Vol: 4 Issue 1 Dec/Jan 2019/20

RAFA Global Branch 1370

NEWSLETTER

Here's Wishing You all
a very Happy Christmas
and a Prosperous New
Year. From your Branch
Committee

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Cover Photo:

Northrop Grumman B2 Spirit

Special points of Interest:

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From the Editor:

Welcome to the end of 2019 and the beginning of 2020! Another year has flown by and I'm sure it went quicker than the previous year? Summer is on the way here in NZ and all things point to a hot one, which will be nice. I do hope you all have an excellent Christmas holiday break and enjoy the festive season, I have my Son and Grandson visiting for a few days from the UK which I'm looking forward to. You have the AGM to look forward to, and I do hope you have a great turnout for it. I shall be keeping my eye on the Facebook Page to see what is going on and hopefully watch the On-Line video if it can be done again this year. I would like to mention that while I was at the RNZAF Assoc. Conference which was held at RNZAF Base Ohakea, I was able to touch base with Jake Anderson, another one of our New Zealand members, and we had a great chat over lunch and a coffee in Palmerston North near the Base. It was great to meet you Jake, and hopefully we can do it again sometime, down the track. Out of interest, the reason I chose our cover aircraft was due to it visiting the UK shores where it was photographed, "two United States Air Force B2 Spirits, currently deployed to RAF Fairford in Gloucestershire, flew above the English countryside near Dover with two UK F-35B Lightnings", which is certainly something a bit different Well all from me for now, other than to wish you all a "Merry Christmas " and all the best for the New Year.

~Bryn~

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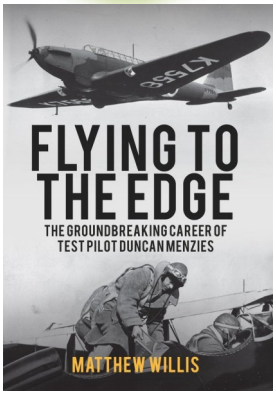
We Welcome:

Jake Anderson
Gordon Beer
June Clarke
Aidy Lawrence
Brian Mulholland

Book of the Month



Duncan Menzies flew with the RAF, the Aeroplane and Armament Evaluation Establishment, and Fairey Aviation in a twenty-five-year flying career, seeing the world of flying change from open cockpits and few rules to the jet age, with its complexities and crowded skies. A modest, family man, Menzies set a speed record in Africa in the 1930s, survived an engine failure in a snowstorm and the terrifying breakup of a Fairey Fulmar in a terminal velocity dive.
This biography charts Menzies' career from Scottish sheep farm through flying the frontier in Egypt and Sudan, encounters with adventurers Tom Campbell Black and Denys Finch Hatton, and the future King Edward VIII, to his crucial role as a test pilot, developing the aircraft that would help win the Second World War.
Paperback: 128 pages.

Product Code: 8981

£12.99

ROYAL AIR FORCE museum shop

https://www.rafmuseumshop.com/flying-to-the-edge-by-matthew-willis.html

BIRTHDAYS

December Birthdays

David Mark Thompson, Charles Wright, Gareth Griffiths, Philip Brockbank, Darrel Gregory, Robin Noble, Ian Kirk, Nicholas Fry, Patricia Waddington, Stephen Mckenna, Stephen Carr, Derek Adamson, Carol Peachey, Stuart James Mitchell, Alan Meggs, Martin Hollow, Nicholas McCowan, Allan Hildage, Nigel Appleby

January Birthdays

Shivam Mishra, Philip Jones, Michael Sweetmore, Morris Schwartz, Sean Murphy, Joseph Cowan, Donald Adney Payne, Michael Flaherty, G J Speirs, Andy Sumner, Stephen Beanlands, John Armitage, David Busk, Karl Fairbrother, Vivienne Newton, Gordon Mercier, Frank Kerr, Paul Kendall, Chris Twiner, William Kirk, Joseph Marsden, D R Whittaker-Smith

February Birthdays

*Joan Jarvis, Ian Abraham, Glenys Thomas, Stephen Cassidy, Gillian Ellison, Matthew Hignett, David Lumsden, James Woollard, Marilyn Roman Rachael Gardner, Bryan Stoyle Trevor Roberts, Arthur Matthews, Alan Flewitt, Derek Warner, Mark Whewall, Walter Shatford, William Franklin (*** Special as he finally reaches 18 years old despite living throughout the Queens reign!!!)*

March Birthdays

Andrew Murray, Patrick Whing, Alan Cooper, Steven Clark, Roger Brown, Joyce Edwards, Kevin Pearce, Raymond Bailey, Joseph Snape, Simon Rawlins, John James Salmon, B S Cook, J H Macpherson, S M Hardy, Ian Fraser, Keith Viney, Jonathan Percival, Ian Topham, Andrew Durant, Clive Chandler, Malcolm Walton, Paul Rhodes, Kenneth Child, Allan Porteous, Paul Downey, Daryl Harries, Tarsem Pamma, David John Haydon, Martyn Briggs, Ian Jackson Redpath

Here's wishing you all a

"Very Happy Birthday"

'Night Witches'

The Nazis called them 'Night Witches' because the whooshing noise their plywood and canvas airplanes made reminded the Germans of the sound of a witch's broomstick. The Russian women who piloted those planes, onetime crop dusters, took it as a compliment. In 30,000 missions over four years, they dumped 23,000 tons of bombs on the German invaders, ultimately helping to chase them back to Berlin. Any German pilot who downed a 'witch' was awarded an Iron Cross. These young heroines, all volunteers and most in their teens and early 20s, became legends of World War II but are now largely forgotten. Flying only in the dark, they had no parachutes, guns, radios or radar, only maps and compasses. If hit by tracer bullets, their planes would burn like sheets of paper." So begins a NY Times tribute to one of the most famous "Night Witches," Nadezhda Popova, pictured here. Popova, who flew 852 missions during the war, passed away in 2013 at the age of 91

John Ritenour From a grateful Yank - Thank you for your sacrifice and service!
As pointed out - The Germans called these Brave Pilots Nachthexen (Night Witches). Their overall impact on German Morale and readiness was all out of proportion to their numbers.
In The Pacific - The Japanese practiced a similar tactic. Their plane engines sounded like old washing machines - GI's gave them the moniker ..."Washing Machine Charlie...." Sometimes they would use twin engine aircraft. The engines were set to run and slightly different RPM's - which generated extreme amounts of noise due to sympathetic vibrations. Increasingly - US Domination of The Air made such missions extremely dangerous. ~Thanks to Facebook~

Northrop Grumman B-2 Spirit USAF

From Wikipedia, the free encyclopaedia

Continuing the theme from the Branch Visit to RAF Lakenheath, this little gem sprung into view while on Facebook and I thought, why not!

