## **European Air Group** Groupe Aérien Européen



Annual Review 2024

Rapport Annuel 2024





Improving Capability through Interoperability

### Contents

Director's Foreword		
Deputy Director's Foreword		
EAG Welcomes New Deputy Director: Brigadier General Patrick Goossens		
The Steering Group Muster in Milan		
Agile Combat Employment	7	
Interoperability Down Under: Good Neighbours Become Good Friends	8	
Agile Basing: The Future is Under Development	9	
F-35 Technicians' Interoperability and Cross-Weapon Loading	11	
Eurofighter Typhoon Interoperability Project (ETIP): Small Steps Make Big Advances	12	
Moving ahead on the Communication and Information Services (CIS) Development within the EAG	14	
Cargo Helicopter Interoperability TY Platform (CHIP)	15	
Operational Training Infrastructure	17	
RED FORCES	18	
Advancing the Networked Synthetic Training Project	18	
Strengthening Tactical Data Link Interoperability	20	
Providing Awareness and Creating Opportunities for Training and Exercises	21	
Eurofight Technical Arrangement (TA): Enhancing Mutual Air Defence Training	22	
Enablers	23	
18 <sup>th</sup> EAG Advanced Aviation Medicine Course	24	
Air Warfare Symposium: A Great Opportunity to Mutually Interchange Information	25	
Air Cyber Forum 2024: Pioneering Air Force Cybersecurity and Interoperability	26	
Force Protection Seminar 2024	27	
The Future Effectiveness of the Military Aircraft Security Panel for EAG Nations	29	
EAG support to NATO School: Force Protection Courses	30	
VOLCANEX	31	
VOLCANEX C2 CPX 2024: Uppsala, Sweden	32	
VOLCANEX CIS 24: León, Spain	33	

### **Director's Foreword**

With the return of war in Europe and global disorder, we need an European Air Force that can perform at a very high level, respond immediately and react ad hoc.

United by this task, we never fly alone. The interoperability of the 7 member Air Forces and partner Nations is proven and firmly anchored in exercises and operations.

When I took over as Director in January of this year, I described what the EAG stands for:

### "Togetherness. Partnership. Trust.

#### This is what the EAG is about".

And this is what the EAG has been about the past year. And the EAG is continuing as a means of showing our togetherness, strategic resilience and the spirit that makes our success possible – a spirit that guarantees our security in Europe.

I am pleased to introduce this "EAG 2024 Annual Review", which gives you an overview of the main ongoing projects carried out by the EAG and progression made during this past year. Looking back, certain events stand out:

- We have been conducting our regular meetings on the different levels in the Netherlands, Italy and Great Britain in person and, when this was not possible, online, where we have discussed new ideas, developed existing projects further and have taken important decisions about where to focus and priorities resources to.
- We have successfully conducted our regular VOLCANEX exercises: Starting in April with VOLCANEX CHIP in Germany as the first EAG VOLCANEX within the EAG AirOps pillar, followed by VOLCANEX FP C2 in Sweden in June and finally VOLCANEX CIS 24 in Spain at the end of the year.
- We have been welcoming a new Deputy Director, Brigadier General Patrick Goossens, as well as a new Chief of Staff, Group Captain Bruce Duncan, and have seen five permanent staff members turn over.

In the past year, we have been able to build on the solid foundations of our predecessors continuing the good project work aiming at improving interoperability. The EAG's aim is to serve as a catalyst for new ideas to this end focusing on the tactical operational levels and quick wins and it has proven in many ways in the past year that this is the way ahead.

Particularly impressive is the fact that together we have been able to



**Lieutenant General Ingo Gerhartz** Director of the European Air Group Directeur du Groupe Aérien Européen

demonstrate EAG's innovative strength. The establishment of EAG programmes, our two strategic umbrellas ACE and OTI, for our portfolio of EAG projects and the Agile Basing Project aiming at a European project for the NATO ACE concept together with AIRCOM are examples of our continuing innovation capacity.

In addition, we have made significant progress in the field of Aircraft Cross Servicing: We have had great successes with the Eurofighter Typhoon Interoperability Project ETIP, impressively demonstrated during the multinational exercise PITCH BLACK 24 in Australia and therefore also an important support for PACIFIC SKIES 24, this year's highlight for the German Luftwaffe.

With great pride, I look back on my year as Director of the EAG, which I felt was a special honor.

In my vision for the EAG, I have implemented my firm belief: we must connect people with people. The exchange and close links between our air forces at all levels, in all areas, in exercises, operations and routine is our particular strength, which is worth all our efforts.

Based on this certainty, we will shoulder all the challenges together. The EAG is prepared and willing to proceed to the future.

