The Fleet Air Arm Museum tells the story of British naval aviation from its earliest incarnations to the present day – its triumphs and failures, its ingenuity and innovation, its impact and importance.

Fleet Air Arm Museum ~ Service Narrative

To truly appreciate how the Royal Navy (RN) understood 'air', the early years of the 20th century were pivotal. Airships and early airplanes, both of which originated from European nations, showed promise as potential tools of war. However, it was not until World War I that the Royal Navy (RN) began to explore the potential of naval aviation. The initial focus was on seaplanes and lighter-than-air craft, such as airships. These were used primarily for reconnaissance and search and rescue missions, and their efficacy was clearly demonstrated during the Battle of Jutland in 1916. Following the war, the RN continued to invest in aviation, recognizing the potential of aircraft to operate from ships.

During World War II, the RN developed the concept of naval aircraft carrier, which allowed for the deployment of aircraft far from land-based bases. The introduction of aircraft carriers enabled the RN to project air power from the sea, significantly enhancing its operational range and flexibility. The RN became the first naval force to operate aircraft from carriers, with ships such as the HMS Ocean and HMS Furious playing key roles in the Battle of the Atlantic.

In the post-war era, the RN continued to develop and innovate, embracing new technologies such as radar and electronic warfare systems. The RN’s aircraft carriers, such as HMS Illustrious, HMS Hermes, and HMS Ark Royal, became symbols of British maritime power and national prestige. The RN’s aircraft carriers were instrumental in projecting power and influence beyond national borders, supporting a wide range of operations, from humanitarian aid to military intervention.

The Royal Navy’s new, state-of-the-art aircraft carrier, HMS Queen Elizabeth, was commissioned in 2017, marking a new chapter in the RN’s aviation history. The Queen Elizabeth class carriers have been designed to operate a wide range of aircraft, from strike fighters to helicopters, and are equipped with advanced air-to-air and air-to-surface weaponry.

The RN’s aviation capabilities have been further enhanced by the introduction of advanced technologies, such as the F-35B Lightning II, which is capable of vertical takeoff and landing. The F-35B Lightning II is a highly advanced, stealth fighter-bomber that can operate from the deck of carriers, providing the RN with a flexible and powerful air power capability.

The RN’s aviation efforts continue to evolve, responding to changing operational environments and international threats. The RN’s aviators, engineers, and support staff are constantly pushing the boundaries of what is possible, ensuring that the RN remains a formidable force on the seas.

The RN’s aviation narrative is not simply one about the weaponry, the aircraft and the triumph of the human spirit over adversity and at its best. It is also about the people who serve, the sacrifices they make, and the contributions they have made to the RN’s role in maintaining maritime power and influence around the globe.

Purpose

We tell the story of the origins of naval aviation, its development over time and its purpose today. We trace its evolution from the experimental phase to the advent of the aircraft carrier and the RN’s role in such significant events as World War II and the Falklands War.

Progress

It took well over 200 years to get from the invention of the helicopter (mid-19th century) to an operational RN helicopter (late 20th century). High tech F35B Lightning II stealth fighter-bombers first flew in the late 1990s, and they are now in operational service with the RN. They are designed to operate from the deck of carriers, providing the RN with a powerful and flexible air power capability capable of fulfilling the many and varied demands made on it.

The RN’s aviation narrative interconnects with the narratives of the other museums in the NMM RN Group. This narrative is not simply one about the RN, but it is about the people who serve, the sacrifices they make, and the contributions they have made to the RN’s role in maintaining maritime power and influence around the globe.
The following sections set out the key worldwide developments which have been identified as a focus within our four themes.

1900–1918 THE DAWN OF AIR WARFARE

**People**

In 1903 the Admiralty recognised the potential advantages of covering the ground from the air and began investigating God’s kite for war reconnaissance. Their first search, the Maudsley, was ordered in 1909 to test the flight of a British-built kite and made the first take-off from a RN ship. Central to this early development of naval aviation was the use of the ‘airplane shed’ to accommodate and prepare a number of RN aircraft, and the use of naval vessels as aerodromes. From 1909 onwards, RN personnel aeronautical knowledge and expertise was crucial in developing the service’s early aviation capabilities.

**Power**

The ability to attack from the air enabled the flight to be taken to the enemy. Aircraft reconnaissance gave commanders on the ground or in ships a clearer understanding of what was happening behind enemy lines. Airships established the advantages of using aerial means to drop bombs and ordnance on targets and aircraft probing for the guns and reconnaissance but the ability to strike from above at targets on the ground, at sea or in the air/sea interface could not be developed.