The Northrop (later Northrop Grumman) B-2 Spirit, also known as the Stealth Bomber, is an American heavy strategic bomber, featuring low observable stealth technology designed for penetrating dense anti-aircraft defences; it is a flying wing design with a crew of two. The bomber can deploy both conventional and thermonuclear weapons, such as up to eighty 500-pound class (230 kg) Mk 82 JDAM Global Positioning System-guided bombs, or sixteen 2,400-pound (1,100 kg) B83 nuclear bombs. The B-2 is the only acknowledged aircraft that can carry large air-to-surface standoff weapons in a stealth configuration. Development started under the "Advanced Technology Bomber" (ATB) project during the Carter administration; its expected performance was one of the President's reasons for the cancellation of the Mach 2 capable B-1A bomber. The ATB project continued during the Reagan administration, but worries about delays in its introduction led to the reinstatement of the B-1 program. Program costs rose throughout development. Designed and manufactured by Northrop, later Northrop Grumman, the cost of each aircraft averaged $737 million (in 1997 Dollars). Total procurement costs averaged $929 million per aircraft, which includes spare parts, equipment, retrofitting, and software support. The total program cost, which included development, engineering and testing, averaged $2.1 billion per aircraft in 1997. Because of its considerable capital and operating costs, the project was controversial in the U.S. Congress. The winding-down of the Cold War in the latter portion of the 1980s dramatically reduced the need for the aircraft, which was designed with the intention of penetrating Soviet airspace and attacking high-value targets. During the late 1980s and 1990s, Congress slashed plans to purchase 132 bombers to 21. In 2008, a B-2 was destroyed in a crash shortly after take-off, though the crew ejected safely. Twenty B-2s are in service with the United States Air Force, which plans to operate them until 2032. The B-2 is capable of all-altitude attack missions up to 50,000 feet (15,000 m), with a range of more than 6,000 nautical miles (6,900 mi; 11,000 km) on internal fuel and over 10,000 nautical miles (12,000 mi; 19,000 km) with one mid-air refuelling. It entered service in 1997 as the second aircraft designed to have advanced stealth technology after the Lockheed F-117 Nighthawk attack aircraft. Though designed originally as primarily a nuclear bomber, the B-2 was first used in combat dropping conventional, non-nuclear ordnance in the Kosovo War in 1999. It later served in Iraq, Afghanistan, and Libya.

Overview:

The B-2 Spirit was developed to take over the USAF's vital penetration missions, able to travel deep into enemy territory to deploy ordnance which could include nuclear weapons. The B-2 is a flying wing aircraft, meaning that it has no fuselage or tail. It has significant advantages over previous bombers due to its blend of low-observable technologies with high aerodynamic efficiency and large payload. Low observability provides a greater freedom of action at high altitudes, thus increasing both range and field of view for on-board sensors. The U.S. Air Force reports its range as approximately 6,000 nautical miles (6,900 mi; 11,000 km). At cruising altitude, the B-2 refuels every six hours, taking on up to 50 short tons (45,000 kg) of fuel at a time.

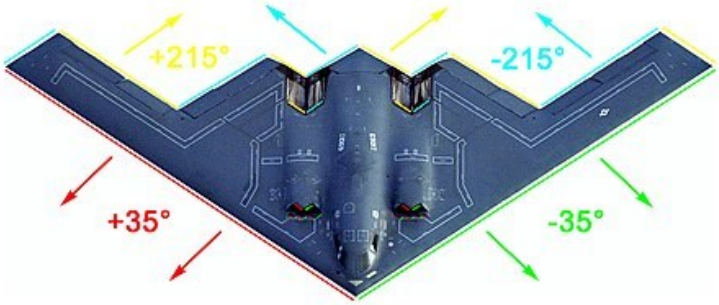
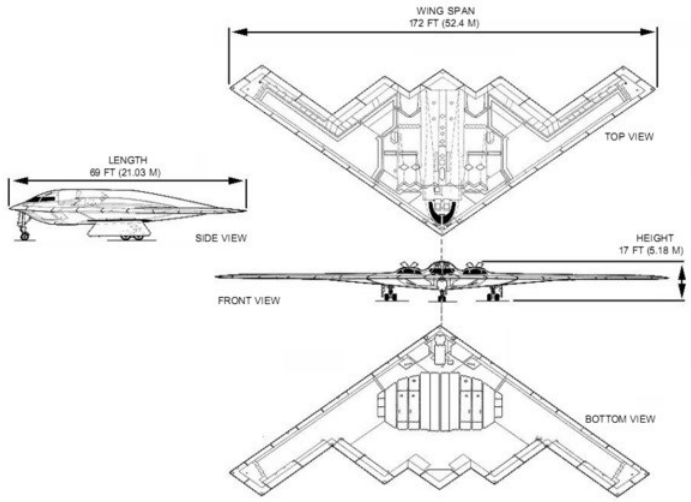


Illustration of the B-2's basic radar reflection angles

The development and construction of the B-2 required pioneering use of computer-aided design and manufacturing technologies, due to its complex flight characteristics and design requirements to maintain very low visibility to multiple means of detection. The B-2 bears a resemblance to earlier Northrop aircraft; the YB-35 and YB-49 were both flying wing bombers that had been cancelled in development in the early 1950s, allegedly for political reasons. The resemblance goes as far as B-2 and YB-49 having the same wingspan. The YB-49 also had a small radar cross-section. Approximately 80 pilots fly the B-2. Each aircraft has a crew of two, a pilot in the left seat and mission commander in the right, and has provisions for a third crew member if needed. For comparison, the B-1B has a crew of four and the B-52 has a crew of five. The B-2 is highly automated, and one crew member can sleep in a camp bed, use a toilet, or prepare a hot meal while the other monitors the aircraft, unlike most two-seat aircraft. Extensive sleep cycle and fatigue research was conducted to improve crew performance on long sorties. Advanced training is conducted at the USAF Weapons School. The B-2 has various conventional weapons in its arsenal, able to equip Mark 82 and Mark 84 bombs, CBU-87 Combined Effects Munitions, GATOR mines, and the CBU-97 Sensor Fused Weapon. In July 2009, Northrop Grumman reported the B-2 was compatible with the equipment necessary to deploy the 30,000 lb (14,000 kg) Massive Ordnance

Northrop Grumman B-2 Spirit USAF

Penetrator (MOP), which is intended to attack reinforced bunkers; up to two MOPs could be equipped in the B-2's bomb bays with one per bay, the B-2 is the only platform compatible with the MOP as of 2012. As of 2011, the AGM-158 JASSM cruise missile is an upcoming standoff munition to be deployed on the B-2 and other platforms. This is to be followed by the Long Range Standoff Weapon which may give the B-2 a standoff nuclear capability for the first time.



