



The Mitchell Forum

The RAF Eighty Years on from the Battle of Britain

By Kevin Billings

About the Forum

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With the anniversary of the Battle of Britain upon us, reflecting on that time 80 years ago and where we are today, the similarities between the Royal Air Force of 1940 and that of 2020 are striking. It is worth considering that now, as then, control of the air—and today space—remains the vital enabler of everything the total force does. As Field Marshal Bernard Law Montgomery observed, “If we lose the war in the air, we lose the war, and we lose it quickly.”

Hitler believed “die Luftschlacht um England” would be an insurmountable onslaught that would pave the way for Operation Sea Lion, the invasion of England, and then the conquest of all Europe. Yet, in the summer and autumn of 1940, the operational excellence and the innovative management of its own and allied technological and manufacturing capability empowered the Royal Air Force (RAF) to withstand the German attacks. In short, the RAF was neither the most powerful nor the best resourced air force in the world, but it proved formidable enough to change the course of the war and, in turn, history.



Helicopters from RAF Leeming being deployed across the country to support the NHS in the fight against COVID-19

Source: RAF photo

Sir Winston Churchill said it best, “The gratitude of every home in our island, in our Empire, and indeed throughout the world, except in the abodes of the guilty, goes out to the British airmen who, undaunted by odds, unwearied by their constant challenge and mortal danger, are turning the tide of world war by their prowess and their devotion. Never in the field of human conflict was so much owed by so many to so few.”¹

Winston Churchill in Downing Street giving his famous 'V' sign, 5 June 1943



Source: UK government

Today, four generations later, the RAF is neither the world's largest nor most powerful air force, nor is it required to defeat an existential threat to the free world's way of life. Nonetheless, my thesis is that it is still the world's most significant air power force. Today, as in 1940 when it was the fulcrum that tipped the balance and sent Hitler to focus on the Russians, it is the fulcrum on which broad interoperability, innovation, and influence tip the scales against both non-state actors and hegemonistic threats.

Operationally, the RAF is a capable, trusted, predictable, and consistent ally. In terms of capability, the RAF's ability to rapidly and agilely bring new technology and systems to the fight can be an exponential force multiplier for allied nations and air forces.

For the RAF and Britain to survive and ultimately defeat the Nazi onslaught, it relied on collaboration with other nations. This included pilots from Poland and other occupied European nations as well as technology and manufacturing capability from a reluctant United States. The character and ethos that is at the heart of the RAF lies in a fundamental understanding, reinforced through experience, that no one nation nor one air force is as strong as a coalition of many bringing what they do best to the fight.

This philosophy of partnering and collaboration is as important now as it has ever been. The international system we rely on, which has served the UK and its allies so well since 1945, is being eroded by violent extremists as well as state actors like Russia, Iran, and China who are actively destabilizing the world by challenging the foundations of freedom and democracy.

To counter those threats, the RAF has been operating in combat for three decades without stop. Today, it works in a state of constant competition and confrontation in which threats to the UK and other free democracies are diversifying, proliferating, and intensifying rapidly. It is hard to remember a time when the strategic and political context was more uncertain, more complex, or more dynamic.



A group of pilots from 303 (Polish) Squadron RAF Leconfield, Yorkshire

Source: RAF photo

From an operational perspective, the RAF's contributions to global coalition efforts have been vital. The first RAF deployments to the Arabian Gulf under the mantle of Operation Southern Watch took place in August 1992 and included

RAF Tornado GR4 taking off from RAF Akrotiri



Source: RAF photo

a detachment of three Tornado GR1s and three GR1/As to Dhahran in Saudi Arabia. Between 1992 and 1997, the operation was largely characterized by routine patrolling of the southern no-fly zone. The GR1s' primary contribution to the coalition was the provision of high-quality tactical reconnaissance imagery of southern Iraq using the Vicon pod, but they also conducted simulated attack sorties, exercises, and training. They flew more than 7,500 operational sorties in this period.²

The reconnaissance missions flown by the GR1s were vitally important to the coalition. Their high-quality tactical imagery was of exceptional value to the United States, which possessed no comparable capability, and it helped gain the RAF access to the U.S. targeting apparatus—a concession received by no other coalition air force. Ultimately, the southern NFZ mission continued up to 2003, and the operational sortie total increased to approximately 13,200 (roughly 30,300 hours) involving all missions—from reconnaissance to strike operations.

