



The Air League Newsletter

Issue 5: September/October 2015



(Editor's photo)

ABOVE - Tracy Curtis-Taylor at RIAT with her beautifully prepared Boeing Stearman biplane, "Spirit of Artemis".

RELIVING THE DREAM

Many readers will have seen a nationally broadcast BBC television documentary, entitled *The Aviatrix*, in March reporting the challenge-filled journey of aviation adventurer, Tracy Curtis-Taylor, during a multi-stage flight from Cape Town to Goodwood in 2013, in her 1942 Boeing Stearman two-seat trainer. This followed, as closely as was practical, the route taken in 1928 by Lady Mary Heath, the first woman pilot to hold a commercial flying licence in Great Britain and the first to fly in a small open cockpit aircraft from the Cape to London. During the RIAT air show in July, Tracy, who is an Air League award winner and an enthusiastic supporter of aviation opportunities aimed at young people, service charities and specialist groups through an outreach programme, told the editor of her plans to follow up her epic journey with an even more demanding goal of flying 13,000 miles eastwards from the UK to Australia, to follow the path flown in 1930 by Amy Johnson. Despite an aircraft taxiing accident at Goodwood recently, she is confident that she will still be able to achieve a departure in October, as planned, with the aim of reaching Sydney early in 2016.

Her main sponsors are Boeing Aerospace and Artemis Investment Management, and as with her previous long-range solo flight, the UK-Australia journey will be accompanied by a support team travelling in a more modern light aircraft to record the journey and provide back-up if needed. Tracy hopes that the documentary footage and an interactive website will generate more interest in the history of the early aviation pioneer pilots and help enthuse a new generation through being able to see progress flying across some very remote areas in the open cockpit aeroplane which has basic period instruments and controls and which will have to make frequent stops en route to refuel. We look forward to being able to report on this journey next year.

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On 14 July, the Air League gave a briefing to MPs and Peers in the House of Commons on aviation matters of the moment. This is an edited version of the two presentations.

The full text can be read on the Air League website.

The first presentation was by Air Chief Marshal Sir Michael Graydon, former RAF Chief of Air Staff, on the immediate prospects for UK air power:

Air Power is much more than putting bombs on target, or keeping the skies clear of hostile air however important these functions remain.

Natural disasters, of which there seems to be an increasing number, require rapid response which normally only air power can provide - air transport, helicopters and so on. Famine relief from the air is a vital element of international response. Search and Rescue for lost airliners, ships in distress, stranded individuals and teams, all require the rapid and wide area capabilities that air power brings to bear.

ISTAR (Intelligence Surveillance, Target Acquisition and Reconnaissance) and Early Warning are all crucial, and in much demand in an unstable world and all highly dependent on airborne vehicles; this is Air Power in action. Air-to-Air Refuelling speaks for itself. So, please appreciate that air power, and I include space in these considerations, as a seamless entity embracing a variety of capabilities. It is a fact that since the end of the cold war, air forces have been cut back relentlessly. Most western Air Forces are about a third of the size they were; less in some cases. These cuts extend to equipment, weapons, manpower, support functions and to the training machine. It follows that the ability to prosecute lengthy campaigns of any magnitude has been largely eroded. The paradox of this situation is that over this period many air forces have been engaged almost non-stop in mainly small scale but often lengthy operations. And against this background the remaining aircraft fleets have been flown almost into the ground and badly need replacing or require major upgrades. But, because the numbers of platforms are so low, the cost of doing so has risen. It is pretty obvious that if a replacement order or upgrade is now one third of that envisaged 10- 20 years ago, the unit costs go up. Many air forces now have token numbers of aircraft, and limited numbers of crews to operate them. As an example, we have been led to believe that Europe conducted a successful air campaign in Libya, but, the day 1 taking down of the Libyan Air Defences was conducted principally by the United States and thereafter the US provided 70% of the supporting sorties to the campaign. Think about that should Russian adventurism in Ukraine or the Baltics extend to hostilities. And think about the miserable sums of money now spent on defence by many of our European allies, weighed against the American contribution to NATO which pays at least 70% of the NATO budget. Is this sustainable? The Prime Minister last September in Wales at the NATO summit would appear to think not in the light of his remarks on 2% minimum GDP for Defence.