Avionics and systems:

In order to make the B-2 more effective than previous bombers, many advanced and modern avionics systems were integrated into its design; these have been modified and improved following a switch to conventional warfare missions. One system is the low probability of intercept AN/APQ-181 multi-mode radar, a fully digital navigation system that is integrated with terrain-following radar and Global Positioning System (GPS) guidance, NAS-26 astro-inertial navigation system (first such system tested on the Northrop SM-62 Snark cruise missile) and a Defensive Management System (DMS) to inform the flight crew of possible threats. The on-board DMS is capable of automatically assessing the detection capabilities of identified threats and indicated targets. The DMS will be upgraded by 2021 to detect radar emissions from air defences to allow changes to the auto-router's mission planning information while in-flight so it can receive new data quickly to plan a route that minimizes exposure to dangers.

For safety and fault-detection purposes, an on-board test system is linked with the majority of avionics on the B-2 to continuously monitor the performance and status of thousands of components and consumables; it also provides post-mission servicing instructions for ground crews. In 2008, many of the 136 standalone distributed computers on board the B-2, including the primary flight management computer, were being replaced by a single integrated system. The avionics are controlled by 13 EMP-resistant MIL-STD-1750A computers, which are interconnected through 26 MIL-STD-1553B-busses; other system elements are connected via optical fiber. In addition to periodic software upgrades and the introduction of new radar-absorbent materials across the fleet, the B-2 has had several major upgrades to its avionics and combat systems. For battlefield communications, both Link-16 and a high frequency satellite link have been installed, compatibility with various new munitions has been undertaken, and the AN/APQ-181 radar's operational frequency was shifted in order to avoid interference with other operators' equipment. The arrays of the upgraded radar features were entirely replaced to make the AN/APQ-181 into an active electronically scanned array (AESA) radar.[94] Due to the B-2's composite structure, it is required to stay 40 miles (64 km) away from thunderstorms, to avoid static discharge and lightning strikes.

HM Armed Forces

5 September 2019

Two United States Air Force B2 Spirits, currently deployed to RAF Fairford in Gloucestershire, flew above the English countryside near Dover with two UK F-35B Lightnings last Friday (30.08.19). This is the first time that USAF B-2's have trained with non-US F35's

Plane spotters in the U.K. were left in awe at the world's most expensive and secretive plane as it soared just 60 feet over their heads. It was one of three U.S. Air Force B-2 stealth bombers in the country taking part in a European training mission. The aircraft were photographed on Wednesday by Steve King at RAF Fairford, in Gloucestershire, after they returned from a training exercise in Iceland.

~Wikipedia Facebook & WWW~

Buzz Hope - 'and in the morning'

Times Remembered – 'and in the morning'

'SO MANY'

Of the 135 Bomber Squadrons and a single Flight, assigned to Bomber Command during World War Two I have researched, compiled and analysed statistics of 22 Front Line Bomber Squadrons over the past 21 months The loss is always underestimated not only of aircrew and aircraft, but of Station personnel, and of people aiding the war effort and of the families that lost loved ones. From the lowest rank up to Group Captain the heart ache was felt, not only by the squadron, but of the Station, Group and Command. The statistics are frightening, but rarely seen with the history of the aircraft, but of the next of kin, the individual story the long list of the dead, injured, Prisoner of War, of those who evaded capture and those airmen who found themselves interned in a neutral country.

The random Squadrons researched are from various Bomber Group with many changing Station and or Commands with some Squadron being transferred to the Middle East and to the 2nd Tactical Air Force. The figures listed below deal only with their operational period with in Bomber Command.

The Bomber Squadrons in question are as follows: No's. IX, No.44 (Rhodesia), 57, 75 (New Zealand), 106, 156, 158, 171, 199, 227, 424 (Tiger) RCAF, 458 RAAF 462 RAAF, 463 RAAF, 464 RAAF 466 RAAF, 467 RAAF, 578, 617, 619, 627 and No.630 Squadron.

Combined statistics of the 22 Bomber Squadrons in Bomber Command:
6426 Operations
71,393 Sorties
2120 aircraft struck off charge (2.97%)
174 aircraft struck off charge on non-operational duties.

From the 2,294 aircraft there were 12,941 casualties
10,054 airmen died
477 airmen injured
1,999 airmen became Prisoners of war
350 airmen evaded capture
54 airmen interned in a neutral country.

Of the 10,054 airmen and the further 140 identified as dying on the Squadron were from the following Air Forces and

7,302 Royal Air Force
1,183 Royal Australian Air Force
1,079 Royal Canadian Air Force
607 Royal New Zealand Air Force
10 United States Army Air Force
5 Royal Norwegian Air Force
3 South African Air Force
1 Polish Air Force
1 British Army
1 Royal Navy
1 W.A.A.F.

The average age of those that died is 24 years and 5 weeks.

Of the Squadrons that transferred to the Middle East and to the 2nd Tactical Air Force or sent detachments to Coastal Command suffered a further 509 aircrew casualties of which 272 airmen died.

Many families waiting months for clarification of their loved ones demise with the personal forms at the RAF Personal Records were updated as 'NE' (Non Effective). Only for families to be told 'Prisoner of War, Dead or due to the time limit to be told Missing Presumed Killed' So proud when their loved ones received their 'Flying Brevet' then sinking to the depth of despair the day that fateful telegram arrived!

So many losses, so many families affected for ever, so many died!

May they all rest in peace, each one a 'Warrior of the Skies'.

Nancy Grace Augusta Wake, AC, GM (30 August 1912 – 7 August 2011)

What do we know about the women of WWII memorial?

