and have been available to the states involved – and in some instances activated – during the current crisis. Some ad-hoc measures to address the risk of incidents over the Baltic Sea have also been taken or proposed. In the instance of those pairs of countries that have bilateral agreements, there is a specific set of binding norms of behaviour and regulations which provide a framework for avoiding and managing some of the incidents, most notably in the high seas. The Finnish example shows that even in the absence of such agreements, other channels of communications and arrangements can be used to deal with cross-border incidents. Finally, some mechanisms for avoiding incidents have been developed to manage the parallel actions of the Counter-ISIS Coalition led by the US and Russia in Syria.

On the other hand, the existing agreements seem clearly inadequate to deal with the whole spectrum of challenges brought by the state of increased tensions between Russia and NATO, affecting the countries in the common neighbourhood, civilian air travel and shipping. The following weaknesses and vulnerabilities seem most apparent:

Firstly, and most importantly, the bilateral agreements (INCSEA-s and DMAs) remain in force only between a small number of NATO countries and Russia. Among the countries not covered by such agreements are those who found themselves on the “frontline” of the renewed confrontation with Russia: Poland, Lithuania, Latvia, Estonia, Romania and Bulgaria. Taking into account that some of the recorded incidents took place in the vicinity of their borders or involved their military or civilian aircraft or vessels, the lack of detailed regulations on avoiding and managing incidents could have grave consequences in the future. There is also the reality of multilateral exercises and operations, in which some participants operate using their specific set of rules and regulations. Even taking into account that NATO has recommended that all its Allies should follow the US-Russia INCSEA behavioural protocols for all operations where they might encounter Russian forces, the lack of bilateral agreements remain a problem.

Secondly, the scope of the existing bilateral agreements remains limited, essentially to the activities of navies and naval aviation in international waters. Even here there may be questions connected with dangerous activities involving submerged submarines, UAVs and naval drones that are not covered by the agreements. Incidents involving air forces, land forces, as well as various law-enforcement and paramilitary forces seem to largely fall beyond the scope of existing agreements, even if they are still regulated by other norms of international law.

Thirdly, the existing frameworks offer little guidance and options to deal with situations when the accounts and interpretation of specific incidents differ, or when one of the sides

is clearly non-cooperative in resolving the controversies arising out of the incidents. One of the problems identified is the lack of a commonly accepted definition of hazardous or dangerous incidents, and thus different views on whether a specific action is a violation of the norm, or 'merely' an assertive action.

Fourthly, there is little information available, and apparently also not enough knowledge and coordination between individual NATO countries and partners about their incident management arrangements with Russia and their contacts with their Russian counterparts. The national practices on disseminating information seem to differ considerably. Some countries are willing to keep restricted not only information about specific incidents and the actions taken in response to them, but also about the general functioning of arrangements such as INCSEA. That complicates the task of identifying not only the challenges, but also the best practices that can be emulated by others.

The remainder of this chapter presents a range of options for progress, noting their different level of ambition and difficulty. While discussing the feasibility of specific options, the paper also takes into account the views gathered during interviews with government and NATO officials.

4.1 A NATO-Russia agreement on managing dangerous incidents

The main rationale for such an agreement would be the establishment of uniform rules governing the behaviour of the armed forces of all NATO countries and Russia during the most likely types of close encounters. It would also best address the circumstances of NATO conducting its operations and exercises as multinational endeavours with the involvement of multiple allies, and also the reality of the long-term deployment of military forces from other NATO countries in the Baltic states, Poland, and in the Baltic and Black Sea regions (including Air Policing and the presence of multinational naval groups). The preparatory work on such an instrument could be useful as such, since it would provide an opportunity for NATO and Russian military experts to discuss the practicalities of operating in close proximity and to work on the solutions to problems which they have identified.

Regarding the scope of the agreement, it would be optimal to include general provisions stipulating the need to exercise restraint during close encounters and terminating any incident by peaceful means without resort to threat or use of force. It would then move to provide specific guidance for maritime and air encounters. It would therefore utilise primarily the existing elements of the INCSEA and DMA agreements. It could also incorporate elements developed in the Memorandum of Understanding signed between the United States and China in late 2014¹³⁰ and introduced in the Code for Unplanned Encounters at Sea

130 Memorandum of Understanding Between the Department of Defence of the United States of America and the Ministry of National Defence of the People's Republic of China Regarding the Rules of Behaviour for Safety

(CUES).¹³¹ It would specify the rules of behaviour, principles and procedures of communication, responses to incidents, and set up an annual assessment meeting and periodic review process. Taken the weaknesses of the existing arrangements, it would be beneficial to include in the agreement provisions on creating a dedicated, standing working group within the NATO-Russia Council to deal with any urgent situations arising from the operation of the instrument – possibly including the investigation of alleged incidents.

