

// Battle-winning edge can only come from an aviation team that can deliver fighting aircraft from the sea. It is that team skill that marks out people in the Fleet Air Arm today.

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Rear Admiral Ian Tibbitt CBE  
Director General Safety and Engineering

# 100 years of Naval Aviation

Celebrating the past and shaping the future



This year the Royal Navy is celebrating 100 years of Naval aviation. On 7 May 1909, recognising the military advantages and threat of the Zeppelins, the Admiralty took a bold and visionary decision to spend £35,000 on placing an order for the first Naval aircraft. Hansard reported that it was 'a momentous week' with Mr Asquith stating the unequivocal importance of Naval aeronautics to national defence strategy. Flight Magazine of 8 May 1909 carried the headline 'Great Britain Wakes Up' with the report that 'the highest scientific talent will be brought to bear on the Admiralty's aviation development programme.'

The launch of such a notable Centenary, fittingly held at the Royal Aeronautical Society, London on 16 February, heralds a programme of events celebrating not only a distinguished and remarkable past but the crucial role being played by the Fleet Air Arm in operations around the world today, and the fundamental element joint embarked air power from the sea has to play in operations in the future.

The UK's political and strategic capability to act with an appropriate level of military response in an increasingly unstable world, thousands of miles from home without having to rely on other

countries for support – *to be able to Strike with Global Reach* – remains at the heart of our national defence policy. The effectiveness of carrier aviation has been frequently demonstrated throughout history and achieving the battle-winning edge can only come from a fully integrated, experienced and worked-up aviation team that can deliver fighting aircraft from the sea. The challenges of bringing two new aircraft carriers and their full carrier air groups into service in the years ahead will be enormous, but in the Centenary year of Naval aviation, there is no more pivotal project than this in defence today.



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## CENTENARY FLY PAST

HMS ILLUSTRIOUS – 7 May 2009  
Greenwich, London 12 noon



## AgustaWestland Launch Sea King 40

7 May 2009 is not only the Centenary of Naval aviation, it is also the 40th anniversary of the first flight of an AgustaWestland Sea King. To launch Sea King 40, AgustaWestland generously financed a face-lift of Sea King HU MK5 XV648, the seventh airframe to be built, arranging to have the aircraft re-sprayed in its original distinctive dark blue delivery colours. The aircraft, which is still in service with 771 Squadron, will proudly display its 'old' livery at events throughout the year. Rear Admiral Simon Charlier thanked Peter Prager of AgustaWestland; the Sea King IPT, SERCO and Vector Aerospace for their work on the project.

## RFA Salutes the Fleet Air Arm

Commodore William Walworth, Head of the Royal Fleet Auxiliary has congratulated the Royal Navy on the Centenary of Naval aviation.

"The RFA is proud to have supported the Fleet Air Arm for over four decades. There is tremendous mutual respect between us. We have faced the dangers and challenges of hostility, war and countering illegal activities at sea, literally side by side."

The close operational bond between the Royal Fleet Auxiliary and the Fleet Air Arm began in the 1960's with the entry into service of the helicopter training ship, RFA Engadine. During the Falklands Conflict many Naval aircraft operated from RFA ships and today Sea King, Lynx and Merlin routinely operate from Fort and Wave class ships.

"As an integral element of the Carrier Strike force, we also look forward to working with the two new carriers and their embarked Squadrons" said Commodore Walworth. "We wish the Royal Navy and Fleet Air Arm a successful and memorable Centenary year."



## Naval Strike Wing Right on Target with New Precision Bomb

**The Naval Strike Wing of Joint Force Harrier operating in Afghanistan during the latter part of last year had the challenge of being the first unit worldwide to deploy the new, next generation smart weapon, the precision guided bomb, Paveway IV, on operations.**

The highly sophisticated weapon, which can be guided onto a target using GPS satellite or laser guidance technology entered service in November 2008 and has already proved highly accurate and effective in all weather conditions, day and night. With ground forces often facing frighteningly insurmountable odds, their lives increasingly depend on the success of pin-point attacks pressed home from the air.

Speaking during a visit to the Naval Strike Wing in Kandahar, Rear Admiral Simon Charlier said, "Few people realise the crucial role being played by Royal Navy pilots in Afghanistan and the excellence of the Harrier GR9 for the task. The GR9 is optimised for offensive support operations and for employing the latest smart weapons."

