JUNE 2009 No.175

# GUILDWNEWS

THE GUILD OF AIR PILOTS AND AIR NAVIGATORS





#### THE GUILD OF AIR PILOTS AND AIR NAVIGATORS

#### PATRON:

His Royal Highness The Prince Philip Duke of Edinburgh KG KT

GRAND MASTER: His Royal Highness The Prince Andrew Duke of York KG KCVO

Master: Rear Admiral C H D Cooke-Priest CB FRAeS

CLERK: Paul J Tacon BA FCIS

The Guild, founded in 1929, is a Livery Company of the City of London.
(Letters Patent 1956)

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Except where specifically stated, none of the material in this issue is to be taken as expressing the opinion of the Court of the Guild.

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# **Guild Diary**

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2	2 <sup>nd</sup> Technical and Air Safety Committee	Cobham House
11	3 <sup>rd</sup> General Purposes and Finance Committee	Cobham House
11	New Members Briefing	Cobham House
11	Aptitude Assessment	<b>RAF</b> Cranwell
12-14	Aero Expo 2009	Wycombe Air Park
24	Election of Sheriffs	Guildhall
JULY 2009		
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7	Benevolent Fund Board of Management	Cobham House
14	2 <sup>nd</sup> Education and Training Committee	Cobham House
16	4th General Purposes and Finance Committee	Cobham House
16	2 <sup>nd</sup> Court Meeting	Cutlers' Hall
26	Guild Sunday	St Michael's Cornhill
AUGUST 2009		
2	,	rden Military Pageant
6	Aptitude Assessment	RAF Cranwell
SEPTEMBER 2009		
8	3 <sup>rd</sup> Technical and Air Safety Committee	Cobham House
10	5th General Purposes and Finance Committee	Cobham House
10	3 <sup>rd</sup> Court Meeting	Cobham House
29	Election of Lord Mayor	Guildhall
30	Guild Luncheon Club	RAF Club
30	Sir Frederick Tymms Lecture Roya	l Aeronautical Society
COTTONIN ACCO		
	BER 2009	DAE Comment
8	Aptitude Assessment	RAF Cranwell
13	Benevolent Fund Board of Management	Cobham House
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15	6 <sup>th</sup> General Purposes and Finance Committee	Cobham House
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NOVEMBER 2009		
3		Cobham House
	4 <sup>th</sup> Technical and Air Safety Committee 7 <sup>th</sup> General Purposes and Finance Committee	Cobham House
12 12	4 <sup>th</sup> Court Meeting	Cutlers' Hall
	· · · · · · · · · · · · · · · · · · ·	Cutlers' Hall
12	Scholarships Presentation	
13	Silent Change	Guildhall
14	Lord Mayor's Show	C:14h -11
16	Lord Mayor's Banquet	Guildhall

#### **Guild Visits Programme**

St Cecilia's Festival

22 July RAF Brize Norton 15 September Brooklands, Weybridge

St Paul's Cathedral

Please see Flyers accompanying this and previous editions of Guild News or contact Assistant Michael Glover at MJAG2001@aol.com

GUILD GARDEN PARTY, Old Warden, 2nd August. If you are planning to come, please send your response slip and cheque to Mike Glover as soon as possible. Whilst there is no limit on numbers he does need to know how large the Guild group will be in good time as he must make sure that adequate car parking and picknicking space is allocated, and that the right number of admission tickets are printed.

Cover picture: HMS Illustrious at sea, in the North Sea Exercise Areas as seen from Graham Colover's PA30 Twin Comanche, en route from Newcastle to Biggin Hill. Photo by Alan Jackson

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STOP PRESS: HENSHAW RECORD BEATEN. Chalkie Stobbart has beaten Alex Henshaw's record flight, set in February 1939, for the fastest time in a single engine aircraft from London to Cape Town and return. Full details of Chalkie's achievement will be published in the August edition of Guild News.

GUILD LUNCHEON AND COBHAM LECTURE. The 29th April saw two notable Guild events, the first Luncheon Club of 2009 in the RAF Club and the Cobham Lecture in the Royal Aeronautical Society's Headquarters at 4 Hamilton Place. Those attending the Luncheon Club were entertained to a fascinating and thought provoking talk by Squadron Leader Keven Gambold titled 'Operations Unmanned Aerial Systems'. The subject of the Cobham Lecture, given by Rear Admiral Tony Johnstone-Burt OBE MA FRAeS FCIPD, was 'Helicopter Operations in Iraq and Afghanistan'. A shortened transcript of this lecture will be found in this issue of Guild News. The Guild was honoured by the attendance of Honorary Liveryman Prince Michael of Kent at this event.



**FLYER FLIGHT TRAINING SHOW**. After many years at Heathrow's Renaissance Hotel the Professional Flight Training

Exhibition, organised by Flyer magazine, has now moved to the Sofitel Hotel at Terminal 5. The first two 2009 shows took place on 25th April and as usual GAPAN members were out in force. The Guild stand was in a prime location to catch attendees both when they entered through the main doors and while they queued to attend the popular seminars. As such the stand was constantly awash with potential airline pilots eager to learn about the industry and what GAPAN has to offer. Throughout the day the Aptitude Testing computers were in constant use and it was refreshing to see an increasing number of existing Guild Young Members (GYM) operating these computers and passing on advice to fellow youngsters. Jaspreet Singh, Ludo Forrer, Ed Scurr, Henry Salmon, Nick Chan and Kat Hodge were among the GYM members in attendance. According to Flyer's Editor Ian Waller the show broke all previous records with 1,100 attendees. There were also 36 exhibitors and the feedback from them and visitors was overwhelmingly positive, with several exhibitors actually running out of merchandise, such was the demand for information. This bodes well for the industry and the Guild. Exhibition Manager Darran Ward said 'In these challenging times, it is encouraging to see that interest in professional pilot training remains high.' The next Flyer Professional Flight Training Exhibition takes place on 31st October, with a further event at Dublin's Regency Hotel on 12th September. These events are not to be missed by anyone at school, college, university or considering a career change as an airline pilot.

ANNUAL GYM FLY-IN. Members of the GYM joined forces with the Pooleys for the Annual GYM Fly-In at Compton Abbas on Sunday 17th May. The GYM are also planning a visit to Air Atlantique's Classic

SHEEP OVER LONDON BRIDGE. Last September, together with about 450 other Freemen of the City of London from a variety of different Livery Companies, Liveryman and Assistant Dorothy Pooley took part in the ancient tradition permitted to Freemen, namely driving a flock of sheep over London Bridge. This was organised by the World Traders with the object of raising money for the Lord Mayor's Charities and a cheque for £50,000 was



eventually presented to the Lord Mayor at the end of November. Dorothy's contribution was about £300 made up of sponsorship mainly from members of the E & TC and the Court plus a generous cheque from Past Master Pooley who thought the whole idea was wonderful. The event was festival like in its atmosphere, with the Pikemen and Musketeers and their drummers in attendance. Many attendees got into the spirit of the occasion by dressing up as shepherds, Little Bo Peep and the like, as proved by the accompanying photo of Dorothy in country gear.

