



Close Encounters: Russian Military Activities in the Vicinity of UK Air and Sea Space, 2005-2016

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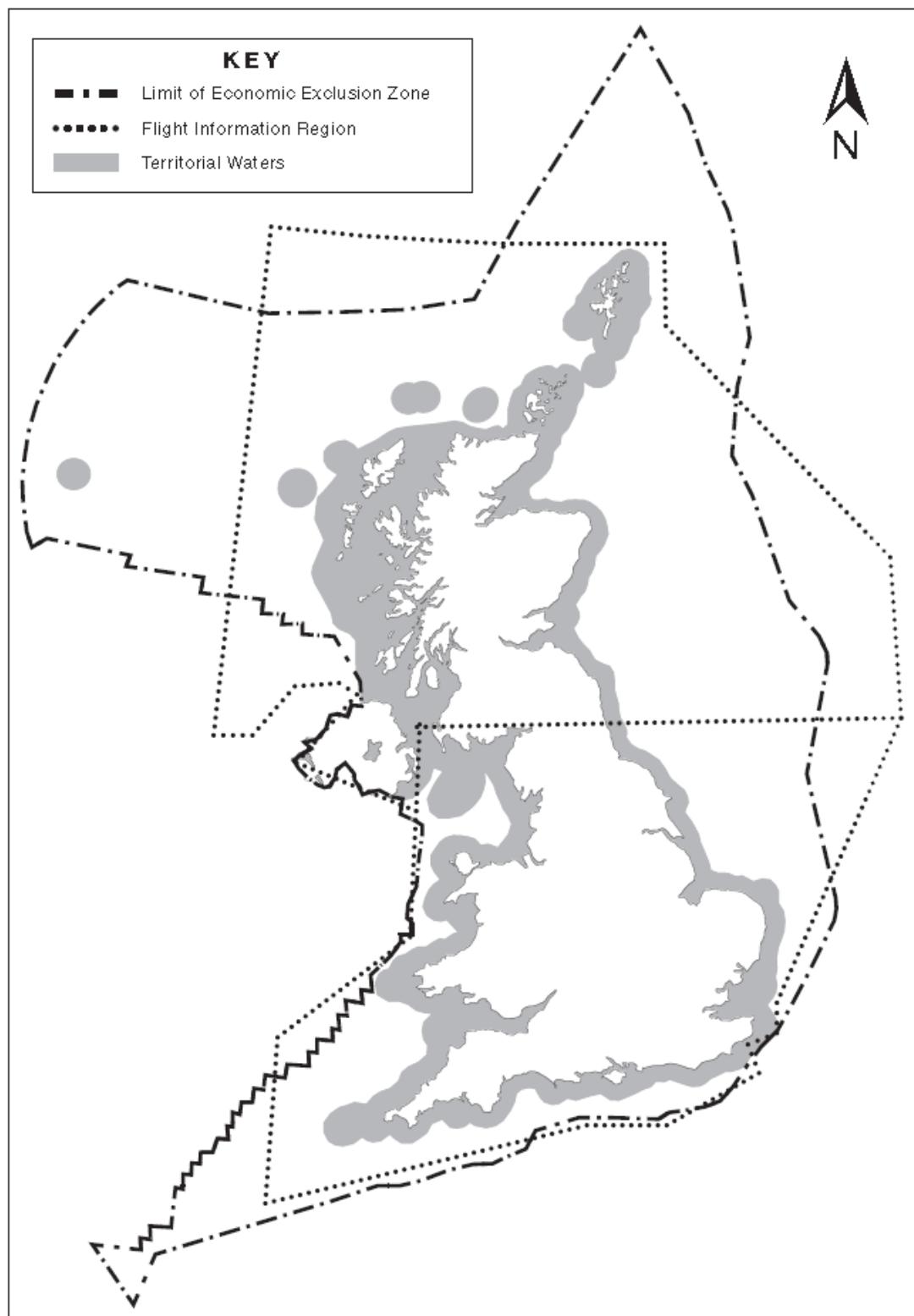
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Summary

- The Royal Air Force's (RAF's) Quick Reaction Alert (QRA) was launched on five days in 2016 in response to Russian military aircraft in the vicinity of the UK, according to statistics from the Ministry of Defence (MoD). This is not new. Between 2005 (the first year for which statistics are available) and 2016, the QRA was launched on a total of 101 days in response to Russian military aircraft.
- The statistics released by the MoD only state the number of days each year when the RAF's QRA was launched. The MoD does not release any other information about the nature of each incident – for example, the day it occurred, the location where it occurred, or the type of aircraft involved. However, it has been possible to piece together information from media reports.
- Concerning the 101 days between 2005 and 2016 when the QRA was launched in response to Russian military aircraft, there were 29 reports in the UK press. Taken together with reports of the Royal Navy's ships being deployed in response to Russian navy vessels in the vicinity of UK territorial waters (of which there were 14 over the same period, but for which the MoD does not hold statistics), these 43 reports paint a picture of close encounters, emergency launches, and other actions that have taken place on a regular basis.
- Through its activities, Russia has been able to gain valuable information about the UK defence systems, such as the sensitivity of the UK's Air Surveillance and Control System, including its early-warning system; the capabilities of the Air Force pilots and Royal Navy captains; and, the levels of cooperation between NATO members. Russia's submarines seek even more sensitive information – the 'acoustic signature' made by the UK submarine fleet, including the Vanguard submarines that carry Trident nuclear missiles.
- The UK Government takes seriously the threat posed by Russia's military activities in the vicinity of UK airspace and seospace, even if these activities are largely seen as routine. In 2015, Russia's Ambassador was called to the Foreign and Commonwealth Office to account for his country's actions after an airspace incident. However, such Russian activities are best understood not in isolation, but rather as a part of the Kremlin's increasingly assertive foreign policy towards the West.
- At a time when UK-Russia bilateral relations are at their lowest point since the end of the Cold War, there is a limit to what the UK Government can do to prevent Russian activity of this kind. Nevertheless, in order to safeguard its own security, the Government should undertake a number of actions, including: begin to hold statistics on the number of days each year the Fleet Ready Escort (FRE) is deployed in response to the activities of foreign military vessels; to expand its existing 'Incidents at Sea Agreement' (INCSEA) with Russia to include aerial encounters; and, to develop a bilateral 'Agreement on Preventing Dangerous Military Activities' with Russia.

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Figure 1: Map Showing the UK's Territorial Waters, Flight Information Regions, and Economic Exclusion Zone



Note: The UK's Economic Exclusion Zone and Territorial Waters are taken from 'The UK Exclusive Economic Zone', UK Government, available at: https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/346014/UK_Exclusive_Economic_Zone.pdf, last visited: 22 June 2017. The Flight Information Regions are taken from 'FIR/UIR in the Lower Airspace', General Aviation in Europe, available at: <http://www.flyingineurope.be/FIRs.pdf>, last visited: 22 June 2017.

1. Introduction

Over the past three years, as international attention focused initially on Russia's revanchism in Ukraine and latterly on its intervention in Syria, military tensions between Russia and the West have increased.¹ In the case of the UK, between 2014 and 2016 the Royal Air Force's (RAF's) Quick Reaction Alert (QRA) was launched on 21 days in response to Russian military aircraft in the vicinity of UK airspace. This accounts for just under half of the total number of days (44) the QRA was launched over this period. So urgent is this issue that, in February 2015, then Prime Minister David Cameron felt that he had to reassure Britons about the threat of Russian attacks, after RAF planes were launched when two Tupolev Tu-95 Bear bombers appeared off the coast of Cornwall.²

This is not new. According to statistics from the Ministry of Defence (MoD), the QRA was launched on 101 days between 2005 and 2016 in response to Russian military aircraft. This accounted for more than half of the total number of times (186) the QRA was launched during this period. The RAF is not the only branch of the Armed Forces to have been mobilised in response to Russia's military activities – so too has the Royal Navy. Unlike for air incidents, however, the MoD does not even hold, let alone release, official statistics for the number of times Royal Navy ships – including the Fleet Ready Escort (FRE), which is the naval equivalent of the QRA – have responded to Russian naval vessels in the vicinity of UK waters. Nevertheless, these incidents do present a threat to UK security. In March 2015, Lord West of Spithead, who served as a First Sea Lord (2002–2006) and as Chairman of the National Security Forum (2007–2010), claimed that Russia had deployed spy ships, disguised as fishing trawlers, off the British coast, in order to gain intelligence on the UK's nuclear weapons and warships.³

Russia's military activities in the vicinity of UK airspace and seospace fulfil both military and propaganda functions for the Kremlin. Militarily, Russia has been able to gain valuable information about the UK and NATO's chain of command, the preparedness of assets within the UK defence system, the RAF's and Royal Navy's reaction times, the capabilities of the Air Force pilots and Royal Navy captains, and the levels of cooperation between NATO members. By demonstrating that it is willing and able to come so close to UK shores, Russia is able to showcase Britain's apparent weakness and its own relative strength. These – together with other displays of apparent Western weakness – play a central role in Russia's current propaganda efforts, both at home and abroad.