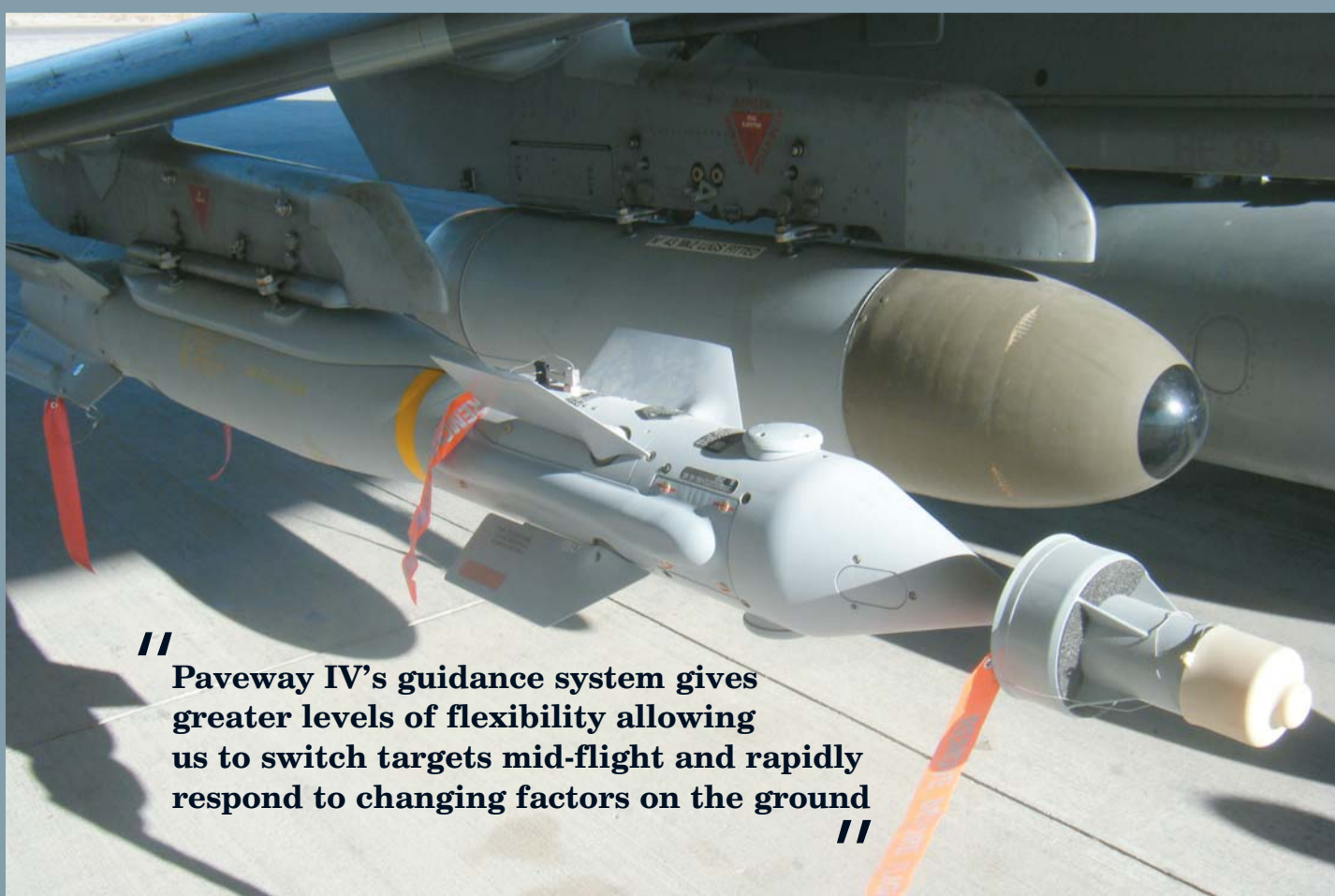
Lieutenant Dave Bouyac Royal Navy, serving with the Naval Strike Wing, described the new weapon. "Our primary role is to provide close air support for forces on the ground. We operate within tightly defined

rules of engagement and only use the bomb 'in anger' in support of Coalition troops taking heavy fire from enemy forces.

Paveway IV's fusing and guidance system not only gives greater levels of flexibility over previous bombs, allowing us to respond rapidly to changing factors on the ground, but the precision accuracy of the

system fulfils the crucial imperative of incurring absolute minimal collateral damage."

The Harriers in Afghanistan are on alert to scramble at a moment's notice. Any delay can mean coalition lives lost. They also fly daily reconnaissance flights gathering intelligence for the patrols on the ground and flying 'shows of presence' and 'shows of force.'



// **Paveway IV's guidance system gives greater levels of flexibility allowing us to switch targets mid-flight and rapidly respond to changing factors on the ground** //



# Programme of Events 2009

Channel Dash Memorial Dinner, Old Royal Naval College Greenwich  
Wednesday 18 March 2009

Fly Past Over Eastchurch Pioneer Memorial, Isle of Sheppey, Kent  
Friday 1 May 2009

Fly Past and Service at the Pioneer Memorial, Eastchurch, home of the first  
Royal Naval Air Station and the birthplace of Naval aviation.

## HMS Illustrious in London



**Thursday 7 May 2009**

12 noon Flypast and Reception.  
20.00 Centenary Dinner  
HMS Illustrious, Greenwich.

**Friday 8 May 2009**

11.00 Service of Thanksgiving  
St Paul's Cathedral followed by  
receptions in three venues: The Guildhall,  
Merchant Taylors' and Skinners' Hall.



**CENTENARY FLY PAST**  
HMS ILLUSTRIOUS – 7 May 2009  
Greenwich, London 12 noon

Telegraphist Air Gunners Association Memorial Service and Lunch,  
HMS Collingwood  
Sunday 17 May 2009

Opening of 'One Hundred Years of Naval Flying' Exhibition  
Fleet Air Arm Museum, RNAS Yeovilton  
Thursday 2 July 2009

Royal Garden Party Buckingham Palace  
Thursday 9 July 2009

RNAS Yeovilton Air Day  
Saturday 11 July 2009

RNAS Culdrose Air Day  
Wednesday 29 July 2009

Dedication of Channel Dash Memorial, Manston  
Saturday 29 August 2009

Channel Dash Association dedication of a Swordfish Memorial in memory of  
the unsurpassed bravery of the Channel Dash Heroes.