Let's turn to the UK. It seems likely that in the next 5 years, probably along with allies, we will need to resort to force somewhere or at a minimum to deploy armed forces to deter aggression. In that case, air power will be an early and most likely first choice for Government. When the Conservative government cut defence in the 1990s when I was CAS, **we reduced our manpower from close to 90,000 to 57,000** and cut the front line by some 35%. We closed many bases and restructured the service, privatising many functions. **In Gulf War 1 we had some 30 combat Squadrons; today the Air Force numbers about 32,000 personnel and has 8 such Squadrons, and**

three of those are the 30-plus-years-old Tornado. The world is by any reckoning a more dangerous place today than it was in the 1990s and indeed than in 2010 when the last SDSR was completed based on assumptions which lasted barely a year. The cost of our fleet of Typhoons has gone up considerably, as the orders have reduced, whilst F35 costs are a source of concern. So...

Challenge No 1 is numbers of combat aircraft for land and at sea operations and their cost.



ABOVE: The F-35B has now flown successfully off the ski-jump test ramp in the USA, and has entered service with the US Marines with a limited Initial Operational Capability. But how many will the UK be able to afford?

Challenge No 2. Loss of capabilities.

In the follow up to SDSR 10 we as a nation discarded Maritime Patrol, carrier-borne air, and key aspects of Electronic Intelligence. Moreover we have no MSAM capability. We have been embarrassed by most of these deficiencies subsequently. Our Nuclear deterrent has been put at risk by our inability to sweep the seas for Russian submarines and we had to ask for help from allies. The loss of the whole Harrier force at its peak of capability affected our operations in Libya, and in Iraq and reduces our options for the future. We have now one replacement Electronic Intelligence aircraft - Rivet Joint; it is working tirelessly but one aircraft is a token capability. We urgently need the two others planned. Our AWACS needs upgrading very soon or it will not be synchronous with the NATO fleet. And Sentinel which has given almost non-stop invaluable service is currently planned for disbandment in 2017/8. In the light of the world situation, these are not capabilities that we can continue to ignore.

Challenge No 3. Cyber Warfare.

There is a lot of concern about this and there should be. The RAF is much involved in this work but I worry that there are some who believe that giving ourselves a counter to this form of warfare could enable kinetic capabilities to be yet further reduced. In my view this is nonsense. It is an adjunct to warfare, possibly a crucial one, but those nations practicing it have massive conventional capabilities for very good reason. Possibly the best counter to cyber warfare is a bomb through the front door of the offending building from where

it emanates. What is vital is the Intelligence surrounding the enemies' capabilities.

Challenge No 4. Preparing for the Unknown.

We should know by now that we will be surprised by world events. We have failed on just about every count to predict our various engagements both after the Cold War and in the preceding decades. Since SDSR 10, the Arab Spring, IS and Russia and events in the Far East involving China, all unforeseen, are now firmly on the radar screen. The only safe way to prepare for the unknown is to retain balanced forces, with adequate conventional numbers to underpin our deterrent posture and to train them alongside allies in peacetime; moreover, to look to engaging such training in areas of the world where instability is the norm. Soft power use of credible armed forces, in conjunction with education and properly focused aid, must surely be a first choice means of preventing armed conflict and human rights abuse.

Challenge No 5. Balancing the Fleet.

The decisions this Government makes on defence will be the armed forces with which our successors will operate in 20 years' time. I have mentioned combat air; we were short of helicopter lift in Afghanistan but this has largely been solved. We are short of attack helicopters which are hi tech machines needing the necessary support and spares backing. Our Air Transport and Air-to-Air Refuelling capabilities are increasingly modern and impressive - whether we have got the right balance in AT with A400 M and C17 and for support of Special Forces remains to be seen, and the numbers of the excellent A 330 Voyager are down from the original requirement. RPAS will have an increasing part to play in intelligence gathering and operations. The RAF very sensibly is intending to retain a balance of remotely piloted systems and piloted systems.