The main difficulty of implementing this proposal lies in its inseparable linkage with the current state of NATO – Russia relations and broader political considerations. For a number of NATO states, the issue of dangerous incidents cannot be separated from other negative developments in Russian foreign and security policy, including aggression against Ukraine, annexation of Crimea, the deployment of new units close to NATO's territory, or large-scale and often unannounced exercises. Instead of focusing on regulating the rules of dangerous encounters, these countries expect a more fundamental change of Russian policy. From that viewpoint, entering into negotiations on one narrow subject may be seen as tacit acknowledgement that NATO is willing to accept other illicit actions by Moscow. Some may see it as the start of a process of 'unfreezing' the practical cooperation at the NRC and moving back to relations as they were before the Crimea takeover.

At the practical level, it would need to be clarified whether NATO would have the legal capacity to pursue such negotiations on behalf of its member states and enter into any agreement with Russia, including by empowering the NATO Secretary General to act on their behalf. Also, the range of activities conducted under NATO's operational command, and therefore covered by such an arrangement, may be limited. Furthermore, the countries already possessing a bilateral INCSEA or DMA agreement with Russia may consider that multilateral mechanisms add little to existing channels, but may lead to their atrophy or abandonment – which would be detrimental to their interests. Finally, it may be difficult to

of Air and Maritime Encounters, Section 1, p.2. Available at: http://www.defense.gov/pubs/141112_MemorandumOfUnderstandingRegardingRules.pdf

131 Unofficial version of the document is available here: <http://www.slideshare.net/AdmJonGreenert30thCNO/code-for-unplanned-encounters-at-sea-cues-as-agreed-upon>. The document can also be accessed here: <http://www.coamas.org/Documentos/pdf/Publicaciones/C%C3%B3digo%20CUES%20-%20NWC.pdf>. It was signed in 2014 at the Western Pacific Naval Symposium, introduces several new mechanisms for avoiding confrontation. The twenty-one states party to the agreement are Australia, Brunei, Cambodia, Canada, Chile, China, France, Indonesia, Japan, Malaysia, New Zealand, Papua New Guinea, Peru, the Philippines, Russia, Singapore, South Korea, Thailand, Tonga, the United States and Vietnam. Even though, the Code is not a legally-binding document, which only applies to naval vessels and aircraft, it is designed to limit the chance of incident taking place or prevent escalation in case one takes place. Given the increased number of activities in the South China Sea and the ongoing territorial disputes in the region, the document serves as a useful risk-reduction mechanism should naval forces of the Parties meet 'casually or unexpectedly'.

involve in any talks in a NATO-Russia Council format other interested countries, including Finland, Sweden, Ukraine or Belarus.

4.2 Utilising the OSCE Confidence-Building instruments

The principal benefit of this option would be that it would build on an already-adopted and operational set of commitments, primarily the Vienna Document on Confidence and Security Building Measures. It would also be directly linked to the aims of the Organization for Security and Cooperation in Europe and with its legacy (going back to the Cold War era) as a forum for dialogue on politico-military issues. Unlike the NATO-Russia option, it would also be, from the start, inclusive in nature, encompassing all the countries in the Vancouver-to-Vladivostok space. Finally, with regards to the Vienna Document specifically, work on the prevention of incidents can be easily incorporated into the process of the modernization of this instrument, conducted throughout 2016. In fact, Poland tabled a draft decision on strengthening co-operation as regards hazardous incidents of a military nature, a proposal co-sponsored by 9 other states.

With regards to the scope of the work, the OSCE does not seem to be a suitable forum for negotiations and agreement on detailed rules for the behaviour of militaries and for managing incidents. Such a far-reaching attempt would be made difficult by the number of the participating states and their divisive political agendas and interests. However, there seems to be two areas for possible progress at the OSCE.

The first could be opening up a space for a regular exchange of views on the issue of hazardous incidents, primarily at the Forum for Security Co-operation. While this would most likely lead to acrimonious debates over the alleged responsibility for specific incidents, it would create an opportunity for all the OSCE Participating States to express their positions with regards to the gravity of incidents, their causes, and adequacy – or inadequacy – of existing arrangements, including bilateral ones. Such a dialogue could also serve to raise awareness of the issue among all the OSCE states.

The second area would be connected with adding new elements to the risk reduction procedures included in the Vienna Document. As regards hazardous incidents of a military nature, the current procedure described in Vienna Document Clause 17 deals only with the consequences of the incidents, it also offers – in practice – no effective ways to investigate the details of specific incidents and to avoid their repetition. One general addition would be adopting a general obligation to resolve any incident by peaceful means without resort to threat or use of force. The procedure itself could be augmented by spelling out in more detail the reporting requirements on incidents, by strengthening the prevention aspect, widening the options for obtaining information on the incident and verification of received infor-

mation (e.g. though the involvement of the OSCE Crisis Prevention Center), and subsequent discussions at the OSCE fora.

As with the NATO-Russia MoU option, the implementation of the modest steps described above remains directly linked to the security situation in Europe, and the overall performance of the OSCE. The erosion of OSCE's confidence-building measures and an inability to agree on substantial new proposals for modernization of the Vienna Document is one of the consequences of the war in Ukraine and the resulting enmity between the member states. While a number of states seem eager to make a fuller use of the OSCE confidence-building instruments, Russia appears so far uninterested in pursuing substantial negotiations at this forum. Until this changes, the OSCE route is effectively blocked.