Navy Days 2009 – Meet Your Navy, Devonport Naval Base  
Saturday 5 September – Sunday 6 September 2009

Dedication of Fleet Air Arm Memorial, National Aboretum, Staffordshire  
Friday 11 September 2009

The Britannia Centenary of Naval Aviation Dinner  
Thursday 15 October 2009

Fly Navy Heritage Trust dinner onboard the former HMV Britannia in Leith.

Fly Past and Reception HMS Illustrious in Liverpool  
Friday 23 October 2009

Royal British Legion Festival of Remembrance, Royal Albert Hall  
Saturday 7 November 2009

Royal Centenary Gala Dinner, Old Royal Naval College Greenwich  
Thursday 3 December 2009

## Foreword by Rear Admiral Fleet Air Arm



In 1909 the Admiralty took a momentous decision, committing what was a considerable sum of money in those days to a visionary development programme for Naval aviation. Now, in 2009, the UK is committed to a similarly enormous and far reaching aviation project; building, equipping and operating two substantial new aircraft carriers and delivering the total package of Carrier Strike in a unique and new way – as a Joint Defence capability.

In an increasingly uncertain world, the UK's ability to protect its interests thousands of miles from UK shores and airfields is fundamental to national and global security. Not only has the flexibility, potency and deterrent effect of carrier aviation changed the course of history, crucially it has provided protection to convoys supplying our armies, without which the successful conclusion of land battles could not have been achieved.



Operating large numbers of aircraft from sea, however, is a capability that takes years to develop. Landing on a pitching, rolling flight deck in the middle of the ocean in the dead of night requires dedicated practice, training and teamwork that is inexorably linked with the

ethos and experience of maritime minded aviation staff. Naval aircraft form an integral war-fighting component of the organisation and operational efficiency of the ship. Indeed, the aircraft squadrons and their people are an immeasurable component of the ship's weapon system and the ship provides the complete operational infrastructure for the aircraft. It is a symbiotic relationship. In the hearts and minds of everyone onboard a carrier, the aircraft are hard-wired into the life blood of the ship. The aircrew, engineers and supporting staff are all-of-one company in the Royal Navy. As we celebrate this Centenary year and work towards shaping the way we will operate in the future, it is important to remember that it is the Fleet Air Arm's specialist expertise, inherent understanding of the maritime and fully worked up high readiness capability that gives UK Defence its embarked fighting edge. As Admiral Cunningham said in his autobiography "It should never be forgotten that in the Fleet Air Arm, the Navy has its most devastating weapon."

**Operating aircraft from sea is a capability that takes years to develop. Naval aircraft form an integral component of the organisation and operational efficiency of the ship**

**Rear Admiral Simon Charlier**  
Chief of Staff (Aviation and Carriers)  
and Rear Admiral Fleet Air Arm



1909 - 2009

# Action



**The highly successful Lynx helicopter is the most versatile and widely used maritime helicopter in the world. In its 30 years of service with the Royal Navy its impressive capability has been amply proven. In 1982, Lynx helicopters attacked and disabled the Argentine submarine Santa Fe, and in the Gulf War in 1991 the Lynx, armed with Sea Skua Air to Surface Missiles, sank 15 Iraqi ships.**

As dawn breaks in the Caribbean, the flight deck bursts into activity when 'Action Lynx, Action Lynx' is heard over the ship's tannoy. The ship's Operations Room, working closely with international maritime and intelligence agencies, has been tracking a suspicious surface contact, believed to be a drug smuggler, for 48 hours. The Lynx Flight Commander has been an integral part of the decision making process throughout, advising the ship's command team of the optimum time to launch the Lynx to intercept the suspect vessel. As the ship accelerates on to an intercept course, the Lynx is launched and proceeds rapidly towards the vessel. Accurate tracking and identification is critical to ensure the suspect vessel is not only located and stopped, but to ensure that its cargo of smuggled narcotics does not make it to the open market.

This mission is typical of the tasking for the 600 personnel of the Lynx Force. Front Line Lynx Flights are provided by 815 Naval Air Squadron, based at RNAS Yeovilton. Their roles

vary from tracking and intercepting potential terrorists and weapons to Disaster relief, supporting the British Antarctic Survey in the South Atlantic, protecting gas and oil installations and maritime security operations. In recent months, Lynx Flights have been playing a major role in deterring the activities of pirates around the Horn of Africa.

Supporting the front line is 702 Naval Air Squadron, the Lynx Force Operational Conversion Unit. Each year ten Pilots and Observers graduate from the Helicopter and Operational Conversion Course, one of the most difficult in the Royal Navy. Every engineer in the Lynx Helicopter Force also completes a comprehensive training package on 702 Squadron. A Lynx Flight consists of a Pilot and Observer together with seven maintainers. They work together as a close knit team assigned to a frigate, destroyer or Royal Fleet Auxiliary operating many thousands of miles from home. It is a highly responsible job and there can be few greater challenges in the Fleet Air Arm.