### **Deputy Director's Foreword**

We are all faced with an increasingly unstable world. We witness the continuous growth of the Chinese military power and their territorial claims in East Asia, the threatening position of North Korea, the dramatic situation in the Middle East and the role of Iran, and, last but not least, on the eastern flank of NATO and Europe, the expansionist agenda of Russia.

Over the last decennia, since the end of the Cold War, NATO has been focusing on crisis management, peacekeeping and humanitarian missions in the Middle East and neighboring regions of North Africa. Today, considering the Russian threat, the focus of NATO has shifted again to its original role: ensuring security and stability in Europe through collective defense by deterrence. NATO is faced with the challenge to rebuild the mechanisms and principals of the Cold War. Meanwhile the global geopolitical situation gradually forces the US to increasingly shift its strategic focus towards East Asia. Faced by the Russian threat, European nations understand the importance and urgency to assume greater responsibility for the security of NATO and Europe. They focus on increased military burden sharing and investments in their defense industries.

But Europe is a complex construct with political, economical, historical, geopolitical and cultural differences. Building a decisive and efficient political or military coalition requires intense coordination on multiple levels. Numerous state-actors and other stakeholders actively contribute to the maneuver, not always without duplication, sometimes with reduced efficiency, mostly with extra effort and cost. But unless the European countries want to give up their national sovereignty and decision-making autonomy, that is the only way to achieve our common goals. That is the cost of doing business in Europe.

In this European military theatre, Air Power is the indispensable basis for maintaining the upper hand as from the start of any hostilities: we offer, more than any other land- or maritime force, decisive options such as speed, precision, flexibility, reach and freedom of movement on the ground.

In this geopolitical arena, the European Air Group sees increased need and opportunity to help NATO and Europe to face the imminent challenges. More agile and flexible than most of the overarching organizations, focused on the effects of Air Power, we daily work to improve the effectiveness

and interoperability, not only of our member Air Forces, but also of the larger coalitions, primarily but not exclusively NATO. Through coordination with the other stakeholders, we support and participate in ongoing processes and enable new initiatives. We search for added value and engage without seeking proper visibility, we stay away from competition



**Brigadier General Patrick Goossens** Deputy Director of the European Air Group Directeur Adjoint du Groupe Aérien Européen

and duplication of effort. We focus on effects of interoperability on the tactical level, where needed through direct coordination on the strategical level. Our flexibility and agility comes through the EAG Governance, which allows us direct reporting and justification to the 7 Air Chiefs of the EAG Steering Committee.

The annual review is an opportunity to illustrate the above. By looking back to the different programs and project of the EAG, we want to vividly illustrate how our 7 Air Forces contribute to NATO and Europe. As already mentioned by the Director of the EAG, (DEU) Lieutenant General Ingo Gerhartz, we focused the new programmatic approach of the EAG projects under 3 distinct programs, completely aligned with NATO's priorities and challenges of today: Agile Combat Employment (ACE), Operational Training Infrastructure (OTI) and Enablers. Most of NATO's strategic projects are part of these 3 programs of EAG: Agile Basing Project (ABP), technicians & operators interoperability, cross loading, cross servicing, CIS interoperability, Force Protection, etc. We enable training opportunities through the organization of the VOLCANEX-series of EAG exercises or by supporting existing exercises for specific additional training objectives.

The different topics have been written with enthusiasm by our experience SME's. I hope they manage to capture your attention and give better insight into our organization. Allow me to express my gratitude to all my motivated coworkers at the EAG, as well as to my predecessor, Deputy Director EAG Brigadier General Xavier Foissey, who seamlessly handed me over the daily management of this organization on 29 Aug 2024.



On August 29, 2024, the European Air Group (EAG) witnessed a significant transition as Brigadier General Xavier Foissey of the French Air and Space Force handed over the role of Deputy Director to Brigadier General Patrick Goossens of the Belgian Air Force. The ceremony took place at the EAG Headquarters, located at Royal Air Force High Wycombe, marking the end of Brigadier General Foissey's two-year tenure.

During his time as Deputy Director, Brigadier General Foissey played a crucial role in enhancing interoperability among the seven member Air Forces of the EAG (Belgium, France, Germany, Italy, the Netherlands, Spain, and the United Kingdom). His leadership was instrumental in advancing several key initiatives aimed at improving the operational capabilities of the European Air Forces. These initiatives included the highly successful VOLCANEX training exercises, which focused on fostering technical interoperability and agile basing strategies.

In his farewell speech, Brigadier General Foissey expressed his gratitude to the Permanent Staff and national Subject Matter Experts for their unwavering support and dedication. He highlighted the collective achievements over the past two years, emphasizing the importance of collaboration in addressing the volatile and unstable global security environment. He also extended his heartfelt thanks to the Chief of the French Air and Space Force for entrusting him with the role, and to the EAG Directors for their confidence in his leadership.