The second presentation on The UK Aerospace Sector was delivered by Sir Brian Burridge, Senior Vice-president UK Corporate, Finmeccanica and previous Air League President:

Recent history has taught us some hard lessons about the need for a balanced economy and export-led growth. In both these respects, advanced manufacturing plays a key role and nowhere more so than in the defence and civil aerospace sector.

To do so, I will seek to answer three questions:

What do we actually manufacture?

What is the sustainability of the sector?

What is its export performance?

Defence Aerospace

Starting with Defence aerospace, BAE Systems is the only on-shore end-to-end manufacturer of complex fast-jet aircraft. For helicopters, only AgustaWestland has the same capability. Both companies require the full spectrum of 26 engineering specialisations covering the full life-cycle of an aircraft but including the key aspects of design, development, production, commissioning and testing. It is the combination of this activity (known in the business as 'noble work') that creates the intellectual property and leading-edge technology that fuels exports. However, such businesses are no longer vertically integrated companies who own every part of the build process. Rather, they are deeply reliant on their extensive supply chains for significant proportions of their manufacturing. In the case of AgustaWestland, they currently have 916 UK suppliers

Challenge No 6. The SDSR.

I am afraid that I have to disagree fundamentally with Mr Fallon that "5 years ago the Conservative-led coalition Government conducted the first truly comprehensive defence and security review, SDSR 10." The only such review that I can remember was conducted by the Labour Government in 1998. *Everything else has been Treasury led with no clear strategic guidance.* So this SDSR has to be properly conducted and whilst I am encouraged by Mr Fallon's further recent statements in this regard, the cut imposed already of £500m and earlier Treasury leaks to the media are worrying omens.

The next 5 years for UK air power is largely set by decisions made a number of years ago. The world has got more dangerous in that time and the west has reduced its military capability significantly. Options to deal with the unknown are now limited. The decisions this Government makes beginning with the SDSR, will determine the security of the next generation. I hope this is sufficiently appreciated by those who will make the decisions.

But let me say that the Chancellor's commitment to a minimum 2% of GDP for Defence is indeed welcome. As of last week I had written that "when it is possible to commit to 0.7% GDP for overseas aid, it defies understanding to fail to commit to a minimum level for the first duty of Government." His Budget statement will certainly give heart to the armed forces, to our allies particularly the United States and will send an important message to the Russians. I believe that the strong, consistent and united pressure from parliamentarians, the media and yes, even retired senior officers has had an impact. But let us also be clear, it is a minimum figure **and the acid test will be that it is free of creative accounting** and that the SDSR is properly conducted, consultative and transparent and crucially addresses the gaps and weaknesses in our armed forces that are apparent to any objective analysis.

receiving annual revenues of some £420 million of which about 400 are SMEs. Beyond those examples, we no longer produce large military aircraft on-shore: the majority are 'off-the-shelf' products from Boeing and Airbus. On the plus side, we are world leaders in aircraft support solutions through the UK's trailblazing approach to industry-based availability contracting. We are also among the world-leaders in sensor technology (especially radar) and in the complex systems integration tasks that create the brain of a modern combat aircraft. Taken together, the Defence industrial sector as a whole generates a turnover of £22 billion and maintains 162,000 direct jobs *but the future is uncertain.*

Turning to the sustainability of the on-shore defence aerospace sector, the lack of new domestic programmes generating noble work is a major limitation. With a skill-base of 26 engineering specialisations required for end-to-end manufacture, programmes such as the JSF which involves solely 'building-to-print' requires markedly less and logistic support alone requires only 5: in the motor industry, we would draw the comparison between a factory and a garage. The UK's history in European collaborative programmes such as Tornado, Typhoon and the AW101 helicopter has proved successful in maintaining on-shore industrial capability. With no indigenous fast-jet or helicopter programme on the horizon, all hopes in fixed-wing are focused on the Anglo-French UCAV element of