Flight Club (CFC) on 6th June, with the offer of flights in a De Havilland Dragon Rapide and a personal guided tour of the CFC's hangar by GYM committee member Steve Bridgewater. A report on this visit will appear in the next edition of Guild News.

JOINT EVENT WITH COACHMAKERS'. The Guild and the Coachmakers' Company have agreed to sponsor two scholarships to mark the Centenary of Powered Flight in the UK. The Guild scholarship would be named 'The Cobham Scholarship'. The winners of the scholarships will each be presented with a certificate at a function to be held by the Coachmakers' and also at the Guild's presentations in November.

DEDICATION OF RAAF SQUADRON PLAQUES. On 26th March 12 Squadron plaques of the RAAF were dedicated in a Service in St Clement Danes attended by 175 RAAF Spitfire veterans, Marshal of the RAF Sir Michael Beetham, Air Vice Marshal Geoff Brown RAAF Deputy Chief of Air Force and Air Vice Marshal Tim Anderson RAF Assistant Chief of Air Staff. These plagues joined the 8 RAAF plagues already in the church and represent the RAAF's contribution to WW2. After a lunch and reception at Australia House the veterans visited the RAF Museum the next day and were hosted on a guided tour and lunch by Dr Michael Fopp, Museum Director and Master Elect, and Mr Tony Edwards of BAe Systems. Finally, on 29th March, the veterans visited Biggin Hill where they were hosted by the Spitfire Association, including lunch at the Old Gaol Pub.

#### PAST MASTER FLIES IN HAWKER HIND.



During an Air Squadron event at Old Warden on 26th April Past Master John Hutchinson was lucky enough to win a raffle prize which turned out to be a flight in the air gunner's seat of the Shuttleworth Trust's beautiful Hawker Hind. A number of Guild members were present and witnessed John thoroughly enjoying the experience, as can be seen from the accompanying photo. Quite a change from the left hand seat of Concorde!

THE MASTER ENTERTAINS ON HMS WARRIOR. On 21st May the Master, Rear Admiral Colin Cooke-Priest, hosted a luncheon for members of the Court and their wives in the magnificent setting of HMS Warrior, in the Historic Shipyard, Portsmouth. The Master's guests dined on the superbly restored Victorian gun deck, surrounded by cutlasses, rifles and cannon. The delicious meal was a far cry, however, from Victorian Naval fare.

**FRENCH HONOUR.** Congratulations to Past Master Brian Pickard who has recently been awarded the Legion of Honour for his services to French charitable institutions.

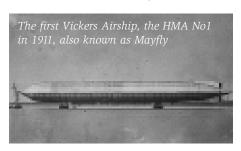


# The Master writes ...

COLIN COOKE-PRIEST



ime flies when enjoying oneself! It seems only yesterday that the Editor was pressing me for an inaugural message. Now he's at it again. The June edition is always something of a challenge as the discipline of the printer's deadline allows little time for concrete progress in the new Master's priorities on which to report. Indeed the deadline will have passed before I have even chaired my first Court meeting! At the same time, however, I have had the privilege and pleasure, together with Sue, of representing the Guild on matters spiritual - the United Guilds Service at St Paul's; matters temporal -The Lord Mayor's Banquet, and matters historical - the annual service at St Clement Danes commemorating the formation of the Royal Air Force.



And speaking of history the aviation fraternity has, in recent months, variously celebrated the centenary of powered flight, whilst the Royal Air Force has celebrated 90 years since its formation. A landmark which is perhaps less well known, though equally deserving and which is recognised this year, is the Centenary of Naval Aviation. It was the Army that first cottoned on to the potential of aerial vehicles. With their ability to 'see' beyond the horizon, the value of Observation Balloons as aids for reconnaissance and gunfire spotting was initially noted in the Boer war and the campaign in the Sudan. It was not long before the Royal Navy too, recognised the potential of these newfangled contraptions and the airships into which they swiftly developed, for use against enemy In May 1909 the coastal targets. Admiralty Board, not usually noted for its speed in embracing change, commissioned Mayfly, His Majesty's Airship 1 from Vickers at Barrow, at a cost of the then considerable sum of £30,000.

Progress thereafter, in both army and naval aviation was swift and by the outbreak of the First World War the newly formed Royal Naval Air Service possessed more aircraft than the Royal Flying Corps. Amongst these were all the non-rigid airships previously used by the Army. Commissioned as HM Airships they were used mainly for submarine hunting and escorting The history of what convoys. followed is better known and as the Great War progressed it became apparent that the considerable overlap between the RFC and the RNAS, the inevitable competition for aircraft and spares and, above all, the failure of the supply system to satisfy either, required a new approach.

However anniversaries, be they centenaries or lesser milestones, whilst usually wholly enjoyable are only of value if the appropriate lessons are drawn from them. It is in the recognition of the conviction, tenacity and zeal of the first naval aviators, together with their determined belief in the potential of air power from the sea, which, in turn, convinced the Admiralty Board of the case for naval aviation, to be so comprehensively demonstrated such a short time later, that the true importance of this centenary lies. It is the recognition of a century of outstanding courage, professionalism and technical innovation that is the real cause for celebration. Innovation that led a 'wavy navy' Commander's idea of taking steam from a ship's main boiler develop into the steam catapult; a Captain's 'doodle' to the angled flight deck; or, and arguably the greatest single contribution to safety and operational effectiveness, the technical ingenuity of Commander Nick Goodhart's Mirror Landing Sight. I could go on - the Induction Loop and the 'ski jump' ramp both represented further huge advances, not least in the eternal quest for increased flight safety.

The first City Livery Companies came into being to set and maintain the highest standards in their respective fields. The Modern Companies are no different and a founding objective of our own Guild was to establish and maintain the highest standards of air safety through the promotion of good airmanship, high quality training and professional excellence. That is why, in this hundredth year of naval aviation, it will be my privilege, as Master, to present to the Fleet Air Arm the Guild's Centenary Sword at the Trophies and Awards Banquet, in recognition of a century outstanding courage, professionalism and technical innovation.

# HMS Illustrious - Visit Report

PAST MASTER ARTHUR THORNING. PHOTOS BY ALAN JACKSON

n late March and early April two groups of Guild members were invited to join our affiliated unit, HMS Illustrious, to experience the life and activities of the ship at sea. An email request for volunteers, from visits organiser Michael Glover, elicited an almost overwhelming response - places were allocated on a 'first come, first served' basis. In his invitation Commander Mark Deller, Commander Air, 'Wings', outlined the scenario: 'Naval Strike Wing will be conducting basic 'Safe to Operate' Deck Currency flying in addition to routine GR (Ground Attack and Reconnaissance) training. The ship will be hosting a number of visitor groups including some media personnel. Our intention is to expose Guild members to a Wholeship experience – visiting every department ....taking in capability briefs and of course meeting 'Jack' and 'Jill' around the ship.' Until recently the Naval Strike Wing had been deployed to Kandahar in Afghanistan and now needed to get used to shipborne operations again.