The idea of the memorial wasn't approached until 1997! It was noted that other countries had something dedicated to the women's contributions to the war effort with the exception the UK !! A Plaque was initially going to be commissioned until Baroness Boothroyd stepped up to the plate. Fundraising was conducted by a charitable trust set up for the purpose of establishing a memorial, with the National Heritage Memorial Fund donating towards the project. Baroness Boothroyd also raised money on the game show Who Wants to Be a Millionaire?. The idea for a memorial was raised with retired Major David McNally Robertson. Previous campaigns had only been limited to attempting to generate funds for a plaque in York Minster with Robertson, and former gunners Edna Storr and Mildred Veal leading the campaign. A fundraising trust was founded, with Baroness Boothroyd, Dame Vera Lynn and the Princess Royal joining. Boothroyd became patron of the trust, with Dame Vera and the Princess Royal becoming vice–patrons. The remaining vice–patrons were John Grogan, MP for Selby; Hugh Bayley, the MP for City of York; Baroness Finlay of Llandaff and Robert Crawford. The National Heritage Memorial Fund gave £934,115 towards the cost of the memorial, while £800,000 was raised by Baroness Boothroyd who chose the fund as her selected charity when she appeared on the ITV game show Who Wants to Be a Millionaire? in 2002. The remaining funds were raised by the Memorial to the Women of World War II Fund, a charitable fund based in York. The memorial was unveiled on 9 July 2005, two days after the 7/7 London bombings, by Queen Elizabeth II as part of the 60th anniversary of the end of the Second World War. Also in attendance at the ceremony were Baroness Boothroyd, Baroness Thatcher, Dame Vera Lynn and the Defence Secretary John Reid as well as a number of female war veterans.

Wake in 1945

These veterans included Nancy Wake, the Allies' most decorated servicewoman. A flypast of five military helicopters took place, an Apache, Sea King, Lynx, Chinook and Merlin, which were flown by all female crews. This was followed by a flypast of two Panavia Tornado ADVs, flown by female pilots. Baroness

Boothroyd, patron of the Women of World War II trust and former Speaker of the House of Commons, dedicated the memorial saying: "This monument is dedicated to all the women who served our country and to the cause of freedom, in uniform and on the home front. I hope that future generations who pass this way will ask themselves: 'what sort of women were they?' and look at our history for the answer." Nancy Grace Augusta Wake, AC, GM (30 August 1912 – 7 August 2011) was a secret agent during the Second World War. Living in Marseille with her French industrialist husband when the war broke out, Wake slowly became enmeshed with French efforts against the Germans, and worked to get people out of France. Later she became a leading figure in the maquis groups of the French Resistance and was one of the Allies' most decorated servicewomen.

Nickname(s): Hélène (SOE), Andrée (French Resistance/SOE Identity), White Mouse (Gestapo in France)
Born: 30 August 1912 Wellington, New Zealand
Died: 7 August 2011 (aged 98) London, England
Allegiance: France, United Kingdom
Service/branch: Special Operations Executive, First Aid Nursing Yeomanry
Years of service: 1943–1945 (SOE)
Rank: Captain: Unit: Freelance
Battles/wars: Second World War
Awards: Companion of the Order of Australia, George Medal, Officer of the Legion of Honour (France), Croix de guerre (France), Medal of Freedom (United States), RSA Badge in Gold (New Zealand)
Spouse(s): Henri Fiocca, John Forward.

After the fall of France in 1940, she became a courier for the French Resistance and later joined the escape network of Captain Ian Garrow. By 1943, Wake was the Gestapo's most wanted person with a 5-million-franc price on her head. Therefore, it became necessary for her to leave France.

The Association of RAF Fighter Control Officers Briefing Paper The D--Day Fighter Control Story—D-Day A little known RAF Story

The D-Day Fighter Control Story Pt.1

Acknowledgement

This paper has been compiled from a number of sources. Squadron Leader Mike Dean and Mr Peter Best generously provided information and advice and a special debt is owed to Doctor Les Dobinson for his advice and contribution which Was special because he was there.

Some facts have been taken from Government sources and under the terms of the standard Open Government Licence we would like to acknowledge the importance of Air Publications 1063, 3237 and 1116 which were produced by the Air Historical Branch in the 1950s

Fighter Control During the Assault Phase of Operation Neptune – 6th June 1944 - Introduction

By 1944 there was a wider understanding amongst the air planners that control of the air was a primary responsibility for the air force. Experience gained in the Battle of Britain, the Western Desert and Mediterranean had shown that success in controlling the air was dependent upon a system of command and control that used radar to provide warning of attack and a tactical picture of the airspace for battle management and weapon control. Radar prevented the enemy air mounting surprise attacks and with intelligent battle management could be used to surprise the enemy. Moreover, the lessons from the North Africa had also shown the value of radar cover beyond the front line to help direct offensive operations. The section of the French Coast selected for Operation Neptune, which was the code name for the assault phase for the liberation of Europe otherwise generally known as D--Day, was over 80 miles from the English coast. South coast radar units could provide cover over the beaches but the advanced warning of enemy air approaching the beaches was insufficient to provide control of the air. It was necessary, therefore, to extend the coverage for both picture compilation and control and to establish ashore at the earliest possible time mobile radar units to control the air above the advance into France. Once again experience from the Mediterranean, especially, operation Husky the invasion of Sicily, had thrown up many valuable lessons one of these was that radar units providing control of the air and the control of offensive operations as part of a composite RAF Group could not also provide picture compilation and the control of day and night fighters in the base areas and behind the front line – more simply put, air defence of the defended area behind the front line. Another lesson was that picture compilation, which included the complete analysis (known as filtering) and identification processes, should be collocated with the operations centre for composite Groups and so these two operational capabilities were combined into one Group Control Centre (GCC). Prior to this the picture had been constructed and maintained by a separate Mobile Raid Reporting Unit (MRRU).

The Air Organisation for operation Overlord

All US and RAF air forces assigned to operation Overlord – the liberation of Europe -- were placed under the command of the Commander--in--Chief Allied Expeditionary Air Force (AEAF) with the RAF managing all air operations in the British area of responsibility and the USAAF managing air operations in the US area of responsibility. In the UK area the plan was that No 85 Group would provide air defence behind the front line and especially all the base areas. The Second Tactical Air Force was to prosecute the forward air battle including close support to the armies. It comprised two composite Fighter and Fighter Bombers Groups Numbers 83 and 84 Groups and a Medium Bomber Group -- No 2 Group. Surveillance and control units providing early warning and control were assigned to Numbers 83 and 84 Groups. Generally speaking, No 83 Group worked with the Second British Army and No 84 group worked with the First Canadian Army. The forward battle was fluid and control of both offensive and defensive air did not lend itself to the defensive structure that had been established in the UK. However, the defence of the base areas was modelled more on the UK system and under the Group Commander three base Defence Sectors were established. The organisation is shown at Figure 1.

