# WORLD WAR 3.0

LESSONS FROM 2030


# CONTENTS

# FOREWORD

**In 1908 H.G. Wells published his novel *The War in the Air* in which he painted a world devastated by inter-continental aerial warfare. Perhaps today he would have written a book about the advent of Artificial Intelligence and Robots, but, in 1908, the idea of aerial attacks was the stuff of fantasy.**

Although the Wright Brothers had flown their first flight five years previously in December 1903, progress by 1908 had been modest. Henry Farman had flown the longest flight of the year at a whopping 771 meters in his biplane, and Louis Blériot had flown the first monoplane. But there were no air forces in existence, and nobody had yet joined up the dots on the military application of these machines that were more of a novelty than anything. Except, of course, H.G Wells, but this was a man more famous for time travel, mutating humans and Martians; surely, his latest book was science fiction not science fact?

Indeed, that is how *The War in the Air* was largely received.

In it, the hero of the book stumbles upon a German Air Fleet of hydrogen-filled airships just as the airborne armada embarks on a surprise attack on America. Without spoiling the whole plot, the War eventually ends in the collapse of the whole fabric of civilisation.

The book received a mixed reception, and it certainly wasn't viewed as a foretelling of the near future. Yet, only six years later, the First World War with all its horrors was unleashed on Europe. Although the few aerial attacks on the UK by German Zeppelins didn't quite live up to Wells' hype, *The War in the Air's* characterisation of both the rise of air power and the true devastation of war were to come true rather more quickly than even he might have predicted: just 37 years after its publication, the United States dropped two nuclear bombs on Japan, with scenes of devastation that haunt us still.

This book is written about a World only four years hence, and all the elements that it introduces are in play and exist today. Few paid heed to H.G. Wells in 1908: we hope that we may fare a little better ...

The UK faces a dual crisis. On the one hand, it has allowed its defensive capabilities to atrophy over many decades, yet it now faces its most existential

crisis in decades and is ill-equipped to meet it. Perhaps more concerning is that on the other hand, the country is in a state of self-denial of the situation, either believing that the threat is unlikely to manifest itself, or that there would be sufficient time to react and recover. Neither statement is true – representing a policy of naive hope rather than clear-eyed strategy – and certainly not credible enough to tolerate the risks now ranged against us.

This book, containing chapters written by five recently retired military officers with a collective experience of over 170 years, is intended to provide a wake-up call, not to what *might* happen in some dystopian future World, but what *could* happen tomorrow. H.G. Wells' novel was not viewed seriously at the time of its publication. Yet, six years after War in the Air was published, British fighters were scrambling to intercept German airships and aircraft dropping bombs on Britain. This book writes of a World that already exists today; how we choose to meet that threat is in our hands.

We chose to place this book in the 2030 timeframe for a couple of reasons: it is near enough to be predictable with a high degree of certainty, and it gives little latitude to introduce "wonder weapons" that make any significant change to the status quo. But it does still allow some time to act; resilience and readiness can be improved, both nationally and within Defence, and even some mass can be regained or retained by smart investment choices, adoption of emerging technology and a healthy dose of increased risk to existing procurement processes. The book is a warning of what could happen, not a prediction of what will – unless of course we choose not to act.

Each Chapter deals with a certain scenario or aspect of air and space power that warrants further debate and attention. Although the book can be read sequentially as a story from end to end, each one carries a warning about what we might need to heed or do to deter or, if necessary, defeat a threat that is clear already today. The comment box at the end of each Chapter aims to draw out the key lessons. The scenarios, whilst fictious, are based on real capabilities. The authors, all of whom are highly experienced former operators and commanders, have avoided using any classified data or information, but each scenario is bounded in reality and inside knowledge of how things work and how situations could evolve. This is not a science fiction novel.

# PROLOGUE
# THE ROAD TO WAR

**2030 started with some significant political changes.**

The relatively new UK Coalition Government had to bury some significant ideological differences in order to form a majority, and the strains of those differences were already starting to show. UK defence spending had been scheduled to reach 2.7% in this year, but there had been no confirmation that this would happen from the Coalition Government members. UK Defence was yet to see any significant increase in mass, despite modest budgetary rises and some capability insertion, but some significant work had been done on readiness and resilience over the last two years – the most positive news was that recruitment was up and the reserve had been strengthened somewhat.

The Cabinet Office had completed a National Defence Plan in late 2029, scheduling a major UK exercise in 2032 – it had highlighted some significant gaps and critical vulnerabilities on home shores, but public concerns about other issues resulted in broad apathy about defence matters. The UK public's top three issues remained, stubbornly, immigration, the NHS and the cost of living, and since the cessation of hostilities in Ukraine, there had even been some cries for reducing defence spending to meet greater investment in health and welfare, and a growing lobby to forgive all student loans as the UK faced a youth 'brain drain' to Europe and elsewhere.

In America, President JD Vance had been sworn in under significant legal challenge and doubts over the legitimacy of the 2028 election, but a severe clamp down on the streets by ICE agents had quelled any meaningful protest. Vance's electioneering spoke to a continuation of the America First or 'Donroe' doctrine of his predecessor, and there were early signs that this might harden in the coming months. America's disentanglement from Europe was almost complete, with token presences at Allied HQs, only skeleton staffs on some key bases, and no significant combat forces forward deployed.

NATO remained the bastion of European defence, but the absence of American personnel and, more critically, many of its enablers in key headquarters and

locations or networks was proving harder to replicate or replace than first thought. American commanders still led the three Allied Commands of Air, Land & Maritime at Ramstein in Germany, Izmir in Turkey and Northwood in West London respectively, but this was coming under pressure as European allies sought to take greater control. New NATO plans had been drafted to account for the reduction in US presence and promises for support, and whilst they appeared fulfilled on paper by European assets and units, they remained untested. But this was due to be rectified by the forthcoming Exercise STEADFAST DEFENDER later this year.

Europe, and especially the EU nations, had shifted its military economy into a much sharper focus on European products and supply chains, but significant reliance on US equipment remained in key areas, especially with regard to legacy US-built equipment and their spares. Many nations had significantly increased their defence budgets, but the effects were yet to be fully realised at the front line. Those nations farthest from Russian borders remained the most resistant to spending more on defence, as if distance or coastlines were an adequate defence mechanism.

The Trump/Witkoff Peace Accord, implemented in 2028, is still holding in Ukraine, but barely. The 'Coalition of the Willing' is now on its fourth rotation, and troop contributions are proving harder to come by as mission fatigue begins to creep in. The endeavour, known as Operation SLAVA, has begun to settle into its routine of surveillance and monitoring of the extended Line of Control. Russia was unhappy about its constitution of largely NATO contributing nations, but it eventually caved under the proviso that they would not be equipped with any heavy armour or artillery. Much of the surveillance is done through air and space assets and patrols are flown over the East of Ukraine almost constantly. Some aircraft are based on airfields in the West of Ukraine whilst larger aircraft operate from NATO bases using air-to-air refuelling for longer patrols. Uncrewed platforms take on the majority of the ground surveillance task, but combat air patrols are established 24/7 for air policing. On the ground, the situation is more fragile and fractious, with the 25km buffer zone either side of the Line of Control attempting to keep the sides apart.

Russia is bruised and battered – but not beaten – after its very reluctant agreement to the Peace Accord. It has retained much of the land it stole from Ukraine (for now), but secured no more. However, the rules governing the Line of Control are such that no troops from either side are allowed within 50 km of each other. That said, paramilitary elements are being observed regularly encroaching this divide, especially from the Russian side. The Russians claim they are not under their control, but it's not the first time 'little green men' have been used in this way. The Russian economy has been badly damaged, and it remains on a war footing, largely because it can't transition to anything else as exports have suffered badly, and because Russia is busy recovering its war reserves. The population is restless but suppressed or misinformed sufficiently to stay quiet enough. Unemployment and the prevalence of veterans of the 'Special Operation', many thousands of whom are suffering from all manner of physical and mental scars, are everywhere. Mothers of the dead now number in their hundreds of thousands and they are not being quiet about the price paid for Russia's humiliation – as it is increasingly being perceived back home, despite the efforts of the Kremlin's suffocating propaganda machine. In order to quell growing unrest, the Government has maintained its wartime level of conscription of the previous years. Putin is seen less often on Russian TV, and even less in person, but his vice-like hold on the country seems as strong as ever. That said, his popularity is much reduced as the true horrors and lack of any benefits from the Ukraine war become increasingly hard to hide.

Ukraine is receiving significant financial assistance, and the slow rebuilding is continuing after six years of war. The Ukrainian military is building into a peacetime Army, but one that is now loosely modelled on Western military formations and tactics rather than the rigid Soviet-style command and control arrangements that it had entered the 2022 war with. That said, Ukraine is now a world leader in its own right, and it is highly sought by NATO Nations and international allies for its expertise in cyber, drone and electronic warfare. Western manufacturers are now building a number of Ukrainian products under licence, and at a much-reduced cost than Western primes could produce. President Zelensky has stood down with dignity, citing fatigue, and President Klitschko won the 2029 election. There were some attempts at Russian interference in that election, but they were anticipated and repelled quickly. Whilst Ukraine is now enjoying the relative

peace, the scars of war are just below the surface and the country remains ever watchful and suspicious of Russian intent.

China has remained quietly in the background, but it has continued to apply pressure on Taiwan with regular, annual exercises around the island – each one bigger and longer than the last. Despite America's attempts to co-exist with China, the tension is building as the PRC continued to outperform the USA economically. It had exploited the Trump tariff years mercilessly and established good trading relationships with those countries more wary and put-off by American trading rules. China was most certainly pulling ahead of the USA and there were no signs of that trend stopping. President Xi had compelled Russia to come to the negotiating table over Ukraine and achieve a resentful compromise with its undefeated enemy. Trump claimed the credit, of course, but it was quite clear that Xi had been the real broker of the deal. China was in the ascendency, and its leader – more powerful than any since Mao – was in no hurry to pass on the baton to a younger princeling.

But, ultimately, it had been the 2026 surprise attack on Iran by the US and Israel that tipped the balance on so many geopolitical matters in favour of China, and, to a degree, Russia. The US had not achieved its aims of an Iran without nuclear ambition or means, and Israel was still living under that threat. Although Iran's conventional military capability lay in tatters after the War, its regime had largely unified the country in the face of external aggression and was a harder, more extreme version of its former self and the Middle East was now far more wary and far more nervous about its ambition. But the true strategic winner was China, who saw America's influence waning and her previously strong alliances slipping away both in the region and globally.

The rest of the World had noticed the global shift taking place, and there was a much-reduced appetite to look to America for trade, security or even investment. The tectonic plates were moving and more quickly than they had after the Second World War: independent, non-aligned countries were less certain of their place in the World, and there was increasing pressure to choose sides, and, for the first time in modern history, the more attractive side looked like a Dragon rather than an Eagle.

Russia had also prospered geopolitically from the shift away from US hegemony. NATO was at its weakest for some time, although Europe was waking up and finally responding to the new reality. America had remained engaged in NATO, but its heart wasn't there anymore, and Putin was exploiting the cracks as they appeared. More importantly, he was seeing a window of opportunity that might just allow him to recover from the damage to his prestige that strategic paralysis in Ukraine had caused him. Russian agents now probed and pressed across Europe, looking for weakness and attempting to sow doubt and discord in a NATO Alliance that was anything but the unified and steadfast opponent of the past.

With heightened tensions in Europe, the NATO alert status had increased across the board, but assets were already starting to get stretched. Although the situation had been hotly debated in the North Atlantic Council (NAC) early in 2030, there had been no formal declaration of Article 4 or 5, but it had been agreed that the clauses in Article 3 should be pursued with vigour, in that "…the Parties, separately and jointly, by means of continuous and effective self-help and mutual aid, will maintain and develop their individual and collective capacity to resist armed attack."

But Article 3 was a state designed to ensure sufficient resilience was in place before trouble flared. Whilst some nations (notably those closest to the Russian border) had spent the last five years bolstering their defences and national plans, some had made political promises but singularly failed to deliver either the resources or the actions necessary. Those gaps were being cruelly exposed now. All eyes had been on America at the NAC, but Russia had been rather careful to restrict its recent activity to the European Continent and America saw no need to assist or intervene. Had NATO, which had held on to the public fig leaf of unity since the Iran War in 2026, failed its first test? If the shrugging body language of the US Ambassador to NATO in the NAC hadn't offered enough of a clue, his statement to the media straight afterwards left no doubt:

*"President Vance has authorised me to say that the current tensions in Europe are entirely the responsibility of those European nations who have failed to meet their obligations to NATO, despite repeated warnings to do so. America will not*

*place its own forces at higher readiness and indeed will only meet those standing commitments that are already agreed. It will not increase activity levels for any additional surveillance or policing missions – those are entirely the responsibility of European members."*

For those expecting a more dramatic statement, this actually sounded vaguely supportive, but those insiders listening knew exactly what this would now mean for a NATO about to be tested in all the areas it was deficient and still largely reliant on US enablers.

NATO immediately increased its surveillance missions in Ukraine, the Baltics and the High North. But with no commensurate increase in US support, the surveillance orbits that this required immediately created a scheduling dilemma.

Whilst Europe had a relatively large joint Maritime Patrol Aircraft (MPA) force, the small number of boom-equipped aerial refuelling tankers meant that crews would quickly become the limiting factor. Lossiemouth in the UK, Evenes in Norway and Keflavik in Iceland became the critical bases from which to launch those surveillance missions, but their relative vulnerability made air commanders very nervous. The High North was now consuming Europe's entire MPA force at maximum effort and the entire boom- equipped air tanker force.