The first of these two very fortunate Guild parties embarked on March 26 when the ship was alongside at Newcastle (turning the ship around in the confines of the River Tyne was, by all accounts, no mean feat) and Colover, Assistant John Robinson, Oliver Russell and Gavin Keegan - this ship's crew. This group left the ship on International Helicopters S-61 (G-ATFM) normally employed on the made up of Jonathan Seccombe, Ian Burnett, Past Master Arthur Thorning. Mrs Jane Middleton and Mark Randall, flew onboard by HDS from Newcastle to the ship some ten miles offshore on 5 April, and left when it docked at Portsmouth on 10 April. Both groups had similar programmes when onboard - the undersigned describes the experience of the second group, albeit essentially the same as the first. We must mention at this point that we were hosted very well throughout by Lt Simon Mittins and Lt Edward Rolls, both Air Traffic Controllers, to whom our especial thanks are recorded.

First things first, we were issued with lifejackets, given a general briefing as guests in the Wardroom, and had a

comprised Alan Jackson, Graham group were accompanied by Richard Hammond of BBC 'Top Gear' fame, who was excellent company and was in demand for his autograph from the 30 March, by the HDS (Helicopter Delivery Service) which was a British Scilly Islands service, landing at Newcastle Airport. The second group,



discussion of the plan of action with 'Wings'. Next day Lt Martin Heaney, Strike Operations Officer, gave us a tour of the ship. There are nine decks from the flight deck down, and several up in the 'island'. Being a warship much progress required going up and down ladders (no need for the gym). Slowly, the relative locations of the Bridge, Sick Bay, Hangar and all the other parts started to form up in landlubber minds. As the tour progressed we were pleased to be diverted by the chance to stop and watch Harriers taking off and the HDS arriving, followed not too much later by the Harriers forming up alongside and moving sideways to drop down on their allocated spots on the deck. While on the bridge, the navigating officer, Lt Cdr Michael Wood gave us a comprehensive description of the navigation equipment and procedures. The last Harrier sortie coincided with relatively poor weather so that Precision Approach Radar (PAR) recoveries were in order and our host Lt Ed Rolls was able to re-qualify as a radar controller. The day ended with dinner in the company of the Heads of Departments.

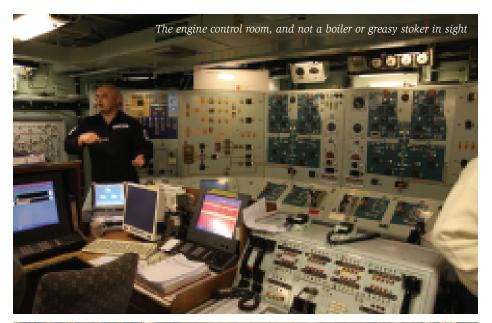
Our second full day started with a preflight briefing, by Commander Kevin Seymour, Officer Commanding Naval Strike Wing, for a Harrier sortie. This was followed by a general briefing on the ship and its operations by Commander Air (Chatham House



Rules applied). Then it was time to climb to FLYCO, the bridge annex from which flight operations are controlled, to watch a '2-ship' takeoff. The Harrier can takeoff with a remarkably short run, as little as 200feet from the end of the ramp - after accelerating with the nozzles pointing aft, as it clears the end of the ramp the pilot moves the nozzle lever to a preselected setting, the flaps come down a bit more to assist, and the aircraft climbs away using a mixture of aerodynamic lift and vectored thrust. As it accelerates after takeoff the nozzles are moved aft and, when he or she has a free hand, the pilot selects the undercarriage up.

afterwards, donning protection, we moved to the 'Goofers Gallery' on the side of the island superstructure to watch the sortie return. The aircraft make a careful approach, aided by a glide path projector landing sight, coming to the hover abeam their designated landing spot on the flight deck. Then they translate sideways and come down when over the spot, not as easy as it sounds - there is a collective sigh of relief all round when the aircraft is down and throttled back, not least on the part of the observers - it is very noisy!

After lunch in the wardroom we gathered on the Admiral's Bridge, immediately below the main bridge, to watch a four ship takeoff, then down to the 'Met Office' for a briefing by Lt Penny Armand-Smith - a well equipped and important place on an aircraft carrier. For an exercise such as this one, there is a very definite benefit in being able to 'move the airfield' to avoid fog and rough weather - both Guild parties moved north to the Moray coast for weather reasons at some point. Then, after watching the four aircraft return we attended the de-brief and then were shown around the Operations room by Lt Martin Heaney and the Senior Air Traffic Control Officer, Lt Cdr Ian Green. There is a wide range of displays in the Ops room, showing both surface and air targets. We saw





two pairs of Harriers being tracked and had the shipping identification system (AIS) explained – the origin, destination and type of all nearby merchant ships are shown. To round off a busy but very interesting day we were entertained to dinner by Captain Ben Key, in his quarters, in the company of Commander Air, the Deputy Air Engineering Officer, Lt Cdr Emma Blackburn, and Lt Cdr Ian Green.

The next day it was time to find out how they keep the aircraft fit for service. Warrant Officer Neil Alexander gave us a comprehensive tour explaining the support available for the three main types which are operated from Illustrious; the Harrier GR7/9, the Merlin helicopter, which is principally an anti-submarine asset,

the Sea King Airborne Surveillance Control helicopter primarily supports the jets and offers the ship a much greater radar horizon. The engineering support provided is comprehensive, including a wide range of avionic diagnostic equipment. On the mechanical front engine changes can be carried out for Harriers, albeit reluctantly since this requires the removal of the wing, and there are non destructive testing facilities for engine components such as fan blades. Then, squeezing through a small (to us) aperture and down a vertical ladder we were in a magazine full of 'Smart' weapons, the warheads and guidance elements being kept separate until brought up to the deck. We were advised that other munitions were stored safely

elsewhere in the ship.

In the afternoon, one of the Harrier pilots, Lt Nick Mattock demonstrated the flight crew personal clothing and equipment that would be worn on operations (and indeed had recently been over Afghanistan) - quite an impressive set of garments to protect the body, counter g forces, and aid survival in case of emergency. Nick also gave us a demonstration of the pre flight planning process for a mission, which results in the pilot taking an electronic memory out to the aircraft to 'plug-in'. His colleague, Lt Simon Rawlins then gave a very comprehensive presentation operations in Afghanistan, showing some film clips and adding interesting points such as the use of a pair of binoculars positively to identify the target! At this point the Naval Strike Wing had finished their necessary training and it was time to fly off back to Cottesmore, so we witnessed a stream takeoff over the Moray Firth followed by a formation fly-past.