## Simply the Best!

Celebrated Royal Navy veteran Test Pilot, Captain Eric 'Winkle' Brown MBE, OBE, CBE, DSC, AFC RN celebrated his 90th birthday last month. To mark the event Captain Brown was visited by a Royal Navy Lynx from 702 Squadron. Eric, the Navy's most decorated pilot and the first man to land a jet aircraft on a ship at sea, said of his 31 years service with the Fleet Air Arm "It was exciting, challenging and of course you met people who were really geniuses in their time." Eric served as a fighter pilot in the Battle of Britain and later as one of the world's greatest test pilots. He holds many world records including the most types of aircraft flown, a staggering 487 and the most carrier deck landings at 2407, and was also the first British pilot to fly a helicopter. In November 2008 he flew to America to see the new F-35 Joint Combat Aircraft. He sat in the cockpit and flew the simulator.



## Black Cats

### Royal Navy Helicopter Display Team



The Royal Navy helicopter display team, The Black Cats, will be performing at air shows around the country during 2009 celebrating the Centenary of Naval aviation with an exciting high-speed display of breathtakingly close formation, cross-over passes, vertical nose dives and opposing manoeuvres.

The team of two Lynx, a Mk 3 and a Mk 8 are flown by instructors from 702 Naval Air Squadron, the Royal Navy's Lynx training Squadron based at Royal Naval Air Station Yeovilton. Named after the Lynx wildcat featured on the 702 Squadron crest, The Black Cats were formed in 2003 and are the first official Royal Navy Helicopter Display team since The Sharks who disbanded in the 1990s.



"We select a different team each year and it is quite a commitment for the individuals involved, on top of their daily instructional duties," said the team leader Lieutenant Commander Alun Read. "The carefully choreographed displays utilise fully the precision and aerobatic qualities of the Lynx and the pilots need to be highly skilled, quick thinking and totally focussed. There is a lot of competition to be on the team and it is perhaps not surprising that the term 'black-catting' is Naval slang for a form of one-upmanship!"

## 'Calling all 816 Stringbag Hands!'

Centenary Fly Past, Greenwich,  
12 noon, 7 May 2009

We plan to meet up and watch the Fly Past together, book a table for dinner in the evening and sit together in St Paul's Cathedral the following day. Please contact Pete Beresford 01227 710321 email [theoakswestbere@gmail.com](mailto:theoakswestbere@gmail.com)

**Over 90% of Iraqi Gross Domestic Product passes through the Northern Arabian Gulf and around two thirds of the world's oil supply passes through the oil installations and strategically important waterways of the Arabian Gulf.**

Not surprisingly, Coalition Security Operations in the waters of the Northern Arabian Gulf are a high priority. Supporting the safe passage of tankers and protecting the oil infrastructure is not only essential to the security of Iraq, but to energy security around the world.

Operation Telic is the UK contribution to the multi-national operation. Working closely with governments, national and international authorities, UK forces are tasked to deliver a co-ordinated approach to the maintenance of security in the region. Given the vulnerability of the Iraqi oil platforms, the convergence of shipping through critical chokepoints and the delicate relationship with Iran, the task of keeping vital resources flowing is a challenging one requiring a high degree of vigilance, responsiveness and information sharing.

Currently, a Royal Navy Merlin helicopter from 829 Naval Air Squadron operating from HMS Lancaster and a Lynx Mk 8 from 815 Naval Air Squadron embarked in HMS Portland are working tirelessly to patrol, monitor and safeguard against a complex and potentially volatile tactical situation. Their roles include compiling the surface picture with radar and onboard surveillance equipment, providing force protection to the oil platforms and protecting our ships at sea. Their sensors enable them to investigate suspicious contacts from a distance and they carry weapons to deter or respond to hostile action. The Lynx has Sea Skua missiles and a powerful M3M gun and the Merlin is equipped with guns and torpedoes.

In 2008 Sea King Mk 7 Airborne Surveillance and Control (ASaC) helicopters from 854 and 857 Squadrons in RFA Argus, fulfilled a similar role building the picture in the Arabian Sea using their powerful Searchwater radar. They will deploy to the area again later this year.

Royal Navy ships and helicopters are also employed in the Gulf of Oman and Gulf of Aden countering a range of illegal maritime activities including piracy, human smuggling and illegal trade in narcotics and weapons. The emerging high incidence of piracy off the Horn of Africa, including the hijacking of a super tanker on the high seas last November, led to a call by the Defence Secretary, John Hutton, for a determined counter piracy offensive and the



## Naval Air Operations in the Arabian Gulf

deployment of a British-led force to patrol a large international corridor in the region to protect ships taking food aid to Somalia.

In an increasingly interdependent world, maintaining the freedom of the seas is crucial to global security. If our energy supplies are disrupted, the UK runs out of fuel in a few days. Ship-borne aircraft extend the range and reach of maritime forces and the specialist utility of Naval aviation, including carrier strike, airborne surveillance, anti-submarine warfare, intelligence gathering, rapid mobility and the ability to deliver early-entry forces are capabilities which history continues to prove that the UK and global community cannot afford to be without.



