

THE AIR & SPACE POWER ASSOCIATION

SHAPING THE FUTURE OF AIR AND SPACE POWER

THE BULLETIN | SPRING 2024



Dear members

Welcome to the Spring edition of the Bulletin.

The Association has a busy year ahead and we are looking forward to seeing many of you at our various events and dinners over the coming months and welcoming our new corporate and individual members into the fold.

There is much to discuss and share around air and space power as the UK and our closest partners and allies look to shore up their defence capabilities in the face of mounting insecurity in Europe and further afield in the Middle East and Asia.

Russia's war on Ukraine is now grinding into its third year while Iranian-backed Houthi rebels are escalating missile attacks in the Red Sea and the renewed fight between Israel and Hamas accelerating. At the same time, Moscow's actions against Kyiv are prompting renewed fears of territorial ambitions and assertive action by China in the Indo-Pacific.

All nations are looking to shore up their air power as a fundamental guarantee of air superiority while at the same time balancing capability across all domains within resource constraints. Closer to home, a more public dialogue is mounting around Defence and our security with air – and space – power practitioners taking a more muted stance as Greg points out in his Viewpoint in this issue.

As you can see from our 2024 Events calendar there are plenty of opportunities for a frank and insightful exchange of views with the RAF senior leadership team throughout the year. We have increased our offering of

CHAIR'S LETTER

both fireside chats and online events and I'm delighted to see that the UK's leading air and space practitioners and strategists see the Association as a core engagement platform to share their insights into current and future thinking and activities across the RAF and wider UK Defence. Do please check [Member Events](#) on our website for details but we have reproduced our Events flyer for you in this Bulletin.

Our Conference planning is well under way with the programme for the [Global Air & Space Chiefs' Conference](#) in July advancing well. The theme is based around Deterrence – Integration and Interoperability – and over 50 chiefs are expected again to attend. Work with UK Space Command is also ramping up as we prepare to deliver their [Defence Space Conference](#) in September. We've also been selected to partner with the Royal Canadian Air Force to deliver again the NATO Joint Capability Group Unmanned Aircraft Systems (JCGUAS conference in Ottawa – a first for us there and in the RCAF's Centenary year.

Tackling current air and space power issues here in the UK, we have featured some research under way at the Freeman Air & Space Institute and I hope you find this of interest. Dr Sophy Antrobus has written a paper on the RAF's risk appetite and how it has changed over the last 30 years as technology and other factors have shaped operations and culture. Another research paper looks into our sovereign industrial capability with a focus on the Global Combat Air Programme while in the Space sphere some new research is under way into the Space Strategy and future of UK Space Power.

Another contributor to this Bulletin is new corporate member Airspace Unlimited with a piece about military airspace training and how to achieve smarter airspace management in the UK. Penning the article is company chair AVM Justin Reuters (Ret'd) who many of you I am sure will know.

Our mission as an Association is to encourage you, our members, to share ideas and to provide a forum and platforms for discussion of air and space power and so please do get in touch if you feel there is a burning issue or specific capability you would like us to feature in either these pages or at our events.



THANK YOU TO ANDREW BROOKES

I am saving my final words for Andrew Brookes who has been our Secretary since 2018. On behalf of all of our members and our Executive Committee, I would like to extend my sincere and heartfelt thanks to Andrew. Andrew will of course remain an ASPA Honorary Member and we look forward to giving Andrew a fitting send-off at our forthcoming Spring dinner in March.

Stepping into the breach I am delighted to welcome Jim Beldon as our new Secretary and Committee member. Many of you will know Jim and we look forward to his ideas as we develop the ASPA further.

Lastly, I would like to extend my warmest wishes to you the members and thank you for your continued support.

Yours

Roberto

Air Commodore (Ret'd) Mark Roberts
Chair of The Air & Space Power Association

WARM WELCOME FOR OUR NEW ASSOCIATION SECRETARY

We are delighted to welcome Jim Beldon to the ASPA management team as Association Secretary. Jim, familiar to many as the former RAF Director of Defence Studies and front-of-house for the Global Air and Space Chiefs' Conference, is the lead for Air and Space at Leidos UK, and also continues to serve as a Volunteer ex-Regular Reserve for the RAF.