Brigadier General Goossens, the incoming Deputy Director, brings a wealth of experience and a strong commitment to continuing the work of his predecessor. In his address, he expressed his honour at being appointed to this prestigious position and his eagerness to build on the solid foundation laid by Brigadier General Foissey. He acknowledged the challenges ahead, but remained optimistic about the potential for further interoperability enhancements amongst member nations, and improved effectiveness of the EAG.

The role of the Deputy Director is pivotal in providing strategic direction to the EAG's Permanent Staff and ensuring the successful implementation of the group's initiatives. The EAG's primary mission is to promote interoperability among its member Air Forces, focusing on delivering tangible outcomes at both the tactical and operational levels. This mission is supported by a range of

projects, including fighter aircraft cross-servicing under the NATO Agile Combat Employment concept, connectivity between Tactical Data Link (TDL) systems, and synthetic training at the tactical level.

As Brigadier General Goossens takes on his new role, the EAG remains committed to its goals of improving air power capabilities through collaboration and innovation. The handover ceremony not only marked a change in leadership but also reaffirmed the EAG's dedication to fostering a united and effective European air defence network. With the continued support of its member nations, the EAG is well-positioned to navigate the complexities of modern air warfare and contribute to the security and stability of Europe.



The National Representatives at the EAG Headquarters posing together after the ceremony.



The two Deputy Directors officially transferring responsibilities.



The EAG Steering Group sits once a year to discuss progress on items of joint concern and to provide direction on project activity. It consists of the Chief's of Staff for each of the 7 member nations and is chaired by the EAG Director, a rotational post between the 7 chiefs, which for this iteration was the Chief of the German Air Force, General Ingo Gerhartz. This year's event was held on 20th June and hosted by the Italian Air Force at their HQ in Milan. One of the primary outputs was agreement on publication of the Chief's common strategic perspective on Air Power in 2024 which highlighted key themes reinforcing the drive for interoperability:

While the EAG celebrated its 25th anniversary in 2023 and NATO celebrates its 75th this year, Europe faces a volatile and unstable world, marked by the expansionist agenda of Russia and its war in Ukraine, the conflict in Gaza, the rise in influence of State-actors opposed to the Western World such as North Korea and Iran, as well as the substantial growth in the Chinese military and its ambitions in the Indo-Pacific theatre. The seven (7) Air Forces of the EAG nations must therefore commonly overcome challenges in protecting Europe, in particular by increasing their ability to deliver combined Air Power as in times of the Cold War and to gain and maintain Air Superiority as part of credible deterrence along, but not only, NATOs eastern flank.

The full article is available here: https://euroairgroup.org/european-air-group-steering-group-2024/

### **Programmatic Restructure**

As part of the EAG's continuing improvement review, a new programmatic structure was presented and endorsed at the SG that moves related projects under a collective programme of activities. Whilst not altering the aim of each project, a programmatic view allows better correlation of project deliverables that will support these programmes and also provides a more strategic narrative on the impact of tactical work done at the project level. This can help evidence and inform leadership of the practicalities in delivering strategic intent and also improve communications with stakeholders about the wider ambition of these projects. As such, three programmes have been initially created as follows:

**Agile Combat Employment Programme - A European Vision:** Whilst ACE has its current origins within the USAF and is being developed for NATO through AIRCOM, the concept can be traced back to the Cold war principles

of dispersion. ACE's European vision allows for both the improvement of survivability and effectiveness when deployed from home bases, but also the reduction of support footprint to optimise the limited human and logistics resources of the EAG Air Forces. In early 2023, EAG Permanent Staff offered their support to AIRCOM HQ to work on the ACE project with this European vision. NATO AIRCOM has subsequently developed an ACE CONOPS in conjunction with the EAG and other nations, through a series of symposiums and workshops. The EAG is now translating the strategic aims of ACE into tangible events at the execution level though several projects including workshops for cross-servicing and maintenance, agile basing requirements and improved interoperability within CIS and Force Protection workstrands. Engagement with other organisations to cohere effort removes duplication and provides a focal point for timely innovation that supports the wider NATO effort.

Operational Training Infrastructure Programme – Train as you Fight, together: A collaborative approach to Air Ops training not only optimises resources, but also brings a culture of shared expertise and responsibility, and strengthens the sense of unity among diverse members of our Air Forces. The EAG has already been running several projects dedicated to the operational training of member nations, such as use of Red Air Assets, Eurofight TA, Synthetic Training, and common training standards for the TDL community. This OTI programme will draw together those experiences and look to harmonise and promote opportunities to 'operationally' train member nation's aircrew, engineers and support teams, especially in a post-Article 5 context.