Our last full day was spent travelling south for Portsmouth, through extensive fog banks at times. The Guild party were kept busy however. In the morning Lt Shirwin Blake of the Marine engineering department introduced us to the engine control room - the ship has four main engines, marine versions of the Bristol Siddeley Olympus rated at 25,000 shaft horsepower each - essentially similar to Concorde but without the supersonic inlets and with a few more turbine stages! There are also eight diesel driven electrical generators which can supply as much power as would be used by a small town. The ship necessarily has a powerful ventilation system (it is kept fairly cool to discourage the breeding of coughs and colds) and has excellent water treatment and supply





The S61 that delivered us to the ship

arrangements, making fresh water by the reverse osmosis principle.

We were given a very comprehensive tour of the engine rooms by Petty Officer William Watts who was both friendly and enormously knowledgeable. Dressed in boiler suits we squeezed through more small hatches and descended more steep ladders to observe the huge David Brown gearboxes (at one time the biggest in the world) which transmit the power to the two propellers. Mostly the drive is direct from the output of the gearbox, but for slow manoeuvring, when it may be necessary to change from ahead to astern briskly, fluid, oil-filled couplings are engaged. The ship was cruising on just two engines, so we were able to crawl into the nacelle of a shut down engine - truly impressive and food for thought when shown the spare engine, which could be installed at sea if circumstances dictate.

Re-emerging from the depths, Lt Cdr David Wright, the Senior Weapons Officer showed us one of the Goalkeeper guns which provide defence against sea skimming missiles, or any other unfriendly targets. There are three of these impressive weapons systems on Illustrious, each capable of an incredible rate of fire under the control of a sophisticated radar system. The ship has a variety of other small guns (20mm and less). Lt Cdr Wright is also responsible for the comprehensive

range of radars and comm u n i c a t i o n equipment on the ship – some of which is quite venerable in age.

Last but by no means least Lt Gillian Murray gave us a tour of the various parts



Harrier in the hover, about to land on

of the ship's logistics branch. Throughout the visit we had been impressed by the high standard of catering, so important for morale, and so it was interesting to tour the galleys and bakery and hear about the arrangements for a 350 person banquet, to be held in the hangar and scheduled for 7 May when the ship is due at Greenwich as part of the celebration of 'Fly Navy 100', the centenary of naval aviation. Then via the pay office (even more important than catering?) to more small hatches and steep ladders into the stores in the depths of the ship. And finally, a visit to the laundry, as tradition seems to demand under the control of a cheerful Chinese gentleman from Hong Kong.

Through the night the ship sailed on towards Portsmouth – the owls among us observing the night passage through the traffic in the Straits of Dover. Then, on a grey morning, assisted by a pilot boat and a pair of dockyard tugs we came alongside within a short walk of HMS Victory – a fitting end to a most memorable journey.

In summary we must record our thanks for the very warm welcome extended by all members of the crew, young and old, 'Jacks and Jills', officers and ratings. Throughout the visits it was noticeable that it was a contented company with great courtesy being shown to us by everyone. The ship appeared to be in a pristine condition that must be difficult to maintain with a vessel that has been in service since 1983 - a reflection on the enthusiasm and dedication that is displayed by the crew for the ship and its tasks. Long may this continue, at least until the new aircraft carriers are ready. Everyone in the Guild parties has been left with a lasting impression of what an aircraft carrier is about and is prepared to undertake on behalf of the nation anywhere in the world.

# Profile, Captain E M Brown CBE DSC AFC FRAES RN

'A flawless pilot in every respect... an acute analytical mind makes him one of the country's finest test pilots. A brilliant aerobatic flyer.'

The words of Group Captain Alan Hards, OC RAE Farnborough, entered into the log book of Captain Eric 'Winkle' Brown in 1945 and never since gainsaid. Indeed the only quibble that might be raised is Hards' use of the phrase 'one of', for there are many knowledgeable men – not just Navy, and not just British – who will tell you that Capt Brown was the best test pilot in the world, ever, bar none.

I cannot in this short article begin to do justice to the extraordinary feats of Winkle Brown; for that you must delve into his bestselling books, particularly 'Wings on my Sleeve', an autobiography which, if it were a work of fiction, you'd throw away in disbelief; nobody could do so much in one lifetime. Capt Brown has flown more aircraft types than any other human being, probably by a factor of four; the Guinness Book of Records credits him with 487, and it counts 14 marks of Spitfire as one type. His bag includes all the early jets, British and German, and the extraordinary Me 163 rocket plane, which was one of many aircraft that really should have bumped him off - an analyst has calculated that while there have been countless close shaves, there were eleven accidents in which Capt Brown really had no right to survive.

Not only did he fly all of the Luftwaffe's hairiest experimental aircraft, but being a fluent German speaker – he was in Germany before the war, flew with Ernst Udet and saw Hanna Reitsch fly the Focke-Achgelis Fa-61 helicopter in 1939 – he was called in to help interrogate leading Nazis. He spoke to Himmler, interrogated Goering, Messerschmitt, Heinkel, Kurt Tank and Wernher von Braun as well as the 'Beast of Belsen' Josef Kramer and his psychopathic woman deputy Irma Griese, described by Capt Brown as 'the worst human being I have ever met'.

His test pilot career took him into the poorlyunderstood transonic zone in a succession of ropey prototypes, and virtually every day he took risks that would now be thought unacceptable. After Geoffrey de Havilland died testing the tailless DH 108 Swallow, Capt Brown took it up to see what killed him – and he found out, too! He was the first man to land a jet on an aircraft carrier, one of his record-breaking 2,407 carrier landings, and he would have been the first man through the sound barrier had we not inexplicably cancelled the Miles M.52.

Yet for all the risks he has taken, Capt Brown had attained the age of 90 and remains hale and hearty and as acute and analytical as ever. He doesn't entirely accept that he should be dead eleven times over, but he allows that his survival runs markedly against the odds. "As a test pilot, you're in the

game for the risk," he says in his soft Scottish Borders burr. "You're not in there to do the things that have been done already. You can't sit and think, oh well, I'm not prepared to do this... that's your job, to take on risk. I never in my life refused to fly an aircraft – I do love a challenge."

He attributes his survival to three things. "Firstly, I prepared myself very, very carefully for every flight. Secondly, my size worked in my favour – in the Swallow, in the crash of an Me 163 at Wittering and in other cases, I would have been killed, or at least lost my legs, had I been taller." (He's five foot seven). "Thirdly, there's a small element of luck, whatever that is."

Captain Eric Melrose 'Winkle' Brown CBE. DSC, AFC, FRAeS, RN now lives in active semi-retirement in Copthorne, in West Sussex, surrounded by aviation memorabilia and paintings of his favourite aircraft. He still consults, writes articles and makes speeches, but far from dwelling on past achievements he looks to the future as a great age in aviation, particularly naval aviation, where his heart lies. He has been directly involved in planning for the Royal Navy's new aircraft carriers Oueen Elizabeth II and Prince of Wales and is filled with enthusiasm and optimism for their prospects. As Deputy Director of Naval Warfare in 1962, Capt Brown headed the think-tank responsible for a new large strike carrier designated CVA 01, cancelled in February 1966.