What is the nature of these Russian military activities? Where did they occur? And which aircraft and vessels are involved? Specific details of individual airspace incidents are not released by the MoD on the basis that they "might compromise the QRA deterrent capability"⁴, while, as noted, basic statistics for the Royal Navy's FRE are not currently held. Nevertheless, it has been possible to piece together information from media reports. While some incidents are routine, others are far

¹ See: Frear, T., I. Kearns, and Łukasz Kulesa, 'Dangerous Brinkmanship: Close Military Encounters Between Russia and the West in 2014', European Leadership Network, November 2014, available at: <http://www.europeanleadershipnetwork.org/mediabinary/2014/11/09/6375c3da/Dangerous%20Brinkmanship.pdf>, last visited: 22 June 2017.

² 'Prime Minister David Cameron's speech at Port of Felixstowe', 19 February 2015, available at: <https://www.gov.uk/government/speeches/prime-minister-david-camerons-speech-at-port-of-felixstowe>, last visited: 22 June 2017.

³ See: Brown, L. and David Williams, 'Putin has fleet of spy trawlers off British coast to intercept military communications, says former senior commander', *The Daily Mail*, 17 March 2015, available at: <http://www.dailymail.co.uk/news/article-2999697/Putin-fleet-spy-trawlers-British-coast-intercept-military-communications-says-former-senior-commander.html#ixzz3mkOIJjs4>, last visited: 22 June 2017.

⁴ Author's correspondence with the Ministry of Defence.

from it. Taken as a whole, they paint a picture of close encounters, emergency launches, and other actions that have taken place on an alarmingly regular basis.

2. Methodology

This paper catalogues Russia's military activities in the vicinity of UK airspace and seospace between 1 January 2005 and 31 December 2016. It is based on two sources of information: official statistics released by the MoD under a Freedom of Information request, and open-source materials.

The official statistics outline the number of days each year when the RAF's QRA was launched in response to Russian military aircraft. The MoD does not release precise or comprehensive information about each incident, with the exception of a small number of incidents when "a limited amount of information" is released "as examples of how the RAF is able to respond to this kind of incident".⁵ Nor, as already noted, does the MoD hold commensurate statistics for Royal Navy ships. To overcome these issues, open-source materials – specifically, media reports – describing individual events were compiled using the *LexisNexis* database.

Given the nature of news media, not all of the incidents that occurred were reported by the press; some may not have been considered 'newsworthy', while others may not have been reported for reasons of national security. A small number of incidents that were reported, however, are consciously excluded from this paper. These include incidents that either were not confirmed by the MoD or were instances of military cooperation between the UK and Russia. Examples include:

- In January 2015, the MoD sought US military assistance in tracking a suspected Russian submarine which had been spotted off the Scottish coast, near Faslane. The identity of the suspected submarine was never confirmed.⁶
- In December 2014, the MoD sought assistance from Canada, France, and the US in locating a suspected Russian submarine which may have been tracking one of Britain's Vanguard-class submarines off the Scottish coast.⁷
- On 28 October 2013, Royal Navy frigate HMS Northumberland and Russian battlecruiser Pyotr Velikiy, a Kirov-class ship, held coordinated flying exercises in the Atlantic Ocean, between the Shetland and Faroe Islands.⁸

⁵ Author's correspondence with the Ministry of Defence.

⁶ 'MoD forced to ask US for help in tracking "Russian submarine"', *Telegraph*, 9 January 2015, available at: <http://www.telegraph.co.uk/news/uknews/defence/11334836/MoD-forced-to-ask-US-for-help-in-tracking-Russian-submarine.html>, last visited: 22 June 2017.

⁷ 'MoD asks for American help in searching for Russian submarine near Scotland', *Independent*, 8 January 2015, available at: <http://www.independent.co.uk/news/uk/politics/mod-asks-for-american-help-in-searching-for-russian-submarine-near-scotland-9966080.html>, last visited: 22 June 2017.

⁸ 'Royal and Russian Navy exchange call signs on high seas', *Royal Navy*, 31 October 2013, available at: <http://www.royalnavy.mod.uk/news-and-latest-activity/news/2013/october/31/131031-royal-and-russian-navy>, last visited: 22 June 2017.

Despite these methodological shortcomings and empirical exclusions, it has been possible to build a detailed picture of the locations and nature of UK-Russia military incidents in the vicinity of the UK.

The overwhelming majority of these airspace and seospace incidents took place within the two Flight Information Regions (FIRs) that cover the UK (the London FIR, which covers England and Wales, and the Scottish FIR, which covers Scotland and Northern Ireland) and within the UK's Exclusive Economic Zone.⁹ See Figure 1.¹⁰

3. Analysis of Russian Military Activities, 2005-2016

Official statistics released by the MoD show that, between 1 January 2005 and 31 December 2016, the RAF's QRA was launched on 101 days in response to Russian military aircraft in the vicinity of UK airspace. Table 1 shows how these incidents are broken down by year.

Table 1: Number of Days RAF's QRA Launched, between 2005 and 2016, by Year

Year	Number of days QRA launched	In response to Russian military aircraft	In response to other military aircraft
2005	11	4	7
2006	8	1	7
2007	24	19	5
2008	16	11	5
2009	14	11	3
2010	11	7	4
2011	20	10	10
2012	21	9	12
2013	17	8	9
2014	20*	8	13
2015	12	8	4
2016	12	5	7
TOTAL	186	101	86

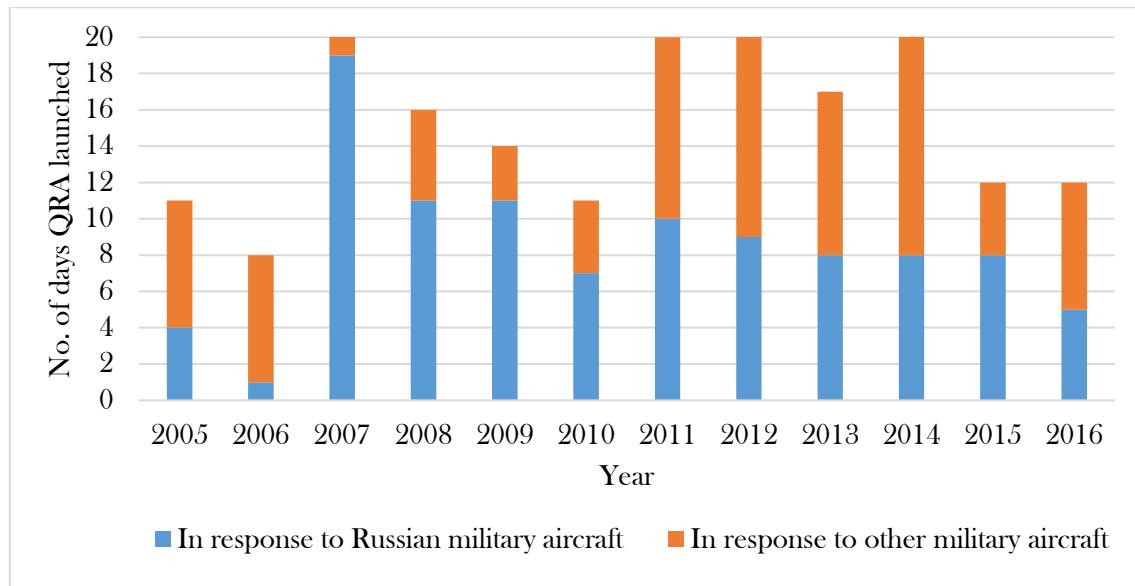
* On one day in 2014, the QRA was launched in response to both Russian and other military aircraft.