"I am honoured to be appointed as ASPA Secretary at a time when the voices of air and space power professionals need to be heard more than ever. Conflict and tensions in Europe, the Red Sea, Middle East and East Asia, and the attendant threats that are proliferating, make the ASPA's role more vital than ever in bringing industry and academic professionals together to influence policy makers – all the more important in an election year and ahead of a Defence and Security Review that is likely to follow."



PRESIDENT'S VIEWPOINT

It's the first bulletin of 2024 and I can't help a strong feeling of déjà vu already. They say that history never repeats, but it does rhyme, and with an aggressive Russia and meddling Iran behind a lot of the current crisis, history is in full voice.

Nearer to home we have an economy that is struggling, like many, but with a lack of clear strategic direction and any real plan to get there that is hurting even more.

Compounding the challenge is the number of Strategic Defence Review "chickens" coming home to roost after decades of lower investment and short-term thinking and initiatives. UK Air and Space power has suffered through this, but through some tough choices it has maintained a credible and permanent deployed capability, albeit one that is now stretched extremely taut and with little left in the tank. Land and Maritime power have suffered more publicly and their supporters have been quite vocal in their pleading for greater investment. We Air and Space power enthusiasts must continue, in our slightly more measured and under-stated way, to promote the case for appropriate investment in our domains. But we also pride ourselves on taking the longer view, Air and Space endeavours require foresight, vision and investment.

However, today's challenges now appear more acute, less optional and more immediate than any since the end of the Cold War. So, there are more tough choices ahead - fix today or invest in tomorrow? Of course, neither should be viewed in isolation but the emphasis has now most definitely shifted to the former.

General Sir Patrick Sanders (a very wise and measured man) challenged the country recently

by asking if they were really prepared or even cognisant of the impending threat to our security and safety. Whilst the ensuing debate descended into one around conscription, his point was far more fundamental and far-reaching. A nations' resilience and capacity to meet and defeat the types of threat we now face encompass every facet of national capacity and identity. The good news is that we have the perfect role model and warning in Ukraine, the bad news is that we are in denial that such a situation could happen to us. And perhaps that is the most important lesson that we all need to learn and learn quickly, and it was first coined by the Roman general Vegetius when he wrote: "Igitur qui desiderat pacem, praeparet bellum" which for the classically challenged translates to: "if you want peace prepare for war". He was actually conveying two military concepts: the obvious - the readiness to fight and defeat an attack, and the less obvious - that by being visibly ready one could deter an enemy from attacking in the first place.

Not by happenstance is deterrence the theme of this year's Global Air & Space Chiefs' Conference. As a concept it's too quickly associated with the ultimate, nuclear option, but conventional deterrence is as, if not more, important in order to avoid conflict and tension rising so far up the scale that the ultimate option draws too close. It is my view, and I suspect that of many of you, that Air and



Image of a Russian IL-20 COOT A and an RAF Typhoon from 140 EAW. RAF Typhoons from 140 EAW in Estonia were scrambled in July 2023 to intercept a Russian Air Force IL-20 COOT A and 2x Su-27 FLANKER B flying close to NATO airspace. Royal Air Force Typhoon fighter jets in Estonia police the airspace of NATO's Eastern border with a backdrop of conflict in Ukraine. Crown Copyright.

Space power plays a vital role as the first line of any conventional deterrence. This is not only true in the temporal sense but also in the physical as despite resource challenges Western and UK Air and Space power remains our vital edge against our nearest threats. So as we face these rather immediate challenges ask yourselves, and perhaps that of the organisation you might represent, are you ready for war, and what can all of us do to ensure that we are more ready? There is still time, but that time is fast running out, where we can both make the case and deliver the capability and capacity to deter our most immediate and dangerous threats. So, we start now or suffer the fate of all those in history before us that have heard this rhyme before.

Air Marshal (Ret'd) Greg Bagwell
ASPA President

RESEARCH UPDATE FROM THE FREEMAN AIR AND SPACE INSTITUTE



DR SOPHY ANTROBUS, RESEARCH FELLOW
FREEMAN AIR AND SPACE INSTITUTE KING'S COLLEGE LONDON

Dr Sophy Antrobus, Research Fellow at FASI, has recently published a paper on the RAF's changing appetite for risk over the last three decades.

This work was prompted by the prospect, following Russia's illegal reinvasion of Ukraine in 2022, of the RAF needing to prepare to fight for control of the air. Ukraine has demonstrated that the alternative is attritional, costly in blood and treasure, and highly destructive.