Whilst drones such as the MQ-9 Sky Guardian and the UK's MQ-9B Protector, and the five RQ-4D Phoenix NATO Intelligence, Surveillance and Reconnaissance Force (NISRF) were able to provide several 24/7 orbits, their surveillance coverage was limited. The more telling and useful signals and electronic intelligence was reserved for the more strategic platforms such as the UK's Rivet Joint and newly procured HADES (High Accuracy Detection and Exploitation System) aircraft, but these were extremely valuable and limited in number.

NATO was as ready as it could be, but for what, and would it be enough? Meanwhile in the UK, all the press were interested in was whether England could defend their FIFA World Cup title in the coming months. Nobody really expected a war.

# CHAPTER 1
# THE FUSE IS LIT

**The war started on a Wednesday (June 12th to be precise), but nobody really noticed and nobody declared it as such.**

It wasn't with a tank crossing a border post or 'little green men' in the streets: it started in what appeared to be just another cyber ransom attack on the UK's banking system. That was until the ransom request never arrived.

It was an attack on three axes. Not a single life was lost, nor was a single combatant involved. Indeed, the first ones on the scene were the Royal Berkshire Fire & Rescue Service.

The report of a fire at a trading estate in Slough was innocuous enough at first, but the enormity of its extent quickly became evident as the fires at the three data centres burnt with the black and acrid smoke created by burnt electronics. But the real impact wasn't felt in Slough: the data that it contained, and in some cases backed up, was now being denied from its owners, and the banking networks it fed were now being starved of the life-blood essential to their existence. These were not the bombs that John Betjemen had infamously invited in his famous poem, but the effect of these cyber-incendiaries was profound.

That event in Slough might not have been enough to create too much prolonged chaos, but it wasn't the only target. The Russian submersible mooching around the Scilly Isles didn't look very dangerous; it didn't have torpedo tubes or the tell-tale signs of missile silos bristling on its back, but what it did have was far more useful and deadly for the mission it was on. The data cables that its powerful search lights now illuminated constituted one of the major arteries between Europe and the US carrying a significant amount of intercontinental data traffic including internet, voice and financial transactions between North America and Europe. As the jaws of its hydraulic scissor clamped down on the first cable of many it was targeting, the banking world was about to find something far more worrying than the loss of a few data centres in Berkshire.

But the Russians are nothing if not thorough, and as the few, small co-orbital anti-satellite satellites, under their Burevestnik programme,  collided with a number

of GPS satellites, the impact was felt much farther than a few car drivers or hikers being temporarily unaware of their positions. The immediate interference of their timing signal suddenly created a dark spot on the Earth's surface. The banking systems that relied on this signal stopped working to protect the 'noughts and ones' of our hard-earned currency. In three fell swoops, our banking system went into cardiac arrest and then fell into a deep coma.

As the banks went into crisis and the stock market screens went blank, the news outlets didn't have the bandwidth to cover a situation that was simultaneously happening high above the North Sea. To be fair, it was not unusual for a Russian bomber aircraft to wander down the UK's East Coast without talking to Air Traffic Control or following the normal protocols of aircraft in international airspace. Fortunately, and as was routine in such circumstances, two Typhoon fighters from RAF Lossiemouth in northern Scotland had intercepted it many hundreds of miles North of the UK, after taking over from two Norwegian F-35s. But, whilst the Typhoon pilots of the UK's Quick Readiness Alert were used to such mischief, they had not encountered three enormous 'Bear' bombers flying together in loose formation before conducting this mission. Owing to its internal weapons bay, it was impossible for the Typhoon pilots to know with certainty if the Bears were armed or not, but experience had shown that their flight profile and lack of communication were most likely just posing a nuisance to law-abiding air traffic rather than a direct threat to UK sovereignty. As the Bears blundered down the East Coast of Scotland, the additional two aircraft on alert at RAF Coningsby in Lincolnshire had been instructed to get airborne to take over shadowing responsibilities once the Bears slipped southward. The handover was scheduled as the Bears cruised past Newcastle some 30 miles off the coast. Everything else about the handover was routine, right up until the point when one of the Bears banked to the right and turned inland, whilst the remaining two Bears maintained their south-easterly route paralleling the coastline. Apparently meandering, the Russians' manoeuvre had in fact been perfectly timed: the two Lossiemouth-based aircraft were desperate for fuel and were returning to their supporting Voyager tanker, and the two newly arrived Coningsby-based Typhoons had a difficult decision to make of which element to follow. In the end, the lead Typhoon pilot followed the West-bound singleton, whilst the wingman stayed with the two heading South-east.

The Typhoon pilot now shadowing the Bear heading for Newcastle spoke to the Master Controller at RAF Boulmer, who had been monitoring the unfolding horror. Russian bombers were a nuisance, she thought, but they never did this. She was quickly on the phone to the small Air Defence Cell in the bunker at RAF High Wycombe, who themselves were already alerting the UK Air Defence Commander, an RAF Air Vice-Marshal.

At 360 knots, the Bear with its four propellers, wasn't a quick aircraft, but time compressed quickly for the defenders when the bomber was flying at 6 nautical miles a minute over Newcastle and pointing towards the Yorkshire Dales. Surprising to many perhaps, the Typhoon, despite its array of air-to-air missiles, had no authority to shoot down an aircraft not yet posing a threat, even if it was obvious where it came from. The only option, without any authority to the contrary, was to shadow the aircraft and see where it went. Surely the bomber wasn't armed? The Typhoon was making all the well-practised – but now more urgent – signals to the Bear cockpit, but short of ramming it or shooting it down, the Typhoon was powerless to change its course.

As the Typhoon shadowed the bomber, the UK Air Defence Cell in High Wycombe had alerted No 10. After the tragedy of 9/11, this was now normal procedure for a potential hijack scenario, but this was anything but that. The UK Air Defence Commander didn't have the Rules of Engagement permissions to destroy a single Russian military aircraft, so he had asked the Cell to follow the same procedures as they would for an uncompliant airliner.

The Senior Controller at High Wycombe was patched through to the PM's personal phone (who ironically was on a factory tour in the Midlands of a new drone interceptor start-up business). When he briefed the PM on the type of aircraft involved, the silence on the line seemed to last an age.

"What are my options?" asked the PM.

"Well," the Senior Controller replied, "we do not believe the aircraft is armed and is not behaving in a way that suggests anything more sinister. But it is not complying with any orders or signals. My recommendation is to continue to shadow the aircraft until it leaves UK airspace."

"What if it doesn't leave our airspace and begins to conduct what looks like an attack?" The PM replied after a slight pause.

"Then we shoot it down Prime Minister, with your permission of course."

The Prime Minister had listened intently to her early arrival brief on how to handle hijacked airliners, but the thought of declaring war on Russia by shooting down one of its bombers made her slightly queasy. She was lucky that the Bear eventually flew across the entirety of the UK and departed across the Irish Sea to eventually join up with the other two. But when she saw how negative the press was on her apparent weakness, she almost wished she had shot it down.

Within a few hours the stories of the Russian bomber, and the attacks on the banking and infrastructure systems were being (rightly as it would turn out) conflated. One tabloid newspaper had already run the headline "Has Russia Declared War on Britain" - it had been a strange day all round.

But not as strange as it was about to become.

The UK's Critical National Infrastructure is more vulnerable today because of our reliance on it for so much of our daily lives, and because its creation is based on cost-efficiency when everything is running smoothly rather than resilience when things go wrong. Business Continuity Plans are designed around sporadic power outages or thankfully rare natural disasters, not acts of war. And our routine day-to-day defensive posture is equally scaled to maximise efficiency for peacetime threats in an under pressure defence budget.

The Nation's insurance policy is based on a third party, fire and theft mindset: it is not a comprehensive policy designed to meet the truly harmful threats we face.

And years of being desensitized by grey zone attacks that never quite crossed the line into open conflict meant that it took only a small step to cross it – the frog was well and truly boiled by the time that step came.

# CHAPTER 2
# PUTIN ON MANOEUVRES

**The Russian invasion of Ukraine had – perhaps inevitably – stalled in 2027, and although both sides had signed the Trump/Witkoff Peace Accord in 2028, it was an uncomfortable truce. Mounting Russian casualties and the corrosive long-term impact of Western sanctions had taken their toll, but the Russian economy was still on a semi-war footing and Russia's expansionist ambitions remained undiminished. An emboldened President Putin remained frustrated at the need to conduct an 'operational pause' in his wider expansionist strategy, but his tactic of exposing NATO's lack of unity – particularly the US focus on National vs Alliance priorities – amounted to a great strategic success. His time would come.**

By 2030, the negotiated front-line in Ukraine had started to look more permanent; indeed, although talks to enable Ukrainian membership of NATO had yet to bear fruit, several nations had committed to help Ukraine develop its own national defence capability, augmented by western military and industrial support. The US had consistently sought to ensure a European lead for Ukraine assistance, albeit that successive US Presidents had remained keen to provide invaluable intelligence and wider enablers to European allies. The Coalition of the Willing had focused on providing a framework of European military capability upon which Ukraine could capitalise. This included forward basing of fighter squadrons on Ukraine territory, and core Intelligence Surveillance and Reconnaissance (ISR) and Air-to-Air Refuelling (AAR) assets based out of the country but routinely used to train their Ukrainian allies.

The fragile cease-fire was maintained via a Buffer Zone between Russian and Ukrainian frontlines, albeit both sides disputed the location, terms and longevity of the arrangement.

However, there was no NATO agreement about how to support Ukraine. Nations closer to the Buffer Zone such as Poland prioritised their own national security rather than diluting military capability through additional provision of equipment to Ukraine.. Southern Alliance members seemed happy in principle with the support arrangements for Ukraine, but shied away from making tangible force commitments to the Coalition forces. The UK, France and Germany had taken

the lead on direct support to Ukraine, with the latter focused on ground force training, with the UK committed to helping the Ukrainian Air Force (UAF) create a more robust and sustainable air power capability.

The UK's forward operating base at Starokostientyniv – a former base for the UAF's Fencer strike aircraft – had been selected as the base for UK/UAF operations, with a permanent deployment of eight Typhoons plus RAF Regiment air defence support enablers.

But, although the UK had only committed eight fighters to the multinational Coalition, sustaining that commitment at high flying rates when the deployment was crewed at 1.5 pilots per aircraft to meet 24/7 readiness commitments, was stretching available resources very thin back at home. The UK had seven Typhoon squadrons; however, QRA remained a national priority for both RAF Lossiemouth and RAF Coningsby. The Falkland Islands commitment could not be reduced following a heightened period of anti-UK rhetoric from the Argentine authorities with increasing tacit US support. The British bases in Cyprus and Gibraltar also required regular reinforcement due to the growing probing threats from the Russian long-range bomber fleets. Sustaining a permanent eight-aircraft commitment in Ukraine required three squadrons on a four-month rotational cycle. Too many focussed on the deployment size and not the totality of the demand to sustain it indefinitely.

When Alexander Lukashenko fell critically ill, nobody was very surprised when Russia 'benignly' brought Belarus more firmly into its 'guardianship'; Lukashenko's infirmity was all the catalyst Putin needed. The leadership handover was conducted quickly and efficiently in accordance with the plan and demonstrated to the World that Russia's expansionist ambitions had far from abated. Russian forces had long been deployed within Belarus, and there was little resistance to the move. However, this now flanked the Coalition forces in Ukraine to the East and North and was a clear signal that the frozen frontline was about to thaw.

Russian probing attacks in Ukraine were now becoming a regular feature, with numerous False Flag operations initiated by Russia but blamed on Ukrainian forces. Western governments – for so long keen to support Ukraine – now vacillated about whether to leave the country or risk getting dragged into a wider, perhaps nuclear, war.

Sensing a fractured NATO, political indecision and a growing sense of European panic, Putin started to conduct military operations near Estonia's border. Russia's claims that this was simply a routine training exercise was not enough to placate European concerns, particularly as Putin continued to highlight Russia's comprehensive nuclear capability through forward-location of warheads into Belarus and the implied threat of nuclear reprisals should the West intervene in Russian operations. Western leaders prevaricated about the risk involved, and without a credible US backstop, the unity of NATO's deterrent credibility faltered. The NAC meetings became increasingly fraught, with the US looking increasingly to its European partners to address the developing Russian threat with a European solution. However, some European leaders prioritised national protection over Alliance deterrence, leaving Europe on the horns of a dilemma – whether to be united through NATO to combat wider Russian expansionist ambition, or divided and focus on their own national security alone?

Russian nuclear sabre-rattling – set to test and weaken NATO cohesion – continued to expose a lack of determination and unity, NATO's binding principle.

NATO's illusion of invincibility had been shattered. European nations that for so long had been bound by military alliances – stronger together than apart – now found that their overriding focus on national interest was fast becoming their strategic weakness. Collective capability – forged over decades of training, alignment and commitment – had been exposed as little more than a political palliative to avoid national defence spending challenges. A failure to prepare had exposed a critical vulnerability of European defence – its deterrence capability – and with momentum on Russia's side, the West somewhat retreated to national boundaries and lamented its lack of foresight.

In the absence of prior investment and a credible and resilient force structure, European nations initiated mass conscription to create a large land army to combat Russian aggression. Ill-equipped, poorly trained and without the combat experience of their Russian adversaries, European soldiers were preparing for a brutal war of attrition against an enemy that history had shown did not care about the human cost of war, provided it achieved the desired effect.