After only a handful of incidents in 2005 (four) and 2006 (one), there was a marked increase in 2007 in instances (19) of Russia undertaking such actions in the vicinity of UK airspace. In the period 2008-2011, there were between seven and eleven incidents per year. Beginning in 2012, however, the number began to stabilise, so that between 2013 and 2015 there were eight incidents per year. In 2016, the number fell to five incidents. Figure 2 shows this activity in relation to the number of times the QRA was launched, over the same period, in response to other military aircraft.

⁹ The UK's Exclusive Economic Zone is the expanse of water up to 200 nautical miles (230.2 miles) from its coast.

¹⁰ The UK's territorial waters and skies are defined as being within 12 nautical miles (13.8 miles) of the UK's shores.

Figure 2: Graph Showing the Number of Days RAF's QRA Launched between 2005 and 2016, in Response to Russian and Other Military Aircraft



In an attempt to explore the nature of Russia's military activities towards the UK, relevant media reports were referred to. The analysis that follows is based on those reports.

3.1 Year of Incidents

Of the 101 days between 2005 and 2016 when the QRA was launched, only 29 incidents were reported in the media. In addition, 14 seospace incidents were reported over the same period. Table 2 shows how they are broken down by year.

Table 2: Media Reports on Russia's Military Approaches on UK Airspace and Seospace between 2000 and 2016, by Year

Year	Air	Sea	Total
2005	0	0	0
2006	0	0	0
2007	6	0	6
2008	3	0	3
2009	0	0	0
2010	3	1	4
2011	4	1	5
2012	0	0	0
2013	0	1	1
2014	3	5	8
2015	6	2	8
2016	4	4	8
TOTAL	29	14	43

The frequency of these reports of airspace incidents roughly overlaps with the frequency of official incidents: the highest number came in 2007 and 2015 (each with six), followed by 2011 and 2016 (each with four), and 2008, 2010 and 2014 (each with three). There were no reported incidents in

2005, 2006, 2009, 2012 and 2013. Of the 29 incidents in total, more than a third occurred in just two years (2007 and 2015).

With regard to seospace incidents, the highest number were reported in 2014 (five) and 2016 (four), with the only other reports occurring in 2015 (two) and 2013, 2011 and 2010 (one each). Of the 14 reports in total, 11 occurred in the three years between 2014 and 2016.

Taking airspace and seospace incidents together, the highest number of reported incidents came in 2014, 2015, and 2016 (eight each), followed by 2007 (six). In 2005, 2006, 2009, and 2012 no incidents were reported.

3.2 Month of Incidents

As shown in Table 3, when broken down by month, the data suggest that incidents are common throughout the year. The highest number of incidents occurred in October (eight), while the fewest took place in March, June, August, and November (two each). Three months each saw three incidents, and two months each experienced four incidents.

With regard to airspace incidents, the highest number occurred in October (six), while one occurred in each of April, June, August, November, and December. As for incidents at sea, the most incidents occurred in December (four), while none took place in March, July, and September.

Table 3: Russia's Military Approaches on UK Airspace and Seospace between 2005 and 2016, by Month

Month	Air	Sea	Total
January	3	1	4
February	3	1	4
March	2	0	2
April	1	2	3
May	2	1	3
June	1	1	2
July	3	0	3
August	1	1	2
September	5	0	5
October	6	2	8
November	1	1	2
December	1	4	5
TOTAL	29	14	43

In terms of seasons, the most incidents took place in autumn (15) closely followed by winter (13), while the fewest occurred in summer (seven) then spring (eight).

3.3 Location of Incidents

In order to explore the geographic distribution of the incidents, Table 4 shows where they occurred. Unfortunately, the data available does not reflect the incidents' precise coordinates, only the broad areas where they are reported to have occurred. In other words, a Russian aircraft approaching UK airspace near Suffolk would likely be classified as being over the North Sea. In addition, the data

only gives the region where the approach was first reported rather than the geographic areas through which the aircraft or vessel(s) passed. For example, if a Russian warship approached UK seospace from the Atlantic and then passed through the English Channel and North Sea, the incident would likely be categorised as having taken place in the Atlantic Ocean.

According to this information, the North Sea was the location of over half of all the incidents (22 of 43), followed by the Atlantic Ocean and the English Channel (eight each).

Table 4: Russia's Military Activities in the Vicinity of UK Airspace and Seospace between 2005 and 2016, by Location

Location	Air	Sea	Total
North Sea	18	4	22
Atlantic Ocean	7	1	8
English Channel	0	8	8
Irish Sea	0	1	1
Unknown	4	0	4
TOTAL	29	14	43

3.4 Military Bases Involved in Incidents

Table 5, below, shows the UK military bases involved in air incidents. The QRA is currently housed at two bases: RAF Lossiemouth (for the UK's northern skies, or Scottish Flight Information Region) and RAF Coningsby (for the UK's southern skies, or London Flight Information Region). RAF Lossiemouth assumed its responsibilities in 2014 when the QRA was moved there from RAF Leuchars, while RAF Coningsby assumed its responsibilities in 2007 when the QRA moved there from RAF Leeming.

According to the available data, RAF Lossiemouth was the location of most QRA launches between 2005 and 2016, with nine, closely followed by RAF Leuchars with seven. RAF Coningsby and RAF Leeming saw two launches each.

Table 5: RAF Bases Involved in Responding to Russia's Air Activities

RAF Base	Number of QRA Launches
RAF Lossiemouth (QRA North)	9
RAF Leuchars (QRA North)	7
RAF Coningsby (QRA South)	2
RAF Leeming (QRA South)	2
Unknown	9
TOTAL	29

Table 6, below, shows the Royal Navy bases involved in sea incidents. All Royal Navy ships operating around the UK are at a high state of alert to deal with maritime security tasks, including the monitoring of transits through the UK area of responsibility by foreign military vessels. In addition, the UK maintains a Fleet Ready Escort (FRE), a “frigate or destroyer that is held at short

notice in home waters and is ready to react when required in support of homeland defence".¹¹ It is often based at HMNB Portsmouth.

According to the available data, HMNB Portsmouth was the base from which the most ships were deployed that were involved in incidents with Russian military vessels (six) followed by HMNB Devonport (one).

Table 6: Royal Navy Bases Involved in Responding to Russia's Sea Activities

Bases	Number of Incidents
HMNB Portsmouth	6
HMNB Devonport	1
Unknown	7
TOTAL	14

3.5 Aircraft and Vessels Involved in Incidents

Table 7, below, shows the Russian military aircraft involved in incidents. The overwhelming majority are Tupolev Tu-95 Bear bombers (18 of 29), followed by Tupolev-160 Blackjack bombers (nine), and Tupolev Tu-142 Bear F/J bombers (one). The identity of one aircraft is unknown.

Table 7: Russia's Aircraft Involved in Incidents near UK Airspace between 2005 and 2016, by Number of Incidents

Aircraft	Number of Incidents
Tupolev Tu-95 Bear bomber	18
Tupolev-160 Blackjack bomber	9
Tupolev Tu-142 Bear F/J bomber	1
Unknown	1
TOTAL	29

As shown in Table 8, below, Russia's Soviet-era aircraft carrier, the Admiral Kuznetsov, is the most common naval vessel involved in incidents (five), followed by destroyers (three), and frigates and submarines (two each). The identities of two of the vessels are unknown.