During the spring and summer of 2000, the RAF conducted Non-combatant Evacuation Operations and supported United Nation forces in Sierra Leone. On 25 August, members of the Royal Irish Regiment were seized by a militia group called the West Side Boys and held deep in the Sierra Leonean jungle. On 26 August, three Chinooks were deployed from the UK to Freetown to take part in planning a rescue operation. At dawn on 10 September, the three Chinooks dropped Special Forces and Parachute Regiment personnel into the area surrounding the West Side Boys' camp, as well as directly onto the building where the hostages were being held. The helicopters came under intense ground fire, which was returned. During the ensuing fire fight, one Chinook landed to evacuate a casualty. The helicopters then extracted the hostages and rescue force, including nine further casualties. The speed and efficiency with which this operation was planned and carried out, with limited intelligence and reconnaissance available, was extraordinary.³

RAF CH-47 Chinook helicopter arrives to extract troops at the end of an operation



Source: RAF photo

During Operation Deference—the Libya campaign in February and March 2011—RAF C-130 flight operations were executed over three days to pull over 430 non-combatants out of Libya at the start of the civil war. Within 36 hours of deploying

to Malta, C-130s were flying into Tripoli International Airport, and then to desert strips, without prior reconnaissance or planning and through increasingly hostile airspace. On 26 February, three RAF C-130s were threatened by air defenses to the extent that one was ordered to return to Malta before entering Libyan air space while, on February 27, a further three sorties saw one aircraft threatened on the ground and a second one hit by small arms fire. The speed with which these sorties were organized, planned, and carried out in a highly volatile and unpredictable situation is remarkable and led to the overall success of the coalition effort.⁴

RAF C130J Hercules transporting troops and equipment in Afghanistan
Source: RAF photo



Today, the world faces continued challenges in the Middle East. Over Syria, the RAF is operating in proximity to sophisticated Russian-made surface-to-air missile systems and their latest combat aircraft. In Europe, Russian surface-to-air systems extend into the air space of our allies, and Russian aircraft and maritime assets operate routinely in the UK's airspace and close to its shores. In the Pacific, North Korea, having unfettered access to nuclear weapons and quickly developing the capability to deliver them at long-range, threatens to destabilize the entire region. In this context, it is important to remember that Pyongyang is as close to London as it is to Canberra.

Nonetheless, the UK and its allies are safer as a result of the critical enabler of air and space power. Achieving this air and space superiority has been possible because we have had almost complete control of these domains historically. But there is a risk of complacency about the freedom of maneuver that this unchallenged control of the air or undisturbed use of services from space brings with it.

Significantly, our potential adversaries have not been idle these past decades. They have been watching carefully. Fifth generation aircraft are no longer the preserve of ourselves and our allies. Long-range surface-to-air missile systems are becoming more capable and are proliferating to non-government proxy actors. From sub-threshold threats in the gray zone to hypersonic missiles, from industrial-scale spam on social media to potential interference to with sovereign and coalition interests in space, our potential adversaries are contesting our operating spaces.

Meeting this threat requires new and innovative capability brought to bear quickly and affordably. Today, as in 1940, this can't be done alone. The RAF remains at the forefront of innovation and can leverage what it does best to enable the free world's coalition fight for peace and stability.

Source: UK MOD photo



Typhoons from RAF Lossiemouth intercept Russian aircraft close to UK air-space



Source: RAF photo

Let me explain. The RAF is large and sophisticated enough to have access to all the technology that is available to leading global military powers. Moreover, the RAF is demonstrating that it can identify, test, and deploy capability with the requisite rigor faster and more economically than anywhere else in the world. This is a huge advantage for the RAF, and when it can leverage the economies on the scale of the United States and its allies, it becomes an exponential advantage no other air force can bring.

To this end, the RAF has invested substantially and committed to real growth in its equipment program, and this is of enormous strategic significance to the UK aerospace sector—and with it, the UK industrial science and technology sector as a whole.

Because of the critical skills and technology contributed by the UK, the RAF is the only Tier 1 U.S. partner in the F-35 program. Britain has a 15 percent stake in every F-35 sold, and the £35 billion that the program is projected to generate for the UK economy and the 25,000 British jobs it supports represents a return that far outstrips the cost of the 138 aircraft put in service.

Whereas the U.S. Navy's 2021 budget proposal will request no new money to purchase the service's only long-range anti-submarine aircraft, despite a growing undersea threat and a shortfall in aircraft designed to cope with that threat, the first of nine RAF Boeing Poseidon aircraft were delivered ahead of anticipated operations this April. This marks a significant and critical advance in capability to address threats in the North Sea and other critical regions. Additionally, the collaboration with the U.S. Navy reinforces and strengthens collaboration among the world's most significant allies. Especially when the Russian navy is all but abandoning the production of new aircraft carriers, cruisers, and other blue water surface warships, it has recommitted to sustaining a large fleet of large, long-range submarines.

Source: UK MOD photo



The Poseidon crew and VIPs stand in front of the new RAF P-8A Poseidon at Kinloss Barracks, Scotland

Global prosperity cannot be achieved without security, and you cannot have security without prosperity. The RAF's cutting-edge technology is at the heart of the immense success of international collaboration. In combat air alone, Harrier, Jaguar, Tornado, Typhoon, and Lightning have been—and remain—key contributors to the fact that the UK armed forces have not suffered a loss to an enemy air attack since 1982 in the Falklands.