If only ...

Scholars lamented that the West had a significant technological advantage over its Russian foe, but a failure to generate the combat mass required to present a credible deterrent had left it perilously vulnerable.

The signs had been there for all to see, but the painful legacy was that political leaders had failed to act – and the price for this failure would be borne by generations.

NATO had long known that the Baltic States were both vulnerable to a Russian attack and coveted by Putin as unfinished business, but the enhanced Forward Presence that NATO presented there was calculated as an economy of force effort to deter a logic that no longer applied. Ukraine had been the wake-up call, but now it had also become the additional task that stretched that economy of effort to breaking point. Europe knew it, but so did Russia, and the long and often telegraphed indifference from across the Atlantic was all that Putin needed to test it. Was NATO truly ready for anything, anywhere, at any time?

The additional task of preserving any peace in Ukraine placed more stress on NATO forces and increased its de facto frontier with Russia, without the certainty of Article V collective defence. Yet, the geography of the Baltic States and the criticality of the Suwalki Gap had not changed, and the probing geography of Belarus was Putin's opportunity to exploit it all.

# CHAPTER 3
# NORTHERN EXPOSURE

***Steadfast Defender 30 – High North, 2030***

In the weeks before the disruption of financial systems in the United Kingdom and the degradation of satellite services across Europe, NATO had already been watching its northern flank with increasing concern.

Russian activity around Belarus and the Kola Peninsula had intensified during the early phases of Exercise STEADFAST DEFENDER 30. What had initially appeared to be seasonal signalling was beginning to take on a more deliberate and coordinated character.

By early 2030, the geometry of NATO's northern flank had become both more resilient and more precarious. To the south-east, Russian formations exercised at scale in Belarus within operational reach of the Suwałki Corridor. Rail movements were efficient; bridging units rehearsed rapid emplacement; electronic discipline was markedly improved. The geography was unforgiving. Between Belarus and Kaliningrad lies the narrow connective strip that binds the Baltic democracies to the remainder of the Alliance. Its vulnerability had long been understood. What was changing was not geography, but the tempo and coherence with which pressure could be applied simultaneously across multiple theatres.

While political attention focused on that dilemma, NATO's military emphasis shifted northwards.

The High North had become central to collective defence. Russia's Northern Fleet, its bastion strategy on the Kola Peninsula and the increasing reach of long-range precision systems meant that control of the Norwegian Sea and the approaches to the Greenland-Iceland-UK arc would shape the wider crisis.

Off Norway's western seaboard, HMS *Prince of Wales* led a multinational Carrier Strike Group. Royal Navy Type 45 destroyers and Type 26 frigates operated in concert with Norwegian, German and Dutch surface combatants; allied submarines manoeuvred ahead in screening positions; maritime patrol aircraft ranged far beyond the horizon. The force was credible, but it lacked the necessary

depth. In some areas, available mass fell well short of what had previously been assessed as necessary for sustained operations in conflict.

The United States, increasingly focused elsewhere, played a supporting rather than leading role. It contributed key enablers, including intelligence, maritime patrol aircraft and limited refuelling support, while European allies assumed greater operational responsibility. In line with that approach, the US Navy's Combined Task Force 67, normally based at Sigonella in Sicily, deployed a number of its P-8A Poseidon forward alongside RAF and Norwegian assets in northern Scotland and Norway.

The HMS *Prince of Wales* Carrier Air Wing's initial emphasis was clear: Air-Land Integration with shore-based NATO ground forces. F-35B Lightnings executed close air support, armed overwatch and dynamic targeting serials in support of Norwegian and British ground manoeuvre. Royal Marines operated in austere littoral terrain; winterised British Army AH-64E Apache helicopters integrated within multinational composite air operations. Digital targeting procedures, advanced in the United Kingdom under the Integrated Targeting Web initiative, were rehearsed under degraded communications conditions; sensor-to-shooter compression was now deliberate rather than incidental.

In parallel, the RAF executed a mature Agile Combat Employment construct. Typhoons dispersed from main operating bases to a succession of road strips and remote operating sites across Scandinavia, cross-serviced by Swedish, Finnish and Norwegian personnel. Survivability now depended on dispersion and rapid redeployment, demanding levels of flexibility and personnel support that earlier manpower reductions had eroded. The dual-hatting of maintenance personnel across aircraft types (such as on E-7 and P-8), once considered efficient, proved ill-suited to a conflict requiring deployed depth and specialisation.

At sea and in the air, surveillance was continuous, but not complete.

RAF P-8A Poseidon aircraft operated from RAF Lossiemouth and from Aldergrove Flying Station in Northern Ireland, the latter providing efficient access from the south-western approaches to the Faroes-Iceland Gap. Norwegian and US Navy P-8s coordinated patrol patterns with the RAF in the north, whilst Danish and German P-8s collaborated with surface combatants to maintain constant

vigilance in the Baltic, monitoring potential warship 'leakers' from St Petersburg and malign activity by shadow fleet 'anchor-draggers' that continued to menace NATO nations' seabed communication nodes.

Complementing the Poseidon force, the RAF's long-endurance MQ-9B Protector remotely piloted aircraft, controlled by crews at RAF Waddington, contributed not only to persistent surface surveillance but also directly to anti-submarine warfare. Recently equipped with sonobuoy dispensers, Protector could lay and maintain sonobuoy fields in areas of interest, bolstering the Royal Navy's Atlantic Bastion initiative and extending the acoustic search grid without requiring a crewed aircraft or ship to remain overhead. Protector did not replace Poseidon; it multiplied its effect. But it too consumed scarce sonobuoys, bandwidth and planning attention.

The operational architecture was layered and effective in design but was too diluted to deliver comprehensive cover for every cubic metre of ocean. Even with multinational contributions, commanders could not maintain persistent coverage across all the areas of interest simultaneously. Prioritisation was constant. To watch one sector closely was to accept reduced visibility in another.

In the air, NATO sustained continuous airborne early warning. The RAF's growing fleet of E-7A Wedgetails, acquired under the 2026 Defence Investment Plan, but still short of its newly authorised full complement of five aircraft, operated alongside the ageing, unreliable and increasingly unsupported E-3As of the NATO Airborne Early Warning and Control Force. Together, supported by RAF Voyager and NATO Multi-Role Tanker Transport aircraft, they maintained a continuous orbit west of Norway. The system worked, but it was not without strain. Sustaining continuous coverage placed immediate pressure on aircraft availability and crew endurance. It was sustainable for a finite period measured in weeks rather than months, after which reconstitution would be required. Whilst NATO had the clock, Russia had the time, and it knew it. Protecting that orbit was a 24/7 task for NATO's fighter aircraft but Russia could bide the time waiting for NATO to wear thin or out.

Higher still, a stratospheric surveillance layer compensated for the enduring limitations of satellite orbital geometry in the High North. Despite the proliferation of commercial and military satellites, coverage at extreme northern

latitudes remained constrained by available orbital parameters, revisit rates and line-of-sight geometry. Space assets provided exquisite but episodic intelligence; they did not guarantee persistence.

To bridge that gap, NATO employed high altitude pseudo-satellites, high-altitude balloons and hydrogen-powered long-endurance fixed-wing aircraft. Operating for days or weeks at a time in the stratosphere, these systems provided continuous wide-area radar, signals intelligence and communications relay coverage that space-based systems could not sustain over the same geographic footprint. Where satellites offered precision snapshots, this stratospheric layer provided dwell. In the High North, dwell equated to warning.

Even so, persistence did not equate to certainty. Weather, geography, sensor limitations and the sheer scale of the theatre ensured that activity could still be masked or misinterpreted. Commanders were operating with a better picture than before, but not a complete one.

As a result of the 2026 Defence Investment Plan, the United Kingdom had partially recapitalised its critical intelligence, surveillance and reconnaissance capability lost with the retirement of Sentinel in 2021 and Shadow in 2026. The RAF's new ME-11B long-range surveillance aircraft, operating within the UK-US HADES partnership forged with refreshing rapidity and strategic clarity in 2026, formed part of a shared fleet concept analogous to the Rivet Joint arrangement. Nationally owned aircraft operated within a common mission system and harmonised development pipeline that enabled real-time intelligence sharing.

The ME-11B HADES restored wide-area ground and maritime moving target indication, advanced radar intelligence and tactical signals intelligence within a survivable stand-off construct, providing targeting quality intelligence for prosecution by multi-domain effectors. Procured to meet ambitious MOD requirements to place a sensor rapidly at any point of the globe, HADES stood off at range from its targets of interest. Operating at high altitude and outside the effective reach of Russian long-range surface-to-air systems, it extended its sensing envelope through air-launched effects housed in agile underwing pods. These payloads expanded the radar horizon, refined emitter geolocation and complicated adversary air defence networks while the host aircraft remained beyond the densest threat envelopes.

Working in concert with Rivet Joint, HADES cross-cued collection. Rivet Joint harvested broad-spectrum communications intelligence; ME-11B refined radar characterisation and geolocation to targeting-quality precision. This layered approach identified preparations in the Murmansk region consistent with a test of the hypersonic SS-N-33 Zircon anti-ship missile, a key concern for the Commander of the Carrier Strike Group. Rivet Joint confirmed telemetry network activation; coastal launchers had dispersed; and fire-control radars had been calibrated.

Whether this was demonstration or preparation remained unclear.

At the same time, four Severodvinsk-class submarines disappeared from established patterns of activity. For maritime commanders, absence was itself a form of threat. A detected hunter-killer SSN could be managed; one unlocated submarine imposed caution across an entire force. Four such vessels, unaccounted for, fundamentally altered the risk calculus.

The convergence of indicators triggered concern at NATO maritime headquarters and at the operational level. The implications were significant.

P-8A sortie rates increased; satellite cueing continued; refuelling support remained available. But each additional orbit consumed capacity. Every sortie tasked to one area meant another area received less attention. The threat had to be honoured, but honouring it imposed cost.

RAF Poseidon crews included Reserve mission specialists and pilots who in civilian life flew commercial airliners; trained to identical operational standards, they provided surge depth without dilution of capability. The Voyager fleet, supported by Sponsored Reserves and equipped with both probe-and-drogue and now boom refuelling capability funded by the 2026 Defence Investment Plan, sustained E-7, P-8 and Rivet Joint sorties across multiple axes. Yet resilience was not infinite. The system could surge, but it could not surge everywhere indefinitely. The political decision point arrived quietly. Intelligence indicated that whilst Zircon activity might be characterised publicly as a test, its demonstrated envelope would confirm a credible anti-ship capability of approximately one thousand kilometres. Combined with the unlocated nuclear-powered hunter-killer submarines, the risk calculus shifted.

The British Prime Minister authorised HMS *Prince of Wales* to reposition westwards. The move preserved combat power within a disciplined risk framework, but it carried strategic signalling implications. Movement could be interpreted as either prudence or hesitation.

The majority of F-35Bs redeployed ashore under the Agile Combat Employment construct to maintain the Air-Land Integration objectives of STEADFAST DEFENDER 29, but could be returned rapidly to the carrier with Voyager support if required. Those few remaining embarked transitioned into a dedicated fleet defence posture. Combat air patrols extended ahead of the task group; working with E-7 and NATO E-3A battle management, the residual Lightnings functioned as low-observable fleet defence interceptors optimised for Defensive Counter Air.

Two days later on June 11th, north-east of the Faroes, a Norwegian P-8A detected a transient acoustic contact consistent with a modern nuclear submarine. The handover to an inbound RAF Poseidon from its forward operating base at Aldergrove Flying Station was seamless. One of the major recent successes for Allied interoperability had been the combined Poseidon training conducted at RAF Lossiemouth for RAF, Norwegian and German crews.

Almost simultaneously, Rivet Joint detected encrypted Northern Fleet transmissions consistent with submarine command traffic. HADES cross-cued radar and electronic intelligence, refining a probability corridor bending south-west through the Faroes-Iceland Gap, directly ahead of the carrier's revised track.

On station, the RAF Poseidon's acoustic display resolved harmonic spacing aligned with library data: probable Severodvinsk-class, moving south-west through the Faroes-Iceland Gap and towards the Atlantic.

The submarine was not localised with certainty. Its projected movement suggested a wider Atlantic transit, but confirmation never came. It was difficult to avoid the conclusion that Russian activity was calibrated to stretch NATO's resources to the point where prioritisation became unavoidable.

The High North had long been regarded as a peripheral theatre. In practice, it had become the point at which strategic warning, nuclear deterrence and maritime control converged.

The Alliance could now see more than it had before, but visibility remained incomplete and hard-won. Surveillance systems were effective, but finite. Gaps persisted; prioritisation was unavoidable.

The United Kingdom, by geography and capability, found itself central to this mission, yet only resourced to sustain it over a limited time period. The question was no longer whether NATO and the UK could detect emerging threats. It was whether it could maintain that awareness, act upon it and act decisively enough when it mattered.

Somewhere to the north-east of the Faroes, a submarine remained unlocated.

Others would soon have to decide what that meant.

The High North is viewed by some as NATO's back door, but from a nuclear standpoint and from America's viewpoint it is very much the front door. The UK, alongside its Nordic neighbours, holds a unique position to both conduct and host the critical surveillance mission against the one Russian capability that NATO still truly and rightly fears.

Is this the UK's primary mission on behalf of NATO, and if so, do we have the requisite level of capacity and capability to lead it?