Table 8: Russia's Naval Vessels Involved in Incidents near UK Seaspaces between 2005 and 2015, by Number of Incidents

Naval Vessel	Number of Incidents
Admiral Kuznetsov (aircraft carrier)	5
Vice-Admiral Kulakov (Udaloy-class destroyer)	2
Severomorsk (Udaloy-class destroyer)	1
Yaroslav Mudry (Neustrashimy-class frigate)	2
Akula-class submarine	2
Unknown	2
TOTAL	14

¹¹ 'The Royal Navy: Deployed Forward – Operating Globally', Royal Navy, available at: http://www.royalnavy.mod.uk/About-the-Royal-Navy/_media/Files/Navy-PDFs/About-the-Royal-Navy/Current%20RN%20Operations.pdf, last visited: 22 June 2017.

3.6 Breakdown of Incidents

What follows is a breakdown of all specific incidents reported in the press between 2005 and 2016.

1. Date:	1 May 2007–3 May 2007
Type of Incident:	Air
Geographical Region:	Unknown
Details:	Two Tupolev Tu-142 Bear F/J bombers flew towards British airspace to spy on Royal Navy warships, including HMS Illustrious, involved in the ‘Neptune Warrior’ training exercise. Two RAF Tornado F3s were launched from RAF Leuchars and intercepted the bombers in international airspace, shadowing them for around 15 minutes. ¹²
2. Date:	17 July 2007
Type of Incident:	Air
Geographical Region:	North Sea
Details:	An unknown number of RAF Tornado F3s were deployed to meet two Tupolev Tu-95 Bear bombers approaching Britain. ¹³
3. Date:	19 July 2007
Type of Incident:	Air
Geographical Region:	Unknown
Details:	Two RAF Tornado F3s were launched from RAF Leeming to intercept to Tupolev Tu-95 Bear bombers within the Scottish FIR. ¹⁴
4. Date:	19 July 2007
Type of Incident:	Air
Geographical Region:	Atlantic Ocean
Details:	Two RAF Tornado F3s were launched after one Tupolev Tu-160 Blackjack bomber flew on the fringes of UK airspace. ¹⁵
5. Date:	17 August 2007
Type of Incident:	Air
Geographical Region:	Atlantic Ocean
Details:	Two RAF aircraft intercepted a Tupolev Tu-95 Bear bomber over the north Atlantic, approaching British airspace. ¹⁶
6. Date:	6 September 2007
Type of Incident:	Air

¹² ‘Cold War reheated – RAF Tornados foil Russian spy in sky’, *Evening Standard*, 9 May 2007, available at: <http://www.standard.co.uk/news/cold-war-reheated-raf-tornados-foil-russian-spy-in-sky-6581168.html>, last visited: 22 June 2017.

¹³ ‘Buzzed by the bear – RAF tornados scramble to meet Russian intruders’, *Daily Mail*, 20 July 2007, available at: <http://www.dailymail.co.uk/news/article-469893/Buzzed-bear-RAF-tornados-scramble-meet-Russian-intruders.html>, last visited: 22 June 2017.

¹⁴ ibid.

¹⁵ ibid.

¹⁶ ‘RAF Typhoons shadowed Russian bomber’, *Guardian*, 21 August 2007, available at: <http://www.theguardian.com/uk/2007/aug/21/russia.military>, last visited: 22 June 2017.

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Geographical Region:	Unknown
Details:	Four Tornado F3s were launched from RAF Leeming and intercepted eight Tupolev Tu-95 Bear bombers as they approached British airspace. ¹⁷
7. Date:	22 January 2008
Type of Incident:	Air
Geographical Region:	Unknown
Details:	An unknown number of RAF aircraft were launched to shadow two Tupolev Tu-160 Blackjack bombers as they approached British airspace en route to Russian military exercises in the Bay of Biscay. ¹⁸
8. Date:	22 September 2008
Type of Incident:	Air
Geographical Region:	North Sea
Details:	One Tupolev Tu-160 Blackjack bomber flew on the fringes of UK airspace, within 20 miles of Hull. The Blackjack was picked up on RAF radar. The only two pairs of QRA jets were on other duties. ¹⁹
9. Date:	11 December 2008
Type of Incident:	Air
Geographical Region:	North Sea
Details:	Two RAF Tornado F3s were launched to intercept two Tupolev Tu-160 Blackjack bombers off the North East coast. It was reported that the bombers crossed a section of airspace controlled by the UK, but the MoD refused to confirm or deny this. ²⁰
10. Date:	10 March 2010
Type of Incident:	Air
Geographical Region:	Atlantic Ocean
Details:	Two Tupolev Tu-160 Blackjack bombers were intercepted in the Scottish FIR by two Tornado F3s, which had been launched from RAF Leuchars. ²¹
11. Date:	27 August 2010
Type of Incident:	Sea
Geographical Region:	Atlantic Ocean
Details:	A Russian Akula-class Typhoon submarine stood off Faslane waiting for a Trident-capable Vanguard-class submarine to leave the port for its three-month patrol. ²²

¹⁷ ‘UK jets scrambled to intercept Russian aircraft’, *Guardian*, 6 September 2007, available at: <http://www.theguardian.com/uk/2007/sep/06/russia.military>, last visited: 22 June 2017.

¹⁸ ‘RAF jets scrambled as Russian bombers join war manoeuvres off Atlantic coast’, *Daily Mail*, 22 January 2008, available at: <http://www.dailymail.co.uk/news/article-509709/RAF-jets-scrambled-Russian-bombers-join-war-maneoeuvres-Atlantic-coast.html>, last visited: 22 June 2017.

¹⁹ ‘Russian nuclear bomber flies undetected to within 20 miles of Hull’, *Daily Mail*, 30 September 2008, available at: <http://www.dailymail.co.uk/news/article-1064713/Russian-nuclear-bomber-flies-undetected-20-miles-Hull.html>, last visited: 22 June 2017.

²⁰ ‘RAF Jets See Off Russian Bombers’, *Sky News*, 13 December 2008, available at: <http://news.sky.com/story/655898/raf-jets-see-off-russian-bombers>.

²¹ ‘RAF jets scrambled 20 times in 12 months to intercept Russian aircraft’, *Guardian*, 24 March 2010, available at: <http://www.theguardian.com/uk/2010/mar/24/raf-tornados-intercept-russian-aircraft>, last visited: 22 June 2017.

²² ‘Russian subs stalk Trident in echo of Cold War’, *Telegraph*, 27 August 2010, available at: <http://www.telegraph.co.uk/news/uknews/defence/7969017/Russian-subs-stalk-Trident-in-echo-of-Cold-War.html>, last visited: 22 June 2017.

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12. Date:	18 October 2010
Type of Incident:	Air
Geographical Region:	North Sea
Details:	An unknown number of Tupolev Tu-95 Bear bombers were intercepted by an unknown number of RAF Tornado F3s which had been launched from RAF Leuchars. ²³
13. Date:	19 October 2010
Type of Incident:	Air
Geographical Region:	North Sea
Details:	An unknown number of Tupolev Tu-95 Bear bombers were intercepted in British airspace by an unknown number of RAF Tornado F3s which had been launched from RAF Leuchars. ²⁴
14. Date:	Late January 2011
Type of Incident:	Air
Geographical Region:	North Sea
Details:	An unknown number of RAF aircraft were launched from RAF Leuchars and intercepted two Tupolev Tu-95 Bear bombers near Newcastle-upon-Tyne. ²⁵
15. Date:	8 February 2011
Type of Incident:	Air
Geographical Region:	North Sea
Details:	Two Russian military aircraft were intercepted near British airspace by an unknown number of RAF Tornados, which had been launched from RAF Leuchars, and escorted back to international airspace. ²⁶
16. Date:	8 March 2011
Type of Incident:	Air
Geographical Region:	North Sea
Details:	Two RAF Tornado F3s were launched from RAF Leuchars after one Tupolev Tu-95 Bear bomber came within seconds of entering British airspace, near St Andrews. ²⁷
17. Date:	7 June 2011
Type of Incident:	Air
Geographical Region:	North Sea

²³ 'RAF jets scrambled twice in one week to intercept Russian nuclear bombers', *Daily Mail*, 27 October 2010, available at: <http://www.dailymail.co.uk/news/article-1324147/RAF-jets-scrambled-twice-week-intercept-Russian-nuclear-bombers.html#ixzz3iP7d6Jda>, last visited: 22 June 2017.