4.3 Concluding additional bilateral agreements between Russia and other states and updating the existing agreements

Accepting the difficulties of negotiating new agreements in a multilateral format, it is possible to circumvent procedural impasse by encouraging the signing of new bilateral agreements between Russia and those NATO and partner states that do not already have them. A clear advantage of this option would be that multiple national positions would not need to be harmonised whilst building-in enough flexibility to account for specific sub-regional and bilateral issues. There is also an opportunity to introduce updates to existing agreements. The case studies of this paper suggest these agreements' review procedures would be an adequate mechanism for any further updates.

This option includes two possible sub-options. The first consists of a wide-ranging replication of the INCSEA-s and DMAs by those states currently lacking an equivalent agreement with Russia but maintain relevant military forces (aircraft and vessels). This is a well proven method considering that those INCSEA-s in existence are themselves primarily replicas of the 1972 US-USSR agreement just as the DMAs are replicas of the 1989 US-USSR agreement. This sub-option has the advantage of speed, notwithstanding minor adjustments to take into consideration national specifics and the ability of the Russian diplomatic apparatus to conduct multiple such negotiations simultaneously if required. The proliferation of the basic provisions of the INCSEA-s and DMAs, and thus greater clarity about the rules of the road in specific circumstances, would be a net security gain for the signatories and the region.

A second, more comprehensive sub-option involves an update of the INCSEA/DMA framework that adopts a more holistic approach to air and sea encounters and accounts for technological advances such as UAVs. Such an update should take account not only the various updates to existing INCSEA-s and DMAs but also more recently drafted documents,

in particular those between the US and China negotiated to manage incidents of a similar nature to those in the Euro-Atlantic area.

As highlighted in recommendation 4.1, the US-China Memorandum of Understanding (MoU) signed in November 2014 and the following Supplement signed in September 2015 adopted a more comprehensive approach than the Euro-Atlantic bilateral agreements. The MoU is based on general navigation safety rules and measures to regulate military conduct and communications, but it contains significant improvements when determining how to manage surface-to-surface encounters, specifically allowing for additional information to be communicated including clarification of identity and courtesy greetings. Furthermore, the MoU establishes General Safety Rules, Rules for Specially Designated Areas (either Maritime Navigation Warning Areas or Air Danger or Warning Areas), Rules for Establishing Mutual Trust and Rules for Emergency On-Scene Coordination. Such additions reflect more adequately the different circumstances armed forces personnel would be called upon to operate under. This also allows for additional restrictions such as timely hazard warnings of military exercises and live weapons firing to be placed in specially designated areas in order to ensure the safety of nearby military vessels and military aircraft.

The inclusion of such additional measures into existing INCSEA-s and DMAs, as well as incorporating them into any newly negotiated arrangement, would greatly improve the safety regime relating to military forces operating on the high seas whilst providing an opportunity to properly account for the interrelation between air and sea operations.

With regards to the challenges, the piecemeal nature of this recommendation is both its greatest strength and its greatest weakness. Granted, new or upgraded bilateral agreements between Russia and those countries willing to engage in negotiations would add to the predictability and thus safety of the Euro-Atlantic space. Yet, if only some of these bilateral arrangements are negotiated and adopted, there would still remain gaps in the regime of managing incidents in the area where they would remain likely to happen.

With regards to the possible new bilateral arrangements, there would be important questions about requisite political will and motivation for entering into negotiations. Some 'frontline' NATO states may worry that the prospect of bilateral or regional negotiations with Russia on incident prevention may be used by Moscow to separate them from the rest of NATO and weaken the cohesion of the Alliance. Moscow, in turn, may not be interested in conducting bilateral negotiations with countries whose armed forces it considers insignificant.

4.4 Re-activating and adapting the Cooperative Airspace Initiative¹³²

The shutting down of the CAI information exchange channels and their accompanying monitoring centres¹³³ in 2014 must be viewed as a contributory factor in the uncertainty surrounding Russian and NATO military air activity in their shared area, in particular as it pertains to civilian-military ATC interaction.

Whilst it may not be politically feasible to reinstate the CAI in full through the NATO-Russian Council, the technical assets, software, experience, and much of the connectivity of the CAI system are in place within the ICAO context, and could become a valuable resource when considering ways to improve the safety and transparency of military activity in the shared area. A limited reactivation of the CAI's connection between the Warsaw and Moscow data coordination centres should be considered, possibly outside of the auspices of the NRC.