"The new carriers incorporate some of the features of CVA 01," he says. "The parallel deck is the main thing, as opposed to the angled deck. The angled deck removed the problem of needing a barrier, which caused God knows how many losses of aircraft, but it created other problems. If the angle gets too wide – and in one carrier we went up to ten degrees – it is difficult for the pilot turning in at the final stages, particularly in bad weather. When you break out in very low cloud, the first thing you see is the phosphorescent wake of the ship, which is an absolutely straight line, and it's is not the line of the deck.

"When you go parallel, you have a landing lane, a separate taxi lane, and a catapult lane for take-off. Originally one had to limit the width of a carrier to make sure it could go through the Panama Canal, but with the new ships, much of the deck is overhang so that's not a problem.

"I think that the potential is there for a really perfect defence facility for this country provided we make all the right choices. We must closely examine everything to make sure we've got it right, and leave ourselves with options to change when necessary.

"We had a lot of discussion about VTOL versus conventional carrier aircraft, and there are advantages to both types. There's a penalty to pay for VTOL, mainly in weight carrying capability. You may go off on a sortie with weapons aboard your aircraft, and if for some reason you can't carry out your sortie, you're left with your weapons. Do you

jettison them? Nowadays you're dumping a huge amount of money, so it is necessary to bring your weapons back to the ship. I have argued that they should have arrester gear on to allow landing at a very low speed, maybe 50 knots. A facility has been made for arrester gear to be put in, but they want to leave that until after two years in service.

"The F35 is going to be an outstanding aircraft for these carriers. I was invited by Lockheed Martin to fly the simulator at Fort Worth, and it's very impressive. The US Navy has gone for the conventional model, the US Marine Corps and ourselves for the STOVL version. The lift engine depends for its operation on a clutch, which is another good reason to ensure that you have arrester gear available should it fail – otherwise you'd have to ditch, and you'd be ditching a very expensive piece of machinery."

One thing that remains constant as technology changes, says Capt Brown, is the calibre of pilot required for combat flying. "The only difference between the pilots of the 1940s and today is that they must now be very technically capable," he says. "The F35 pilot will depend so much on computery, and his cockpit is going to be totally different to what has gone before. He's going to have a mass of data available to him and so much of it will be resolved for him by computerisation, but he's always got to be ready for the inevitable failure - he won't have a heavy workload when things are working, but he must be prepared to take on a heavy workload when things go wrong.

"Beyond that, he's no different from the pilot I knew in the 40s. An exceptional pilot is born, I think, rather than made – there are people who've just 'got it', so to speak. A natural pilot tends to be a natural combat pilot, too; I think a fighting man's instinct, a killer instinct, is absolutely essential if you're going to succeed. You can sense it in a man before he gets near a plane, you can see it in his approach to sport, to life in general."

Among the most exceptional test pilots, Capt Brown numbers Scott Crossfield, Neil Armstrong and Jeffrey Quill, all of whom were personal friends. "The X15 pilot Scott Crossfield was highly technically qualified, he was highly motivated, and I would say – and this may strike you as strange – he was modest. He was a superb pilot, he must have known it, but he never projected an I-knowit-all attitude. There have been notable exceptions to this.

"Neil Armstrong is in the same stamp as Scott Crossfield. Nowadays I see quite a bit of Neil; we have lectured together, we were both made honorary doctors by Edinburgh University last year, and we received the Guild's Award of Honour at the same time.

"I also have high regard for Jeffrey Quill, who had all the qualities, natural ability and motivation. Jeff and I were of the same mind – we were both prepared to accept all the risks the job entailed. What sets Scott, Neil and Jeff apart is the degree to which they were prepared to do their homework. None of

us believed in the attitude some young test pilots had of kick the tyres, light the fires and last one off's a cissy. That attitude is doomed to disaster.

"But it was a marvellous era to be a test pilot, with the V-bombers coming along, we were working towards TSR-2 and Concorde, and a lot had to be learned, some of it so obvious today. The original jets that we and the Germans built went very fast, but we'd forgotten we had to slow them down – they didn't have dive brakes. Very few if any Me262s were shot down except on take-off or landing – mainly on landing, because they had to do a long, draggy low approach and they were absolute sitting ducks if an enemy fighter came over the airfield at that time.

"As head of the RAE's Enemy Aircraft Flight I flew the Me 262 quite a bit, and luckily I managed to fly the Me 163, under power rather than as a glider, which very few people did."

The story of Capt Brown's pursuit of the Me 163 is told in 'Wings on my Sleeve' and seems to have become an obsession – and a dangerous one, too. The volatility of the 163's rocket fuel was such that a single drop could blow your head off, but Capt Brown was so determined to fly it that he did so clandestinely. "I could have avoided it," he says, "but yes, it had become an obsession with me. I wanted a rocket under my bottom, and I got one... I was glad to have done it, and I didn't really fancy doing it again.

"The problem with the 163 was that when you were landing, you had to make utterly sure there wasn't a drop of fuel left in the tanks. You only needed a cupful and the impact of touchdown would explode it, and the result was a total fatal accident – it just blew the aircraft to smithereens, and the pilot.

"I flew it partly because in the back of my mind was the Miles M.52. Deep down, I was really preparing myself for that, to be the first man to break the sound barrier. What I wanted was experience of the sensation of rocket-like acceleration that the Whittle engine in the M.52 would give us.

"I was due to fly the M.52 in October 1946, and I was, shall we say, disappointed to be robbed of that. I was sitting at Farnborough when the head of Aero Flight Section Morien Morgan came in and said, 'I've just had a call from Miles to say the M.52's been cancelled.' I absolutely blew my top, I charged off to see Sir Ben Lockspeiser, who lived around the corner from me and was chairman of the Supersonic Committee which had cancelled it. In his official statement he's said 'in view of the unknown hazards near the speed of sound it is considered unwise to proceed with the full scale experiments.' He knew me, and he received me, but I didn't get any change out of him. He just said, 'Maybe it's for the better'. I was so furious with him that I signed his son David into the RAF, because Ben was prevaricating."

"The Americans will not admit that the flying tail which was on the M.52 was what let the Bell X1 break the sound barrier," Capt Brown says. "Chuck Yeager had run into severe compressibility trouble at Mach .94. In fact, General Albert Boyd, head of the

Flight Test Division at Wright Patterson AFB, had said, well fellers, this is the end of the road. Then three days later Bell came charging down with this all-flying tail, designed by a guy who had been to Woodley and had seen the tail on the M.52. He'd done some work on it, but basically it was the M.52's tail, which he admitted more or less on his deathbed. They popped it straight onto the X1 there and then, and it did the trick."