Building on 80 years of experience, a coalition approach underpins the RAF's tack toward innovation with its industry partners on Team Tempest. Through Team Tempest, the RAF is breaking new ground daily. Leonardo is contracting an airborne technology testbed for example, demonstrating clearly the commitment of the Ministry of Defence (MOD), RAF, and UK industry to the development of cutting-edge Combat Air technologies. This means that from the early 2020s, Team Tempest will be able to mature technology from across the air domain at an accelerated pace, de-risking programs,

reducing costs, and bringing capability to the front line faster than ever before. Since the formation of Team Tempest in July 2018, over 130 sub-contracts have been awarded across a range of capability, technology, and component areas. The RAF looks forward to even more partners joining this

revolutionary, UK-led program, which will deliver a future combat air capability to the front line in the 2030s.⁵

But it is more than shiny pieces of kit. Today the RAF is staffed by a diverse, inclusive, and empowered workforce that truly reflects the society it serves. The RAF is again pushing the boundaries entering its second century as Air Chief Marshal Wigston's Astra vision is initiated. Under Astra, the RAF will harness the full capacity of its people, data, networks, aircraft, and estate to deliver a fundamental shift toward the new modes of warfare and set a course that keeps it at the leading edge of technology, utility, and, if necessary, lethality. The RAF has continually pushed at the boundaries of technology and human endeavor. Astra represents the next phase in its journey.

Today, the thought leaders in the RAF Rapid Capabilities Office (RCO) are following in the rich tradition of Air Chief Marshal Sir Hugh Dowding and his conceptualization and implementation of the air defense network that gave the RAF a critical advantage during the Battle of Britain. Much as Dowding's "Chain Home" brought together technology, ground defenses, and fighter aircraft into a unified system of defense controlling not only the fighter force, but other elements of the defense network as well, including anti-aircraft guns, searchlights, and barrage balloons, today the RCO is utilizing quantum physics, artificial intelligence, machine learning principles, and the very latest in technology in order to maintain strategic and tactical advantage in all domains. It has launched groundbreaking programs that underpin its lead of the command and control of space and cyber operations for the UK MOD. This includes building a ubiquitous All Domain Command and Control Combat Cloud that will link satellites, aircraft, surface and subsurface naval forces, and ground forces

WAAF radar operator plotting aircraft at the Chain Home station at Bawdsey



Source: RAF photo

Defense personnel from Australia, Canada, France, Germany, the United Kingdom, and the United States during the Combined Space Operation Coalition Summit at Vandenberg AFB, February 22, 2019



Source: U.S. Air Force Photo

in one lethal web that will get the right information to the right operator at the right time. Moreover, Project Artemis paves the way to enable Combat Cloud with the creation of an integrated constellation of small satellites with key industry partners of Airbus, Raytheon, and Surrey Satellites. Together with launch partner Virgin Orbit, the RAF will build a critical cadre of highly capable space flight officers.⁶

Beyond Combat Cloud, the RAF is playing a significant global role in space. In April 2019, the Air Chiefs from Australia, Canada, France, Germany, New Zealand, the United Kingdom, and the United States all signed a memorandum unequivocally recognizing the strategic importance the space domain has for each country's economic and national security equities—and that military cooperation concerning the space domain is vital to each country's interests. They committed to actively working together to address threats and shared interests in space and preserve access to the space domain for the future of humankind. To further this, they established the Combined Space Operations (CSpO) initiative to enhance space situational awareness and data sharing among all partner nations

to support space activities. The success of this effort was enabled in large part by the role of the RAF team led by AVM Simon Rochelle in balancing the interests of all the parties in a way no other air force could.

Astra is the journey to the Next Generation RAF; it charts a path of where it is now to where it wants be in 2040. It is a journey made essential by an array of evolving adversaries, a shifting international landscape, the emergence of new forms of warfare, a growing national appetite for defense and air power activity, an increasingly testing public expectation, and a pressing need for internal modernization from our people. This is a journey the RAF must take because it cannot afford to do otherwise.

So, as we look back, and forward, the words of U.S. Ambassador John Gilbert Winant ring as true today for the RAF as they did when he spoke them during the Battle of Britain. "Today it is the honour and destiny of the British people to man the bridgehead of humanity's hopes. It is your privilege to stand against ruthless and powerful dictators who would destroy the lessons of two thousand years of history. It is your destiny to say to them, 'Here you shall not pass.'"⁷

Source: N.H. Historical Society



U.S. Ambassador John Gilbert Winant signs an agreement with British Prime Minister Winston Churchill on March 27, 1941

So again, as it was in during the Battle of Britain, the RAF is not the largest nor the most powerful air force in the world, but it is a world-class integrated, capable, and comprehensive air force delivering decisive effects across all domains, and its significance should not be underestimated.



Endnotes

- 1 Winston Churchill, [“The Few.”](#) August 20, 1940.
- 2 For more information, see House of Commons, [“Proceedings of the Committee on Defence,”](#) Thirteenth Report, July 26, 2000.
- 3 For more information, see Tim Butcher, [“SAS Vengeance on the West Side Boys,”](#) *Daily Mail*, August 29, 2010.
- 4 For more information, see House of Commons Defence Committee, [“Operations in Libya,”](#) *Ninth Report of Session 2010–2012*, February 8, 2012.
- 5 For more information, see RAF, [“Team Tempest,”](#) 2020.
- 6 For more information, see RAF, [“Defence Secretary Outlines Future Space Programme,”](#) *RAF News*, July 18, 2019.
- 7 [“Battle of the Atlantic,”](#) *Old Mersey Times*, 2013.

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