The re-activation of the CAI would provide value in terms of its ability to present a common picture of the airspace bordering Russia and NATO. There is also a possibility that these assets could be used to create a verification mechanism for the existing DMAs or any future bilateral agreements or multilateral MoUs, since there would exist a single set of military and civilian data, collated by the CAI, which could be used to investigate a specific incident. It is also possible to expand this programme beyond the NATO-Russia framework. During the period when the CAI was active, it had been repeatedly stated by officials from both NATO and Russia that the framework was open to the involvement of third parties, specifically Finland and Ukraine. Indeed the development of the NATO-Ukraine Regional Airspace Security Programme represents a step in this direction.¹³⁴

Regarding the challenges, implementation of these suggestions would require renewed discussions within the Alliance, and in Moscow, in order to assuage concerns about any negative implications of data sharing for the operation of respective air and missile defence systems. National political sensibilities on NATO-Russia relations would also need to be taken into account. It is likely that an additional monitoring centre located in the Baltic States would both help to reassure these states and be able to provide, alongside the existing Russian centre in Kaliningrad, a clearer picture of the interceptions and areal confrontations

132 For more detail on this recommendation, see: Frear, Thomas, *Cleared for Takeoff: Dangerous Brinkmanship and the Case for the Cooperative Airspace Initiative*, European Leadership Network, June 2016, <http://www.europeanleadershipnetwork.org/medialibrary/2016/06/24/9d61b72d/CAI%20Op-Ed.pdf> Accessed October 2016

133 CAI monitoring centres operated within existing facilities through off-the-shelf computers and open source software, it may be assumed that associated hardware has been repurposed

134 NATO-Ukraine Regional Airspace Security Program progress, NATO Communications and Information Agency, 16 March 2016, https://www.ncia.nato.int/NewsRoom/Pages/160315_Ukraine-RASP.aspx Accessed October 2016

occurring in that region. This is crucial not only in order to renew interest in the CAI project as a whole, but also in order to improve its operating capability. It would provide a more objective base to develop and later verify any risk reduction agreement involving states in the Baltic Sea region.

Finally, any mooted resumption of the CAI or its functions must remain conscious of diplomatic practicalities, the inclusion of the term 'cooperative' in any NATO-Russia format is no longer plausible. However this should not discourage the continued utilisation of technical components by EUROCONTROL, among others.

4.5 Focusing on the threat of military- civilian incidents

There are a number of measures that can be implemented in the short to medium term that would work towards reducing the risk of a civilian-military clash, especially involving passenger aircraft.

The first is that ICAO states initiate amendments to Article 3 of the Chicago Convention in a way that requires contracting states to publish their regulations or procedures currently in force regarding the 'due regard' concept for the safety of civil aircraft. This process could be begun by the institution of the regular forum as suggested in Circular 330; this would continue to serve as a place where any changes to due regard policy could be presented. This would build on the work of the Baltic Sea Project Team, which has already collated a number of due regard principles from regional states.

It should be noted that the NATO Air Traffic Management Committee has endorsed the sharing of due regard principles and that this was approved by the NATO Council in February 2015. This led later in 2015 to NATO establishing its own specific due regard policy. This policy confirmed adherence to the Chicago Convention and ICAO regulations except in the instance of 'imperative operational necessities'.¹³⁵ This caveat permits the switching off of transponders, however it is somewhat tempered by a requirement that alliance aircraft 'be equipped with airborne radar that is sufficient to provide separation between themselves, aircraft they may be controlling and other aircraft'. This is an important effort at improving air safety in the common area.

To take this effort further, it seems imperative that all countries operating aircraft in a particular region are brought into this wider framework. This forum or fora (e.g. for the Baltic and also for the Black Sea region) should also aim to include an exchange of civilian and military operating procedures concerning close encounters.

¹³⁵ Interim Guidance Material on Civil/Military Cooperation in Air Traffic Management, ICAO European and North Atlantic Office, December 2015, p.29

Verification of safety regulations in practice can be strengthened by the creation of a combined database of all AIRPROX incidents, again under the remit of ICAO. This would allow comparison of incidents on a level that is simply not possible presently, with the clear benefit of observing patterns and providing recommendations for improvement.

The second recommendation concerns the shared civil-military use of primary radar. Whilst such radar sharing has become relatively common the process remains incomplete. Gaps in radar sharing have to some extent been addressed by the use of NATO Air Policing missions that, when intercepting non-cooperative military aircraft, have continued to operate their transponders, thus allowing civilian ATC to constantly monitor the position of the non-cooperative aircraft. Efforts should be made wherever possible to institute primary radar sharing with civilian ATC to reduce reliance on NATO interceptors, a measure that in turn may work as a NATO-Russia confidence building measure. Such efforts would provide the foundations for the ICAO concept of 'Flexible Use of Airspace' (FUA) that aims to ultimately supersede strict divisions of civilian and military air corridors first at a national and later at an international level.¹³⁶ The information sharing that would be necessary to implement such an initiative would also represent a valuable confidence building measure.

Finally, there is the mid-2016 diplomatic overture by Finnish President Niinistö to Russia concerning the need for military aircraft operating over the Baltic Sea to transpond their position to civilian air traffic control which deserves attention; not least because this has been tacitly endorsed by President Putin¹³⁷ and discussed at the NATO-Russia Council. The fact that this issue has been raised and taken up as a point of discussion at the ambassadorial and indeed presidential level is a positive development, however buy-in from other countries in the region has thus far been limited. The fact that this initiative was linked to the work of the Baltic Sea Project Team makes effective implementation plausible. The involvement of ICAO and EASA ensures proper coordination with international regulation whilst the involvement of EUROCONTROL ensures the development and incorporation of practical implementation systems.