The sound barrier aside, Capt Brown's sole regret is not having flown the X 15, which reached a speed of 4,500 mph and an altitude of 67 miles, qualifying pilot Joe Walker for astronaut wings.

The X 15 was based on a design by Walter Dornberger, one of Wernher von Braun's V2 team, many of whom Capt Brown met in 1945. "The Americans captured von Braun, who was the most self-confident man I've ever met," he says. "We had him to interrogate and his attitude was, aren't the Americans just the lucky ones to get me! Britain, in contrast, wouldn't accept the FW 190 designer Kurt Tank. Of all the designers, Tank impressed me most. I didn't interrogate him, rather he interrogated me. He wanted to know what I thought of every one of his aeroplanes that I'd flown. Not only was he Focke Wulf's chief designer, he was their assistant chief test pilot. I think when you have that, you're away out front.

"We brought 26 aerodynamicists and engineers back to Farnborough but authority refused to have Tank or Dr Heinkel to stay in this country. We kept those 26 until 1947, then we offered a certain number permanent jobs as civil servants at Farnborough and the best two accepted, and stayed until they died. One was in fact the catalyst for Concorde, Dr Dietrich Küchemann.

"A meeting was called by Morien Morgan in 1947 - just five people, Morien, his deputy P.A. Hufton, Küchemann, Dr Karl Doetsch and me. Morien asked me for a report on the flying characteristic of the five tailless types of aircraft I had flown. 'We're thinking of a supersonic transport,' he said. I did my party piece, then we started a discussion of what shape it would be. Küchemann said nothing until right at the end. 'I've done a lot of work in the wind tunnels at Välkenrode and in my opinion the way we should go is the slender delta wing,' he said. 'But I have a reservation - the war ended before I could work on the slow speed side of the delta wing, I can't vouch for that.'

"A few years later, Morien Morgan, as head of the Supersonic Transport Aircraft Committee, raised a contract with Handley Page for the HP115 to test the slender delta's slow speed flying characteristics. They relied a huge amount on Küchemann at the beginning – and he also did all the pioneering work on fly by wire. We picked up an absolute gem there.

"Of the others, Willy Messerschmitt I found to be arrogant. He refused to give any credit to Alexander Lippisch, who designed the Me 163. I taxed him with being short of structural integrity in his aircraft. Look at your Me 109, I said, the wings kept coming off in combat. I reckon you were paring

down the structural strength of the wings. And he admitted it; he said that if you wanted to get the performance the pilots demanded, you had to make savings somewhere. Messerschmitt had the ear of the Nazi party and that's why he got the contract for the 109 – it should have gone for the Heinkel 112, which was a better aircraft, according to the test flight centre at Rechlin.

"I had the greatest respect for the German fighter pilots – they had to be good to survive the war. I went on a lecture tour of Ireland with Adolf Galland, and I got an insight into him from my interrogation of Goering, when I asked Goering why he'd fallen out with Galland. He said because he was insubordinate, and anyway he never wanted him to be General der Flieger – the man he wanted was Werner Mölders, but he was killed in a Heinkel 111 going to Udet's funeral in 1941. He felt Galland didn't have the intellect of Mölders, nor his tactical ability.

"Erich Hartmann was interesting - he was the Luftwaffe's top scorer with 352 victories. I quizzed him on how he got them and he was very open. The tactical naivete of the Russians was unbelievable, he said. 'We were mainly operating against the Ilyushin 2, the Sturmovik,' he said. 'They would get themselves into huge formations, like the B17s, and they thought they defend themselves - but the B17 had huge firepower, ten guns on every ship. The Sturmovik had one .3 peashooter in the back. I didn't mind them firing at me because the .3 did nothing against the 109. I waited until the aircraft filled my windscreen - not my gunsight, my windscreen - and I could get five or six in a sortie. They never even took evasive action, and half the pilots were women.'

"I asked him how he thought he'd have fared on the western front. 'I know how I'd have fared, because I was sent there for a month,' he said. 'I was scared out of my wits and I never had a single kill.'"

After a term as Naval Attache in Bonn Capt Brown commanded RNAS Lossiemouth before leaving the service in 1970 to become Chief Executive of the British Helicopter Advisory Board and the European Helicopter Association – he had the distinction of having flown his first helicopter, the Sikorsky R4, without benefit of lessons. He gave up flying in 1992. "I had to accept that I was getting older, that my reactions were not what they'd once been," he says.

"I missed it desperately for about a year; it was like withdrawal from a drug of addiction, but the feeling slowly wore off and I've long ago come to terms with it. But I think it's a wonderful time to be just starting out in naval aviation today, because the F35 and the new carriers offer a very bright future."

Pat Malone

#### Gazette

APPROVED BY THE COURT ON 14th MAY 2009

#### **ADMISSIONS**

#### As Upper Freeman

Captain Paul ATKINSON
Captain John Robert William BARNES (CAN)
Captain Roderick David Webster BOATH
Wayne L CAVE (CAN)

Lieutenant Commander Anthony James EAGLES

Captain Christopher John GREEN
Wilfred August Theodore JOHL (OS)
Brigadier David Michael JURKOWSKI (CAN)
Captain Steve LINTHWAITE (CAN)
Brian John LOUGHLIN (CAN)
John McCORMICK (AUS)
Captain Paul John McKEOWN (AUS)
Captain Victor PEIRCE
Brigadier General Eldren Brett THUEN (CAN)

#### As Freeman

Jonathan Mark BATCHELOR (GYM) John Sinclair ELLIOTT (CAN) David Cyril FOX (CAN) Nicholas J LIPCZYNSKI Paul NEWMAN

#### As Associate

Joshua Maydanyk BARNES (CAN) (GYM) Marcel Julian BISTER (CAN) (GYM) Peter BRASSER (CAN) (GYM) Stuart Douglas BROWN (GYM) Kudzanai CHIKOHORA (GYM) Cody Jared CORCORAN (CAN) (GYM) Kevin DHALIWAL (CAN) (GYM) Jonathon DUKE (CAN) (GYM) William Thomas Henry EELES (GYM) David FIELD (CAN) (GYM) Garrett GILMAR (CAN) (GYM) Bryan GIRJAK (CAN) (GYM) Adam GROPP (CAN) (GYM) Jameson KROEKER (CAN) (GYM) Curtis Tin Yan LAM (CAN) (GYM) Ian Hei On LAM (CAN) (GYM) Nastasha Lynn NICOLS (CAN) (GYM) Daniel PRASAD (CAN) (GYM) Kurt SIEMENS (CAN) (GYM) Steven ST AMAND (CAN) (GYM) Andrew Robert STUART (GYM) Thomas William THORNE (CAN) (GYM) Sarah Ann WHITE (CAN) Keilly Drew YUZYK (CAN) (GYM)

#### **REGRADE**

To Upper Freeman James Sky WHEELER (NZ)

#### REINSTATEMENT

As Upper Freeman Captain Richard Adrian BICKFORD Mervin Arthur FOWLER (AUS)

#### Letter to the Editor

23, St. Thomas' Park Lymington, Hants SO41 SNF

The Editor GAPAN News

25th April 109

Your report of the interesting visit to Dunlop's factory in the current issue of the Guild News reminds me of a time in 1962 when, as Command Intelligence Officer at Near East Air Force HQ in Cyprus, I was 'obliged' to supply and deliver a set of new tyees and spares to the Chief of the Israeli Air Force, then General Eas Weizman, for his personal black Spitfire IX. How he came by that aircraft, I don't know, but as Members will recall a number of en-HAF aircraft made their way to Israel including some Heanfighters with G-XXXX registrations, seen at Croydon before it closed, presumably for flight clearance—I wonder where to!