The RAF's culture around risk and safety has shifted since the 1990s. This image shows the first British air strikes carried out 30 years ago by RAF Tornados against the Iraqi Air Force as part of the US led Multi-national Coalition's actions to liberate Kuwait following the Iraqi invasion on 2nd August 1990. Crown Copyright.

In these 30 years, RAF culture around risk and safety has been gradually shifting, as it was bound to over time with changing experiences, understanding, process, regulation and technology. Her work encompasses an applied history of the RAF's changing relationship with risk; from the Cold War era to the present day, on operations and in training.

The specific experience of fighting wars of choice from 1991 onwards, the changing approach of the RAF to flight safety, technological advances, and the peace dividend expected by politicians and the public after the Cold War: all conspired to reduce incrementally the RAF's appetite for risk. Everything from air crash investigation to safety reporting, from aircraft technology to repatriation of war casualties has played its part. These combined factors have resulted in a situation developing, akin to a slowly boiled frog, where the air force's culture

changed slowly over time, but with the cumulative effect constituting far-reaching change towards risk aversion. Now the RAF is developing a new approach to 'High Risk Operations' where it will train and operate as it will fight balancing the need for speed, agility and innovation against safety, security and compliance. Sophy's work provides supporting arguments for that concept.

Julia Balm, Research Associate, is finishing up her PhD thesis on building an interdisciplinary space power theory for the New Space Age. As she continues this research, she has also been considering the ways in which space is entangled across various sectors as critical infrastructure. This looks at the role of space technology in the farming industry, in monitoring essential climate change variables, and in providing timestamps for the financial sector. She is in the planning process of organising an interdisciplinary event series on the uses of space systems across different disciplines and departments. By encouraging a conversation on how space security concerns the whole of society, this research advocates for greater cross governmental strategic calibration.

Julia published recently a summary of her thoughts in her viewpoint on 9th February (**'Space Dependence: A better need for Communication'**)

Meanwhile, PhD candidate and researcher Aleix Nadal Campos has written a paper entitled: **'Protect and Defend: advancing a UK space architecture based on deterrence by denial'** in which he assesses UK Space Power and strategic options. With the Defence Space Strategy goal to Protect

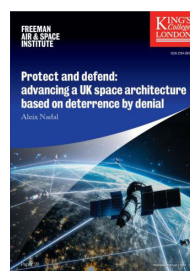
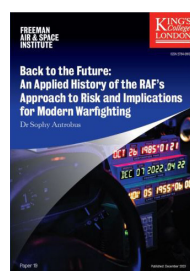


and Defend UK space-based missions as sub-threshold threats appear set to intensify in the future, he argues that the UK should strengthen its deterrence by denial posture to ensure its freedom of action in the space domain.

Another current area of research for FASI is procurement. Dr Linus Terhorst is currently working on a project investigating the sovereignty narrative of current UK procurement projects, such as the Global Combat Air Programme, and to what extent this narrative is subject to debates in Whitehall. This includes asking how politicians and civil servants balance the political aim of national development and production with other aims, how this affects their definition of sovereign capability and how this aligns with the current thinking in the forces' capability development.



This links into his wider research portfolio, investigating national defence industrial strategies across Europe and how effective they are in equipping their respective forces for the changing geopolitical environment of the 2020s. This links to FASI's general conceptual interest in military innovation, researching how forces adapt, change, and innovate to changing environments and threats. Linus is currently working on a conceptual framework to better theorise the emergence of innovation and its success in achieving a military advantage.



The Freeman Air and Space Institute (FASI) is an inter-disciplinary research institute in the School of Security Studies, King's College London, which provides independent, original knowledge and understanding of air and space issues. The Institute seeks to inform scholarly, policy and doctrinal debates in a rapidly evolving strategic environment across the air and space domains.

URL: <https://www.kcl.ac.uk/research/freeman-air-and-space-institute>

SMARTER AIRSPACE MANAGEMENT

Air Vice-Marshal (Ret'd) Justin Reuter, aka 'Reuts', shares his perspective on the training and Net Zero opportunities from smarter airspace management in his role as Chair of ASPA member Airspace Unlimited.



LIVE FLYING IN SPECIAL USE AIRSPACE IS ESSENTIAL FOR FORCE GENERATION

We need to think about how we design and manage airspace differently. We talk a good talk about the flexible use of airspace and civil-military cooperation, but the reality is that these concepts are mostly rigid. Special Use Airspace (SUA) used for military training is either 'hot' or 'cold'. It needs to be properly flexible and to anticipate the needs of civil traffic flows. Why? For good reasons, for more effective force generation, lower fuel costs and Net Zero: a win-win-win scenario.