Regarding the challenges inherent when pursuing these recommendations, the primary problem may be assuring that any measures agreed in a civilian experts-led process are subsequently implemented at the national level, primarily by air forces and specific units within their structures. With regards to the Russian initiative on transponders, some experts interviewed for this paper have noted that the relevant groundwork for improving safety

¹³⁶ See Interim Guidance Material on Civil/Military Cooperation in Air Traffic Management, ICAO European and North Atlantic Office, December 2015 pp. 1-26

¹³⁷ Shoigu poruchil VKS nachat' izpolzovat' transpondery nad Baltikoy, Lenta.ru, 2 July 2016, <https://m.lenta.ru/news/2016/07/02/mo/> Accessed October 2016

over the Baltic Sea has already been laid and there is sufficient understanding of the problem, but the issue is rather with consistent application of the agreed recommendations.

Another emerging issue seem to be an apparent conflict between the Russian willingness to discuss the issue of Baltic aviation safety at the regional level with a group of countries from the area, and the insistence from some of these countries that any discussions should be at a NATO level. Pursuing similar discussions relating to the Black Sea area may be even more difficult due to the disputed status of Crimea and Abkhazia, as well as the ongoing conflict between Russia and Ukraine.

4.6 Using other multilateral mechanisms for pursuing dialogue on dangerous incidents¹³⁸

As mentioned above, some of the institutions best suited to conduct expert-level discussion on the prevention of dangerous incidents are of limited utility due to the broader political circumstances. Practical cooperation within the NATO-Russia Council remains suspended, while the OSCE is curtailed in its activities by animosity between its members (and some delegations may also lack the necessary knowledge to explore the issue). It may be therefore useful to explore the option of using or adopting existing fora – more or less institutionalized – for conducting the discussion between military professionals.

One of the options to consider would be to utilize the International Seapower Symposium, a biennial meeting organized since 1969 by the US Naval War College that brings together naval chiefs and delegations from around the world for discussions on current challenges, including the safety of encounters at sea.¹³⁹ In Europe, Italy hosts biannually the Regional Seapower Symposium for the representatives of Mediterranean and Black Sea navies.¹⁴⁰ While Russia has not been present at the last two of these meetings (held in 2015 and 2016), it may be possible to utilize these types of meetings for dialogue focused on encounters at sea. A more ambitious suggestion would be to create a new format of multilateral meeting bringing together either naval leaders from the Baltic Sea region, or from the Northern Atlantic and Baltic Sea.

The main advantage of this option would be to initiate a de-politicized multilateral dialogue at the level of military professionals, which may lead to a better understanding of the activities,

138 The authors are grateful to Prof. David Winkler for suggesting this approach and for the ideas which he presented at the 2016 expert workshop in Brussels, which were used in this section.

139 International Sea Power Symposium Proceedings, US Naval War College, <https://www.usnwc.edu/Publications/International-Sea-Power-Symposium-Proceedings.aspx> Accessed October 2016

140 X Venice Regional Seapower Symposium, Italian Ministry of Defence, http://www.marina.difesa.it/EN/events/rss_eng/rss2015/Pagine/default.aspx Accessed October 2016

positions and practices of the navies of the states involved. It would also help clarify if there are any gaps in existing arrangements which require further action, including negotiations of additional instruments.

CONCLUSIONS AND RECOMMENDATIONS

Military tension between Russia and the Western states is likely to continue for the foreseeable future, as such the development and strengthening of the existing framework of agreements and arrangements for avoiding incidents is both necessary and long overdue. While there may be periods of relative calm, the scenario of a serious escalation of NATO-Russia tensions happening not because of a pre-planned provocation, but due to mismanagement of a dangerous situation or an accident, should not be dismissed.

The period following the NATO Summit in Warsaw may be conducive to considering different options and new initiatives. While strengthening deterrence, the Alliance has confirmed its openness to dialogue with Russia on confidence-building measures. After criticizing the decisions of the summit, Moscow subsequently tabled some transparency-related proposals at the July 2016 meeting of the NATO-Russia Council, including on improving the safety of air traffic. Both sides might have their tactical reasons for signalling their willingness to engage on this issue, but the prevention of incidents may be one of few areas where Western states and Russia can ultimately end up talking to each other constructively.