# CHAPTER 4
# THE FIRST DRONE ATTACK

**After the multiple incidents on the Wednesday, the nation was becoming both more alert, but also more paranoid. Now every little incident – and non-incident – was being interpreted as potential Russian interference. Interestingly, Russia had made no formal statements about the recent events in and around the UK, but everyone else had already made up their minds as to who was responsible. On the Thursday morning, the London Underground's Elizabeth Line experienced a major power outage caused by a lorry crashing into an electrical generation terminal – the driver from Hounslow was having a devil of a time in the local police station disproving his non-existent Russian links to the MI5 agent who had come to debrief him.**

But, as everyone looked to blame Russia for every single blip on the morning commute, the real threat was about to emerge, and this time there would be no case of mistaken identity of a careless lorry driver, even though this time it involved three lorries.

Each year, approximately six million shipping containers arrive on UK shores via approximately 85,000 cargo vessels. Whilst security checks are commonplace, the new Freeports had been built up at such a pace that their increased throughput was exceeding their capacity to deal with it, and the increased staffing requirement had meant that not all vetting procedures had been as robust as planned. This was certainly the case at the Plymouth and South Devon Freeport, and it hadn't cost too much to bribe the night security detail to turn a blind eye to three containers just in from Mali via Nigeria.

The containers were loaded onto three separate lorries, which, around the time the Russian Bear bomber was clearing UK airspace, began their own independent journeys to three well known destinations. By the morning of Thursday 13 June, they were in place. They blended in well at the truck parks they occupied, surrounded by the myriad of similar looking vehicles. The drivers had long since left the area, their jobs complete and their electronic pockets bulging with crypto coin – the next phase would all be automated. Although they were in very different parts of the country, they had three key similarities: the contents

of their containers and the fact that each was parked only a few miles from one of the UK's five busiest commercial airports: Manchester, Stansted and Luton. They avoided the two obvious targets of Heathrow and Gatwick, which had got so much better at handling this type of event, but the designers of this plan were confident the effect would be felt just as keenly everywhere.

At 6am precisely, all three containers were activated. Their internal batteries initiated a sequence of events that took only minutes to complete, and although events were witnessed by a few bystanders, they were powerless and too in thrall to intervene. By the time the hinged top doors had swung open, and the 40 drones contained in each container had launched vertically, the fate of the three airports was already sealed. Although the UK possessed a very modern capability to deal with drones, it was maintained by the military and was held centrally ready to respond to intelligence alerts or actual attacks. They would have no time to respond in this case.

Flying at speeds in excess of 200 mph, the drones were noisy enough to draw attention, but fast enough to be gone from sight before anyone had a chance to react or really understand what was about to happen. The lorries' parking sites had been selected to be far enough away from the airports to not draw too much suspicion or surveillance, but close enough that the distance between them was covered in minutes. Flying at just over three miles a minute meant that each of the drones took only five minutes to reach their pre-programmed targets.

Commercial airports are highly organised, predictable and well-codified places. In particular, the aircraft stands were easily pinpointed with their own accurate latitude and longitude coordinates. And years of data could tell anyone which gates were occupied on which days and at what times. And as the summer holiday season was beginning to build up, every airport was running a full schedule. Each drone had been pre-programmed with set co-ordinates, so there was no need for any additional input to their flight profile.

The timing of the attack had been carefully researched, this attack wasn't intended to cause much loss of life, although some unfortunate airport and airline workers were caught up in the attack. Of the 120 drones fired, all but seven functioned as intended, and of those, 96 impacted exactly what they

expected to find, with the remainder selecting reversionary targets when they found their intended prey absent. Airlines obsessed with on-time performance and tight scheduling had done the targeteers' work for them. But that schedule and the on-time performance was now in tatters as more than 100 aircraft either burned ominously or had their backs broken from the sheer impact.

Large commercial airports were blessed with extensive fire and medical coverage for the unthinkable and rarely seen aircraft crash, but nothing had prepared them for the devastation that had arrived with such little warning and such overwhelming force. The three airfields and the airlines so deeply affected were not going to recover from this quickly, if at all. Airline operations cells were all ringing the NATS cells at Swanwick and each of the airports, desperate for information and equally desperate for slots to scramble the remainder of their aircraft. The CAA and Department of Transport were now involved, but none of the organisations were equipped to handle this type of occurrence.

As the Minister for Transport prepared to be interviewed on Breakfast TV, the facts were only just emerging of the extent of the damage. Airports and airline schedules were in meltdown, and it would take a few hours before dispersal plans could be drawn up. It appeared that the UK had been singled out (for now), but the panic that ensued left international airline and travel booking websites and insurance companies reeling from the unprecedented volume of enquiries. The airports themselves looked like ghost towns and the emergency services spent the rest of the morning putting out fires and trying to limit the damage to the airport terminals.

It was mid-morning before the first forensic information emerged. The three trucks had been quarantined as they were reported quickly after the attack by those who had witnessed the launches. Fragments of the drones had been recovered from some of the wreckage. Whilst Russia remained silent over the attack, the links to the Yelabuga drone factory in the Alabuga Special Economic Zone in Tatarstan became overwhelming.

The seemingly never-ending requests to the Transport Secretary for morning interviews were mercifully interrupted, as his attempts to call for calm in front of an unfolding backdrop of a scene from Armageddon fell on deaf ears. But any relief was short-lived as the Prime Minister standing at her lectern in the

Whitehall Press Room announced the findings and spoke of her impending calls with NATO colleagues.

Mercifully, there were only a few dead and injured in the early morning raid, but the shock to the nation was palpable and far reaching.

The unconventional drone threat has been hiding in plain sight since the Ukraine War started and was brought home more recently by the Iranian attacks in the Gulf and Mediterranean in 2026.

Action in NATO Ministries of Defence has been slow to gather pace, and largely focussed on defending deployed or even home-based forces. Assistance to the civil power has been on a case by case basis and usually either to a pre-planned National event or after an incident. Should we not be more widely prepared for such low cost and hard to detect threats?

The UK had long been singled out by Russia, and it was now being seen as the weak and vulnerable link between the US and Europe. This attack would show that there was no hiding behind the illusion of an impenetrable European Shield.

# CHAPTER 5
# PLOUGHSHARES INTO SWORDS

**Bryn had worked the aluminium casting and machining equipment for twelve years. He knew the factory like the back of his hand: the hiss of steam, the hum of the robotics working continuously, the clank of finished components being moved, the alarm sounding when the roller door was moving, and the way the radio looped the local station until even the adverts felt like family. Once, their line had produced a myriad of components for global auto manufacturers, honest things for cars that kept bills paid and kids in after-school clubs.**

Since the war started, the place and its products had changed.

Bryn still made his tea in the same chipped mug, laced his boots the same way, and walked the floor with the same careful steps. But instead of vehicle makes and models, the shelves now carried crates stamped with priority codes and neat black MoD labels: Missile-Stage-A, Nozzle-Unit-7, Warhead-Mount. The all-important drawings were now stamped: "Defence Supply - Priority 1."

Between songs, the radio carried various terse Government messages about the war effort impacting transport, energy, supplies and the services the country had taken for granted since the 1940s, trying to strike the balance between alarm and getting people to do the right thing.

The banter had changed too. Tommy's irreverent jokes continued, but the talk all felt a little more serious and war threaded through everything. Bryn listened more now. He paid close attention to when the manager mentioned deliveries being rerouted or when an MOD inspector asked whether a CNC machine could be altered to tighter specs. Those practical questions were a reminder that someone was depending on them.

The factory's retooling hadn't been sudden. Thanks to the 2027 Agreement, plans to convert civilian lines to defence work had been sketched out in advance. Still, seeing the first run of missile components come off the line felt like crossing an invisible border.

Bryn remembered the first batch of small, cylindrical housings for the missile's first-stage thrusters coming out under the harsh light. They looked delicate and terrible at once, tiny machines that might fly where no car ever would.

Aluminium was aluminium, Bryn thought, but the work demanded a different kind of attention. Tolerances now read like warnings: a fraction of a millimetre out and a nozzle might fail in flight. He and Nadia, who ran quality inspection, spent long hours learning ballistic alloys, heat treatments, and new documentation protocols. They read manuals the way people once read scripture, carefully, aloud sometimes, because every line mattered.

At first, there was anger among some. They'd been proud of supplying ordinary life; that pride felt betrayed when the jigs changed from steering gear housings to missile casings. That resentment softened when ITV local news showed a piece from a frontline unit in Germany and a young gunner, without naming the company, proudly acknowledges that the "vital" components were made in his home town. The thing they made had a name and a face in the field.

Bryn's hands learned new shapes. He kept a small folder in his locker with orders: "Missile Component Batch 112 - Priority," "Launcher Adapter - Urgent." Sometimes in the pause between pours he thumbed through the folder and tried to picture the destination of his parts: a radar operator watching the sky, a gun crew setting up at dawn. Simple images, but they knotted the work to something larger.

Losses did make the work feel heavier. A driver who regularly took their crates to one of the motor manufacturers didn't come back one week. The team gathered in the canteen, mugs cooling in their hands, while the foreman spoke softly about support. Bryn signed the donation sheet, a small act that hopefully provided some comfort for a family and, in its own way, kept the factory running.

There were practical moments that mattered as much as the solemn ones. Ministry teams visited to assess throughput and resilience, asking blunt questions: Could the line run 24/7? How quickly could they switch to a different alloy?

Bryn answered with practical solutions. Changing shift patterns, creating spare moulds, patching moulds and reprogramming the CNC equipment at midnight. The visit left them with extra maintenance support and a new set of priorities on the noticeboard.

Home life had shifted as well. Bryn's partner took to sewing pouches for spare parts. Their son, who once watched football and car reviews, now watched clips of air-defence drills with quiet focus.

Bryn kept a private ritual. On the 11th of each month, at eleven on the dot, the line slowed and a hush fell over the foundry when the national pause was observed. Cranes held still and fans wound down; Bryn rested his palms on the cool lip of a mould and remembered faces - old foremen, colleagues lost along the way, the driver who never returned. The silence was not grandiose; it was a concentrated thing, like holding breath to steady a hand.

When sirens sounded, usually tests, Bryn looked around the factory. Faces were like the aluminium they worked: strong, malleable, marked from heat but capable of being reshaped. Bryn did not think of himself as a soldier.

He was a fabricator, someone who shaped metal and documents and routines so that others could do their jobs. Still, he knew the factory was now part of a wider defence: not just military men in uniform but a country mobilised in small, vitally important activities. Each nozzle and housing he finished was a quiet answer to a summons to support the nation. He was making a way for a nation to keep its skies.

The 2027 Agreement, abstract in the beginning, had started the plan that led to the factory pivoting when it mattered; by 2028 parts could be rerouted in a weekend; by 2029 output had swollen to meet demand and the Russian attack on the nations critical services resulted in the huge generators being installed in the car park so work continued even if the grid failed again; now, in 2030, the factory was just one of more than 2000 in the UK whose entire effort had shifted to winning the war.

The UK Government today talks about "Defence being an engine for growth". Growth based on investment in skills, employment and exports. It has even dabbled with the concept of being on a war footing, but whilst this may be true for those factories producing for Ukraine, it carries little weight in relation to UK Defence effort.

Here perhaps, the Government needs to be thinking of "Industry as an engine for Victory". Do we actually know how we could repurpose civil manufacturing, how much capacity do we have/need? Do we even know where it is or how to access it?

The National Armament Director was by now firmly established, but he could only dream of the power and oversight that Lord Beaverbrook had enjoyed as Minister of Aircraft Production in the Second World War.

# CHAPTER 6
# THE REINFORCING ARC - SUSTAINING THE FIGHT

**If intelligence defined the shape of the problem in the High North, air mobility defined whether NATO could respond to it.**

As the intelligence picture emerging from the Norwegian Sea sharpened, the challenge confronting the Alliance became clear. Surveillance and maritime control could reveal Russian intent, but they could not sustain deterrence alone. Forces dispersed across northern Norway needed supplies; aviation units required fuel, munitions and engineers; and commanders needed the ability to reinforce the theatre quickly.

In northern Europe, geography had always favoured the side that could move fastest. But speed alone was insufficient. To be credible, reinforcement had to be sustained, and sustainment demanded capacity, resilience and prioritisation.

For the United Kingdom, that response began hundreds of miles to the south at RAF Brize Norton, where the Royal Air Force's air mobility fleet had begun quietly increasing its operational tempo as Exercise STEADFAST DEFENDER 30 unfolded.

RAF Brize Norton remained the UK's principal hub for its military transport and tanker fleet, but planners were careful not to rely on this single point of vulnerability. The same operational logic that had driven the dispersal of combat aircraft under Agile Combat Employment was increasingly applied to mobility forces. A network of pre-surveyed dual-use airfields across the United Kingdom had quietly been prepared to support transport and tanker operations if required. Supported by rapidly deployable communications packages, expeditionary logistics support, fuel storage and deployable electrical power systems, these sites could be activated quickly to host RAF aircraft should circumstances demand.

One such location was the recently reactivated Doncaster Sheffield Airport, whose 9,000-foot runway and modern infrastructure made it well suited to

supporting Voyager, Atlas and C-17 operations. While Brize Norton continued to handle the majority of traffic, the existence of alternative operating sites complicated any adversary's planning assumptions.