"A war in Europe, increasing instability in the Middle East and a growing threat from China has focussed the need for realistic and collaborative training, and yet, the same basic airspace structures and special use airspace exist that were in use when I started my operational flying just after the Cold War."

For western militaries who have reduced their combat air fleets since the mid 1990s, there is an imperative to maximise training for their 4th, 5th and, in future, 6th Generation fighters. Sensor and weapons ranges have increased and, with the reduction in live flying in favour of synthetics, every flight hour is precious.

A war in Europe, increasing instability in the Middle East and a growing threat from China has focussed the need for realistic and collaborative training, and yet, the same basic

airspace structures and special use airspace exist that were in use when I started my operational flying just after the Cold War. This construct is quite simply not fit for current, nor next generation air forces that require coordinated, collaborative multi-domain training that utilises Red Air, EW, tankers, crewed & uncrewed vehicles in a Live Virtual Constructive environment that could (and should) extend across FIR boundaries. This is increasingly important as the F-35 user community grows across the European NATO countries and with the USAFE.

WE NEED SMARTER AIRSPACE MANAGEMENT

Looking at the airspace above us it is sometimes hard to comprehend how complicated it is, organised for different types of traffic, which fly at different altitudes and speeds, and with varying use throughout the day. For example, at higher altitudes, military exercises are carried out in special use airspace. Airlines route around these areas when they are active ('hot'), for obvious safety reasons, and can fly through them when they are inactive ('cold').

What we need is for special use airspace to be as flexible as the civil flights that fly around it. But we have over-used the word 'flexible' and what I mean is an order of magnitude more flexible; no more on and off without regard to civil traffic flows, but a daily optimisation that maximises training effectiveness at the same time as minimising civil flight times. We need to leapfrog the next incremental changes with a bold conceptual and technological step.

This means a new paradigm about how we design and manage airspace.

Counter-intuitively, we should make special use airspace larger and more finely structured, so we can find more optimal solutions for the day's flights - both civil and military. For military exercises we can shape the training to fit with daily predicted civil traffic flows. Avoiding heavy civil traffic flows allows for larger airspace volumes at the same time as giving civil flights shorter paths, saving fuel costs and emissions.

We see the opportunity to bring a similar flexibility to the whole airspace, creating a fluid structure shaped by winds on a daily basis. We call this 'smarter airspace management'.

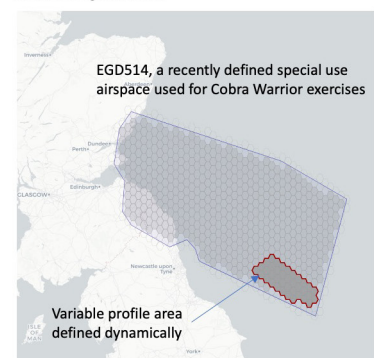
1

Traffic flows around special use airspace. When 'hot', special use airspace causes longer civil flights (red). The D323 design was based on historic traffic flows and military airspace requirements, but is at 70 degrees to the main traffic flows. Airspace Unlimited has been investigating designs to systematically reduce the D323's impact on civil traffic at the same time increasing mission effectiveness.



2

Rapid prototyping of new concepts of operation. Here we show a hexagonal tessellation as a basis for daily airspace optimisation with variable profile area concepts. A hexagonal shape has been identified as interesting for efficient packing, but triangular or rectangular tessellations may be more amenable for constructing exercises.



The implication is that special use airspace is:

- a. enlarged, potentially by 50-100% - imagine joining areas across the North Sea;
- b. activated according to impact on civil traffic flows, not fixed volumes - imagine minimising the impact on civil flights before they flight plan;
- c. finely segmented, comprising elemental volumes - imagine shifting an exercise by 10NM to finesse a carbon reduction;
- d. divided into training volumes based on daily mission needs not predefined segments - imagine planning the mission being allocated the airspace volume that is just right for the mission;
- e. as tightly packed as mission volumes and safety buffers require - imagine accelerating training through more exercises in parallel.

“The RAF is working on new fuels to meet its Net Zero obligations, but there are other levers that it can pull. Through the smarter airspace concept, we can use airspace in a way that minimises interactions with civil traffic flows, reducing civil aviation emissions at the same time as increasing military mission effectiveness.”