Things were rather different in those days, post the Sucz debucle and the murder of the King of Iraq which lead to the collapse of the Baghdad Pact and the establishment of CENTO. We then had a close relationship with the Jordanian Air Force and an RAF Advisor still on poste in Amman. In parallel, we had a working relationship with the LAF. This latter enabled me to visit Israel almost from 'Dun to Borrsheba' – in fact, from the Golas Heights to the Sucz Canal at Quantum and wave to the Egyptians (briefly) on the apposite bank!

The few Spitfire tyres held in RAF Stores were closely guarded for the Battle of Britain Flight and Dunlop had to be persuaded to start a small production run, hoping to sell some to the few private-owners of Spitfires in various parts of the world, notably the USA.

How to pay — as they were to be a gift? The RAF Vote, even then, was tightly squeezed and no Civil Servant was going to authorise such expenditure from the then AOGinC's stack fund.

Some Guild Members will remember that 'Airman Extraordinary' – Sydney Cutton who, flying 'his' Lockheed 12A across France and Germany in 1938 was the virtual founder of what was to become the RAF PRU. From Halph Barker's book of that name (Chatto and Windox, 1969 - ? still in the Guild Library) and Gp. Capt. Freddle Winterbottom's book 'The Ultra Spy' (Macmillan, 1989) it seems that this aircraft was paid for by MHs. In those pre-war days air intelligence liaison was evidently closs. In the case of those few tyres, this often much maligned organisation came to our rescue and they were duly delivered to Lod by a local RAF training flight.

Incidedntally, Exa Weizman himself was ex-RAF, having been a bomber pilot in the Middle East Liberator Force during the war.

> Vacano ano Istan Mil Turas (A) an I L. Millandon . 200 m)

ACKNOWLEDGED BY THE COURT 14 MAY 2009

#### REGRADE

#### To Livery

Robert Christopher MOORE (AUS)
Ken PETERS
Rev Dr Peter MULLEN
Peter Nigel OWEN
Rt Rev Bishop Anthony Francis Berners
HALL-MATTHEWS (AUS)
Air Chief Marshal Sir Brian BURRIDGE

#### **DECEASED**

Peter Dennis John DICKINSON Christopher John FREEMAN (AUS) John Henry WILD David WINTER

#### RESIGNATIONS

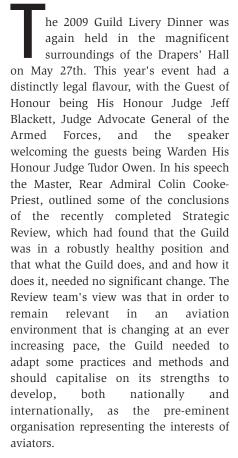
Ann Loretta BARBARICH (NZ)
Wing Commander Roger Aston CLARK (HK)
General Sir Richard DANNATT
Captain Peter Sean Trueman GIRARD
James Michael Edward GRAY (HK)
Emma Nevena HAMILTON (NZ)
Philip John HARDIMAN (OS)
John Donald KENDRICK
Captain Alan Frederick LANE (AUS)
Neil Douglas McTAGGART
Flight Lieutenant Douglas Stuart SIMPSON (AUS)
Kenneth Barry SMITH (NZ)
Gary SMITH
Regan Andrew WILSON (AUS)

FORFEIT ALL BENEFITS Paul CARTER (NZ) Simon COLLINS

# THE 2009 LIVERY DINNER A Confident Future

LIVERYMAN TOM EELES.

The diners enjoy the superb surroundings of the Drapers' Livery Hall.



Before the formal dinner the Master presided at an open meeting of the Court, where ten new Liverymen were clothed and three Master Air Pilot Certificates were presented. After congratulating the recipients the Master met many of the 235 Guild members and their guests at the post-Court reception in the ante rooms of the Drapers' Hall. The present Drapers' Hall occupies the site, which was once part of an Augustine Priory, on which Thomas Cromwell built his palace in the 1530s. After his execution the property was purchased by the Guild of Drapers in 1543. Rebuilt after the great fire of 1666 it was partially destroyed, again by fire, in 1772, rebuilt, and later altered in the 19th



century. The formal dinner was served in the Livery Hall, one of the largest and most impressive Livery Halls in the City of London. The room is dominated by the Company's collection of royal portraits and adorned from above by magnificent ceiling paintings by Herbert Draper depicting scenes from Shakespearean plays.

After a sung Grace and the Ceremony of the Loving Cup, Admiral of the Fleet Sir Benjamin Bathurst, Liveryman, presented the Master with a superb solid silver model of a Wessex HAS 1 helicopter in the markings of HMS London flight, a gift to the Guild from a small team of naval Liverymen to mark the centenerary of naval aviation, which was gratefully accepted. It the fell to junior Warden His Honour Judge Tudor Owen to welcome the guests, who included Professor John Master Fan Maker, Captain Salter. Malcolm Parrott, Master Master Mariner, Mr Chris Price, Master Engineer, Dr Michael Steeden, President Royal Aeronautical Society, Mr Michael Marshall. Chairman Marshall of Cambridge, Commander Mark Deller, Commander Air HMS Illustrious (Affiliated Unit) and Wing Commander Sylvie Silver, Officer Commanding London Wing Air Training Corps. When welcoming the representatives of HMS Illustrious, Warden Owen commended members of all three Armed Services upon their outstanding achievements in operational theatres and invited all present to show the respect in which those who risk their lives in the service of their country are held; this was greeted with acclaim. He also quoted Air Chief Marshal Sir Brian Burridge, one of the new Liverymen, who, at the height of the 2003 Gulf War, was exasperated by the British media's constant sniping. Pointing

out that Service personnel were at the very edge of the performance envelope, he told them 'The UK media has lost the plot. You stand for nothing, you support nothing, you criticise, you drip! It's a spectator sport to criticise anybody or anything. That may sound harsh, but that's the way it feels from where I sit.' This was greeted by prolonged applause. In his concluding remarks, Warden Owen urged professional pilots to be proud of the qualification they had worked so hard to achieve, and never to say that they were 'only a pilot'. Such modesty played into the hands of those who, for their own reasons, sought to diminish the status of professional pilots. 'You are members of a highly skilled profession. You are entitled to be proud of that, and you should be proud of it.'