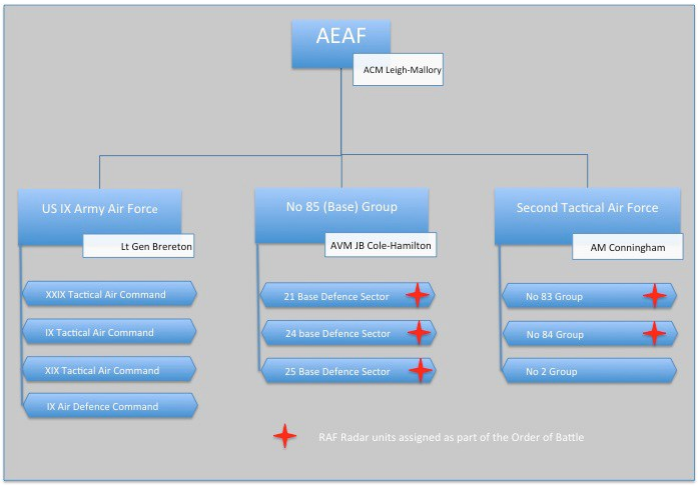


Figure 1 -- AEAF Organisation

Operation Neptune

Operation Neptune covered the assault phase and was all about establishing a firm bridgehead ashore by D--Day plus 1. The responsibility for the control of the air was vested in the Commander--in--Chief of Air Defence of Great Britain (ADGB) -- formally Fighter Command--which was based at RAF Bentley Priory. The AOC in C delegated the operational control of air forces to undertake the task to AOC 11 Group. The challenge for the air surveillance and control system was to provide adequate forward cover and the seamless transfer of control of the air to 85 Group once a bridgehead had been established.

Figure 2 --FDT Filter Table Courtesy of Mike Dean

D-Day - A little known RAF Story Cont.

The plan that was formulated required a total of three Landing Ships Tank (LST) to be converted as air surveillance and control ships; these were designated as Fighter Direction Tenders (FDT). The interesting point is that the FDTs in addition to early warning and control also undertook the full picture compilation role with their own filter centres and identification teams. A picture of the Filter Centre in a FDT is shown at Figure 2. The FDTs were Royal Navy units under the command of the Allied Naval Commander of the expeditionary naval forces but were operationally controlled by AOC 11 Group.

Figure 3 -- Type 15 Aerial on an FDT Courtesy of Mike Dean

The concept of using ship borne RAF radar equipment for surveillance and control was first trialled in North Africa and then used during Operation Husky when LST 305 was fitted with Ground Control Interception (GCI) radar, then the Type 8 used by GCI units in the Mediterranean at the time, control equipment and radios. The D--Day FDTs were equipped with the Type 15 and the Type 11 radars both fitted with Mark III IFF interrogators/responders, AI beacons and VHF radio telephony and wireless telegraphy sets. The term GCI was a rather interchangeable term that was used to denote radars that could be used for close controlled interceptions but it also denoted the fact a unit so named was primarily a control unit although they also had an early warning and surveillance role as well. The FDT system proved so successful the AOC--in--C Fighter Command pressed for four FDTs to support Operation Neptune.

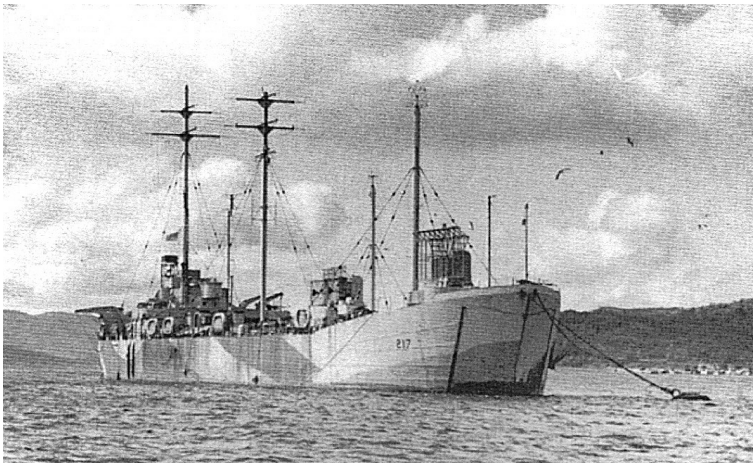


Figure 4– FDT 217

Three were produced:

- **No 216 FDT.** This FDT was positioned seaward of the US beaches in the western half of the assault area. Its role was to produce a tactical picture over the US area, provide raid reporting and to control both RAF and USAAF fighters tasked to operate in the area.
- **No 217 FDT.** This FDT was positioned seaward of the British beaches in the eastern half of the assault area to undertake the same role as FDT 216. However the ship was designated as the main co--ordinating FDT or Master control FDT; the senior RAF controller was aboard this ship1. The Master FDT therefore had the additional role of managing fighter resources across the whole assault area.
- **No 13 FDT.** This FDT was positioned in the main shipping route to provide defensive cover over the shipping lanes.

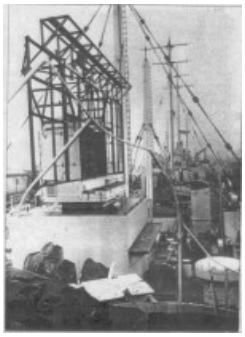


Figure 5 – FDT 13

The FDT positioning in relation to the air corridors, shipping lanes and assault beaches is shown at Figure 6 below.

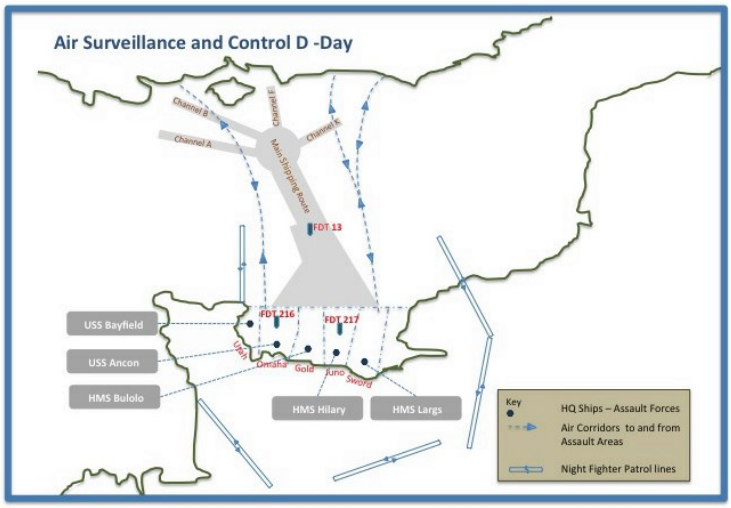


Figure 6 -- Air Surveillance and Control D--Day

~With thanks to Group Capt (Rtd) Mrs Nick Loveday~

To Be Continued

Airfield HISTORY - Royal Air Force Manston

From Wikipedia, the free encyclopaedia

RAF Manston was an RAF station in the north-east of Kent, Isle of Thanet from 1916 until 1996. The site was split between a commercial airport Kent International Airport (KIA), since closed, and a continuing military use by the Defence Fire Training and Development Centre (DFTDC), following on from a long-standing training facility for RAF firefighters at the Manston base. In March 2017, RAF Manston became the HQ for the 3rd battalion Princess of Wales Royal Regiment (PWRR).