²⁴ *ibid.*

²⁵ 'RAF Leuchars Tornados scrambled to "repel" Russian aircraft', *The Courier*, 9 February 2011, available at: <http://www.thecourier.co.uk/news/local/life/raf-leuchars-tornados-scrambled-to-repel-russian-aircraft-1.38806>, last visited: 26 June 2017.

²⁶ *ibid.*

²⁷ 'Russians fly bomber within 12 miles of UK', *The Sunday Times*, 13 March 2011, available at: http://www.sundaytimes.co.uk/sto/news/uk_news/Defence/article577136.ece, last visited: 22 June 2017.

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Details:	An unknown number of RAF Tornado F3s intercepted two Tupolev Tu-95 Bear bombers as they encroached on UK airspace. ²⁸
18. Date:	12 December 2011
Type of Incident:	Sea
Geographical Region:	North Sea
Details:	HMS York was deployed to Scotland, from the English Channel (HMNB Portsmouth), after the aircraft carrier Admiral Kuznetsov and other Russian warships and military vessels came within 30 miles of British shores. ²⁹
19. Date:	19 December 2013
Type of Incident:	Sea
Geographical Region:	North Sea
Details:	HMS Defender, deployed from the English Channel (HMNB Portsmouth), shadowed at least one Russian naval vessel, believed to have been a warship, off the coast of Scotland. ³⁰
20. Date:	7 January 2014
Type of Incident:	Sea
Geographical Region:	North Sea
Details:	A Royal Navy ship was deployed from the English Channel (HMNB Portsmouth), after ships – including the Admiral Kuznetsov – belonging to Russia's Northern Fleet anchored off Scotland's coast, in the Moray Firth. ³¹
21. Date:	14 April 2014–18 April 2014
Type of Incident:	Sea
Geographical Region:	North Sea
Details:	HMS Dragon was deployed from the English Channel (HMNB Portsmouth), to track Vice Admiral Kulakov, a Russian Udaloy-class destroyer, as it approached British waters. ³²
22. Date:	May 2014
Type of Incident:	Sea
Geographical Region:	English Channel

²⁸ ‘Dutch jets intercept Russian planes’, *Dutchnews.nl*, 7 June 2011, available at:

http://www.dutchnews.nl/news/archives/2011/06/dutch_jets_intercept_russian_p/, last visited: 22 June 2017.

²⁹ ‘HMS York scrambled to Scotland in security scare as Russian fleet comes within 30 miles of Britain for the first time in 20 years’, *Daily Mail*, 14 December 2011, available at: <http://www.dailymail.co.uk/news/article-2073901/HMS-York-scrambled-Scotland-Russian-fleet-security-scare.html>, last visited: 22 June 2017.

³⁰ ‘HMS Defender’s mission revealed as ship returns to Portsmouth after tracking Russian vessels’, *The News*, 9 January 2014, available at: <http://www.portsmouth.co.uk/news/defence/hms-defender-s-mission-revealed-as-ship-returns-to-portsmouth-after-tracking-russian-vessels-1-5798005>, last visited: 22 June 2017.

³¹ ‘Russia’s largest warship makes pit stop off Scotland’, *The Press and Journal*, 8 January 2014, available at:

<https://www.pressandjournal.co.uk/fp/uncategorized/42168/russias-largest-warship-makes-pit-stop-off-scotland/>, last visited: 22 June 2017.

³² ‘Portsmouth warship sent to shadow Russian Navy destroyer near British waters’, *The News*, 23 April 2014, available at: <http://www.portsmouth.co.uk/news/defence/portsmouth-warship-sent-to-shadow-russian-navy-destroyer-near-british-waters-1-6017646>, last visited: 22 June 2017.

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Details:	HMS Dragon escorted the Admiral Kuznetsov after it approached the English Channel. ³³
23. Date:	25 June 2014
Type of Incident:	Sea
Geographical Region:	English Channel
Details:	HMS Severn was deployed from HMNB Portsmouth to track two Russian naval vessels through the English Channel. ³⁴
24. Date:	19 September 2014
Type of Incident:	Air
Geographical Region:	Atlantic Ocean
Details:	RAF Typhoon FGR4s were launched from RAF Lossiemouth after one Tupolev Tu-95 Bear bomber approached UK airspace. ³⁵
25. Date:	29 October 2014
Type of Incident:	Air
Geographical Region:	North Sea
Details:	Two Tupolev Tu-95 Bear bombers engaging in Russian military manoeuvres were tracked by RAF aircraft over the North Sea. ³⁶
26. Date:	31 October 2014
Type of Incident:	Air
Geographical Region:	North Sea
Details:	One Tupolev Tu-95 Bear bomber was intercepted by RAF Typhoon FGR4s launched from RAF Lossiemouth as it approached UK airspace. ³⁷
27. Date:	28 November 2014
Type of Incident:	Sea
Geographical Region:	English Channel
Details:	HMS Tyne escorted a squadron of Russian warships, led by the Admiral Kuznetsov, through the English Channel. ³⁸
28. Date:	28 January 2015
Type of Incident:	Air
Geographical Region:	Atlantic Ocean
Details:	An unknown number of RAF Typhoon FGR4s were launched from RAF Lossiemouth after two Tupolev Tu-95 Bear bombers encroached on UK

³³ 'Royal Navy frigate forced to intercept two Russian military landing craft as they steamed up English Channel', *Daily Mail*, 26 June 2014, available at: <http://www.dailymail.co.uk/news/article-2670417/Royal-Navy-patrol-ship-forced-intercept-two-Russian-military-landing-craft-steamed-English-Channel.html>, last visited: 22 June 2017.

³⁴ ibid.

³⁵ 'RAF Typhoons scramble to long-range Russian bombers', *The Telegraph*, 19 September 2014, available at: <http://www.telegraph.co.uk/news/uknews/defence/11108857/RAF-Typhoons-scramble-to-long-range-Russian-bombers.html>, last visited: 22 June 2017.

³⁶ 'RAF intercepts Russian bomber approaching UK airspace', *Guardian*, 1 November 2014, available at: <http://www.theguardian.com/uk-news/2014/nov/01/raf-russian-bomber-uk-airspace>, last visited: 22 June 2017.

³⁷ ibid.

³⁸ 'Royal Navy catches up with Russian warships to "keep an eye" on Putin's fleet sailing along the Channel', *Daily Mail*, 28 November 2014, available at: <http://www.dailymail.co.uk/news/article-2853128/Naval-shadows-Russia-Channel-ships.html#ixzz3iQMGN5FE>, last visited: 22 June 2017.

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airspace – coming within 25 miles of the shore. There is a suggestion that the Bears were flying without their transponders turned on, making them invisible to civilian aircraft.³⁹

29. Date:	17 February 2015
Type of Incident:	Sea
Geographical Region:	English Channel
Details:	HMS Argyll shadowed the Yaroslav Mudryy, a frigate, in the English Channel. ⁴⁰
30. Date:	18 February 2015
Type of Incident:	Air
Geographical Region:	Atlantic Ocean
Details:	An unknown number of RAF Typhoon FGR4s were launched from RAF Coningsby after two Tupolev Tu-95 Bear bombers flew close to UK airspace, off the coast of Cornwall. ⁴¹
31. Date:	14 April 2015
Type of Incident:	Air
Geographical Region:	North Sea
Details:	An unknown number of RAF Typhoon FGR4s were launched from RAF Lossiemouth after Tupolev Tu-95 Bear bombers flew close to UK airspace, towards north-east Scotland. ⁴²
32. Date:	14 April 2015
Type of Incident:	Sea
Geographical Region:	English Channel
Details:	HMS Argyll escorted the Severomorsk, an Udaloy-class destroyer, and two support ships through the English Channel and onwards to the Atlantic, where they were to take part in Russian military exercises. ⁴³
33. Date:	14 May 2015
Type of Incident:	Air
Geographical Region:	North Sea
Details:	Two RAF Typhoon FGR4s were launched from RAF Lossiemouth to intercept two Tupolev Tu-95 Bear bombers approaching UK airspace. ⁴⁴

³⁹ ‘Russian military planes “disrupted UK aviation”, *BBC News*, 30 January 2015, available at: <http://www.bbc.co.uk/news/uk-31049952>, last visited: 22 June 2017.