Dispersal had become a form of resilience. In the emerging crisis, resilience was itself a form of deterrence. But dispersal also imposed cost. It increased the requirement for manpower, ground support equipment, fuel distribution, force protection and command and control. What enhanced survivability also reduced efficiency. The system could be made harder to strike, but only by spreading scarce people and equipment more thinly. That trade-off would become increasingly significant.

At the centre of the reinforcement effort was the Voyager fleet, whose flexibility had grown significantly following upgrades funded under the 2026 Defence Investment Plan. Originally procured primarily as a probe-and-drogue tanker, Voyager had evolved into something far more versatile. The aircraft retained its under-wing hose pods for fighter aircraft and its centreline hose unit for larger probe-equipped receivers, but it had also been fitted with a refuelling boom. That modification allowed the aircraft to refuel platforms equipped with receptacle systems.

By 2030, some RAF Voyager could service virtually any jet receiver in the NATO inventory. In practical terms, this transformed the aircraft into a universal aerial refuelling platform. A single Voyager sortie could top up Typhoons protecting the air approaches to Norway, extend the endurance of P-8A Poseidon maritime patrol aircraft searching the Norwegian Sea, refuel E-7 Wedgetail airborne early warning aircraft maintaining the recognised air picture, or sustain intelligence platforms such as Rivet Joint operating along NATO's northern flank. Prior to its modification to being a dual-capable boom/hose tanker, almost all of the RAF's large aircraft fleet relied on the US Air Force for air-to-air refuelling, imposing significant constraints on UK sovereign flexibility as well as endurance and range.

At the same time, Voyager retained its ability to transport cargo and personnel.

Strategic lift and air-to-air refuelling had effectively become one mission. Increasingly, those aircraft also contributed to the intelligence picture. In line with the growing NATO concept that every platform should act as a sensor, elements of the RAF's air mobility fleet carried modular sensor packages capable

of collecting environmental, electronic and situational data during routine flights. Operating in controlled emissions modes, these systems quietly fed information into the Alliance's emerging digital targeting web, adding to the collective understanding of activity across the theatre.

Even aircraft tasked primarily with transport or refuelling were therefore contributing to the wider intelligence architecture underpinning NATO operations in the High North.

This added value, but not without compromise. Additional sensors imposed demands on payload, power, bandwidth and planning. The more each aircraft could do, the more commanders were tempted to ask of it. But flexibility did not create abundance.

A typical Voyager sortie during the exercise might depart Brize Norton carrying engineers for dispersed Typhoon detachments in Scandinavia, specialist intelligence equipment destined for RAF Lossiemouth, and a small rotation of Royal Marines heading north to reinforce littoral training areas. En route, the aircraft could refuel combat air patrols protecting HMS Prince of Wales before extending the endurance of a Poseidon sortie monitoring submarine activity near the Faroes-Iceland Gap.

The same aircraft would then continue north to deliver its passengers and cargo.

It was an impressive demonstration of air power's utility, but it was also a reminder of its scarcity and operational vulnerability. Each Voyager allocated to maritime patrol endurance was one less available to support combat air patrols, reinforcement sorties, strategic lift or national standby tasks. Demand for tanker support rapidly exceeded supply; prioritisation became constant and rarely comfortable.

This elasticity was reinforced by Voyager's Sponsored Reserve model, which integrated civilian airline pilots and engineers directly into operational squadrons. In peacetime they flew commercial airliners; in contingency they formed part of the RAF tanker force. For planners concerned about sustaining operations over weeks rather than days, the arrangement provided valuable depth. But depth was not the same as mass. Sponsored Reserves increased resilience, but they did not remove the limits imposed by aircraft numbers, maintenance cycles and crew endurance.

If Voyager provided reach, the A400M Atlas provided agility.

Operating across northern Norway quickly revealed the limitations of traditional logistics models. Runways were limited and hard to access, distances immense and weather conditions often severe. Atlas had been designed with precisely this environment in mind.

The aircraft's ability to operate from short or semi-prepared strips allowed NATO forces to disperse supplies far closer to the units that required them. During STEADFAST DEFENDER 30, Atlas aircraft delivered ammunition, communications equipment and engineering stores to dispersed locations supporting Royal Marines and British Army units operating alongside Norwegian forces. Where landing was not possible, the aircraft's precision airdrop capability allowed palletised loads to be delivered directly into remote valleys and frozen landing zones. Perhaps more importantly, Atlas enabled the establishment of Forward Arming and Refuelling Points.

By transporting fuel bladders, pumps, munitions and support personnel into austere locations, the aircraft allowed helicopters and combat aircraft to operate significantly further from their main bases. Apache attack helicopters participating in the exercise could now refuel and rearm much closer to their operating areas, reducing transit times and increasing operational tempo across Norway's demanding terrain.

The question was not whether Atlas could support dispersed operations. It could. The question was how many dispersed locations could be sustained at once, and for how long, before the system began to thin.

As the exercise progressed, the rhythm of air mobility became part of the operational background.

One particular Atlas sortie had become almost routine. Departing Brize Norton every few days, the aircraft followed a predictable round-robin route: north to Norway carrying stores and personnel, onward to a secondary logistics node supporting British ground forces, and finally back to the United Kingdom with returning personnel or equipment requiring maintenance.

Predictability simplified planning and helped the flight blend into the increasing volume of NATO air traffic moving across northern Europe.

On one such sortie, however, the aircraft's mission envelope quietly expanded.

As the Atlas crossed the Norwegian Sea before beginning its descent into Scandinavian airspace, a small specialist detachment was dispatched whilst airborne on a discreet intelligence-gathering task. By the time the aircraft landed in Norway to offload its cargo, the team had already dispersed into terrain where NATO commanders sought clearer understanding of Russian activity close to the border.

The aircraft continued its mission without interruption, delivering supplies and embarking returning personnel before beginning its southbound journey.

To most observers, it was simply another logistics flight. For planners observing the broader situation unfold, it illustrated something more significant: a single air mobility sortie had delivered strategic reinforcement, tactical sustainment and operational manoeuvre simultaneously.

As intelligence continued to highlight unusual Russian naval activity and preparations for a hypersonic missile test near Murmansk, reinforcement flights continued steadily.

Nothing about them appeared dramatic. Aircraft came and went quietly, without the spectacle usually associated with mobilisation. Yet their effect was cumulative. Dispersed forces could remain in the field longer; aircraft could operate further forward; commanders could reinforce positions rapidly without drawing attention to any single movement.

Air mobility allowed NATO to strengthen its operational resilience without visibly escalating the crisis.

But the system was not elastic without limit. Reinforcing Norway competed with demands to support the Baltic theatre, sustain UK homeland air defence, maintain maritime patrol coverage and preserve contingency options elsewhere. Specialist stores, spare parts, weapons, fuel handling equipment and trained personnel all became limiting factors. The shortage was not always aircraft alone; it was the whole ecosystem that allowed aircraft to generate effect.

The system functioned effectively while demand remained manageable.

A further surge, whether caused by combat losses, a Russian move in the Baltics or

an escalation around the Suwałki Corridor, would quickly expose the finite nature of available lift, tanker capacity and crew endurance.

The problem was not that the system failed: it was that every successful task consumed capacity needed elsewhere.

For the Royal Air Force and its NATO partners, air mobility had become the connective tissue linking surveillance, deterrence and reinforcement. Voyager tankers sustained the aircraft monitoring Russian naval activity. Atlas transports sustained the ground forces exercising across Norway. Strategic airlift ensured additional forces could arrive rapidly if required.

The aircraft crossing the northern skies during STEADFAST DEFENDER 30 were not merely delivering cargo. They were demonstrating something fundamental about modern air power: distance no longer guaranteed safety; geography no longer imposed delay. Reinforcement, sustainment and operational manoeuvre could now occur within the same sortie envelope.

Yet mobility was not simply an enabler: it was a limiting factor. The same aircraft that sustained surveillance also enabled reinforcement. The same tanker sorties that extended maritime patrol endurance reduced capacity elsewhere. The same crews that supported one mission could not support another.

Air power provided options. It did not remove hard choices. And in the unfolding crisis of 2030, those choices were becoming unavoidable.

Deterrence is not only about counter-force capability. It is also about presence, speed of response and the ability to react to the unexpected.

For a defensive alliance that cannot defend everywhere at once, mobility is central to credibility. But mobility is finite. The ability to reinforce one theatre, sustain dispersed forces and keep aircraft in the air depends on scarce tankers, transports, crews, fuel, spares and specialist support.

The uncomfortable lesson of the High North was that NATO could move quickly, but not everywhere, not indefinitely and not without trade-offs.

# CHAPTER 7
# THE THIN BLUE LINE

**For years, various states had conducted cyber, disinformation and economic actions against the UK, identified as *grey zone* activities that forewarned of potentially much more serous attacks to come. Despite this, the UK was not ready when Russia invaded the Baltic States in July 2030.**

In tandem, Russian forces massively escalated their campaign across multiple domains and, during the period, managed to take down energy and water distribution systems, and many transportation and communication networks for periods ranging from a few hours to many days. Unlike her Central European allies, the UK was mercifully not dealing with large casualty numbers from kinetic attacks, but it was just as well because the NHS and Emergency Services were particularly badly impacted by numerous denial-of-service attacks.

Russia's campaign now evolved into a sophisticated and capable multi-domain contest: kinetic strikes remained lethal but were relatively few in the UK, but long-range electronic attack, space denial operations, and cyber campaigns created cascading failures across critical systems, military and civil. Our air and space architectures – satellites, ground stations, airbases, logistics nodes, datalinks, and control networks – were highly interdependent. When Russia targeted one node, and they rarely targeted only one, the collateral effects disrupted others.

The British public, with traditional stoicism, rolled with the punches in the main, but the rationing of fuel, some foods and the inability to access banking caused some unrest and hostility to the imposed emergency measures. This, in turn, created distrust in the Government resulting in protests in most large towns and cities, especially after the missile and drone attacks on military and key infrastructure began.

Why had they not done more to prepare for this, was the general cry. Wasn't defence the first duty of government? The attacks slammed home the fact that resilience could not be an afterthought or a single-institution responsibility: it demanded anticipatory design, distributed redundancy, and deep civil-military cooperation. Whilst the UK had created its National Defence Plan, it had neither

resourced nor exercised it, and the shiny pamphlet that had been circulated to UK households was as thin as the defences it professed were in place. At least it was flammable for those who now had no gas supply.

Sarah was one of the military representatives on a hastily convened cross-Government committee responsible for resilience across the UK. Her remit was air and space, but she found herself immersed in cutting-edge defence systems, ageing infrastructure, and a civil community suddenly asked to shoulder burdens usually reserved for institutions. While only a part of the overall resilience challenge, it became obvious that the resilience of the UK's air and space capabilities was more than just a military requirement; it became the backbone of the national survival effort. Reflecting on her experience of the resilience impacts, Sarah noted the following:

Space was a mixed picture. A concentrated anti-satellite campaign degraded several geostationary and Low-Earth Orbit (LEO) Allied assets. Similarly, cyber-attacks on space command and control, both military and civil, resulted in the temporary or permanent loss of space-based services. It was very difficult to keep abreast of the degradations as they happened but some of our preparations made a significant difference. Hybridising capabilities across national, Allied, and commercial satellites, and ensuring that critical services (PNT – Position, Navigation and Timing; SATCOM – Satellite Communications; and ISR – Intelligence Surveillance and Reconnaissance) could be sourced from multiple orbits and providers allowed us to recover from some of the attacks quite quickly. Tactical employment of automatic switching to resilient waveforms also allowed us to maintain some capabilities, even under the most intense attacks. In terms of recovery, we had hardened key ground nodes, created mobile ground-station kits deployable by road or sea, and maintained "mission kits" - portable spares, pre-authorised software images, and rapid provisioning channels with industry partners. A combination of hardened shelters, mobile repair teams, and pre-stocked consumables cut recovery timelines from weeks to days in many instances. However, we were unable to launch satellites at short notice to back-fill lost services; this meant some of our capabilities could not be recovered.

In the air domain the resilience story was somewhat better. Our Agile Combat Employment work, in the run up to conflict, reaped enormous benefits. Dispersal became a cornerstone of operational resilience, reducing vulnerability and

complicating enemy targeting. Dispersed basing, both in the UK and mainland Europe, including the increased use of austere forward operating locations and pre-positioned modular logistics underpinned the resilience (and combat availability) of the flying assets. Aircraft rotated unpredictably between these dispersed locations to deny pattern-of-life intelligence to the adversary. Mobile maintenance units and containerised support modules allowed aircraft to operate from dispersed sites with minimal ground footprint. Rapid runway repair teams and portable arresting systems increased the survivability of forward air operations. Command and control, and mission planning tools defaulted to localised autonomy if centralised command links failed. This allowed sorties to continue in degraded form and gave commanders breathing space to restore full capability. Supporting all this, the pre-war effort to rally and cohere the UK and allies supply chain resulted in a far more agile and faster front-line re-supply than we would have seen before the war began.

Our transition to war work on enhancing utilisation of Reserves also paid dividends in a resilience sense. Streamlined legal frameworks, pre-planned training pipelines and interoperability exercises ensured reservists could plug into active units with minimal disruption. Reservists brought much needed civilian skills essential for resilience, commercial pilots for transport surges, aerospace engineers from industry for rapid repairs, satellite communications specialists, and IT professionals for cyber-defence. This civilian-acquired expertise filled critical capability gaps that purely uniformed personnel could not easily cover. An industrial reserve concept formalised priority access to SMEs and manufacturing capacity, ensuring that reservist technicians could be released from civilian roles when critical production needed to be sustained.