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July and August have seen numerous air displays all over the country, fulfilling an important educational role both in terms of recalling past exploits of heroism and flying skills, and sacrifices made in defending freedom against tyranny and external threats, but also reminding the wider public of the fact that air power is as important today as ever and we allow it to decline at our peril. No other public activity can generate so much attention to these aspects of our national heritage and the need for continuing understanding and vigilance, as well as the opportunities that such events create for involving young people in aviation as a possible future career. The exhibition halls and displays at this year's Royal International Air Tattoo at RAF



ABOVE: Polish Mig-29 recalling the exploits of Polish pilots during 1940.



ABOVE: Still providing the RAF's primary attack capability after 35 years in service is the Tornado. This GR4 is from 31 Squadron based at RAF Marham.



ABOVE: With an original short nose from a Blenheim Mk1 that was once used as a road vehicle, this re-built early Blenheim is unique in the world as a flying example of the twin engine fighter version that flew in 1940.



ABOVE: A flypast of Hurricanes was one highlight commemorating the 75th Anniversary of The Battle of Britain. These three were accompanied by two more plus a dozen Spitfires.



ABOVE: The RAF may be lacking an MPA capability but RIAT saw this Boeing P8 of the US Navy, with UK "seedcorn" crew members, plus the first appearance outside Japan of its own equivalent to the Nimrod in the form of the new Kawasaki P1, which hosted no-doubt curious if not envious UK VIP visitors onboard!



ABOVE: Boeing E-3D Sentry from RAF Waddington- in need of a long-awaited systems upgrade.

Fairford featured plenty to attract youngsters, from an “Adrenalin Zone” with action sports, to a “Techno Zone” with all sorts of hands-on technological themes, from flying simulators to model-making and a schools engineering challenge. But the main focus of interest as ever was to be found in the extensive line up of static aircraft from all over the world, and the chance to see in the air and compare military aircraft of every size and shape and representative of today’s front line firepower as well as iconic vintage and classic aircraft from the past. Although RIAT provided a wonderful spectacle, the tragic loss of a Gnat and Hunter at other air displays this season demonstrates that such events, despite extensive safety precautions on the part of the organizers and participants, can never be entirely risk-free, though casualties on the scale of the Shoreham air show Hunter crash are extremely rare, and have not been seen in the UK since the John Derry DH110 crash in 1952.



ABOVE CENTRE - In its Centenary colours, is Typhoon FGR4 from No 29(R) Squadron.



RIGHT TOP - Army Thales Watchkeeper stands guard outside the RIAT VIP enclosure.



RIGHT - Colourful celebration tail markings on a XV Squadron Tornado GR4

BELOW - One of the many Spitfires gracing the RIAT skies in 2015



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the MOD's Future Combat Air System but this is well into the future and off-take volumes will be small. In military helicopters, it could be 2030 before the UK Government is again in the market. *Against this rather barren backdrop, companies have to make their investment choices.* Investing share-holders hard-earned money in R&D is not a matter that can be taken lightly and potential return on investment drives decision-making. Without domestic orders, this return has to come from exports. Overall, R&D investment is at a very low ebb across Europe. The European Commission see it as the major threat to sustainability, highlighting it to the 2013 summit:

Currently defence companies are surviving on the benefits of R&D investment of the past and have been able successfully to replace falling national orders with exports. However, this often comes at the price of transfers of technology, IPR and production outside the EU. This in turn has serious implications for the long-term competitiveness of Europe's technological and industrial base.