History **First World War**

At the outset of the First World War, the Isle of Thanet was equipped with a small and precarious landing strip for aircraft at St Mildreds Bay, Westgate, on top of the chalk cliffs, at the foot of which was a promenade which had been used for seaplane operations.

The landing grounds atop the cliff soon became the scene of several accidents, with at least one plane seen to fail to stop before the end of the cliffs and tumble into the sea, which for the fortunate pilot had been on its inward tide.

In the winter of 1915-1916 these early aircraft first began to use the open farmlands at Manston as a site for emergency landings. Thus was soon established the Admiralty Aerodrome at Manston. It was not long after this that the training school, set up originally to instruct pilots in the use of the new Handley Page bombers, was established, and so by the close of 1916 there were already two distinct units stationed at Manston, the Operational War Flight Command and the Handley Page Training School.

Its location near the Kent coast gave Manston some advantages over the other previously established aerodromes and regular additions in men and machinery were soon made, particularly, in these early days, from Detling. By 1917 the Royal Flying Corps was well established and taking an active part in the defence of England.

At a time when Zeppelin raids were bringing the war directly to English civilians, daylight bombing raids by German 'Gotha' Bombers, a twin engine biplane, would have been considerably more effective were it not for the RFC's presence at Manston.

The German air raids had lasted for thirteen weeks, the last being on 22 August 1917. On this occasion, of the 15 bombers that set out for England five did not reach the Kent coast, and the 'spirited' intervention from Manston-based fighters prevented those remaining from flying further west, three being destroyed outright and the remaining seven returning to Germany with dead and wounded on board

Shortly after such formation raids and in consequence the Cabinet recommended the creation of a separate Air Ministry. The RAF was officially formed on 1 April 1918.

Second World War

At the start of the Second World War, Manston hosted a School of Air Navigation but this was quickly moved out. On 10 September 1939, No. 3 Squadron flew in equipped with Hawker Hurricanes and Manston was put under the command of No. 11 Group Fighter Command. During an eventful Battle of Britain, Manston was heavily bombed; at its height (August 1940) diary entries recorded a steady stream of damage to aircraft and buildings. The station was also littered with unexploded bombs. This caused many staff to move to nearby woods for at least a week. Others were dispersed to surrounding housing. For example, WAAFs (members of the Women's Auxiliary Air Force) stationed at Manston were billeted at the nearby Ursuline Convent in Westgate on Sea.

Barnes Wallis used the base to test his bouncing bomb on the coast at nearby Reculver prior to the Dambusters raid. A prototype is on public display at the Spitfire & Hurricane Museum. Hawker Typhoon attack aircraft were based there later in the war, and also the first Meteor jet squadron of the RAF. It was used as a departure point for airborne forces in Operation Market Garden. It was one of the few airfields installed with the Fog, Intensive, Dispersal Of (FIDO) system designed to remove fog from airfields by burning it off with petrol.

Along with RAF Carnaby and RAF Woodbridge, Manston was developed as a South coast emergency landing ground for bomber crews. These airfields were intended for use by returning bombers suffering from low-fuel and/or suspected damage to their pneumatic (wheel brake) and/or hydraulic (undercarriage) systems. All three airfields were equipped with a single runway, 9,000 ft. (2,700 m) long and 750 ft. (230 m) wide. There was a further clear area of 1,500 ft. (460 m) at each end of the runway. At each of the three airfields, the runway was divided into three 250 ft. (76 m) lanes. The northern and central lanes were allocated by flying control, while the southern lane was the emergency lane on which any aircraft could land without first making contact with the airfield.

The hilltop site was chosen as it was usually fog-free and had no approach obstructions. Being close to the front line, the airfield became something of a magnet for badly damaged aircraft that had suffered from ground fire, collisions, or air attack but retained a degree of airworthiness. The airfield became something of a "graveyard" for heavy bombers and no doubt the less-damaged portions of aircraft landing or otherwise arriving here sometimes provided spare parts for other Allied aircraft in need of repair. The museums on site display some startling aerial views dating from this era and the post-war years. After the war, the runway was reconfigured, becoming 200 feet wide with a full-length parallel taxiway, both within the original paved width.

USAF USE

USAF Boeing B-47E-50-LM, AF Ser. No. 52-3363, in flight.

During the Cold War of the 1950s the United States Air Force used RAF Manston as a Strategic Air Command base for its bomber, fighter and fighter-bomber units.

In the early 1950s, SAC's backbone bombers were the Convair B-36 and Boeing B-47 Stratojet. To support this strategy, the SAC 7th Air Division was established in May 1951. At the time, Manston had only partially recovered from the ravages of the Second World War. There were still makeshift bomb shelters, i.e. trenches with tin roofs, and many large circles of lush green grass where Luftwaffe bombs had cratered the runway. The RAF control tower overlooked a bizarre hilltop runway, which was an extraordinary 750 feet (230 m) wide and

Republic F-84E-1-RE Thunderjets of the 512th Fighter-Bomber Squadron. AF Ser. No. 49-2066 is in the foreground

Airfield HISTORY - Royal Air Force Manston

9,000 feet (2,700 m) long. The 7th AD expanded Manston by building concrete bunkers suitable for nuclear weapons and upgrading the support facilities for long-term use.
By the summer of 1953, the 7th AD began a series of temporary deployments of B-47 and B-36 wings from the United States to the United Kingdom. These deployments generally involved about 45 aircraft, together with about 20 KC-97 Stratofreighters which were maintained at the English bases for 90 days. At the end of the Temporary Duty (TDY), they were relieved by another SAC wing that was generally stationed at a different airfield. These deployments continued until 1955 when SAC shifted its rotational deployments to RAF Fairford and Manston was turned over to the United States Air Forces in Europe.
In July 1951 SAC deployed the 12th Fighter-Escort Wing to Manston to provide fighter escort for its rotational bombardment wings. The 12th, however, only remained at Manston until 30 November when it was replaced by the 123d Fighter-Bomber Wing, with the 12th being transferred to Japan for combat duty during the Korean War.

The 123d was an umbrella wing that was formed from several Air National Guard squadrons activated for federal service during the Korean War. This wing was activated at Manston with three ANG fighter squadrons:

156th Fighter-Bomber Squadron (North Carolina ANG)

165th Fighter-Bomber Squadron (Kentucky ANG)

167th Fighter-Bomber Squadron (West Virginia ANG)

The 123d utilized the F-84E "Thunderjets" left behind by the 12th FEW and continued the same mission of fighter escort of SAC's bombers.