Mobilising civil society to support the war effort happened very, arguably too, late in the day. However, we rapidly implemented many protocols and procedures to streamline support. Civil authorities, guided by military priorities, introduced fuel-rationing and prioritised supply corridors for operational use. We established contractual frameworks with energy companies that allowed rapid redirection of supplies and prioritised repairs to critical substations. Localised power generation paired with robust battery storage reduced reliance on centralised grids and kept forward-operating facilities functional during prolonged outages. Civil transport operators adapted: freight corridors were prioritised for military logistics, and

local councils maintained clearance teams to keep key bridges and routes open. Civilians did carry an enormous burden. Volunteer networks organized blood drives, billeting for relocated aircrew and groundcrew, community repair hubs and local businesses providing spare parts.

By 2030, under the pressure of continental war, the resilience of UK air and space capabilities was not a matter of redundancy alone but of integration – technical, organisational and social. Our ability to keep aircraft flying, communications intact, and space services functioning depended equally on hardened infrastructure, adaptable technology, dispersed basing, the surge capacity of reserve forces, and the steadfast support of civil communities and industry partners. Resilience became a national project, one in which military planners and civilians alike learned to trust shared systems, share burdens, and keep the nation airborne even when the sky itself was contested. The resilience of the home front became as strategically important as hardened airfields.

Today's UK Armed Forces are predominantly a relatively small volunteer force which has been the subject and victim of multiple drives for efficiency. Much of the old "spare capacity" (otherwise known as resilience or war roles) has been transferred to contractors and third party suppliers. This works in a peacetime posture but is cruelly exposed in a wartime one.

Will the UK have a robust plan to create the capacity and capability to enable dispersed and surged activity? Can we reinforce the thin blue line quickly with the requisite equipment and training necessary to function effectively and immediately?

# CHAPTER 8
# THE SECOND DRONE ATTACK

**Squadron Leader Mike Williams looked out of his office window at the deployed airfield in the Southwest of England, still amazed at the speed of events that had led him to this small office. The last two years had been fast, furious and intense and nothing like he was expecting when he took over as Flight Commander Operations on an RAF Coningsby-based Typhoon squadron. The reinstating of Cold War-style NATO Tactical Evaluations, the RAF's drive into Agile Combat Employment and the increased training requirements this entailed had pushed the Typhoon Force to the limit, given it was still only seven squadrons strong. Yet it had been immensely satisfying to see the Force and its squadrons respond so positively, and all with only a fraction of the promised investment. That limited investment hadn't provided any new platforms, yet it had improved the ability of the Force as a whole. Although Mike's Squadron needed at least 18 pilots, the 12 they had with two new arrivals coming soon was at least an improvement on a few years ago.**

The re-investment in the training system had been painful, as the front line had to give up pilots to be instructors. He had personally been "dragged" to his posting to RAF Valley and 4 Flying Training School, where the increased throughput, whilst not able to meet the full requirement until the new trainer aircraft arrived in three years' time, had at least stabilised the situation.

On the frontline, the Typhoon had seen some positive upgrades in terms of avionics and sensors, primarily the new radar, albeit only a third of the frontline fleet had so far been equipped with it. And the Defence-wide Digital Targeting Web (DTW) project, that used the RAF's Nexus data system as part of the Air Information Programme, was revolutionising C2 and targeting. The DTW now meant that Mike could, via Satellite communications and the Link 16 data link, seamlessly utilise the information from the P-8 Poseidon Maritime Patrol Aircraft and the recently marinised MQ-9B Protector, both of which were deployed with his Typhoons, and maritime information from the Royal Navy's ships and helicopters. Given that the three operational E-7 Wedgetail Airborne Early Warning and Control aircraft were patrolling to the North of Scotland, Space

Command now played an ever-increasing role in the spheres of command and control and Intelligence, Surveillance, and Reconnaissance (ISR). The Typhoons were going to need all the help they could get if they were to counter the expected drone and cruise missile threat from the Southwestern approaches. At least the mid-June sun was shining.

Out in the North Atlantic, that threat prepared to deliver a co-ordinated blow to the UK.

Aboard the Russian Yasen-M (Nuclear) submarine that had evaded the NATO blockade around the Greenland-Iceland-Faroes gap, its crew finalised firing preparations for the SS-N-33 Zircon hypersonic and Kalibr cruise missiles. Target co-ordinates for Naval bases on the UK south coast, GCHQ and military storage and C2 facilities were carefully loaded and cross checked with Time-on Target data. Timing was crucial as the other part of the threat was much slower than the Yasen-M's missile, yet just as important to overwhelm the UK defences. Ukraine was not the only military to learn lessons from the 2020s conflict. Several miles away, and unaware of the Yasen's position, an African state-registered super tanker moved through the Atlantic swell. Part of Russia's "Shadow" fleet of tankers, this one had never been used up until now and was not just an oil tanker. Part of the hold had been converted to launch one-way attack drones.

As darkness fell, Captain Pavlov Umenchenko stared at the clock lit by the soft red glow of the bridge instruments and, turning to his left, he nodded at the figure standing by the bridge stairwell. Turning swiftly, after acknowledging Umenchenko's subtle command, the figure descended to the forward hold. There, he entered a security code on the door panel and entered a small control room occupied by two other Russian navy sailors. Taking a key from around his neck, he inserted it into the control panel and turned it to "разблокировать" [UNLOCK]. The three sat in silence as the clock mounted on the left of the control panel ticked down. "выпускать" ['RELEASE'] said the figure and the sailor pulled the trigger on the control grip. A slight wind rush was just audible as the compressed air launch system kicked in and the drones began their fateful journey.

Precisely 112 minutes later, Captain Ivan Gregorovich also inserted a key into the missile firing panel on the Yasen-M submarine and turned it to the "огонь", [FIRE] position. The crew sat silently, eyes on the clock now running down on the fire control display.

"Strelyat'" [Shoot!] commanded Gregorovich, although as the missile indicators turned green, his mind was already turning to his next problem: how to avoid the Royal Navy and RAF now that their purpose had been revealed.

The sun was most definitely not shining in Northern Scotland as Squadron Leader Al James watched an A400M Atlas transport aircraft ghost down the runway at RAF Lossiemouth. Al was also a Flight Commander on a Typhoon Squadron, but based at RAF Lossiemouth. As the A400M disappeared into the mist lapping over the airfield, Al idly wondered which dispersed bases were on its itinerary this time. All part of the RAF's Agile Combat Employment (ACE) to disperse from its few concentrated Main Operating Bases to allow the RAF to keep operating if attacked. Yes, that certainly resonated with Al, as one of the veterans from the Cold War era had said at last year's Squadron reunion "you must keep fighting and operating 24/7 *no matter what*, if you want to win".

"Sir, the Boss wants you in Ops" the Operations Sergeant gently prompted. Al nodded and turned to follow the Sergeant into the Hardened Pilots Briefing Facility, built during the Cold War and hastily refurbished over the last two years as part of the renewed resilience initiative from UK Defence. Good old Sergeant Smith hadn't chided Al for being outside even though the airfield was on heightened alert and pilots, the single most valuable resource, were supposed to remain undercover and always escorted. There had already been a local drone incident, innocent as it turned out, but a warning all the same and the civilian police had arrested two persons acting suspiciously near the perimeter fence yesterday evening. "Yes Boss", Al looked keenly at Wing Commander Davina Meadows, the Squadron Commander. "Al, let's go into the enclave". Al followed the Squadron Commander into the secure briefing area where the Intelligence team worked. "I'm bringing you and your flight to 30 minutes readiness Al as we have just received word that Russian Long-Range Aviation (LRA) have this time actually launched a raid". "OK Boss. I'll get the team briefed and ready", Al felt the tension as the Boss continued. "This time it's for real and, as such, I suspect we will be officially at War with Russia very soon".

At the forward operating airfield in the Southwest of England, it wasn't a bell that sounded, but the reaction was very reminiscent of scenes from the 1960s film "The Battle of Britain" as the internal speakers called out: "VANDAL scramble, VANDAL scramble". Mike dashed for the door and the kitting room. Grabbing his helmet and combat vest/life jacket *en route*, he quickly piled into the Boxer armoured vehicle with the other three pilots of his formation, and they now raced to deposit each one to the four aircraft of VANDAL Flight dispersed around the airfield. The groundcrew had already started the ground power units and as Mike strapped into his Martin-Baker Mk16A ejection seat, in what was colloquially known amongst pilots as the "office", the Tele-brief line attached to the aircraft burst into life. "VANDAL clear take-off vector 250, unrestricted, contact Neptune Link 342 back-up TAD 25". Mike keyed the Tele-brief button on his stick top: "VANDAL copied, Link 342, back-up TAD 25. VANDAL check". The replies of "2, 3, 4" would probably be the last until back on the ground, from now on all communication would be via the data links.

Some 45 minutes later, the "crews to cockpits" call came through at RAF Lossiemouth. The lights of the Quick Reaction Alert (QRA) aircraft had long since disappeared into the night sky as Al mounted the steps to his aircraft and started to strap in. 'More speed, less haste' he thought as he connected the straps and leads to tie him to the aeroplane and its various functions of life support and mission computers. Normally, 30 minutes was plenty of time assuming everything worked and getting airborne prematurely just wasted fuel, so best make sure the team was in good order and the aircraft's systems all functioned correctly. Al ran through the checks on the weapons, the PIRATE Infra-Red system and the LITENING Targeting Pod all recently updated and critical in the hunt for the expected targets. In truth, both scenes were not like the first Battle of Britain of 1940, rather its 1944 sequel when V1 cruise missiles and V2 rockets had become the main threat. Both Al and Mike's formation's targets were the modern-day successor to the V1, the Russian one-way attack drones and the KH 101 and Kalibr cruise missiles. The Zircon ballistic missiles also inbound would be the V2 equivalent. They were beyond the capability of the Typhoon: only the Navy's Type 45 Destroyers and the American Patriot system, deployed sparingly around the UK, stood any chance of intercepting them, and even then only if the missiles came within their relatively small engagement zone which left the majority of the UK undefended.

Mike Williams keyed the data into the control panel and moved the cursor over his cockpit display. His formation was now split into two pairs to maximise the utility of the aircraft with the new radars. HMS *Dragon*, a Royal Navy Type 45 Air Defence (AD) destroyer positioned out in the Atlantic, had passed a position to Mike via data link, and the Maritime Protector was using its sensor package to identify targets as well. Mike was now receiving target data directly from the Type 45's Sampson radar. The tactical controller onboard the Type 45 allocated each pair of aircraft a Fighter Area of Responsibility.

The situational awareness in each cockpit built as they synchronised via the Digital Targeting Web to give a 3-Dimensional picture of the threats as they moved inexorably towards the UK. The first wave comprised slow-movers stacked at different altitudes and on various tracks (the drones fired from the shadow tanker). Mike's radar was working hard to pick up all the contacts. "Drones... and stealthy ones at that," thought Mike. Even with his new weapons fit of 14 Advanced Precision Kill Weapon System (APKWS) rockets and his six Air-to-Air Missiles, the number of targets appearing on the Digital Targeting Web would run his formation close to weapons exhaustion even if each weapon destroyed a drone. With 60 inbound targets confirmed now, Mike slewed his aircraft's targeting pod onto the leading drone.

HMS *Dragon* was now reporting a second, faster wave of attackers... possible cruise missiles. Mike commanded the radar to hold the lead drone while simultaneously searching for the second wave. HMS *Dragon* now confirmed the submarine-launched cruise missile wave behind the drone screen, based on advanced sensor information from the airborne Maritime Protector drones far out in the Atlantic. This more deadly and capable wave would now become the primary target for Mike's and VANDAL formation's more sophisticated Air-to-Air missiles. Mike keyed-in his plan to the rest of the formation and rechecked the Air-to-Air Refuelling (AAR) tanker availability as they would be intercepting several hundred miles out in the Atlantic. Now his concentration focused on his and his wingman's targets, VANDAL 3 & 4 could be trusted to organise themselves using their own situational awareness from the shared data links. VANDAL 2 was first to fire, Mike running the intercept and VANDAL 2 delivering the first APKWS shots. They then turned towards the Kalibr cruise missiles.

If the drones were difficult air targets because of their low speed and signature, the Kalibr cruise missiles, being faster, helped the Typhoons maintain more speed themselves, although it meant less time for the geometry to work, and the low altitude meant visual acquisition would rely heavily on the targeting pod. Mike focused on his sensor displays, the first shots would be from long range, closing in as the interception progressed. And Mike knew that his only hope at success was if the missiles stayed on a reasonably close path, his attack now relied on some high speed geometry, the thrust of his EJ200 engines, his sensors and their wits, all while keeping a close eye on their fuel state so far from home.

Mike could see VANDAL 3 & 4 taking the first shots into the cruise missiles on his data links, as he and VANDAL 2 aimed themselves at the now dispersed missile tracks. Mike pressed the weapon release and the first of his Meteor long-range missiles was ejected into the aircraft's slipstream, its rocket motor igniting as it fell away powering it to high supersonic speed. The second missile followed shortly after. Now he was too close, and another target came up as he crossed the inbound missile tracks. Switching to the targeting pod, Mike accelerated into range and fired one of his short-range missiles onto the heat signature of the Kalibr. VANDAL 2 was now several miles away. Tethered by the data link umbilical and the Digital Targeting Web, Mike was perfectly aware of each aircraft's position in VANDAL formation. However, he was also now aware that fuel was becoming critical. He would have to break-off soon and head to the tanker, but, in doing so, he knew there would be no chance of catching the cruise missiles again. However, with the tanker already positioned closer to the UK, it would allow them one last chance to intercept the slower drone swarm before it coasted in. After that it would be up to the Army and RAF Regiment's short-range air defence systems at a few key sites.