HMS  
CHATHAM



# The Fleet Air Arm 'All of One C

**The Fleet Air Arm is an integral part of the Royal Navy, extending the range and reach of UK forces and providing a cornerstone of maritime operational capability.**

Today's Fleet Air Arm, however, is much more than simply a Naval asset. The Navy operates over 200 aircraft which makes up a significant proportion of the UK's wider defence aviation capability. The Fleet Air Arm continues to deliver integral embarked aviation and war-fighting capability from our ships, but its aircraft and people are also deployed across a whole range of other Defence priority operations. The underlying theme that enables the Navy to do this is the flexibility and adaptability of Fleet Air Arm aircraft and people.

Since the First World War, defence strategists have recognised that combat winning capability in a range of maritime scenarios can only come from a fully worked up aviation team that can deliver fighting aircraft from the sea and it is that team skill that continues to mark out people in the Fleet Air Arm today.

Members of the Fleet Air Arm are best at what they do because they are trained in the maritime environment. Their complementary aviation-focused capabilities ensure maximum operational effectiveness in a way that can only come from applying their unique understanding developed over years of professional training and experience and a mutual affinity for the sea. Naval Aircrew, Engineers, Technicians and Mechanics, Aircraft Handlers, Air Traffic Controllers, Survival Equipment and other trade specialists are seamen first and foremost, but they are aviators too, forming an essential part of the highly professional, experienced and close-knit team that makes up the full complement of a warship.

Over 5,500 Royal Navy and Royal Naval Reserve personnel work in some way or another with Naval aviation and Naval aviators often command ships and rise to the highest ranks in the Naval Service. In aircraft carriers and at Naval Air Stations operational flying staffs are commanded by a Commander (Air) who is directly responsible to the Captain of his ship or station. Under the Commander (Air) is the flying control organisation including Air Traffic Control Officers, Meteorological Officers and the aviation support specialisations responsible for all activities on the flight deck or runways. Fleet Air Arm personnel also include Aviation Medicine specialists, Mobile Air Operations Teams, Fighter Controllers, Air Engineering Technicians, Aircraft Handlers, Aircraft Controllers, Survival Equipment Specialists and Photographers.



// Talking the helicopter safely back onto the flight deck, in all kinds of weather conditions, makes you realise the importance of your role in the team

//



# ir Arm 'ompany'



It is this 'all of one company' ethos that ensures maritime aviation success. The effectiveness of carrier aviation particularly, and all that it encompasses – the safety, maintenance and repair of aircraft and their weapon systems and the specialist knowledge and expertise of the pilots and observers who fly the aircraft – is part of a much larger community. They could not function without the support of the staff officers who plan operations, the logisticians who provide them with stores and supplies, the communicators, the engineers and stokers below decks and the chefs and stewards who have a hot meal ready for them when they land on after hours in the air.

"Let us show ourselves to be all of one company," Drake exhorted his men in the Golden Hind. The Fleet Air Arm is not just all of one company in the Royal Navy but at the same time is a company within a company, sharing the intimacy of the Naval Air Squadron or Flight to which they belong. They look to their Commanding Officer or Flight Commander as seamen look to the Bridge, in the same sort of fellowship as a regiment, born of a tradition of 100 years of Naval aviation and of experiences of adventure and danger shared.

Such is the cadre of expertise upon whose professionalism and skill the safety of the aircraft, ship, fleet or task force may depend.



## Naval Air Engineering

The particular demands of the maritime environment have always required Naval aircraft to be robust, flexible and adaptable (generally a bit special) and exactly the same can be said of the men and women of the Naval Air Engineering specialisations who service and maintain them.

The strong undercarriage necessary for deck landings, folding wings to allow for carriage on lifts and stowage in hangars; tail hooks and strengthening of the fuselage to take the strain of the arrestor-gear; and the weight of weapons, instruments and wireless sets were all important considerations in the design of early carrier and ship borne aircraft. Novel ideas, approaches and materials were often used and the development of Naval Air Engineering evolved to match.

An aircraft can be rendered entirely useless by a simple fault, perhaps more easily than any comparable piece of machinery and the role of engineering support, particularly in action at sea without access to the usual resources ashore, has always been to get the aircraft serviced and repaired as quickly as possible so that they can be airborne again. "The ethos of the Fleet Air Arm is to work on until the job's done, overcoming problems and difficulties by all sorts of ingenious means" said Rear Admiral Ian Tibbitt, Director General Safety and Engineering. "The quality and capability of Naval Air Engineering has in many ways blazed a unique trail bringing a special expertise to military aviation generally and joint operations in particular. It has also been widely recognised by industry as being a key enabler to the introduction of new, challenging, high performance technology."

The Navy can also be proud of the fact that many Royal Navy Air Engineering practices are now embodied in Joint regulations and that the ethos and approach of Naval Air Engineering continues to stand out as we start to deliver the next generation of jointly capable high performance aircraft.



# Preserving our National Naval Aviation Heritage



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**From the first airship flights and early years of Naval aviation to the development of the latest super-fighter, the distinguished history of Naval aviation is an important part of our national heritage.**

It was very evident from last November's coverage of the 90th anniversary of the end of the First World War, that there is an increasing interest and enduring sense of gratitude and pride in our aviation history that continues with current operations around the world today.

courage and initiative as those demonstrated by their illustrious forebears and each time we fly these magnificent aircraft we continue to tell their story."