In July 1952 the Air National Guard squadrons were returned to State control, and USAFE assumed the fighter escort role. In its place, the 406th Fighter-Bomber Wing was activated in place at Manston with the following squadrons assigned:

512th Fighter-Bomber Squadron (Yellow Stripe)

513th Fighter-Bomber Squadron (Red Stripe)

514th Fighter-Bomber Squadron (Dark Blue Stripe)

Initially, the 406th utilized the existing F-84Es, however in August 1953, the F-86F "Sabre" began to arrive to replace them.

A change of mission for the 406th in April 1954 from fighter-bomber to fighter-interceptor came with a change of equipment. The F-86D Sabre interceptor began to arrive and the F-86F's were transferred to other USAFE squadrons and NATO countries. In addition, the 512th FBS was transferred to Soesterberg Air Base, Netherlands with their F-86Fs.

In June F-86D's arrived from CONUS to equip the 87th Fighter-Interceptor Squadron which was transferred to the 406th from the 81st FBW assigned to RAF Shepherds Grove. The 87th FIS, however, physically remained at Shepherds Grove, but was under the organisational command of the 406th at Manston. In September 1955, the 87th was redesignated the 512th FIS.

On 15 May 1958 the 406th was inactivated, with its three air defence squadrons being assigned to continental Europe under the 86th Air Division (Defence) at Ramstein Air Base West Germany. The squadrons were transferred to the following bases:

512th FIS to Sembach Air Base, West Germany

513th FIS to Phalsbourg-Bourscheid Air Base France

514th FIS to Ramstein Air Base, West Germany

The F-86D's were eventually withdrawn from Europe in 1961, and the 512th, 513th and 514th were inactivated.

After the transfer of the USAFE interceptors at Manston the base was returned to the RAF control.

Return to RAF use

With the USAF's withdrawal from Manston, the airfield became a joint civilian and RAF airport from 1960 and was thence employed for occasional package tour and cargo flights, alongside its continuing role as an RAF base. The Air Cadets used the northern side of the airfield as a gliding site, and 1 Air Experience Flight flying De Havilland Chipmunks was also based there. Thanks to its long runway, Manston was designated as one of the UK's MEDAs (Military Emergency Diversion Airfields) for emergency military and civilian landings. Others included RAF Greenham Common, RAF Aldergrove and RAF Machrihanish.

For a number of years, the base operated as a Master Diversion Airfield, open 24 hours every day. Manston, uniquely in the UK, also had a 'foam carpet' crash landing system, where two tractors would pull tankers laying a metre thick layer of foam over a strip of runway, for aircraft with landing gear problems.[2]

Search and rescue base

A Sea King HAR.3 of 202 RAF Squadron, who operated this type of aircraft from RAF Manston between 1988 and 1994

RAF Manston was home to a helicopter search and rescue (SAR) flight from No. 22 Squadron RAF from 1961, operating Westland Whirlwind aircraft. The flight was withdrawn in 1969, but the outcry led to the RAF contracting Bristow Helicopters from 1971 to 1974 to provide a continued service (also using MK3 Whirlwinds). In 1972, the Bristow crew was awarded the "Wreck Shield" for "Most Meritorious Rescue in 1972" by the Department of Trade and Industry.

In 1974, the RAF SAR teams returned, with No. 72 Squadron RAF operating two Westland Wessex HC2 aircraft to replace the Bristow cover. The flight was transferred back to No. 22 Squadron in June 1976. In 1988 No. 202 Squadron RAF moved to Manston with their Sea King HAR.3, with the Wessex aircraft moving to RAF Coltishall. The Sea Kings remained at Manston until July 1994, when SAR activity at the base was halted, and SAR cover for the channel relocated to RAF Wattisham.

Civilian use

For some years two commercial airlines operated out of Manston, Invicta Airways and Air Ferry. Many thousands of holiday passengers started their journeys from Manston.

From 1989 Manston became styled as Kent International Airport, and a new terminal was officially opened that year by the Duchess of York.

Closure

In 1996, Manston's satellite station RAF Ash, was closed, and in 1999, it was decided to close the RAF Manston base. The 'airside' portion of the base was signed over to the commercial operator of Kent International Airport.

Museums

There are currently two museums on the former RAF Manston site, in a cluster on the north side:

- The RAF Manston History Museum
- The Spitfire and Hurricane Memorial Museum

Westland Whirlwind SF- P of 137 Squadron at RAF Manston, Kent (1943)

RAF St. Pancras: When Harrier Jump Jets briefly called Camden home

Tom Lecky-Thompson's Harrier leaves London in its wake.
Picture: Tangmere Military Aviation Museum

Anyone looking up at the sky above King's Cross on May 5, 1969, might have though they were hallucinating.

But there really were Harrier Jump Jets taking off and landing in an old Coal Yard called, briefly, RAF St Pancras - behind the historic railway station.

Itself a commemoration of the first non-stop flight across the Atlantic, in 1969 the Daily Mail sponsored the Transatlantic Air Race - designed to find who was able to get between the Post Office Tower in London and the Empire State Building in New York the quickest.

Coal dust everywhere as Squadron Leader Tom Lecky-Thompson launched from St Pancras.
Picture: Tangmere Military Aviation Museum

The competition was open to a number of forms of transport, but the swiftest category was of course by air, and the RAF entered in a fit of patriotic fervour - but also to show off that its new jets could take off and land vertically.

With competitors also including the Royal Navy and civilian thrill-seekers like racing driver Stirling Moss, that capability would come in handy.

It meant the RAF team was able to, with special permission from the aviation authorities, fly down the railway line from Alexandra Palace to and from the abandoned coal yard

The Harrier GR.1 flown by Squadron Leader Tom Lecky-Thompson on the westbound leg of the 1969 Daily Mail Transatlantic Air Race is pictured at "RAF St Pancras", a remporary site set up adjacent to the London rail terminus, in early May 1969.
Picture: Crown / MoD, courtesy of Air Historical Branch

behind St Pancras - importantly just 10 minutes down the Euston Road from the Post Office Tower.

And so Squadron Leader Tom Lecky-Thompson took off from St Pancras that Monday.

After refuelling in the air 11 times, he made it to New York and landed on a site near the East River in just six hours 11 minutes.

The two RAF Harrier pilots who participated in the 1969 Daily Mail Transatlantic Air Race. Tom Lecky-Thompson and Graham Williams.
Picture: Crown / MoD Courtesy of Air Historical Branch (RAF)

This was the fastest time for the London-to-New York journey and bagged the RAF £6,000.