⁴⁰ ‘British warship monitors Russian naval vessel through Channel’, *Reuters*, 17 February 2015, available at: <http://www.reuters.com/article/2015/02/17/britain-defence-russia-idUSL5N0VR2S320150217>, last visited: 22 June 2017.

⁴¹ ‘Cornwall: Live updates after RAF jets warn away 2 Russian bombers off Cornish coast’, *Mirror*, 19 February 2015, available at: <http://www.mirror.co.uk/news/uk-news/cornwall-live-updates-after-raf-5188844>, last visited: 22 June 2017.

⁴² ‘RAF Typhoon jets and Navy escort Russian military visitors around Britain’, *Telegraph*, 14 April 2015, available at: <http://www.telegraph.co.uk/news/uknews/defence/11535751/RAF-Typhoon-jets-launched-to-intercept-Russian-military-planes.html>, last visited: 22 June 2017.

⁴³ ‘Three Russian ships monitored in English Channel’, *Telegraph*, 14 April 2015, available at: <http://www.telegraph.co.uk/news/uknews/defence/11534832/Three-Russian-ships-monitored-in-English-Channel.html>, last visited: 22 June 2017.

⁴⁴ ‘Typhoons scrambled from RAF Lossiemouth to intercept Russian Bear jets heading for UK airspace’, *Daily Mail*, 14 May 2015, available at: <http://www.dailymail.co.uk/news/article-3081829/RAF-scrambles-jets-two-Russian-military-aircraft-seen-flying-British-airspace.html#ixzz3QfCazCL>, last visited: 22 June 2017.

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34. Date:	10 September 2015
Type of Incident:	Air
Geographical Region:	North Sea
Details:	Two RAF Typhoon FGR4s were launched to intercept two Tupolev Tu-160 Blackjack bombers flying on the fringes of UK airspace. ⁴⁵
35. Date:	19 November 2015
Type of Incident:	Air
Geographical Region:	North Sea
Details:	Two RAF Typhoon FGR4s were launched from RAF Lossiemouth to intercept two Tupolev Tu-160 Blackjack bombers flying on the fringes of UK airspace. ⁴⁶
36. Date:	17 February 2016
Type of Incident:	Air
Geographical Region:	North Sea
Details:	Two RAF Typhoon FGR4s were launched from RAF Coningsby to intercept two Tupolev Tu-160 Blackjack bombers flying on the fringes of UK airspace. ⁴⁷
37. Date:	22 September 2016
Type of Incident:	Air
Geographical Region:	Atlantic Ocean
Details:	Two RAF Typhoon FGR4s were launched from RAF Lossiemouth to intercept two Tupolev Tu-160 Blackjack bombers flying on the fringes of UK airspace. ⁴⁸
38. Date:	12 October 2016
Type of Incident:	Air
Geographical Region:	North Sea
Details:	Two RAF Typhoon FGR4s were launched from RAF Lossiemouth to intercept an unknown number of Tupolev Tu-95 Bear bombers flying on the fringes of UK airspace. ⁴⁹
39. Date:	16 October 2016
Type of Incident:	Air

⁴⁵ 'RAF fighter jets intercept Russian planes over North Sea', *BBC News*, 11 September 2015, available at: <http://www.bbc.co.uk/news/uk-scotland-north-east-orkney-shetland-34227249>, last visited: 22 June 2017.

⁴⁶ 'RAF Lossiemouth fighter jets scrambled over Russian planes', *BBC News*, 20 November 2015, available at: <http://www.bbc.co.uk/news/uk-scotland-north-east-orkney-shetland-34880523>, last visited: 22 June 2017.

⁴⁷ 'RAF jets scrambled to intercept two Russian bombers heading towards UK airspace', *Daily Express*, 17 February 2016, available at: <http://www.express.co.uk/news/uk/644964/RAF-jets-scrambled-intercept-two-Russian-bombers-heading-towards-UK-airspace>, last visited: 22 June 2017.

⁴⁸ 'RAF scrambles Typhoons from Lossiemouth to intercept nuclear-capable Russian Blackjack bombers near UK airspace', *Daily Mail*, 22 September 2016, available at: <http://www.dailymail.co.uk/news/article-3802723/RAF-scrambles-Typhoons-Lossiemouth-intercept-nuclear-capable-Russian-Blackjack-bombers-near-UK-airspace.html>, last visited: 22 June 2017.

⁴⁹ 'RAF Typhoon fighter jets scramble to intercept Russian bombers heading for UK airspace TWICE in one week', *Daily Mail*, 25 October 2016, available at: <http://www.dailymail.co.uk/news/article-3870918/RAF-Typhoon-fighter-jets-scramble-intercept-Russian-bombers.htm>, last visited: 22 June 2017.

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Geographical Region:	North Sea
Details:	Two RAF Typhoon FGR4s were launched from RAF Lossiemouth to intercept an unknown number of Tupolev Tu-95 Bear bombers flying on the fringes of UK airspace. ⁵⁰
40. Date:	21 October 2016
Type of Incident:	Sea
Geographical Region:	English Channel
Details:	Ships from the Royal Navy, including HMS Duncan and HMS Richmond, were deployed from HMNB Portsmouth to shadow a flotilla of Russian warships, including the aircraft carrier Admiral Kuznetsov, as they passed through the English Channel en route to Syria. ⁵¹
41. Date:	31 October 2016
Type of Incident:	Sea
Geographical Region:	Irish Sea
Details:	A Royal Navy Trafalgar-class submarine tracked two Akula-class submarines through the Irish Sea and onwards to the Atlantic, where they are believed to have headed for Syria. ⁵²
42. Date:	3 December 2016
Type of Incident:	Sea
Geographical Region:	English Channel
Details:	HMS Sutherland was deployed from HMNB Devonport to escort the Vice Admiral Kulakov, an Udaloy-class destroyer, through the English Channel. ⁵³
43. Date:	16 December 2016
Type of Incident:	Sea
Geographical Region:	English Channel
Details:	HMS Sutherland met the Yaroslav Mudry, a Neustrashimy-class frigate, at the western-most point of the English Channel and then monitored as it sailed through the Channel. ⁵⁴

⁵⁰ ibid.

⁵¹ 'Russian warships pass through Channel watched by Royal Navy', *Guardian*, 21 October 2016, available at: <https://www.theguardian.com/uk-news/2016/oct/21/russian-warships-pass-through-channel-watched-by-royal-navy>, last visited: 22 June 2017.

⁵² 'EXCLUSIVE: Russian submarines spotted off BRITISH COAST in latest Putin offensive', *Express*, 31 October 2016, available at: <http://www.express.co.uk/news/world/726600/Russian-Syria-Aleppo-submarines-Irish-Sea>, last visited: 22 June 2017.

⁵³ 'Russian red alert: Putin's game of "cat and mouse" with Britain continues as nuclear fleet "strays" into our waters AGAIN', *Mail Online*, 6 December 2016, available at: <http://www.dailymail.co.uk/news/article-4005084/Russian-red-alert-Putin-s-game-cat-mouse-Britain-continues-nuclear-fleet-strays-waters AGAIN.html>, last visited: 22 June 2017.

⁵⁴ 'Royal Navy escort another Russian warship through British waters', *Telegraph*, 16 December 2016, available at: <http://www.telegraph.co.uk/news/2016/12/16/royal-navy-escort-another-russian-warship-british-waters/>, last visited: 22 June 2017.

4. What Does This Tell Us?

Although the number of reported incidents analysed in this paper is small, it is nevertheless possible to make a series of observations about the nature of Russia's military activities near UK airspace and seospace.

Based on the official statistics released by the MoD:

- The RAF's QRA was launched on 101 days between 2005 and 2016 in response to Russian military aircraft. This accounted for more than half (54%) of the total number of days (186 days) the QRA was launched during this period.
- Between 2007 and 2009, the QRA was launched on a total of 54 days. Of these days, 41 were in response to Russian military aircraft. This accounts for 75% of the total launches during this three-year period.
- Of the 101 days on which the QRA was launched in response to Russian military aircraft, one-fifth occurred between 2014 and 2016.