Fortunately, the UK's track-record in Defence aerospace exports is very strong. In the period 2009-13, average annual defence (beyond just aerospace) export revenues were £7.4 billion. But, at 80% of the total, combat aircraft and military helicopters dominate. While there is still firm potential in the export market for Typhoon, with a dearth of new programmes, the future looks uncertain. On the other hand, there is potentially significant growth potential in the global export market for sensors, mission systems and software, assessed at about £80 billion per year. The creation of the joint Government-Industry Defence Growth Partnership aims to sharpen our approach to just these types of opportunity by increasing the collaboration between companies with the most appropriate capabilities and technologies in order to fight off the ever-increasing competition in the global export market. In this latter respect, it is instructive to note the strategic engagement of governments in countries such as the US and France in cutting export deals. So, for UK Parliamentarians, there are two simple questions:

Do you recognise the defence industrial base as a strategic national resource?

Do you accept that the defence industry has a significant part to play in the new Government's prosperity agenda?

Civil Aerospace

Turning to civil aerospace, there are similarities but the basic picture is very different. We no longer produce complete aircraft so television news audiences are never treated to the iconic roll-out of a new aircraft as would be the norm for Boeing in the US. Civil aerospace manufacturing thus easily drifts out of the public consciousness. Yet, an

A380 with Rolls-Royce engines consists of some 50% of UK manufactured systems and components. This aspect means that the civil aerospace sector annually generates revenues of £29 billion, earning £26 billion in exports. This latter facet places the UK second in the global league behind the US. In Europe, the UK is pre-eminent in wing manufacture with Airbus and Bombardier designing, developing and producing wings on-shore. Even in areas such as aircraft seats that seem prosaic yet embrace leading-edge technology and advanced materials and manufacturing saw the UK exporting £400 million by value in 2014.

In terms of the sustainability of the civil aerospace sector, given our position in focusing on strategic sub-systems, then exports and sustainability go hand in glove. The global market stands at \$5 trillion over the next 20 years with a 9-year order book for 12,000 aircraft. This represents £170 billion in potential revenues to the UK sector which should yield an expansion to the current number of 280,000 jobs. But we cannot be complacent. Again, investment in R&D lies at the core. Only three years ago, the concern over our position acted as the catalyst for the creation of the Aerospace Growth Partnership in that early analysis showed that:

The UK's success on current generations of aircraft draws heavily on investment made in developing technologies in the 1970s and 1980s. However, recent trends have shown that UK content on new aircraft is in decline and that, without action, this will accelerate as new generations of aircraft are introduced.

Again the Aerospace Growth Partnership is a joint Government-industry endeavour but, in terms of funding, is in a different league to its defence sister with £2 billion of research funding flowing through the associated Aerospace Technology Institute. In addition, joint investment has created 500 MSc bursaries in aerospace engineering disciplines in an attempt to address the skills deficit. There is assistance to SMEs in improving their performance in the supply chain and pulling-through their innovative technologies. These initiatives have strengthened the global market's perception of the UK sector. Civil aerospace with its leading-edge technology, advanced manufacturing techniques, novel materials and highly-skilled jobs which together have huge export revenue generating power ought to be seen as central to the Government's prosperity agenda and rebalanced economy.

As a footnote, it is probably well-known that every 2½ seconds a civil aircraft powered by Rolls-Royce engines takes-off or lands. Perhaps less well-known is that 1.16 million passenger windows are required to fulfil the current 12-year order book for civil airliners: that is an area of glass 100 times the surface of the Shard!



ABOVE - The Rolls-Royce Trent family of big-fan engines is a world-beater. (R-R photo)

The Air League in Monaco

On 16 June, the Air League of Monaco hosted a working lunch with CEO Andrew Brookes, Trustee Andrew Perkins and Scott Pendry of the Leading Edge to discuss how best to achieve its aims locally, particularly in the provision of flying scholarships for young people. Together, the UK team told local Air League committee members not just about the mechanics of providing scholarships, but also the pleasures and pitfalls of offering flight experience and scholarships to enable young people to appreciate the joys of flying and possibly go on to earn pilots licences.