Sqn Ldr Lecky-Thompson's counterpart in New York, Graham Williams - who rose to the rank of Air Vice-Marshal - was pipped by the Royal Navy on the return leg.

RAF St. Pancras: When Harrier Jump Jets briefly called Camden home

Ritchie Stephen, who was a member of the RAF's ground team at St Pancras having been seconded from RAF Tangmere, told this newspaper what he remembered about the operation:

"Within an hour of arrival in St Pancras, we had come to an arrangement with the landlord of the pub at the foot of the access ramp [to the coal yard] so that we could use shower and toilet facilities above the pub in exchange for encouraging detachment staff and the press to utilise his premises," Ritchie said.

He explained that for the RAF staff, getting to see the bright lights of London was a novelty, but the dust and smoke for neighbours in Somers Town was perhaps less welcome.
He went on: "High pressure hoses were used to spray the yard, as there appeared to be about six inches of compressed coal dust covering the entire area.

"Needless to say, we were not the most pristine and shiny bright members of Her Majesty's Armed Forces."
But Ritchie remembers the operation to get Sq/Ldr Lecky-Thompson to New York went without a hitch - almost.
He said: "Apart from Prince Charles slipping on the metal pad and landing on his arse, all went according to plan.
"When the time came for the Harrier to arrive at the site, there was a thick fog over the yard and visibility was down to about 100 metres or less.

"Because I was, at the time, of a slight build, I was positioned on top of a communications caravan with an enormous strobe lamp and hooked up to the air traffic system.

"My purpose was to point the lamp in the direction of the approaching harrier, until the pilot had a visual on the landing pad."

Luckily, Sq/Ldr Lecky Thompson was able to manoeuvre his jet despite the visibility - though Ritchie said that, as locals were advised to keep the windows open to stop shattering, the avalanche of coal dust was not well-received.

David Coxon has curated an exhibition about the race at the Tangmere Military Aviation Museum in West Sussex.
He explained that the flights had to be carefully timed. saying: "They had to agree not to fly on the Sundays, and then they had to follow very particular routes for the safety of the public."

The pilots were reunited at Tangmere - where the second jet is kept - in April.
David told the Ham & High about that day in 1969. He said: "Tom had arrived in New York, and Graham was waiting to leave.

"They were in Brooklyn one evening when they saw on the TV that the QEII liner was arriving in New York for the first time.

"They decided to fly the Harriers either side of the bridge of the QEII - they said they didn't ask permission because they knew it'd be denied.

"But it was such a success that when they asked later a commanding officer had said he'd signed it off!"

https://www.hamhigh.co.uk/news/heritage/

The RAFA Global Branch's Dirty Half Dozen

Team fundraising for The RAF Association (RAFA)

Event: The RAFA Global Branch Dirty Half Dozen, on 22 July 2020

Wednesday 22nd July 2020 at RFC Rendcomb Airfield , The Whiteway , Cirencester , Gloucestershire, GL7 7DF will see 6 members/supporters of the RAFA Global 1370 Branch take to the skies like no sane person ever should, tied to the top wing of a bi-plane.

Crazy, stupid or just plain idiotic? Maybe yes to all three points, BUT they are doing it for one reason only and THAT is to raise money for the RAF Association and that means The RAF Family. In order to do that all of us crazy people need YOUR help.

Without YOUR help it is totally pointless us turning up on the 22nd. So please, please folks dig deep and donate to our cause. Our thanks will be never ending. You might hear it in our screams from 1,000ft!!!!

We provide welfare support to the RAF family

Charity Registration No. 226686 (England & Wales) - SC037673 (Scotland)

INFORMATION & EVENTS PAGE

PUT THIS on YOUR CALENDAR!

RAFA GLOBAL BRANCH AGM WEEKEND

Social evening meal Friday 28th February 2020

Branch Trip Saturday 29th February To:

"Shuttleworth Collection" and/or "The Swiss Garden"

~

Annual General Meeting to be held at St. Neots RAFA Club, 44 Huntingdon Street, St Neots, PE19 1DU @ 19.00 hrs

ROYAL AIR FORCE museum london

Free Admission

We're open daily from 10.00am
(Parking Charges Apply)
Also Support us at:
COSFORD
&
DUXFORD
https://www.rafmuseum.org.uk/london/

The AGM will be held within the RAFA Club at St Neots. Please note that this room is limited, by Fire Regs, to 120 persons, and can be split into 2 discreet rooms. We are able to use both halves for a "Before" and "After" social, splitting it into two for the AGM. The lounge bar will be open during the evening from whatever time is required. The Club house will be open from 1300 for any set up that we may require & it goes without saying that our members will be welcome in the Members bar during the afternoon and in the evening if your members prefer it. We will be arranging with the clubs Bar Steward for a buffet for which there will be a nominal charge per person attending the AGM.

Hotels:
There is a choice of hotels within a couple of hundred yards of each other. We have stayed in one of them, the two storey one, St. Neots (Colmworth Park), currently at £61-50 for two nights, which is the one we personally will be going back to, as it has possibly slightly better access despite there being no lift. The three storey one, St. Neots (A1/Wyboston), currently at £59-00 for two nights, is closer to the A1 main road and noise "might" be a problem. The choice is obviously yours and currently there is just a £2-50p difference in the price for two nights. There is also the option of your using Wyboston Lakes Training Centre Hotel, which is slightly more up market than a Premier Inn, their current price, via Booking.com, is £108 for 2 people for the same 2 nights. I have stayed there and it is very nice.

REF AGM 2020
Can **ALL** members please ensure they go to the link for the AGM and click on their name to confirm whether they are **GOING**, **MAYBE** or **CAN'T GO**, button accordingly as we do need to have an idea on numbers for this event.

IF YOU ARE GOING TO BE ATTENDING, PLEASE MESSAGE Steve Mullis WITH DETAILS OF WHICH HOTEL YOU ARE STAYING AT ASAP, PLUS IF YOU ARE BRINGING ANY GUESTS. Wives, partners etc. are classed as guests if they are not RAFA members.

I DO SUGGEST EARLY BOOKING AS PRICES WILL RISE !!!!!

Royal Air Force Benevolent Fund 1919 2019
CELEBRATING 100 YEARS

We are working with The Recycling Factory to raise funds through the recycling of unwanted inkjet cartridges.
The RAF Benevolent Fund receives up to £3.50 for every recyclable inkjet cartridge! To download your freepost label, please visit The Recycling Factory on the link below
https://bit.ly/2WOqg2r?fbclid=IwAR0JyIlezMbSAIsY8pIWYWPnYGJHrK2CuEXPp-4Gw9JgsiK9VZAg_2hmN4