In his after dinner speech the Master welcomed the Guest of Honour, His Honour Judge Jeff Blackett. The Judge had joined the Royal Navy in 1976 as a 'Pusser' and was soon selected to read for the Bar at Gray's Inn. Throughout his career he prosecuted, defended and sat as Judge Advocate at naval Courts Martial, finally becoming Chief Naval Judge Advocate and Director of Naval Legal Services. A keen sportsman, he was a judicial officer for the Rugby World Cups in 2003 and 2007. He was appointed Judge Advocate General of the Armed Forces in 2004. In addition to his remarks on the Strategic Review, the Master also reiterated the importance communication to the Guild, which he firmly believed should be the first port of call for informed comment or advice on almost any conceivable aviation matter. He said that the Guild needed 'spokesmen' - he avoided the word 'expert' - X, the unknown factor, spurt, the drip under pressure, - properly trained

and ready to respond, covering all major aviation activities, both civil and military. His aim was to establish a 'Nonsense Watch', that would react to any piece of arrant nonsense or half-baked drivel about aviation in the media and report it to the Guild, which would react to put the record straight. This had recently happened in respect of an inaccurate statement about the Red Arrows. He concluded by giving Guild members and the guests the Toast to 'A Confident Future'.

Responding on behalf of the guests, His Honour Judge Jeff Blackett gave an amusing speech describing life first as a Naval 'Pusser', including his experience as a Flight Deck Officer on HMS London, when the Wessex helicopter was christened 'The Chinese Takeaway' after the unfortunate demise of one of the Chinese members of the ship's company, whose body was then taken ashore by the Wessex. He compared military judicial work with disciplining the Rugby world, where he was with many faced similarities misdemeanour. Despite having to review every Service Court Martial he described his role as Judge Advocate General as 'a fun job'. He concluded by hoping that the recent judgement by the European Court concerning the human rights of Service personnel on active operations would ultimately force the government of the day to provide sufficient, up to date and adequate equipment for Her Majesty's Armed Forces, in whatever theatre they were serving, and proposed the Toast to 'The Guild of Air Pilots and Navigators of London, may it flourish root and branch for ever.'

Photographs taken at the Livery Dinner can be viewed and ordered on line at www.sharpphoto.co.uk. Further details on page 2.



RIGHT: The RAF move into the Livery Hall. Liveryman David Wilby shows Air Commodore Ian Stewart and Liveryman Tom Eeles the way.



Gary Lui, Hong Kong Region, receives his Livery Badge from the Master.



Sqn Ldr Richard Head receives his Master Air Pilot Certificate from the Master.



The Master Air Pilot Certificate recipients, Sqn Ldrs Stuart Reid and Richard Head, and Neil Lee, with the Master.



A Test Pilot's conference. Past Master Duncan Simpson and David Bywater enjoy the champagne reception.



The Master and Immediate Past Master greet the Guest of Honour, His Honour Judge Jeff Blackett, Judge Advocate General.



An inter-Service debate? Air Chief Marshal Sir Peter Squire in discussion with Admiral Sir Adrian Johns.









### The Guild's New Affiliated Unit

# 4624 Movements Squadron Royal Auxiliary Air Force

Formed in 1982, 4624 (County of Oxford) Movements Squadron Royal Auxiliary Air Force is the largest of the Auxiliary Squadrons and the only one of its type. It supports the regular Movements Trade and forms 23% of the RAF's Movements manpower.

Trained to the same standard as their regular colleagues, members of 4624 Squadron commit to one weekend training per month plus two weeks per year continuous training. For those qualified, the two week period is normally working as part of a movements team at an RAF base in the UK or overseas. The Squadron has provided support for all major operations since its formation, working at locations in UK and overseas and significantly the first Gulf War in 1991. In 1998, a significant proportion of the Squadron were mobilised in support of Operations in the Balkans. In 2002 elements of the Squadron were mobilised in support of the UK forces' contribution to the International Security Assistance Force Afghanistan and in February 2003 the whole Squadron was mobilised in support of Operation TELIC, most for 8 months, deploying to UK bases,



Cyprus, Al Udied and Basra and to other locations affected by reduced manpower.

Throughout its history, 4624 Squadron has provided trained personnel to conduct a number of monthly operational air mobile movement tasks in support of No2

Group and NATO. These are typically 3 to 5 man teams that fly with the aircraft to deal with loading and unloading of passengers and freight at u n s u p p o r t e d locations around the world.

In addition to its trade commitments, 4624 Squadron has a proud history of Ceremonial and has provided Colour Parties on many occasions, including for special Buckingham Palace, parades at Westminster Abbey, St Clement Danes, The Guildhall, RAF Fairford, (50th Anniversary of NATO) RAFC Cranwell and other RAF locations. Squadron members are active in adventure training, competitions and many other sports. 4624 Squadron also hosts the Veterans of the Wartime 624 (SD) Squadron and arrange their reunion annually, at RAF Brize Norton.

The Squadron has been continuously deploying significant numbers of its personnel for over 10 years, a unique record within the UK Reserve Forces.



## Embraer 190 gains London City approval

PAST MASTER HUGH FIELD

The BAe 146 gained approval to operate services from London City Airport in December 1991 against a background which could only be described as nervous. The airport was seen as the domain of the Stol twinturboprop types and few would have foreseen the extent to which the fouriet 146 and its successor, the Avro RJ, have dominated the schedules for almost 20 years. A successor was bound to arrive eventually and in March the twin-engined Embraer 190 regional jet undertook a week of noise measurements and steep approaches to validate data already obtained in Brazil.

The trials followed British Airways' decision in December, 2008, to place an order for six Embraer 170s and five 190s for its City Flyer division for delivery starting in September. Technology advances result in the new type offering a markedly reduced fuel burn, which is expected to lower the

carbon emissions of the airline's fleet by 33,000 tonnes per annum. A further factor in the decision to replace the four-jet fleet was the sharply rising maintenance costs and reduced availability of spare parts for an aircraft type no longer in production.

To meet the steep-approach criteria for London City (5.5 degrees) Embraer has adopted a simple solution by extending the roll spoilers to a high-drag position. This is achieved by the simple selection of one panel-mounted button on the instrument panel.

British Airways, which plans to start Embraer services in October, will not make use of the type's full capability. The definitive version to be certificated for use at LCY is the Type 190SR which will have an operational radius of 800n.m. (the standard aircraft reaches 2,300n.m.). In addition the airline will be operating within the limitations of a scope clause, reducing

the seating from 106 to 98. (A similar reduction had been agreed for the Avro RJs, further adversely affecting their operating economics.).

The fleet upgrade is only one major step for British Airways at London City. The airline has ordered two Airbus 318s with which it is to introduce transatlantic services from the city airport for the first time. These are due to enter service in October and will operate with a refuelling stop at Shannon to cater for the reduced weight necessary to make use of the airport's 1,200m runway.