In an industry that changes gradually, this may seem a big leap, but it is not rational to meet the challenges of this century with incremental solutions. And the solutions are not so much bold as living up to the expectations of what the civil-military concept of the ‘Flexible Use of Airspace’, introduced just twenty odd years ago, should mean.

SMARTER AIRSPACE WILL ACCELERATE SUSTAINABLE AVIATION

Around the world, governments are placing increased pressure on all sectors of the economy to decrease carbon emissions in line with the IPPC’s 1.5 degree global warming target, also referred to as Net Zero 2050. These demands also include Defence. In the UK, the MoD accounts for approximately half of government carbon emissions and 40% of this is the responsibility of the Royal Air Force; most caused by burning aviation fuel.

The RAF is working on new fuels to meet its Net Zero obligations, but there are other levers that it can pull. Through the smarter airspace concept, we can use airspace in a way that minimises interactions with civil traffic flows, reducing civil aviation emissions at the same time as increasing military mission effectiveness.

WE HAVE THE TOOLS

The tools for smarter airspace management are being developed by Airspace Unlimited, supported by the UK’s Airspace Modernisation Strategy Fund. From our interactions with the RAF over the last two years we have been encouraged around these bold concepts. With our tools we are able to visualise airspace as a global continuum of traffic, demonstrating rapidly, multiple hypotheses for design and management of the airspace and realistic traffic flows with winds and route charges factored-in. Being able to design airspace changes and concurrently measure the impacts on traffic, we can drastically speed up airspace change and re-envisage how multiple users can use the skies above us in the most effective and efficient ways.

We are delivering these tools as a tiered capability to transform airspace, to support states in: analysing the airspace to understand how it may be improved; designing the

RAF 617 Sqn F-35Bs arriving into UK airspace for ATLANTIC TRIDENT, an exercise in coalition 4th and 5th Generation fighter training. The exercise was conducted in June 2023. Photo: Sgt Peter George RAF/Crown Copyright).



airspace to be more flexible, using ‘Variable Profile Area’ 5-10Nm design rules; and managing the airspace on a rolling 24-7 basis.

Our medium-term goal is to reduce the impact of special use airspace on civil flights and save 1% of civil flight time, which could amount to 2Mt CO2 saved a year across European NATO States. In the shorter term we are focusing on ‘Variable Profile Areas’. By disaggregating airspace into elemental volumes, we can pack more exercises into existing airspace design. This means we can achieve more exercises on a daily basis and accelerate training and force generation programmes, all while reducing the interaction with civil traffic flows.

THE FUTURE IS IN SIGHT

Air Forces, including the Royal Air Force, are seeking to optimise, to get the best out of what they have; however, they are constrained in their training while attempting to increase combat effectiveness. It simply doesn’t make sense to conduct live training in airspace that is not fit for purpose - we should strive for the win-win-win scenario that airspace optimisation can bring. It’s time to use the tools that we have to re-imagine our airspace and stop accepting the gradual incremental change that suits none of the users.

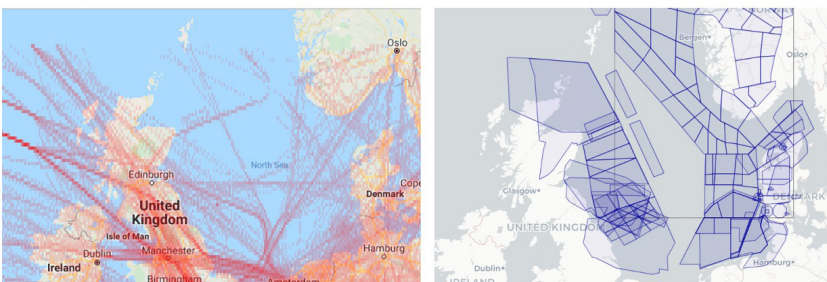
NEXT STEPS

The arrival of the F35 throughout Europe and a focus on climate change is stimulating states to revisit and reevaluate their airspace designs. Airspace Unlimited’s tools have been developed to help them do this rapidly and effectively, to deliver transformation over incremental change. Air Forces, regulators, airlines and Air Navigation Service providers can all drive and benefit from this transformation.

Views expressed in this article are those of AVM Reuter and of Airspace Unlimited and not attributable to the ASPA.