Aircraft carriers were designed specifically for the purpose of operating aircraft at sea. As naval aviation’s remit expanded, aircraft and aircraft carriers were developed reinforcing the fact that British naval aviation could operate effectively anywhere in the world and not only in European countries with relatively close proximity to home shores.

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**Technology**

The rapid development of naval aviation and aircraft carriers was almost was well as the RN’s development quickly from small beginnings. By the end of the First World War, the principles of operating aircraft at sea in the way we see today had been well established. RN aircraft were initially and for some time following the war and reconnaissance but the ability to strike from above at targets on the ground, at sea or in the air/sea interface could not be developed. The RN was the only way in developing strategic bombing and air/sea strike against enemy targets, submarines and surface ships. The RN was the pioneer in developing aircraft carriers and in demonstrating the versatility and capability of this role of aircraft in the RN.

A shipborne aviation in its infancy and flying early aircraft was a hazardous undertaking. The outstanding courage of men like Flight Sub-Lt Reginald Warneford, Sqn Cdr Richard Bell-Davies and Sqn Cdr Edwin Dunning raised naval aviation’s profile; others such as Captain Murray Sueter and Commander Charles Samson made the first take-off from an RN ship.

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1915–1945 WAR FROM THE AIR COMES OF AGE
The years were challenging ones for the FAA between 1915 and 1939, facing threats from the air in its own battleship, the Royal Navy Air Service. The FAA was formed in 1918, when the RAF separated from the RFC. The FAA was the Royal Navy’s air arm, and its role was to provide air support for the fleet at sea. The FAA was a small but highly skilled force, and its pilots were trained to the highest standards. The FAA had a long and successful history, and its contribution to the war effort was significant. The FAA was responsible for the first deck landing onto an aircraft carrier, the H.M.S. Furious, in 1917. This was a significant achievement, as aircraft carriers had not been developed at the time, and the FAA had to work hard to make it happen. The FAA played a key role in the Battle of Jutland, the first major battle of the First World War, and its pilots demonstrated their skill and courage in the face of enemy fire. The FAA also played a key role in the Second World War, providing air support for the fleet and for land forces on the ground. The FAA’s contribution to the war effort was significant, and it is remembered today as one of the most successful air arms in history. The FAA was disbanded in 1946, and its role was taken over by the Royal Navy’s Air Arm, which was formed in 1957.
Between the wars, limited by a lack of resources after 1918, naval aviation focused on shore-based flying which did not always require aircraft at sea. Naval aviation was also generally concerned with training facilities and aircraft production, apart from a few aircraft supplied and maintained by the RAF. Naval aviation service has never been matched since.

1945-1989 DELIVERING STRATEGIC MILITARY POWER

1945

In 1945 the end of the Second World War saw the carrier become the new capital ship, providing the platform for attack and defensive roles. As the war ended, a massive carrier-building programme was underway (although subsequently much of this was cancelled) and the number of RN aircraft carriers in service has never been matched since.

1955

The Royal Navy’s continued use of the angled flight deck was introduced after a visit to the US aircraft carrier USS Midway in 1955. The angled flight deck was designed to reduce the need for the handling of helicopters and the loss of deck space associated with aircraft arming with full ordnance loads.

1960

The Falklands War, the first modern “carrier battle”, demonstrated the effectiveness of embarked naval air power. The end of the Cold War saw a reduction in the number of aircraft carriers. In 1982, the Royal Navy’s Sea Harrier vertical take-off fighter at sea. By 1982 these aircraft had a nuclear capability as well as playing a key role in anti-submarine warfare. In 1991, a royal air force Phantom aircraft was deployed off Kuwait during the Gulf War. In 1992, a nuclear strike carrier as conventional carriers with fixed runways became unnecessary.

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The Sea Harrier was replaced by the Raf’s ground-attack Harrier in 2006 and with that came the loss of anti-aircraft and air-to-ground roles. The Harrier’s combat role ended in 2011 when the last aircraft was retired from service. The Harrier was a versatile and capable aircraft that became integral to naval aviation operations.

The end of the Cold War did not bring peace dividends. On the contrary, it brought tension and conflict as the former superpowers realigned in the post-Cold War era. The Balkans, Afghanistan, and Iraq were among the regions of the world where the FAAMFAF was deployed in support of the UN-mandated, NATO-led operations. 

The FAAMFAF continues to embrace new technologies and new roles for its personnel. As the global geopolitical landscape changes, the FAAMFAF adapts to meet the demands of the 21st century.

In 2019, the FAAMFAF embarked on its final deployment with the Nederlandse Marine (Netherlands), marking the end of an era for the aircraft. The FAAMFAF’s legacy in naval aviation is a testament to its adaptability and innovation.