Based on data obtained from press reports:

- On 14 occasions between 2005 and 2016, Royal Navy ships were required to react to Russian military vessels in the vicinity of UK seospace.
- Of 14 incidents at sea, 11 occurred in the three-year period between 2014 and 2016.
- More than one-third of sea incidents (five) involved the Admiral Kuznetsov, Russia's largest warship.
- Of 29 incidents in the air, 18 involved Tupolev Tu-95 Bear bombers, which are long-range strategic bombers.
- More than half of all incidents took place in or over the North Sea (22 of 43), followed by the Atlantic Ocean and the English Channel (eight each).
- Of 29 incidents in the air, 16 involved the RAF's QRA North, with planes launched from RAF Lossiemouth (nine) or RAF Leuchars (seven).
- Of 14 incidents at sea, half (seven) involved ships deployed from HMNB Portsmouth.
- Incidents as a whole are most common in October (eight of 43), followed by September and December (five each).
- On one occasion, on 22 September 2008, the UK was unable to deal with the threat posed by Russia's activities: a Tupolev Tu-160 Blackjack bomber was picked up on RAF radar flying on the fringes of UK airspace, but the two pairs of QRA aircraft were busy on other duties.

For nearly 15 years after the fall of the Soviet Union, Russia's strategic bombers were essentially grounded and its naval patrols were placed on hold. Only in 2007, when Russia was flush with hydrocarbon wealth, did President Vladimir Putin order the Air Force and Navy to resume regular long-range combat patrols.

One reason why UK-Russia military encounters take place on a regular basis is – to some extent – geography: the UK straddles the routes that Russia's aircraft and vessels must take to access the North Atlantic.

The routes flown by Russia's bombers, according to *Moscow Defense Brief*, an industry publication, are the same ones flown by the Soviet Air Force's long-range bombers before 1991. The routes westward, towards the UK, are typically flown out of three strategic airbases: the Engels Air Force Base, located in the Volga basin in south-western Russia; the Shaykovka Airbase, in central-western Russia near the border with Belarus; and the Soltsy-2 Airbase in north-western Russia near Estonia. With minor deviations, the standard flight paths take Russia's bombers over Scandinavia, towards the UK, and then into the North Atlantic.⁵⁵ It is little surprise, therefore, that most of Russia's activities near UK airspace took place over the North Sea, followed by the Atlantic Ocean.

Russia has conducted a series of major maritime military exercises over recent years, involving its Baltic and Northern Fleets. The geographical extent of these exercises range from the Arctic and the Baltic Sea through to the Atlantic. Russia's Navy has also been active in the Mediterranean, largely owing to its support for Bashar al-Assad's regime in Syria. Units from the Baltic Fleet, which is headquartered in Kaliningrad, Russia's enclave on the Baltic Sea, pass through the North Sea en route to the open ocean. Meanwhile, units from the Northern Fleet, which is headquartered at Severomorsk, a town near Murmansk in the Russian Arctic, have traditionally followed a route from the Barents Sea, through the Norwegian Sea, North Sea, English Channel, and on to the Atlantic Ocean. It is, therefore, perhaps to be expected that most of Russia's military activities in UK seospace occurred in the North Sea and English Channel.

Not all of Russia's intrusions are owing to reasons of geography, however. Rather, some can be synchronised with major events in its relations with the UK. For instance: the murder of Alexander Litvinenko, in November 2006, was followed by a dramatic increase in airspace incidents, from four in 2005 to 19 in 2007; an airspace incident in January 2008 took place at the same time as heightened tensions between Russia and the UK, over the fate of the British Council's operations in Russia (the Council was subsequently forced to close two of its three offices); and, two Tu-95 Bears buzzed the Cornish coast the day after Ben Emmerson QC, speaking in early 2015 at the enquiry into the death of Alexander Litvinenko, characterised Russia as a “mafia state”.⁵⁶ In this sense, the incursions serve as a sabre-rattling sign of the Kremlin's displeasure.

⁵⁵ ‘Bears and Blackjacks Are Back. What Next?’, *Moscow Defense Brief*, 3(47) 2015, available at: <http://mdb.cast.ru/mdb/4-2010/item4/article1/>, last visited: 22 June 2017.

⁵⁶ ‘Litvinenko “poisoned by Russian mafia state,” family’s lawyer claims’, *BBC News*, 27 January 2015, available at: <http://www.bbc.co.uk/news/uk-31008694>, last visited: 22 June 2017.

The timing of some of Russia's activities can be tied to its military calendar. According to the military analyst Pavel Felgenhauer, a key date for Russia, which maintains a conscription army, is 1 April.⁵⁷ This is the date that marks the start of Russia's spring conscript call-up; it is the date when new conscripts arrive and the previous year's conscripts leave. The new troops take at least six months to become "battle ready", and it is from September onwards that Russia's conventional military is at its operational peak, for a period of around six months. It is in this six-month window that Russia's biggest and most important military exercises take place, particularly in the autumn months. By contrast, late spring through to summer is the time to plan and prepare. The upsurge in Russia's military activity from autumn through to spring clearly overlaps with its forays into UK airspace and seospace. The highest number of incidents occurred in winter, followed by spring and autumn.

An additional reason why fewer incidents occurred in summer relates to wind patterns. For much of the year, the prevailing wind direction in the UK is south-westerly. From late spring through to summer, however, this changes to north-easterly. This means that it is much harder work for Russia's bombers to reach UK airspace in summer, and they require more fuel which, in turn, means the flights are more expensive.

5. What Does This Mean?

Russia's military provocations towards the UK are concerning, but they should not be seen in isolation. Rather, they are part of a wider pattern of military assertiveness by the Kremlin in the Euro-Atlantic region. This is derived from three internal developments. First, the military reform and modernisation programme launched in 2008, combined with significant increases in defence spending over the past several years (between 2010 and 2016, spending increased from US\$57.96 billion to US\$79.83 billion⁵⁸) has improved the capabilities of its armed forces. Second, Russia has demonstrated a willingness to use force as an instrument of its foreign policy, as well as an improved capacity to project military power beyond the post-Soviet periphery. This is visible in Russia's military intervention in Syria (beginning in September 2015) and its wars in Ukraine (since 2014) and Georgia (in 2008). Third, the Kremlin has been conducting a far more aggressive, anti-Western foreign policy, significantly increasing provocative military activities near NATO members' borders, and intimating nuclear threats. Earlier this year, NATO reported an increase in European QRA aircraft launches involving Russian military aircraft from 400 (of a total of 480) in 2014 to 780 (of a total of 807) in 2016.⁵⁹

Are Russia's activities in the vicinity of UK airspace and seospace mere propaganda play, or is there something more sinister afoot?

Certainly, these activities do serve a propaganda purpose. By demonstrating that its military can come so close to UK shores, with little (if any) consequence, Russia is able to showcase its apparent

⁵⁷ 'Russia's Window of Opportunity in Ukraine', *Foreign Policy*, 25 March 2014, available at: <http://foreignpolicy.com/2014/03/25/russias-window-of-opportunity-in-ukraine/>, last visited: 22 June 2017.

⁵⁸ Cooper, J., 'Military Expenditure in Russia's Draft Federal Budget for 2017 and Plan Years 2018 and 2019: A Research Note', IMF World Economic Outlook Database, 29 October 2016.

⁵⁹ 'NATO fighter scrambles on the rise in response to growing Russian air activity', *Jane's 360*, 27 March 2017, available at: <http://www.janes.com/article/69030/nato-fighter-scrambles-on-the-rise-in-response-to-growing-russian-air-activity>, last visited: 22 June 2017.

strength and Britain's relative weakness. As ex-military chiefs have observed, certain decisions made by the UK Government - in particular, those to axe the Nimrod MR2 maritime patrol aircraft (MPA) as part of the 2010 Security and Defence Spending Review, and to cancel the follow-on Nimrod MRA4 - left the country vulnerable to Russia's intelligence-gathering exercises and reduced its ability to defend itself.⁶⁰ While the Government has since ordered nine Boeing P-8 Poseidon MPAs to fill this gap in UK capabilities,⁶¹ Russia has taken advantage of the situation in the meantime. Twice in 2015 the UK was unable to deal with the threat posed by suspected Russian submarines positioned off the Scottish coast and had to seek assistance from Canada, France, and the United States.