The options identified in Part 4 suggest a number of recommendations to be implemented in the short term. These can be summarised as follows:

- **The parties to the existing agreements need to ensure that their provisions are known to and applied by their armed forces.** Most of the officials interviewed for this paper claimed that the norms and procedures included in the INCSEA agreements, as well as more general norms of conduct in international airspace and on the high seas, are transmitted to and used by their militaries. Yet, taken the number and character of the encounters, there seems to be a need to raise awareness about the existing rules throughout the chain of command. For its part, NATO could confirm that all its member states, including those not covered by the bilateral agreements, are encouraged to use the INCSEA and DMA-based set of rules and signals in their combined operations.
- **There should be zero tolerance for reckless behaviour by military commanders, especially from the Russian leadership.** Political leaders should be careful not to send any messages to their own militaries which can be interpreted as approval of cavalier behaviour. Individual pilots and ship commanders should be made clear that they do not have the licence to ignore or bend the rules of behaviour, including those stipulated in bilateral agreements. It was pointed to us during the research that some of the Russian behaviour considered cavalier or unprofessional was in fact specifically meant to send a message of resolve to NATO, and should be interpreted as such. Nevertheless it seems that Russia has already signalled its displeasure over the presence of the NATO

ships and aircraft close to their borders. Further demonstrations of this kind serve little strategic signalling or deterrence purposes, but can lead directly to incidents.

- **It is necessary to begin work on a new generation of bilateral agreements in the Euro-Atlantic space.** The existing bilateral INCSEA agreements, originating from the US-USSR era, seem to serve their narrow purpose well, but are inadequate to deal with the complexities of the different types of encounters highlighted in the paper. They also do not cover some important actors. The DMA agreement between the US and Russia seems to be all but dormant. As suggested above, a new type of a more comprehensive agreement should take a holistic view of sea and air incidents, and take account of not only the various updates to existing INCSEA-s and DMAs but also more recently drafted documents, in particular those between the US and China. The obvious initiators of a new generation of agreements would be Russia and the United States, which would represent a repetition of the cold war sequence of events.¹⁴¹ However European countries that are exposed to close encounters with Russian aviation and naval units could also be considered as possible initiators / partners in similar negotiations. From the group of countries already covered by bilateral agreements, the United Kingdom may be suggested as a possible leader, whereas from the 'frontline' NATO countries not covered by such agreements, Poland (possessing notable air and naval capabilities) could possibly be a country with which Russia may induced into bilateral negotiations.
- **Expert-level dialogue on the safety of military-civilian encounters over the Baltic Sea, under ICAO cover, should be continued,** and all sides should strive to protect it from unnecessary politicization. The work in the framework of the Baltic Sea Project Team remains a good example of below-the-political-radar work which seemed to address challenging issues in a professional and inclusive manner, and its experience can be useful in other regions. Yet, it may be detrimental to the purpose of such a dialogue to cherry-pick elements consistent with the agenda of one side and introduce it to the political level without the agreement with all the actors involved – which seemed to be the case with the transponder initiative.
- **The reactivation of the Cooperative Airspace Initiative (CAI) or its information sharing systems should be considered.** The CAI's potential as a portal via which civilian and military air traffic information can be pooled and shared makes it an important consideration when determining an updated air safety regime. It's suspension alongside

141 See also: Gosnell, Rachael, It's Time to Update INCSEA, US Naval Institute, September 2016, https://blog.usni.org/2016/09/23/its-time-to-update-incsea?utm_source=USNI+Blog&utm_campaign=ececfcd513-USNI_BLOG_DAILY&utm_medium=email&utm_term=0_4c2505d433-ececfcd513-227804801&mc_cid=ececfcd513&mc_eid=4ebe4532c8 Accessed October 2016

the other the cooperative functions of the NATO-Russia Council in 2014 need not preclude the usage of its software in the construction of an incident verification mechanism. In this respect it is encouraging that the developers of this software, EUROCONTROL, are involved in the Baltic Sea Project Team. However in order for CAI systems to be effectively redeployed it is imperative that political considerations behind the sharing of information be addressed as a priority.

- **The modalities of possible multilateral or regional arrangements for avoiding and managing hazardous incidents should be examined in more detail**, even if the broader political circumstances make their adoption highly unlikely in the short- and mid-term perspective. The negotiation of a NATO-Russia agreement on the prevention of incidents, the strengthening of the risk reduction mechanisms of the Vienna Document, or the agreement of regional regimes for the Baltic or Black Sea would have the biggest positive impact on the situation in the Euro-Atlantic space. However the formal multilateral path seems to be closed due to serious policy disagreements over broader policy issues, which – together with the rules of procedure of the OSCE and the NRC – make it easy to block any substantial work at the multilateral level. This should not preclude the examination of modalities of possible multilateral arrangements, which can be achieved with the support of Track 2 initiatives. Ideally, such preparatory work could be later taken up by an expert group sanctioned by the NRC, OSCE, or a regional organization, or possibly by a less formal forum such as an International or Regional Seapower Symposium.
- **Political leaders should become more closely interested in the subject.** The reoccurring theme throughout the work on this report has been that the representatives of defence establishment and the military expressed a strong confidence in their ability to prevent and manage incidents, hinting that too close an involvement of politicians, and too much media interest, may be detrimental to the efficiency of military-to-military contacts. Yet, while we remain convinced of the professional skills of those involved in managing specific incidents, civilian leaders should realize that they will most likely deal with the aftermath of any mistakes made by their armed forces. Civilian leaders – or their advisors – should therefore be aware of the existing norms and procedures relating to encounters, confident that all the necessary mechanisms and arrangements to avoid incidents are in place, and be ready to instruct the civilian and military bureaucracies to initiate work on more efficient measures.