Mike knew that every target the Typhoons destroyed far out to sea gave the UK's limited Air and Missile Defences a greater chance of limiting damage to the relatively small number of sites they could protect with active measures. The rest would have to rely on passive defence such as refurbished hardened Cold War era buildings, dispersion or, frankly, luck. As to the remaining Kalibrs, they were now being engaged by DEFY formation, the other 4 aircraft from the Squadron deployment that had launched soon after VANDAL. Mike relaxed momentarily at

the thought of the extra back up, but it didn't last long as he raced to the tanker to get one last shot at the drone wave. Air-to-air refuelling was never a simple task, but now it was literally a matter of life or death.

Far to the North of the UK, Al James was in a similar position to Mike Williams, only now it was a precious E-7 rather than a Type 45 marshalling 12 Typhoons to intercept the widely dispersed missile tracks. Up here they didn't have the additional complication of the drone wave, but the problem was the much-dispersed geometry of the missile raid and the stealthy nature of the cruise missiles themselves. Aboard the E-7, the Mission Commander focussed on the raid picture, probably 80-100 missiles in total she guessed, based on the reported number of launch aircraft, although, she had less than 40 tracks positively identified so far. Dispersed over such a wide ocean, any naval assets were being bypassed to a large extent, which meant the E-7 was playing a giant game of British Bulldog, with the Typhoons as its catchers. Now it was a case of cycling the Typhoons into the raid, using the AAR tankers to ensure the intercepts were persistent, constantly diluting the incoming cruise missiles to minimise any "leakers" (a missile that evaded initial interception). The onboard Mission Commander had placed four of the Typhoons in a Combat Air Patrol (CAP) far South of the initial intercept point, specifically for the purpose of intercepting any missiles that evaded the main Typhoon force. They were enduring at high altitude to conserve fuel, a bit like the 'Bomb Squad' on a subs bench in Rugby, something she, as captain of the Lossiemouth Women's XV, could appreciate.

Well, just as in sport, timing was crucial, and although the Typhoons were diminishing the Northern raid, some cruise missiles had leaked through. The onboard Mission Commander stared at the screen in front of her, two keystrokes and the Artificial Intelligence software displayed its options for intercept. Time for the Bomb Squad to do their thing, a brief message via data link and the Typhoons in the southern Combat Air Patrol had their targets and accelerated North into the intercept. Now it was all about getting the rest of the Typhoons refuelled, those with any weapons put back on CAP, and those without back to base to rearm. The E-7 Mission Commander would assume a second wave and prepare for it until told otherwise.

Both Al and Mike knew they couldn't destroy every missile or drone: there would inevitably be leakers. They both silently hoped that they had done their best and that the leakers didn't cause too much damage, wherever they were aimed. They were both grateful for the decision to disperse military families away from Main Operating Bases. One thing was certain, we were definitely at war with Russia now, even if nobody had declared it yet.

A concerted air attack on the UK could be multi-faceted and multi-axis. And unlike the perceived threat direction, could just as easily be launched from the North and West of the UK, evading any static or land-based NATO air defences. It would have the mass to quickly overwhelm our relatively small number of air interceptors, and even more so the weapons they carried. Developments of cheaper and more plentiful counter-drone weapons are necessary, but the more sophisticated cruise missile threat is a more challenging one.

This simple one wave scenario employed a total of 20 Typhoons, one E-7 and one Type 45.

Based on the context of this Chapter in the wider scenario, such numbers would be hard if not impossible to guarantee. Even so, the number of missiles and drones that would continue to strike the UK would probably be measured in their dozens. Few of those would be intercepted by the limited land-based defences the UK currently possesses.

# CHAPTER 9
# CONVENTIONAL RESPONSE

**Airborne in the dark anonymity of night, carefully following the route designed to protect the formation from their own defences, and silently moving to the first rendezvous, the eight Royal Air Force (RAF) F-35As seamlessly negotiated the join onto the two Air-Air Refuelling Tankers. Fuel tanks full, they slipped from the tanker track into the holding airspace and then disappeared. Squadron Leader Sam Ayres glanced down at his tactical display, all seven of the other members of CHAOS flight were visible to him on his display, although he would not visibly see them again until they were back on the ground. CHAOS silently progressed towards the border with Russia in total electronic silence, even the smallest transmission from the aircraft had to be carefully controlled so as not to alert the vast array of electronic surveillance systems deployed by Russia.**

The only thing Sam was looking for now was a recall message to tell him border crossing authority had been rescinded by Supreme Allied Commander Europe (SACEUR), otherwise CHAOS would cross into Russian airspace and prosecute its mission as briefed and authorised. Based on what he had heard from the multiple raids against the UK in the last 24 hours, he was not expecting a recall, but as the first offensive strike mission being launched in retaliation he did wonder if he would carry the blame for starting World War Three. The thought didn't last long: he had lost mates in that raid. The intelligence that a Russian military build-up was poised to move into NATO territory imminently was all he really needed for reassurance.

Elsewhere, other RAF assets were positioning to support CHAOS, some airborne, some deployed close to the Russian border, some deep in the English countryside and some thousands of miles into space. All parts of a system of systems, designed to counter the complex air defence systems defending Russia's strategic assets. Sam knew the concept well, as it had been written several years previously and refined by constant training and investment in some, although not all, of the concept's constituent parts. It was just enough, thought Sam, *just* enough to get CHAOS to where they needed to be to complete their mission.

That CHAOS's target was critical was not in doubt, in fact it was the number one conventional target type on SACEUR's target list. It was assigned to the UK by virtue of the defence investment that had taken place over the last four years and the results of RAF participation in training exercises, specifically the Red Flag exercises run by the USA. The RAF had shown it could do the job in peace time, and it was now time to prove it could do the same in a real conflict. But Sam had no time to reflect on the importance placed on their shoulders, as CHAOS swept towards hostile airspace, things were about to get very busy. The aircraft sensor systems began to paint a picture of an active defensive network ahead. Russian systems probing for CHAOS in the night sky. Now, the formation was assimilating and combining the information being fed to them to give the formation an unrivalled air picture in his cockpit. So far, the planned routing was taking them through the known defensive systems, but that was only what had been plotted before the shooting had started. There were bound to be unidentified threats that CHAOS would have to identify and deal with themselves or pass the data to other systems to counter. Such was the beauty of the Digital Targeting Web (DTW) and the secure data links that tied CHAOS into the system of systems.

Far below, and somewhat in advance of CHAOS, a small drone whined its way into the air from its launch ramp positioned in a copse of trees close to the Russian border, and then another followed and then another. To the uninitiated they would have looked like large model aeroplanes, which in terms of their technology and design they were, yet they were not for the enjoyment of hobbyists. These were the StormShroud Electronic Warfare (EW) Autonomous Collaborative Platforms (ACPs) of the RAF. From a slow start, increased emphasis on EW based on the Ukraine and Iran conflicts had now provided the UK with an effective EW capability based on UK expertise that had importantly been retained, and StormShroud was but one part of the ecosystem that now supported CHAOS.

High above the RAF Regiment launch team, another part of the system was being actioned. Typhoons flying in a Combat Air Patrol orbit that had been going for weeks as a defensive barrier were now turning their weapons systems to live to launch not weapons, but Miniature Air-Launched Decoys, built in the US, but now enhanced with UK derived EW capability. This was another investment in one of the vital components of the ecosystem, that while not as glamourous as the Fighters or weapons, was a vital 'force multiplier' by increasing the efficiency and

capability of the attack assets. For CHAOS, that relatively small investment was now proving well worth the hard work that had been required to get the project to the front line. As the border approached, Sam flexed his hands and set his gaze to the Communication display - no recall, CHAOS was now authorised to strike.

Sam glanced at his data link fed display, the supporting Typhoons were exactly where he expected them to be, and now their new electronically scanned radars were the weapons, as they began their Electronic Support Measures (ESM) task – effectively jamming and spoofing any Russian radar seeking out CHAOS. Now the Russian Air Defence systems would know NATO was responding to their invasion, but that would be all it knew as the radars, decoys and StormShrouds did their thing.

Sam's display showed a pop-up threat – hardly surprising as the Russian systems began to try and find their targets through all the electronic signals being "fired" at them. Sam moved the aircraft slightly right, positioning himself to minimise his chances of being detected. The enemy system clawed into the darkness, yet could find nothing. CHAOS pressed on. A flash bright in the night sky far off to the left, another, more now, shafts of light painted onto the night sky. The ground war was underway.

Now there was a lot more electronic noise, and the F-35A aircraft system continued to detect and classify every signal and advised Sam on what was now a cascade of information. CHAOS 7 was being engaged at the back of the formation and was reacting in order to defeat the system that had for a fleeting moment identified him. The rest of CHAOS moved silently to their weapon launch point as the activity behind them receded at over 8 miles a minute. CHAOS 7, successful in its evasion silently slipped back into position. Sam now busied himself selecting the weapon system for weapon launch. Multicoloured orbs of light appeared to his left, but confident in his aircraft systems lack of concern, Sam concentrated on the ticking clock that was winding down to first launch position; it really was best not to look out when flying under night vision systems, as every light from a missile or cannon fire appeared to be aimed at you, and Sam knew they were not, it was just hard to remain convinced sometimes!

Sam now manoeuvred into launch position and selected the radar to 'active'. Slowly, an image appeared, a brief glance and there was the target.

Cross-checking the system position and the planned target position, Sam aimed his aircraft. Steadily pointing at the target, he pressed the red button on the control column. The weapon display wound down to zero, there was a tremor followed by eight rapid thumps, then a larger vibration and the display changed again. Sam now steadily turned the aircraft away from the launch point, a brief check to confirm all other CHAOS formation members had launched their weapons, and now the job was to evade and return to base to rearm. The stand-off 64 SPEAR 3 missiles fired by CHAOS were now in their own formation heading towards their target, a deadly swarm to overwhelm and confuse the target's defences and destroy the critical node that would blind it.

Several minutes after launch, as CHAOS moved ever closer to friendly territory, the missiles ran through the gauntlet of close-range point-defence systems that guarded the Russian S-500 "Prometheus" Surface-to-Air Missile System and slammed into the radar antenna and control cabin. Within seconds, the RAF's HADES and Rivet Joint ISR aircraft detected the abrupt disappearance of the radar signals and started to collate other indicators to confirm the system was not intentionally switched off.

A few moments later, the success of the attack was confirmed and NATO's armada of large support aircraft and other assets moved forward, safe in the knowledge that their prime threat was nullified. The destruction of this one critical Russian air defence system would now allow the full destructive power that NATO possessed in the air to be unleashed on the Russian army as it thrust into NATO territory, blunting and ultimately stopping it in its tracks.

For Sam and CHAOS, the return to base was uneventful, there being no AAR on the return, the tankers had moved on to refuel other formations as NATO responded to the Russian invasion. That was until they landed and immediately heard the Air Raid Warning Red siren as they taxied in and ended up spending an hour in their respective Hardened Aircraft Shelters awaiting the "All Clear".

'Welcome to total war!' thought Sam, those Cold War stories from his Squadron reunion floating across his mind as he made his way into the Pilots Briefing Facility to sign in. The debrief had been short and swift there being little time to congratulate themselves. Now it was time to see what the next mission would bring.

If the UK and NATO are not to be drawn into a war of attrition and stalemate, such as that witnessed in Ukraine, the ability to strike back early and painfully, rather than just defend is a critical element of deterrence.

That deeper battle will be fought, won or lost, in the Electromagnetic Spectrum. Investment in the systems and surveillance to create and codify the means to do this will be as vital to deceive and protect our attackers, as the physical weapons ultimately needed to destroy enemy forces and systems.

Ultimately, any response to Russian aggression would need to take the fight swiftly and relentlessly to them in order to bring as swift an end as possible.

# CHAPTER 10
# DETERRENCE FAILS

**Jack motored the canopy down as the engine of his F-35A spooled up. The darkened hardened aircraft shelter was lit only by the dull sodium lights on the walls, but the cockpit lights and learned muscle memory allowed his hands to move to all the right places and in exactly the right sequence.**

The morning had been a blur up to now. The Station and Squadron had been at heightened readiness for the last two weeks, ever since the unprovoked and hybrid attacks on the UK, alongside the near simultaneous Russian attack on the European peacekeeping force in Ukraine and the Baltic States. The situation had escalated quickly, and despite assurances of US security guarantees and the various commitments from the so-called Coalition of the Willing, the immediate response had been too slow and too shallow to stop the determined Russian onslaught. Although the Ukrainians had to some extent reconstituted their defensive strength, the six-year war with Russia had left it weakened.

With the peacekeeping force over-run in Ukraine and the Baltic States effectively under Russian control, NATO had considered its limited options. With the inability to sustain a strong conventional reply, the early decision to employ limited tactical nuclear strikes had been taken by the North Atlantic Council, strongly argued by France who were prepared to act independently with their airborne deterrent. America's hand was forced somewhat and it was SACEUR himself who both sought and authorised the breakout and use of US tactical nuclear weapons to all five European Nations in the Dual Capable Aircraft Mission, in addition and complementary to the French airborne option.