The Kremlin's actions also serve a military purpose. Through its activities, Russia has been able to gain valuable information about the chain of command, and preparedness of elements, within the UK defence system; the UK's Air Surveillance and Control System, including its early-warning system; the RAF's and Royal Navy's reaction times; the capabilities of the Air Force pilots and Royal Navy captains; and, the levels of cooperation between NATO members. Russia's planes are likely to be fitted with signals intelligence (SIGINT) equipment, to collect data on the UK's air defence systems. On occasions, they have flown with their transponders - which send out information about an aircraft's height, position, and speed - switched off, in order to test the UK's radar and surveillance capabilities. Russia's vessels, meanwhile, are likely to be fitted with electronic signals intelligence (ELINT) equipment, to collect other data relating to the UK defence network, such as radar stations, surface-to-air missile systems, and aircraft.

Russia's submarines, which lurk off naval bases in Scotland, seek even more sensitive information: the 'acoustic signature' made by the UK submarine fleet, including the Vanguard submarines that carry Trident nuclear missiles. If Russia were able to obtain a recording of the 'signature', it would have serious implications for the UK's nuclear deterrent: Russia would be able to track Vanguards and potentially sink them before they could launch their missiles. Furthermore, because of the requirement for Russian submarines to transit the strategically important Greenland-Iceland-UK ('GIUK') gap, an area in the northern Atlantic Ocean, the UK's submarine (and anti-marine) capabilities have long been a core part of NATO's collective defence mechanism.

Russia's manoeuvres, which were commonplace during the Cold War, also serve to distract and dismay. It is difficult to believe that the Kremlin intends to attack a NATO member, so why rehearse such a scenario? Andrew Monaghan, an expert on the Russian military, suggests that Russia's activities are as much a test of its own military readiness and preparedness to meet various threats identified by the Kremlin as they are a test of the West's. The modernisation of Russia's military, he argues, includes not only a substantial investment in arms procurement, but also an improvement of the command-and-control systems, enhanced coordination between ministries, and an intense programme of exercises.⁶²

⁶⁰ Wall, P., 'Don't play politics with defence', *Telegraph*, 10 March 2015, available at: <http://www.telegraph.co.uk/news/uknews/defence/11460005/Dont-play-politics-with-defence.html>, last visited: 22 June 2017.

⁶¹ 'MOD seals the deal on nine new Maritime Patrol Aircraft to keep UK safe', *Royal Air Force*, 11 July 2016, available at: <http://www.raf.mod.uk/news/archive/mod-seals-the-deal-on-nine-new-maritime-patrol-aircraft-to-keep-uk-safe-11072016>, last visited: 22 June 2017.

⁶² Monaghan, A., 'Russian State Mobilization: Moving the Country on to a War Footing', Chatham House: The Royal Institute of International Affairs, 20 May 2016 available at: <https://www.chathamhouse.org/publication/russian-state-mobilization-moving-country-war-footing>, last visited: 22 June 2017.

Russia's activities, and the threat that they represent, are taken seriously by the British Government, even if they are largely seen as being routine. Between 2005 and 2013, though, Britain tolerated this type of behaviour, preferring to prioritise the economic side of its relations with Russia (even as the political aspects soured, particularly from 2007 onwards). This changed in 2014. As a result, when two Russian aircraft approached UK airspace in January 2015 – reportedly without their transponders turned on, causing a number of civilian flights arriving in Britain to be diverted – the Foreign and Commonwealth Office summoned Alexander Yakovenko, Russia's Ambassador to the UK, to account for his country's actions. The following year, the number of times the QRA was launched in response to Russian military aircraft decreased from eight to five.

6. Recommendations

UK-Russia bilateral relations, in the words of the House of Commons Foreign Affairs Committee's recent report into the UK's relationship with Russia, are at their "most strained point since the end of the Cold War".⁶³ London and Moscow have fundamentally different – if not polar opposite – opinions on the current international order and on recent global history. While the UK's foreign policy is premised on the maintenance of the rules-based international order, Russia rejects – often explicitly – that order, particularly when it believes that it does not serve its national interests. A gulf of opinion exists on such basic principles as international law, self-determination for sovereign nation states, human rights, and freedom of expression.

Russia is an integrated part of the world economy and of international decision-making, a nuclear power, and a United Nations Security Council member state. It cannot simply be isolated and ignored. No matter how difficult it may be, the UK must attempt to engage with Russia. The UK should do this without compromising its own standards and values, and it should do so in order to guarantee the UK's security. To that end, a number of specific recommendations arise from this paper:

- **The MoD should begin to hold statistics on the number of days each year on which Royal Navy ships are deployed in response to the activities of foreign militaries.** In order to effectively defend the UK, it is necessary to know – as far as possible – the threats it faces. Currently, the MoD collects statistics of the number of days per year on which the RAF's QRA is mobilised in reaction to foreign military aircraft. It does not, however, collect commensurate statistics for the number of days per year on which the Royal Navy's FRE is mobilised in response to foreign military vessels in the vicinity of UK waters. This should change.
- **The UK must make all reasonable efforts to ensure that military-to-military communication with Russia remains open.** In January 2015, two Tu-95 Bear bombers approached UK airspace, reportedly without their transponders switched on. As a result, a number of civilian flights arriving in Britain had to be diverted. Should this happen again, there is no

⁶³ 'The United Kingdom's relations with Russia', House of Commons Foreign Affairs Committee, Seventh Report of Session 2016–17, available at: <https://www.publications.parliament.uk/pa/cm201617/cmselect/cmfaffl/120/120.pdf>, last visited: 22 June 2017, p.3.

guarantee that there would be the same, non-fatal, outcome. In order to safeguard civilian air passengers, the UK should make sure that all reliable channels for military-to-military communication with Russia are open. Were these channels to be used, they would, additionally, serve as a confidence- and security-building measure (CSBM).

- **The UK should expand its existing ‘Incidents at Sea Agreement’ (INCSEA) with Russia to include aerial encounters.** The UK maintains an ‘Incidents at Sea Agreement’ (INCSEA) with Russia; a functioning crisis-management tool which recognises the potential for an incident involving naval assets to escalate and result in either party using force. The agreement also covers naval aviation assets, but there is no general provision for aerial encounters as a whole. Given the frequency with which UK and Russian military aeroplanes encounter each other, not only in the vicinity of the UK mainland but also as part of the UK’s NATO deployments, it would seem sensible to expand the existing INCSEA.
- **The UK should develop an ‘Agreement on Preventing Dangerous Military Activities’ (DMA) with Russia.** Russia’s activities in the vicinity of UK airspace and seospace might lead to an accident that would cause a downward spiral of events. Of course, it is in neither the UK’s nor Russia’s interests that this should happen. In order to avoid this, the UK and Russia should develop a DMA: an agreement that calls for the parties to the agreement to exercise “great caution and prudence” when undertaking military operating near the national territory of the other party. The agreement would apply to all armed forces, rather than just the Air Force, Army, or Navy, and contain broad provisions for managing potential confrontations. A number of other Western countries, including the US and Canada, have DMAs with Russia, and it is not immediately obvious why the UK does not.

About the Author

Dr Andrew Foxall is Director of the Russia Studies Centre at The Henry Jackson Society. He is the author of the book *Ethnic Relations in Post-Soviet Russia* (2014) as well as numerous articles on economic, political, and security trends in Russia and the other post-Soviet states. Andrew holds a DPhil from the University of Oxford.

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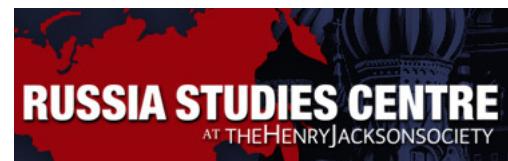
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