The research conducted for this report indicates that the existing agreements and arrangements may have contributed to the avoidance of incidents resulting in the loss of life or significant damages (with the exception of the November 2015 Turkish-Russian incident). Still, the security of the Euro-Atlantic area continues to be threatened by the lack of stronger, clearer, widely accepted and uniformly implemented norms and mechanisms aimed at pre-

venting and managing incidents. While the menace of incidents will not be eliminated, taking the specific steps indicated above should minimize the risk and, if an incident does occur, prevent it from spiralling out of control.

ANNEX: MAIN ELEMENTS OF THE RELEVANT AGREEMENTS

MEASURES FOR AVOIDING MILITARY INCIDENTS – RESTRAINT ¹⁴²	
<p>AGREEMENT ON THE PREVENTION OF INCIDENTS ON AND OVER THE HIGH SEAS¹⁴³</p>	<p>Parties commit to:</p> <ul style="list-style-type: none"> • ‘Remaining well clear to avoid risk of collision’ by maintaining course and speed under the Rules of the Road (the 1972 Collision Regulations). • ‘Avoiding manoeuvring in a manner which would hinder the evolution of the formations’ of the other party. • Avoiding manoeuvres in areas of heavy sea traffic where internationally recognized traffic separation schemes are in effect. • Requiring surveillance ships to ‘stay at a distance which avoids the risk of collision’ and avoid ‘embarrassing or endangering the ships under surveillance’. • ‘Not stimulating attacks by aiming guns, missile launchers, torpedo tubes’, ‘not launching objects toward, or illuminating the bridges of the other party ships’. • Not hindering ships of the other party engaged in launching or landing aircraft as well as ships engaged in replenishment. • Requiring aircraft commanders to use the greatest caution and prudence in approaching aircraft and ships of the other party and not permitting stimulated attacks against aircraft of ships, performing aerobatics over ships, or dropping hazardous objects near them. • ‘Ships of the Parties shall not use lasers in such a manner as to constitute a hazard to the health of the crew or cause damage to the equipment on board a ship or aircraft of the other Party.’

<p>AGREEMENT ON THE PREVENTION OF DANGEROUS MILITARY ACTIVITIES¹⁴⁶</p>	<p>Parties commit to avoiding the following provocative activities of armed forces and personnel:</p> <ul style="list-style-type: none"> • Entering of the armed forces of one Party into the national territory of the other Party ‘brought about by force majeure or as a result of unintentional actions’. • Use of ‘a laser in a manner that its radiation could cause harm to personnel or damage equipment’. • ‘hampering the activities of the personnel and equipment of the armed forces of the other Party in a Special Caution Area’. • Interfering with ‘command and control networks’. <p>Further, they shall:</p> <ul style="list-style-type: none"> • ‘Exercise great caution and prudence’ and take ‘the necessary measures directed towards preventing dangerous military activities’. • Attempt to notify the other Party if a Party intends to use a laser that could cause harm to personnel or damage to equipment. • Establish communications and seek termination if any laser use could cause harm to personnel or damage equipment. If the personnel of the armed force of the Party having received a notification are actually using a laser, they shall investigate the relevant circumstances. If the laser could cause harm, they shall terminate its use.
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	<ul style="list-style-type: none"> • Designate a region as Special Caution Area (SCA) where parties shall 'establish and maintain communications' in accordance with Annex I and 'undertake other measures' that could be agreed at a later point to prevent dangerous military activities. • 'When a Party detects interference with their command and control networks' that could cause harm or damage, they may inform the relevant personnel of the other Party. If the personnel of the Party having received such a notification establish that the interference is caused by their activities, 'they shall take expeditious measures to terminate the interference'.
MEASURES FOR AVOIDING MILITARY INCIDENTS – COMMUNICATION	
<p>AGREEMENT ON THE PREVENTION OF INCIDENTS ON AND OVER THE HIGH SEAS</p>	<p>Parties commit to:</p> <ul style="list-style-type: none"> • Using signals prescribed by the Rules of the Road, the International Code of Signals or mutually agreed signals for 'signalling operations and intentions'.¹⁴⁷ • Informing vessels when submarines are exercising near them using the appropriate signals prescribed by the International Code of Signals. • Raising proper signals concerning intent to begin launching or landing aircraft. • Displaying navigations lights in darkness (aircraft). • Providing through established radio broadcasts information or warning to mariners no less than 3 to 5 days in advance. • Increasing the use of informative signals contained in the International Code of Signals.