3

Larger but highly flexible special use airspace. On the left, a heatmap view of a day’s flights showing the impact of special use airspace through the low-density areas and the subsequent civil flight routings. On the right, current special use airspace around the North Sea. Joining these airspaces up is a smarter airspace management concept under study, the ‘North Sea Area Initiative’, to include variable profile areas and sensitivity to civil traffic flows.



ASPA-FUNDED SCIENCE MASTERCLASSES FOR SECONDARY STUDENTS ARE TAKING OFF!

GRACE DAVIS, COMMUNICATIONS AND MARKETING MANAGER,
NATIONAL SPACE ACADEMY



The National Space Academy brings hands-on, curriculum-linked science education to students across the UK, using the exciting context of space to get young people fired up about the possibilities of the growing UK space sector.

Thanks to generous funding from ASPA, we've been able to reach even more students and the stats are speaking for themselves:

- Nine ASPA Masterclasses have taken place since September 23.
- Five ASPA Continuing Professional Development (CPD) sessions have been run in this academic year already.
- We've reached 385 students so far in total.
- A further 9 ASPA Masterclasses and 3 ASPA CPDs are booked in, with 11 more bookings underway at time of writing.

We're thrilled that the uptake has been so rapid and that students around the country are finding these sessions not just fun to take part in, but also relevant to their learning.



One teacher whose school received one of our Masterclasses recently, commented: "Our pupils had a fantastic time, and are definitely more excited about space! Even some of my year 9's who are not normally interested in science came out of it buzzing – and they are still talking about it two weeks later!"

Masterclasses bring science in the classroom alive and help students start thinking about careers in the science and space sectors. We know how important space is to the future of our country and our next generation, and it is vital to break the recruitment and skills shortage barriers that currently exist. Education is a wonderful way to do this.

We encourage ASPA members and corporate members to get in touch if you feel that your company could support our work. We would love to hear from you!

There are plenty of ways to get involved with the National Space Academy, whether this be through offering guidance, facilities and expertise, or supporting us with resources and funding.

To find out more, please contact nsa@spacecentre.co.uk, visit nationalspaceacademy.org or follow us on [Facebook](#), [Twitter](#) and [LinkedIn](#).



THE CHIEF OF THE AIR STAFF'S GLOBAL AIR & SPACE CHIEFS' CONFERENCE 2024

DETERRENCE - INTEGRATION AND INTEROPERABILITY

17 & 18 JULY 2024

IET, SAVOY PLACE, LONDON

Register at www.airspacepower.com

Join the Debate [#GlobalAirSpaceChiefs](#)

ROYAL
AIR FORCE

MEMBER EVENTS UPDATE

You should by now have received the flyer with details and dates for our events this year.

We have an excellent programme so please do add the events and dates to your diaries and register now if you can.

Our regular 'Fireside Chat' events give ASPA corporate members the opportunity to engage with senior military officers in an

informal setting and you can see that this programme has grown for 2024.

Our series of "Audience With" online events are open to all members. Our online event with AVM Flewin on 13 February drew over 60 members as he detailed the latest thinking and capability planning around operations of No.1 Group.

Our social calendar also provides an excellent opportunity for members to meet each other,

host important clients and again to engage in debate about the air and space power issues of the moment. Our dinners are attended by senior military and industry leaders, further providing the chance for our members to hear the very latest thinking in the air and space power domain.

So please check our website for details and book now!