Many NATO nations had expected the Americans to refuse such a request, but even in the US the shock effect of the Russian attack had created panic in Washington DC and beyond. There was a growing recognition in America that if Europe fell, its largest market was going too – and too many American voters had European roots to not care. And those who had read deeper than the previous President's Truth Social posts, knew only too well that the nuclear threat posed to America from Russia came over the North Pole, not through Europe – they could not shelter behind their continental neighbours.

The new American President was under huge pressure to stop Russia in its tracks, and here too American withdrawals from Europe had left it little option, other than to release the B-61 tactical nuclear bombs to the five nuclear-sharing nations. The alternative was to allow France and the UK to use their strategic weapons, but the mass launch of submarine-launched nuclear missiles had the danger of being interpreted as a US attack, and Russia might respond in kind.

Jack now found himself in the thick of that decision. He had been called out of his bed at 4am to conduct the detailed and secret mission planning and was now sat in the cockpit with that mission loaded into the aircraft's mission management system. Inside the internal bomb bay of his aircraft sat two, now armed, B-61 thermonuclear bombs.

He had armed dummy rounds in training many times and that training had kicked in, but he couldn't help but pause for a second as he turned the arming key, with the ominous red LIVE flag now showing in the small window. His US armed escort had shadowed him throughout the arming and authentication process – it was a necessary step in a dual-key capability – but now that his aircraft was armed and his mission authorised, Jack was on his own and had his orders to execute. His American chaperone had stepped back to the wall of the hardened aircraft shelter somewhere in East Anglia. He nodded to Jack and gave him a short salute – for a fleeting second, the two exchanged a glance that said everything it needed to.

Jack signalled for the shelter doors to open, and with all systems up and running he eased the throttle forward to urge the loaded stealth fighter-bomber into the damp and misty airfield. An airfield that was sanitised both inside and out, no other mission mattered more than this one, and the RAF Regiment were on patrol ever watchful for any interference from infiltrators or drones.

The radios were eerily silent, this mission was already cleared to go and a discreet green light from the runway caravan was all that was needed to tell Jack he could take off.

As he advanced the throttle, Jack fleetingly felt how light the aircraft felt carrying such a 'heavy' load. Although each bomb only weighed less than a thousand pounds, their explosive power was measured in kilotons.

After an uneventful take-off, he headed for the first tanker rendezvous position over the North Sea, still the radio remaining silent - he knew the plan down to the last detail and there would be no need for voice communication. All the live information he needed was being passed to him via secure data links and he was confident that his lone stealth fighter had all the inherent protection it needed to reach its target.

In four other F-35A cockpits dispersed across Europe, Belgian, Dutch, German and Italian pilots had taken off around the same time as Jack. Each had a different target, but each one was co-ordinated and designed to cause the maximum disruption to the Russian advance – and to pose a united European and US front to the Russians. Each weapon had its variable yield turned down to its lower setting, because this attack was going to be a calculated attempt to dissuade Russia from going any further, but with the hope of not triggering a more devastating response. Future missions could dial-up the weapons' yields if necessary.

And with NATO air missions already being routinely conducted against Russian forces in and around Ukraine and the Baltic States, these five nuclear-armed jets weren't going to look out of the ordinary until it was too late.

The targets were all to the East of Ukraine on Russian soil. They were a combination of command and control bunkers, logistics sites and critical reinforcements for the Russian advance. Mercifully, they were all in relatively unpopulated areas and the airburst delivery method was designed to minimise any long-term radioactive fall-out. But their combined effect was going to effectively remove the Russian 1st Guards Tank Army, the 20th and 25th Combined Arms Armies from the battlefield, other than those forward elements in Ukraine. The Russian conventional advance would be stopped in its tracks, and those forces in Ukraine would effectively be cut-off. NATO would then hold its breath and its nerve for what might come next.

Jack had no time to think of any of this. He first had to contend with the air-to-air refuelling rendezvous where he topped up his fuel tanks before settling into the long transit to the South East of Europe. A few hours later he began his ingress into Russian territory. Time passed quicker than he expected, and his mission now took every ounce of concentration. The low-altitude profile and careful planning of his ingress route had made the arrival at his 'pull up' point easier than

he could have hoped. As he eased the aircraft from low-level into a more risky climb to loft the bomb towards his target, he watched his screens for any signal of Russian detection - but this was the first time the Russians had seen an F-35 in anger and its reality was living up to the hype. As Jack approached the release point, he committed the attack with the ridiculously small and inconsequential 'pickle' button on his stick top. At the calculated, optimum point of release, the aircraft computer sent the release signal and Jack felt a mild thump as the bomb left the aircraft. Jack instinctively rolled the aircraft away from the attack as the bay doors closed. His job now was to survive and get as far away as possible from any Russian reprisal and the effects of his own weapons.

By the time Jack both saw and felt the effects of the two blasts he was dozens of miles away. He had followed the advice of keeping his dark visor down, his eyes as shut as he dare and looking away from the target area, but nothing could prepare him for the bright light that followed.

Jack still had a fight on his hands as he egressed back to home base, but the Russian armies he and his four allies had just targeted had been all but obliterated. Russia had crossed one Red Line by invading NATO countries; the question that NATO posed now, was it prepared to cross another one?

The selective use of nuclear weapons is almost unthinkable today, except perhaps in Russia, which embraces it in its doctrine, and has not been shy in using threatening language and behaviour around its use in order to intimidate.

When the UK's 2025 SDR offered the addition of an airborne dual-key capability of just a few F-35A models, many had scoffed at the thought. What perhaps was so surprising in the reaction was that only 30 years previously the UK had well understood the need to retain a capability other than the one-shot Armageddon solution supplied by our Continuous at Sea Deterrence.

# EPILOGUE
# THE BLAME GAME

**As Sir James walked up the steps to the public inquiry, the throng of journalists' questions being fired at him almost, but not quite, drowned out the cries from the demonstration beyond, even though it was being kept a fair distance away. The War that had lasted only a few months had left a lasting effect on the nation and its alliances. NATO had held firm, just, but the loss of all three Baltic States to Russian control was a badge of dishonour that was hard to bear.**

The fact that any stabilisation of the situation had taken the tactical use of nuclear weapons on European soil was something that nobody had yet come to terms with, and the wider devastation across European countries was going to take years to repair.

The good news for the Government of the day was that the villain of the piece was so clearly Vladimir Putin - who, himself, was now facing open revolt in Russia. But this inquiry wasn't about who started the war, it was about why it was allowed to happen and why were we so poorly prepared for it after so many warning signs and promises to be ready?

As Sir James clutched his very carefully prepared brief, with all the relevant facts very studiously marked for easy referral, he knew that not a single page helped him avoid the simple fact that Government (not only the one of which he was a part, but also those that preceded it) had failed in its first and foremost task: to defend the United Kingdom, its overseas interests and its Allies.

He had rehearsed endlessly the answers to the accusation of a lack of preparation, but the decimal point increase in spending over the last few years had done little to reverse the decades of underinvestment, and the new Coalition's freezing of that at 2.7% the year before the war started had stopped the 2025 SDR vision in its tracks and encouraged the UK's enemies. And although blame spread over decades provided some degree of shared responsibility, none of that was going to lessen the political impact of this

inquiry, even though those calling for it had as much, if not more, responsibility in its premise.

As Sir James settled anxiously into his chair before the leader of the inquiry arrived, he cast his eyes into the public gallery. He wondered how many represented the men and women of the Armed Forces who had lost their lives, or were relatives of casualties in the multiple attacks on UK installations and facilities. Whoever they were, their eyes stared intently at him as he sat down; he knew that his testimony today was going to be key to the findings, and the fact was that he could have written the self-evident conclusions himself.

The UK had been asleep at the wheel for decades on defence; it hadn't even invested properly in what little had been left after decades of cuts and their grossly misrepresented labelling as 'efficiency measures'. Death by a thousand cuts was an entirely appropriate description of what had happened: 1% here, 1% there and efficiency savings in every area had been presentable and bearable in isolation, but nobody was keeping score as each 'salami slice' of resilience or protection was quietly removed.

Whether it was pay and conditions that slowly eroded retention, infrastructure savings that meant much of the general estate could be traced back to the 1950s, or savings in spares and stockpiles that meant we were woefully short of the stuff needed to sustain high intensity operations, the simple fact was that the decades of relative peace had meant that the UK had slipped into a peacetime mindset, prepared for nothing but peace and operations of choice in terms of scale and effort. Except someone was keeping score: Russia and the UK MOD.

Russia would have noticed by seeing response times to incursions and UK deployment numbers and periodicity, but it didn't have to look further than the endless media stories and social media threads that had laid the UK's woes bare for all to see for many years. The MOD kept score in what were now almost laughably called their 'risk register'. Except it wasn't a risk register that any corporation would recognise: this one was a catalogue of shortages that would come to pass in the event of war.

Every option (MOD-speak for a cut) that had ever been taken had captured the implications of its taking. In preparing for this inquiry, Sir James was as horrified as everyone else to see how closely they had matched the reality of what had actually happened in the War. It turned out that not only did we underfund Defence, we knew exactly what the consequences might be. What had been slightly more unedifying was to see how many people, past and present, in the MOD and in Government, now professed to have been unaware of the risks! Sir James would try to avoid naming-and-shaming, but the facts were irrefutable and the press already had the receipts.

As he waited for the morning's events to start, Sir James cast his eyes over the Gallery in front of him, where he couldn't help notice Lord George Robertson sat in the front row. Lord Robertson's authorship of the Strategic Defence Review of 2025 had been widely praised at the time for its honesty and clear signposting of what the Government needed to do to prepare for the very threat that ultimately manifest in June 2030. He had personally attacked the Government of the day in 2026, for what he called their "corrosive complacency" in not responding. The media had not been slow to link the horrific events of 2030 to the 2025 review, but Lord Roberton had rejected numerous calls to comment in advance of the inquiry's findings by politely suggesting that due process run its course. But he knew where the skeletons were buried and this inquiry would almost certainly prove how right he was in 2025. Lord Robertson was getting no satisfaction from having been proved correct, but his testimony that was to follow Sir James' was going to cruelly expose how the outcome of the war had been so avoidable, yet so inevitable as the invoice for decades of defence underinvestment.

Lord Robertson glanced back at Sir James. They knew each other well and their shared look transmitted everything that was about to pass in the next few hours. They both knew the score and both knew that the wounds they were about to reveal would both cut very deep and take an awful long time to heal. But the casualties of this inquiry would not be mourned or commemorated as those of the conflict would; they would be forever immortalised in the histories and stories yet written.

Their shared glance was interrupted as the Inquiry room was asked to rise as the Judge made his entrance. Sir James took a deep breath and wondered what tomorrow's headlines might say ...

The UK has a reputation for conducting forensic investigations into past mistakes, on topics as broad as the Grenfell Tower fire, Covid-19 and Infected Blood Scandal. All highlighted failings in the system at some point or other, and all exposed points where the system could and should have intervened.

An inquiry into the gaps in UK national defence and resilience in the event of a Russian attack (our stated primary threat) could be written now. Either we are in denial that the threat is likely to become manifest, or we believe that our collective defence and national preparation is sufficient.

The authors believe that neither are sufficiently true to avert the chapters in this book becoming a reality. We must do more.

No Government has fallen as a result of previous public inquiries, no government could survive this one ...

# ABOUT US

**The five authors of this book are all associated with The Air & Space Power Association in a variety of ways; they are all Royal Air Force veterans, each with over 30 years' experience in combat and senior staff roles across (almost) all ranks, and include both the President and Secretary of the Association. No serving members of the Armed Forces have contributed or been consulted in its writing.**

The Air & Space Power Association is an authoritative independent voice and platform for discussion and debate of how air and space power influences today's world and its relevance to the future.
Its mission is to promote the advancement and understanding of military air and space power in the UK and beyond by providing a focal point for all stakeholders in the air and space domains.
Its membership comprises professionals with a wealth of experience and expertise in air and space power, including military service, science and technology, industry and academia.

It contributes to the debate about key air and space power issues through world-renowned conferences, regular events, papers submitted to inquiries, publications such as this and its podcast, 'The High Ground' (**https://airspacepower.com/the-high-ground-an-aspa-podcast**).

The first book 'UK Air & Space Power in a More Dangerous World - 10 Perspectives' can be found on our website.

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THE AIR & SPACE POWER ASSOCIATION

*"Because of Russia, war has returned to Europe.*

*We also face the threat of terrorism. And fierce global competition.*
*Russia has teamed up with China, North Korea and Iran.*
*They are expanding their militaries and their capabilities.*

*Putin's war machine is speeding up – not slowing down.*

*Russia is reconstituting its forces with Chinese technology,*
*and producing more weapons faster than we thought.*

*In terms of ammunition, Russia produces in three months what the whole of NATO produces in a year. And its defence industrial base is expected to roll out 1,500 tanks, 3,000 armoured vehicles, and 200 Iskander missiles this year alone.*

*Russia could be ready to use military force against NATO within five years.*

*Five years."*

**'Building a better NATO' a speech by NATO Secretary General Mark Rutte**
**Chatham House - London, 10 June 2025**

**This book tells the story of how Britain could find itself at war in 2030 and how it might fare and fight in that war. A year has already passed since the NATO Secretary General made his five-year prediction that Russia would be ready by 2030, and the World has become a lot more dangerous and unpredictable since. But this book wasn't created to be a prediction of what will happen, it was written as a wake-up call to act to make sure it does not.**

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