The Air League of Monaco has been established as a Monaco association, under the wings of Air League Deputy President Christopher Foyle and Sir Stelios Haji-Ioannou, who hosted the lunch.



Photo - Christopher Foyle, Andrew Brookes and Sir Stelios Haji-Ioannou (Ian Brodie)

Inner City Gliding Scholarships



Above - Gliding scholars enjoy a break at Dunstable

On 12 August 2015, eight students in Year 11 and the Sixth Form from City Academy and Clapton Girls in Hackney and Kingsdale Academy in Dulwich celebrated completion of an intensive residential two week gliding course at the London Gliding Club, organized by The Air League and supported by Boeing, British Airways and Linklaters. Students arrive having never flown an aircraft and finish the course having flown a glider solo. "The aim of the project is to increase accessibility to flying, inspire students to consider careers in aviation and give exciting new experiences to young people during their school summer break," said Air League Trustee and event coordinator, Andy Perkins, a Boeing 777 Senior First Officer with British Airways. This is the third consecutive year Boeing, British Airways and Linklaters have come together to support the Air League's gliding scholarships, with some former scholars going on to complete their A-Levels and start their Private Pilot Licence training.

BSc HONS DEGREE PROFESSIONAL AVIATION PILOT PRACTICE

The BSc (Hons) Professional Aviation Pilot Practice programme greatly increases and accelerates students' chances of gaining employment as an airline pilot in a highly competitive industry. By embarking on the degree, students can access funding to help with the often prohibitive costs of becoming a pilot. This will reduce the cost of the training by one third and will include a Flying Instructor Rating. The three-year programme with Tayside Aviation includes structured hours building as well as the CPL, ME IR and MCC training. The partnership involves the

Aviation Skills Partnership, Middlesex University and Loganair. Tayside Aviation has supplied Loganair with experienced pilots on their pilot placement programme over the past five years as "hands on" experience is essential for their activity.

Jim Watt, Managing Director, Tayside Aviation said, "This is a major step forward in flight training. Academic recognition for all of the hard work behind becoming an airline pilot is long overdue. This, together with the financial assistance available, is exactly what would-be pilots need. It essentially integrates the modular

route to an Airline Transport Pilot Licence and fills the gaps in-between the flying modules."

Students embarking on the degree will require academic criteria similar to most degree courses plus a Private Pilot Licence (PPL). The first batch of students began their course in January and Course 2 started in April. There will be new intakes every April and October. Tayside Aviation is running monthly open days to provide information and course overviews. For more information visit www.taysideaviation.co.uk or telephone (01382) 644372.

LEADING EDGE visit to Swanwick

A Leading Edge visit to NATS's Swanwick headquarters on 19 July was arranged and hosted by Ross Willington. *Jon Read reports.*

We were given a warm welcome and Ross delivered a presentation that gave us an interesting and comprehensive overview of NATS. He explained the business structure of NATS that has enabled it to operate on an international scale, and also how its air traffic control and engineering operations, including the systems control department's function. After the presentation we were introduced to

Air Traffic Controller Ash Bennett and Flow Management Controller Paul Turner, who talked us through what we saw next: a birds-eye view of the control room. Overall I felt we were given a great level of insight into the workings of this organisation and Ross was a brilliant host. With this being the first Air League visit I've ever attended, I can say that I look forward to attending many more.

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Virgin Atlantic Hangar visit. Dipeet Mehta writes:

I would like to take this opportunity to thank the Air League, Virgin Atlantic and most importantly Certified Engineer Dave Emsley for showing us around the Virgin Hangar at Gatwick where we had the opportunity to see Boeing 747-400 (G-VXLG) which had come in for a 2 day inspection. They were on a tight Summer schedule to get it back in the air but Dave managed to take us around every corner of the plane and we had a fantastic opportunity as he explained various components of the aircraft and their functions. The sheer size of the Jumbo when standing underneath was impressive! We also had a chance to step inside the rear cargo bay and understand the importance of a speedy turnaround at the gate. We also had a look at the outflow valve which controls the pressure difference as the aircraft climbs through the air, the APU and various antennas and all-moving tail plane. The landing gear bay of a Jumbo was massive and it was fascinating to walk around and appreciate the marvellous piece of engineering. As we walked around the engine, Dave explained how a by-pass engine works, showing us various parts on the engine itself such as oil tank, igniters, fuel injectors and how bleed air from the engine is used for various functions such as heating and air conditioning. After heading into the front cargo bay and discovering the hidden computers, the brain of the aircraft, we went straight into the cabin. We had a chance to see the whole interior of the aircraft exploring various classes and seeing the legroom differences (gradually decreasing as we went

to the rear). We had a chance to explore the crew rest area of the plane, the location of black boxes and cockpit voice recorder as well as the upper deck which lead us to where we all wanted to be - The Flight Deck! Dave kindly explained functions of the 747, the glass cockpit display, various switches, the overhead panel, centre console and throttle levers. We then had a chance to stand in front of the cockpit outside the plane. It was fantastic to see how high we were above the ground. The day was thoroughly enjoyable and a real rare privilege to get a chance to see the iconic 747 up this close.



Members News

Jordy-Xavier Black , HQAC Air Cadets (The Air Cadets Scarman) Flying Scholarship 2015, I would like to say thank you to the Air League and my sponsor, HQAC Air Cadets, for receiving and being able to complete a 12 hour scholarship. I have enjoyed returning to South Warwickshire Flying School and have been able to consolidate my solo and circuit knowledge and have been able to progress through the PPL syllabus to learn about navigation and have learnt so many useful and valuable skills. I am grateful for the guidance and wisdom given to me by my instructor, Dave Scott-Morgan, as well as the School's principal,

Rodney Galiffe. I hope to return to South Warwickshire Flying School in the future to complete my PPL. Thank you all very much indeed for this opportunity.

Robert Ross, Sir Michael Marshall Flying Bursary 2015, I would like to express my sincere gratitude for the award of an Air League Flying Bursary. I allocated this funding to start an Instrument Meteorological Conditions (IMC) rating, and having just returned from South Warwickshire Flying School can confirm that the five hours were well spent and I have made excellent progress through the IMC course. Exercises performed throughout

the course ranged from maintaining straight and level flight to recovering the aircraft from unusual attitudes with a partial panel. Not only has this bursary allowed me to further develop my flying abilities, but by gaining a greater understanding of instrument flying, it has also proved to hone my general flying capabilities. I have just gained my degree in Economics (BSc 2:1 Honours) and have also been successful in gaining a place on the British Airways Future Pilot Programme. I am convinced that the combination of my hard work in academic achievement together with the full support of the Air League has enabled me to achieve this success. I start the BA Programme in March 2016 and after completion will be flying as a First Officer on the A320. So once again many thanks.

New Members

Individual Members: Kai Adams, Modou Ann, Jayda Bailey, Benjamin Bassindale, Clifford Beal, Jack Britton, Jola Brown, Charlotte Bryett, Matthew Carruthers, Muhammed Coskun, Libby Davies, Matthew Gelder, Juliene Heeps, Max Hollowday, Shazmin Khan, Kevser Kilinc, Rupinder Loyal, Tina Masose, Michael McDonnell, Michael Merritt, James Monteith, Andrew Moorhead, Darlington Nwosu, Andrew Pembery, Daniel Pickles, Bethany Polanski, William Quilter, Katie Shaw, Katrina Skivington, Michael Smith, Olivier Sottile, Paige Thomas, Joel Thornton, Anna Trezise, Joshua Tulloch, Vina Vaja, Jonathan Yang.

Diary Reminders

28 September 2015: Andrew Humphrey Memorial Lecture
12 November 2015: Careers day, BA HQ Waterside

For up-to-date information on all our activities please visit our website at www.airleague.co.uk where you can register for changes to be sent to you by email as they are announced.



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