The Fly Navy Heritage Trust and Royal Navy Historic Flight are very largely supported by the generosity of individual donors. This month's auction dinner at HMS President aims to raise funds specifically to celebrate and preserve the Fairey Swordfish biplane, a much loved aircraft that had a truly phenomenal impact on the outcome of World War II.

In mid Atlantic, out of range of land based aircraft, the U boat packs were picking off our merchant ships at a prodigious rate. Vital convoys bringing fuel, ammunition, food, aircraft and troops from North America to Europe were being sunk and some 20,000 Merchant seamen lost their lives. Churchill declared the Battle of the Atlantic to be the one 'must win' campaign if the nation was to survive and to mount the counter offensive in Europe.

The heroic arrival of the Swordfish, flying anti-submarine missions from hastily constructed aircraft carriers based on merchant ship hulls, had an immediate effect on stemming the losses. With its low speed and good manoeuvrability the Swordfish was the only aircraft available to operate from these tiny decks and have enough fuel and weapon load to be viable. For the brave men who flew her, however, there were no luxuries. Flying in unheated, open cockpits often in appalling weather conditions, they quite simply, kept the shipping lanes open.

Keeping this iconic aircraft flying 65 years later is perhaps the greatest tribute we can pay to all those who have flown, maintained and supported aircraft at sea. Like the Fleet Air Arm Museum and the Memorial Church, the Historic Flight is only part funded by the Royal Navy and it falls to the Fly Navy Heritage Trust to find additional support. To find out how you can help please contact the FNHT on Tel: 01935 842005 or email: [office@fnht.co.uk](mailto:office@fnht.co.uk).



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"With so few of the early Naval aviators still alive, the importance of our memorial flight has never been more poignant or clearly reflected," said Manager of the Royal Navy Historic Flight, John Beattie. "Preserving the finest Naval aircraft in existence and flying them at air shows around the country is a tribute to the supreme sacrifice of an extraordinary generation of aviators. Today's Naval aircrews have the same attributes of determination,



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ROYAL NAVAL AIR STATION  
**YEOVILTON**  
INTERNATIONAL  
**AIR DAY**  
SATURDAY 11 JULY 2009  
CELEBRATING  
**100**  
YEARS OF  
NAVAL AVIATION

**Ticket Hotline**  
**08445 781 781**  
Calls charged 5p per minute  
Mobile charges may vary

**Online Info & Booking**  
**[www.yeoviltonairday.co.uk](http://www.yeoviltonairday.co.uk)**

Royal Naval Air Station Yeovilton will be celebrating 100 years of Naval Aviation at the annual Air Day on Saturday 11 July 2009. In 1909 the Admiralty placed its first order for a Naval Airship which at the time was a radical shift in military thinking that was to lead to the formation of the Royal Naval Air Service and later the Fleet Air Arm. This marked the beginnings of the formidable versatility and capability of Naval Air Power as we know it today. This year's exciting Centenary flying display will feature rare Naval aircraft including the Swordfish, Sea Fury, Seafire and Sea Vixen, coming together with other vintage aircraft, historic warbirds and classic jets evoking nostalgic memories of 100 years of Naval flying in service to the nation.



## BAE Systems **£1 Million** Restoration Programme for Swordfish

BAE Systems has offered to restore a second Swordfish bi-plane to flying condition for the Royal Navy Historic Flight. The company is making £1M available for this restoration project. For a Flight that relies considerably on the support of Industry and donations from benefactors, the offer has been received with enormous gratitude.

"BAE Systems has given the Royal Navy Historic Flight significant support over the years" said Admiral Sir Jonathon Band GCB ADC, First Sea Lord. "These aircraft are a national treasure. The offer, in this our Centenary year, to start the restoration to add a second flying Swordfish to the collection, is such a magnificent and generous gesture, not just for the Royal Navy Historic Flight, but for the heritage of future generations."



Lee Howard Photography

Speaking of the restoration project, John Beattie, General Manager of the Royal Navy Historic Flight said, "BAE Systems have already helped us greatly by restoring the wing spars on the Swordfish LS326, a problem that threatened to ground the type almost indefinitely. As well as problems with the wing spars, which are long lengths of thin sheet steel rolled into shape and riveted to

form a 15 foot long beam that has to be strong in any direction, additionally few Bristol Pegasus' engines survive and continuing to keep them running has also become more of a challenge each year. It is only through the dedicated work of maintenance crews together with generous support from Industry and other fund raising initiatives that we can continue operating these lovely old aeroplanes."

The restoration project is expected to involve many months of painstaking work. "The problems can be overcome in some areas by new manufacture" said John Beattie, "but, as has always been the case with Naval aviation, ingenuity will be a vital part of the refurbishing." The majority of the restoration work will be carried out at BAE Systems' site in Brough, East Yorkshire.

## War in a Stringbag

by Commander Charles Lamb



'War in a Stringbag' by Commander Charles Lamb DSO, DSC has been compulsive reading for the Fleet Air Arm for many years and to mark the Centenary of Naval aviation this much loved book is to be re-published by Orion Publishers on 7 April 2009.

Admiral Sir Michael Layard KCB, CBE, former Second Sea Lord, Flag Officer Naval Aviation and now Vice President of The White Ensign Association said, "There is no finer account of Naval flying at war. Charles

Lamb's story of the iconic action against the Italian Fleet at Taranto and his experience as a prisoner of war in North Africa is both extraordinary and inspiring."