AGREEMENT ON THE PREVENTION OF DANGEROUS MILITARY ACTIVITIES	<p>The Parties commit to:</p> <ul style="list-style-type: none">• Establishing and maintaining communications at the following levels: 'between Task Force commanders of both Parties at the SCAs, ship commanders of both Parties, and aircraft commanders and air traffic control or monitoring of the other Party. • Establishing communication with specific frequencies:<ul style="list-style-type: none">• between aircraft or between an aircraft and an air traffic control or monitoring facility: on VHF band frequency 121.5 MHz or 243.0 MHz, or on HF band frequency 4125.0 KHz (alternate 6215.5 KHz); after initial contact is made, the working frequency 130.0 MHz or 278.0 MHz, or 4125.0 KHz should be used;• between ships and ship-to-shore: on VHF band frequency 156.8 MHz, or on HF band frequency 2182.0 KHz;• between a ship and an aircraft: on VHF band frequency 121.5 MHz or 243.0 MHz; after initial contact is made, the working frequency 130.0 MHz or 278.0 MHz shall be used;• Between ground vehicles or ground units: on VHF band frequency 44.0 MHz (alternate 46.5 MHz), or on HF band frequency 4125.0 KHz (alternate 6215.5 KHz). • Communicating using signals and phrases according to the International Code of Signals of 1965 or specially agreed Special signals for ship-to-ship and ship-to-shore communications. • Using signals and phrases according to the Rules of the Air, Annex 2 to the 1944 Convention on International Civil Aviation for aircraft-to-aircraft communication.
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	<ul style="list-style-type: none"> • (When aircraft come into visual contact) monitoring the frequency 121.5 MHz or 243.0 MHz. If it is necessary to exchange information, but communications in a common language are not possible, attempts shall be made to convey essential information and acknowledgment of instructions by using phrases. If radio communication is not possible, then visual signals shall be used.
<ul style="list-style-type: none"> • VIENNA DOCUMENT¹⁴⁸ 	<ul style="list-style-type: none"> • Participating States will, consult and co-operate with each other about any unusual and unscheduled activities of their military forces outside their normal peacetime locations. • The participating State which has concerns about such an activity may transmit a request for an explanation stating the cause, or causes, of the concern and, to the extent possible, the type and location, or area, of the activity. • The reply will be transmitted within not more than 48 hours giving answers to questions raised, as well as any other relevant information. • The requesting State, after considering the reply provided, may then request a meeting with the responding State to be convened within not more than 48 hours.
OPEN SKIES TREATY	<p>The chief flight monitor shall have the right:</p> <ul style="list-style-type: none"> • to communicate with air traffic control authorities, as appropriate, and to help relay and interpret communications from air traffic control authorities to flight crew and from the flight crew to the air traffic control authorities about the conduct of the observation flight; • For this purpose, the chief flight monitor shall be permitted to make external radio communications using the radio equipment of the observation aircraft.
MEASURES FOR AVOIDING MILITARY INCIDENTS – INCIDENT RESPONSE	

AGREEMENT ON THE PRE-VENTION OF INCIDENTS ON AND OVER THE HIGH SEAS	<ul style="list-style-type: none">• The Parties shall exchange appropriate information concerning instances of collision, incidents which result in damage, or other incidents at sea between ships and aircraft of the Parties.• The United States Navy shall provide such information through the Soviet Naval Attaché in Washington and the Soviet Navy shall provide such information through the United States Naval Attaché in Moscow.¹⁴⁹
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Table References

142 Neither the Vienna Document nor the Open Skies Treaty contain such measures

143 The provisions listed below are taken from the US-USSR INCSEA agreement. The texts of the other agreements follow the formulation provided in the table with minor variations in wording. Any major differences are indicated.

144 This provision is not included in the US-Russia, UK-Russia nor Germany-Russia INCSEA agreements. It was included in all subsequent INCSEA agreements.

145 Ibid.

146 The provisions are taken from the US-Russia DMA. The texts of the other agreements follow the formulation provided in the table with minor variations in wording.

147 This is the Internationally-recognised system of signals which vessels use to communicate while at sea.

148 The provisions below are part of the 'Mechanism for consultation and cooperation as regarding unusual military activities', Clause 16 of the Vienna Document. They do not specifically address incidents, but may be used in order to stop an unusual activity before it escalates into a serious incident. As mentioned previously, it only applies ex post facto.

149 The text of this provision is taken from the 1972 INCSEA agreement between the US and the USSR so the reference to the appropriate military commanders applies to it specifically. For the remaining ten agreements, referenced are their respective military figures.

150 The text of this provision is taken from the 1989 Agreement between the US and the USSR so the reference to the appropriate military commanders applies to it specifically. For the remaining agreements with Canada and Greece, referenced are their respective military figures.

151 International Civil Aviation Organization (ICAO), The convention can be found here: <http://www.icao.int/publications/pages/doc7300.aspx>, Accessed 11/01/2016

152 Neither the Vienna Document nor the Open Skies Treaty contain specific measures for monitoring implementation

153 The Joint Military Commission would meet to review documents or evidence submitted by either side on encounters with the other side. For example: https://fas.org/irp/doddir/navy/opnavinst/5711_96c.pdf, accessed October 2016

154 Refers to the meetings of the Chairman of the Joint Chiefs of Staff of the US and the Chief of the General Staff of the Armed Forces of the USSR

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