<https://airspacepower.com/events/>

DATE	ACTIVITY	VENUE	TIMING	NOTES
17 Jan 24	Fireside Chat	RAF Club Presidents' Room	1830 - 2000	AVM Simon Edwards Director People
13 Feb 24	Audience With	Online	1900 - 2000	AVM Mark Flewin AOC 1 Gp
12 Mar 24	Fireside Chat	RAF Club Presidents' Room	1830 - 2100	COS Air Cap
20 Mar 24	Spring Dinner	RAF Club Sovereign's Room	1830 - 2300	AM Paul Lloyd DCAS
9 Apr 24	Audience With	Online	1900 - 2000	AVM Jase Appleton AOC 2 Gp
16 April 24	Fireside Chat	RAF Club Presidents' Room	1830 - 2100	Air Cdre Chris Melville Hd RCO
22 May 24	ASPA AGM	RAF Club Hodges Room	1500 - 1700	Chairman
22 May 24	Summer Dinner	RAF Club Sovereigns' Room	1830 - 2300	AVM Tim Jones ACAS
11 Jun 24	Fireside Chat	RAF Club Presidents' Room	1830 - 2100	AVM Paul Godfrey Director Capability UK Strategic Command
18 June 24	Fireside Chat	RAF Club Presidents' Room	1830 - 2100	AVM Simon Edwards HR Focus
17 & 18 Jul 24	Global Air & Space Chief's	IET	2 Days	Conference
10 Sep 24	Fireside Chat	RAF Club Presidents' Room	1830 - 2000	AVM Tom Burke AOC 11 Gp
24 & 25 Sep 24	Defence Space Conference	IET	2 Days	Conference
09 Oct 24	Audience with	Online	1900 - 2000	AVM Cab Townsend AOC 22 Gp
10 Oct 24	Fireside Chat	TBC	1830 - 2100	AM Johnny Stringer Deputy Commander Allied Air Command
19 Nov 24	Industry Dinner	IET	1830 - 2300	CAS - In the diary!



A UK Space Command Conference brought to you by
The Air & Space Power Association

DEFENCE SPACE CONFERENCE

24 & 25 SEPTEMBER 2024

IET, LONDON AND ONLINE

✉ @airpowerassn #DefenceSpace24

Register now at www.airspacepower.com

CONFERENCE SPOTLIGHT

We are expecting again a significant attendance by overseas air and space chiefs at this year's Chief of the Air Staff's Global Air & Space Chiefs' Conference 2024 on 17-18 July.



Deterrence is this year's theme, with a focus on the role of interoperability and integration in deterring adversaries.

Opening the conference on the morning of 17 July a session on Contemporary Air and Space Power will examine air and space power lessons from current operations around the world. In the afternoon, sessions will cover Deterrence Theory and Practice examining the meaning of modern deterrence and Integrated Multi-Domain and Multi-Generation Deterrence which will explore what integrated multi-domain deterrence means and examine the Air, Space, Cyber and Electro-Magnetic Spectrum domains. Day One will also feature a closing session with a number of air chiefs providing their operational perspectives on integration and interoperability in Air and Space Power.



There will of course be the exclusive reception for Gold Ticket holders in the evening ahead of Day Two which sees the Keynote Session followed by a final session with technology and capability experts tackling the complexity of Integration and Interoperability with a focus on a future that will be AI-Assisted, Augmented, Autonomous and Robotic.

You can register your interest in attending here <https://airspacepower.com/gascc24-preview/>

Our **Defence Space Conference** in December 2023 drew together over 400 delegates including representatives from over 50 organisations and bodies engaged in space operational capability and policymaking as well as from the science, technology and space sector. We are expecting an even larger contingency at this year's two-day **Defence Space Conference** on 24-25 September with a wider international space domain strategy and operational capability and technology delivery focus for the programme now in planning with UK Space Command and Strategic Command.



If you missed the 2023 conference or keen to catch up on the status of the UK's Space Strategy delivery and plans to partner with the space sector to deliver the programmes and capability needed then please go to <https://airspacepower.com/conference/defence-space-2023/>.

And finally, we will bring you more details in our next issue of the Bulletin regarding our work with NATO and the **Joint Capability**

Group Unmanned Aircraft Systems (JCGUAS) to deliver their conference in October this year in Canada. We are partnered with the Royal Canadian Air Force (RCAF) to deliver the event. It's an exciting year for the RCAF as it celebrates its Centennial celebration on 1 April and the conference will form part of the series of celebratory events.



The Conference aim is to explore UAS developments, plans and current thinking, provide thought leadership on future capability and enable collaboration and dialogue with allies and partners. There are plenty of opportunities to get involved as a sponsor and so do get in touch!

UNIQUE SPONSORSHIP OPPORTUNITIES

The ASPA delivers some of the most respected and influential conferences in the Defence calendar. Our close working relationships with the Royal Air Force, UK Space Command and across UK Defence and our work with NATO and JCGUAS among other organisations means we are able to transform the intellectual ambitions of our military colleagues into reality within an engaging, effective and sustainable framework.

Unlike other conference organisers, we can offer bespoke packages to suit the budgets of companies and organisations. Do come and talk to us.

Please email:
clive@airspacepower.com or ring on
+44 (0)1285 711457 or
+44 (0)7702265336

ASPA ANNUAL AWARDS 2024

We look forward to seeing many of you at our Industry Dinner in November when we will be announcing the winners of our Annual Award (s) for 2024.