'War in a Stringbag' is not only a tribute to our rich aviation heritage but is also a testament to Charles Lamb's other lasting legacy – as a founder of The White Ensign Association. The postscript to the book describes how he helped establish and run the charity for sixteen years.

"Were he alive today," continued Admiral Layard, "he would unquestionably be very proud of the strong affiliation that The White Ensign Association has with the Naval Service and that last year the Association also celebrated a significant birthday – the 50th anniversary of its foundation. Charles Lamb's enduring vision, humility and endeavour epitomises the indomitable spirit of the Fleet Air Arm."



Rear Admiral MHG Layard, CBE as Flag Officer Naval Aviation in 1990

**"There is no finer account of Naval flying at war. I highly commend it to all members of the Fleet Air Arm past and present"**

'War in a String Bag' is available from all good book shops including the Fleet Air Arm Museum

## 100 years of Navy Flying

An exciting new exhibition setting out the story of 100 years of Naval Flying will be officially opened at the Fleet Air Arm Museum on 2 July 2009.

The new exhibition, which highlights the roots of the Royal Naval Air Service from the shoe-string days of the Sopwith Pup to today's battlefield operations in Afghanistan, will include an impressive collection of classic Naval aircraft

including a replica of the Short bi-plane on which the first four Naval aviators learned to fly, the highly successful Lynx helicopter and combat veterans of the Falklands War, including the Sea King helicopter flown by HRH The Duke of York and a battle-winning Sea Harrier. The exhibition will also feature a range of inter-active displays that illustrate the Service's glorious past and the stories of the gallant men and women who flew and maintained some of the Nation's best loved Naval aircraft.

# FLEET AIR ARM MUSEUM

RNAS Yeovilton, Somerset BA22 8HT Tel +44 (0)1935 840565 [www.fleetairarm.com](http://www.fleetairarm.com)



The UK's Nationally Recognised Museum of Naval Aviation

# Vertical Take Off for Sea Harrier Association

The newly formed Sea Harrier Association has made a dramatic launch in the Centenary Year of Naval Aviation with nearly 200 members of the Sea Harrier community signing up to join.

Formed as a result of the overwhelming response following the memorial dinner held in honour of Lt Cdr John Phesse in September 2008, the Association has appointed Commodore Duncan Reid MBE, as President and has elected Committee representatives under the Chairmanship of former Chief Petty Officer, Tom Dawson.

and inflicting serious losses on the Argentine air force. Between 1993 - 1995, Sea Harriers played a major role in Operation Deny Flight in Bosnia and in 1995 Sea Harriers operating from HMS Invincible brought a swift and effective conclusion to the end of Operation Deliberate Force. In 1999, Sea Harriers saw action again in a 78 day bombing campaign finally and successfully persuading Serb forces to leave Kosovo. In 2000, when a British military force was tasked to restore order in war-torn Sierra Leone, the Sea Harrier was once more operating in support of ground forces. The end of an era finally came for the Sea Harrier in March 2006 with a fitting farewell dinner at the Royal Naval College Greenwich.



The Sea Harrier Association expects to play a full part in the Fleet Air Arm Federation and plans to team up with its successful sister association, the Buccaneer Association, for a joint weekend reunion in Coventry in June 2009.

The Sea Harrier was in service with the Royal Navy for twenty seven years, contributing to over a quarter of a Century of Naval aviation. During the Falklands Conflict in 1982, 34 Sea Harriers from HMS Hermes and HMS Invincible flew over 1200 missions, keeping 220 Argentine aircraft at bay

Membership of the Sea Harrier Association is open to all Ranks and Rates both current and former serving personnel from the Harrier community. Speaking at the inaugural AGM, Chairman, Tom Dawson said "We look forward to welcoming all SHAR shipmates and hope you will join us in celebrating 100 years of Naval aviation. There is no better time to join!"

The membership fee for 2009 is £10.00. Those wishing to join should contact Jimmy Henrick or Fraz Fraser on 01935 455327 or email [sharmship@aol.com](mailto:sharmship@aol.com)



[www.seaharrier.co.uk](http://www.seaharrier.co.uk)

All profits to Naval Charities including the Fleet Air Arm National Arboretum Memorial



## FLEET AIR ARM CENTENARY MALT WHISKY


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# PHOENIX SQUADRON



HMS Ark Royal, Britain's Last Top Guns and the Untold Story of Their Most Dramatic Mission

*HMS Ark Royal, Britain's Last Top Guns, and the Untold Story of their Most Dramatic Mission*  
by Rowland White

Published in hardback by Bantam Press on 9 April 2009  
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A vivid impression of Carrier Aviation and life onboard *HMS Ark Royal* as the ship and her Squadrons are despatched towards Central America to deter the possibility of a Guatemalan invasion of British Honduras. A real-life thriller, driven by the tension and drama provided by the build up of the Guatemalan threat, in Guatemala, in Belize City and in the heat of the political and historical debates in Whitehall.

# Centenary of Naval Aviation

# Royal Garden Party

## Buckingham Palace



## Thursday 9th July 2009

### at 4.00pm

All serving and former serving officers and all ranks of the Royal Naval Air Service and Fleet Air Arm, members of the Fleet Air Arm Associations and affiliated organisations and their families are invited to apply to attend a Royal Garden Party at Buckingham Palace by gracious permission of Her Majesty The Queen to celebrate the Royal Navy Centenary of Aviation.