Congratulations again to our 2023 award winners, No. 83 Expeditionary Air Group and Professor Justin Bronk of RUSI.

As a reminder for the criteria, the Air & Space Power Association Award is given annually to the RAF, Fleet Air Arm, or Army Air Corps

individual, team, unit or formation (this applies to the Whole Force including regulars and reserves, civil servants, contractors, and appropriate elements' cadet forces) that has, in the opinion of the Executive Committee of the ASPA, made a significant and demonstrable contribution to improving the understanding of the importance, relevance and utility of Air and Space Power to the United Kingdom.

If you have thoughts for nominations please do talk to us and to our new Association Secretary Jim Beldon.



MEMBER NEWS

We are delighted to welcome new individual and corporate members and looking forward to seeing them over the coming year.

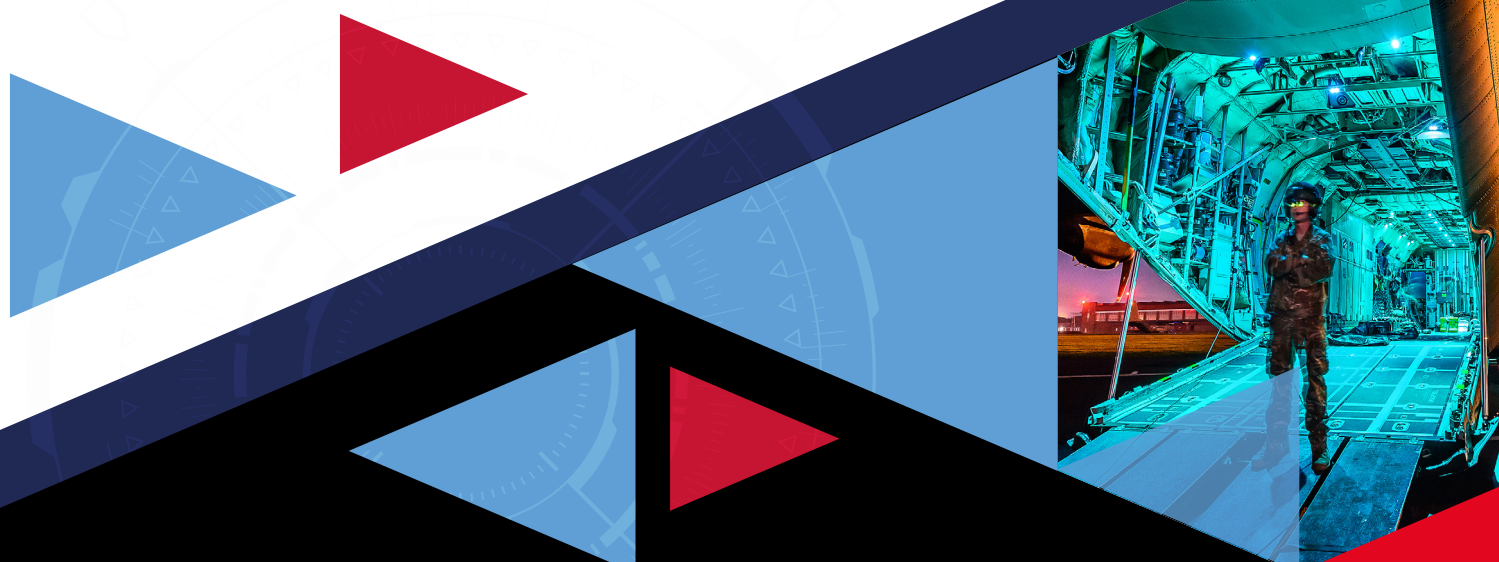
Corporate and Individual membership continues to thrive and it's really great to see our members making the best use of the dinners, fireside chats and online events as well as conferences and other corporate engagements. Please do not hesitate to

contact Lloyd and I at any time as we are on hand to give advice or introduce you to our guests and other members of the Association.

We are only as good as our membership and the added value that you bring - so may I offer a big thank you for your continued support.



Ian Draper ian@airspacepower.com or
Lloyd Francis Lloyd lloyd@airspacepower.com
ASPA Membership Team



The Air & Space Power Association is a vital forum for encouraging and stimulating debate on important air power issues. We welcome feature letters from members on any air or space power-related subject.

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