Application form available from:  
 Fly Navy 100, RNAS Yeovilton, Ilchester, Somerset BA22 8HT  
 Tel: +44 (0)1935 454412  
 Email: [flynavy100@btconnect.com](mailto:flynavy100@btconnect.com)

Current serving Fleet Air Arm personnel should apply through their Squadron



Fleet Air Arm



We wish the Royal Navy many Congratulations on the Centenary of Naval Aviation



Royal Navy Officer's Sword  
 Royal Marines Officer's Sword

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## The Centenary Collection

An exclusive range of finely crafted bone china pieces has been created to mark this historic year. Developed by William Edwards, one of Britain's leading ceramic designers, these pieces encompass the very best of traditional English craftsmanship. The collection comprises of a tankard, coaster, pill/cufflink box and a plate. They are collectors pieces designed for people who wish to give something meaningful and precious to celebrate this notable Centenary.

The details are:

Plate (27cm)	£30.00	} plus £1.50 postage and packing per single item
Pill/Cufflink Box	£20.00	
Tankard	£15.00	
Coaster	£12.00	

To order any of the gifts please contact  
[flynavy100@btconnect.com](mailto:flynavy100@btconnect.com)  
 or tel +44 (0)1935 456530.



1909 - 2009

# Fleet Air Arm Field Gun

## Strength in Teamwork

The Royal Navy's ethos – the spirit to fight and win – has played a key part in the Navy's success over centuries. The strength of teamwork and the qualities of courage, camaraderie and utter commitment of every individual involved are similarly strongly embodied in the esprit de corps of the Fleet Air Arm.



It is perhaps not surprising therefore that in the toughest and most challenging of military competitions – the Field Gun Run – that Fleet Air Arm Field Gun Crews have consistently won more trophies and broken more records than any other teams.

Between 1947 and 1999 the Fleet Air Arm won 94

trophies. In 1962 the Fleet Air Arm became the first crew to beat the 3 minute barrier with a time of 2 minutes 54 seconds and in 1971 again it was a Fleet Air Arm crew that broke the 2 minutes 50 barrier with a time of 2 minutes 48 seconds. Fleet Air Arm trainers led the way in refining and optimising the drill continually looking for greater speed and safer procedures.

Chief Petty Officer Harold Williams, who ran in 7 Fleet Air Arm A Crews and was the first Field Gunner to do 100 competition runs in the Royal Tournament said, "The Field Gun transformed my life. I was a bit of a 'Jack the Lad' in my early years. Doing the Field Gun really sorted me out. It changed my career, made me focus and want to do everything well. It was the discipline and the rigorous training. The run is fast and dangerous. The barrel alone weighs 900lbs, the carriage 350lbs, the limber is 362lbs. You learn to trust the man you are working with and you weld together through pure hard graft, stamina and teamwork. It is the same trust and reliance on every member of the crew playing their part that is the



'Mini Mini Lou'  
'Air! Air! Air!'

foundation of successful aviation at sea, particularly in a carrier. During the Falklands I worked on 809 Squadron, a Harrier Squadron. It was the strength in teamwork that gave us the fighting edge. "

Field Gun has its roots in The Boer War when the Royal Navy played a major role in the defence of Ladysmith landing the 4.7 inch guns of HMS Powerful and HMS Terrible and dragging them on makeshift carriages across the rough South African Veldt. With downward pressure on costs and the tempo of current operations, the Royal Navy Field Gun run competition ended at the last Royal Tournament in 1999.

## Naval Aviation Firsts



Photograph reproduced with kind permission of The Trustees of the Imperial War Museum, London

## Leading the way in Innovation

### Steam Catapult

The Fleet Air Arm has led the way in the development of innovative and revolutionary new technologies. In 1954 Commander CC Mitchell OBE RNVR suggested taking steam from the ship's main boiler to power the catapult. The idea was developed by Brown Brothers and Company Ltd of Edinburgh and trials in HMS Perseus showed an aircraft weighing 30,000lbs could be launched with a speed of over 90 knots. This was a considerable improvement to that of hydraulic catapults already in service. The steam catapult also proved more consistently reliable. By 1978 the steam catapult was regularly launching aircraft weighing over 60,000lbs at over 110 knots.

## Editor's Note



It is due in no small measure to the foresight of the Admiralty in 1909, that when the First World War broke out five years later, the Royal Navy was in a position to successfully carry out the first strategic air raid in

1914, the first air to air attack in 1915 and use aircraft in a sea battle for the first time in 1916.

In celebrating 2009 as our Centenary, it is not so much the date the Admiralty ordered its first airship that is important, but the conviction, tenacity and zeal of the early Naval aviators, whose determined pursuit of their belief in the utility of Naval air power convinced their Lordships of the case for Naval aviation in the first place, that is the greater cause for recognition and acclaim. Their convictions were rapidly and ably demonstrated and it is upholding that commitment and continuing to deliver what we believe in strongly that is the backbone of the Fleet Air Arm today.

Commander Sue Eagles QVRM, RD Royal Navy



1909 - 2009