**Enablers Programme:** This programme contains projects which do not fit specifically in ACE or OTI, but help create the conditions for other projects to develop. The EAG Permanent Staff strive to find synergies between these Enabler projects and the other two programmatic domains. As these develop, it may further define these projects as integral to wider programmes such as Digital Transformation or support initiatives in other domains such as Space and Cyber. Increasingly the EAG is seeing the benefit of understanding the contribution from industry as a Defence partner and these aspects will continue to shape the EAG's construct in the months ahead.



**Improving Capability through Interoperability** 

# Agile Combat Employment





In the summer, EAG Permanent Staff led a multinational team in the planning and execution of Aircraft Cross Servicing activities during Exercise PITCH BLACK 24 in Darwin Australia. In an historic deployment, aircraft from Germany, Spain, France the United Kingdom and Italy made the 9,000 mile journey from Western Europe to the Northern Territory to take part is the biennial exercise. This unique opportunity to have combat aircraft, aircrew and support staff from 5 EAG nations in the same location for 3 weeks was too good an opportunity to miss, despite the long distance involved. Occasions like this are few and far between. This one presented the staff with the possibility to undertake live ground activities intra-fleet with Germany, Spain, the United Kingdom and Italy, under the auspices of the Eurofighter Typhoon Interoperability Project (ETIP) and, with the addition of France, inter-fleet under the Agile Basing Project (ABP) and Agile Combat Employment enabling activities.

The organisational resource to bring the maintenance teams from five key nations together should not be underestimated. The staff held a number of VTC and faceto-face meetings in order to ensure that all the nations started from the same basis and understood the aims and objectives of the deployment activity. Germany and Spain travelled west through the contiguous United States, Alaska, Japan and Hawaii; whilst France, the United Kingdom and Italy went east via Arabia and the Far East. The logistical planning from all the nations had to be exact, as both at home and away the Typhoon is temperamental lady and requires care and attention over such long distances. Planning teams had to perfectly execute support activities en-route to ensure a smooth transition from location to location and logistics support between the nations was vital.

The German and Spanish Air Forces formed a 'super squadron' for their deployment, and whilst transiting through Exercise PACIFIC SKIES, the Germans gave the Spanish a Eurofighter Typhoon engine which remained in the aircraft until safely back at Moron Air Base. Interoperability was a necessity to travel such a long distance, but with the assistance of EAG staff the nations allowed themselves some unnecessary logistics interactivity to prove that they could work together to achieve the goal and breed familiarity. The United Kingdom and France, flying similar, but fundamentally different aircraft, assisted each other on numerous occasions.

Once in situ in Australia there was time to assess the rigours of the transit on the aircraft before the exercise proper took over. Masterfully managed by the RAAF, combined with the co-use of the runaway with Darwin International, the co-ordination was nothing but spectacular as was every aspect of the host nation support. Key to the interoperability work was the continuation of the UK/Italian initiative which started at TLP 23-4 and would conclude at TLP 24-4 with the goal of achieving unsupervised flight servicing plus by early 2025. Some of this effort was hampered by the loss of an Italian Aircraft early on in the exercise, but the teams persevered and made huge progress towards their goal. As well as working closely with Italy, the UK team also undertook some great work with Germany too. Reciprocal see-in and see-off and an exchange of Air Ground Equipment built on previous cooperation on Baltic Air Policing missions.

The biggest successes involved; bringing the Eurofighter nations together to work on joint data modules and by bringing France into the fold, Maintainer Interactivity Training (MIT) between Rafale and Eurofighter. For a number of years the EAG's ETIP has been working towards the goal of a multilateral agreement for the nations to work more closely together. So far a number of bilats have been in place, but the goal of a multilateral solution has always seemed a number of years away. However, during this exercise this suddenly changed with a German initiative to produce a Joint Cross Country Flight data module. Maintainers from all four nations got together to work through the German proposal in a table-top setting, then follow-up with a walk and talk around a live aircraft

Whilst differences were found, none were insurmountable and everyone's views could be included without detriment to the overall success. The German team took away the results to produce a second draft to be discussed at the ETIP meeting in November. The inclusion of Rafale in the Eurofighter world as an associate partner, has been a long held dream by the EAG. The work undertaken in Darwin between Germany and France was a first step along this long road, and acted as a proof of concept that maintainers can interoperate far more easily than is perhaps imagined and that they can, with robust training, be competent on each other aircraft.





ETIP nations (DEU, ESP, GBR, ITA) developing the joint cross-country check list for EF2K.



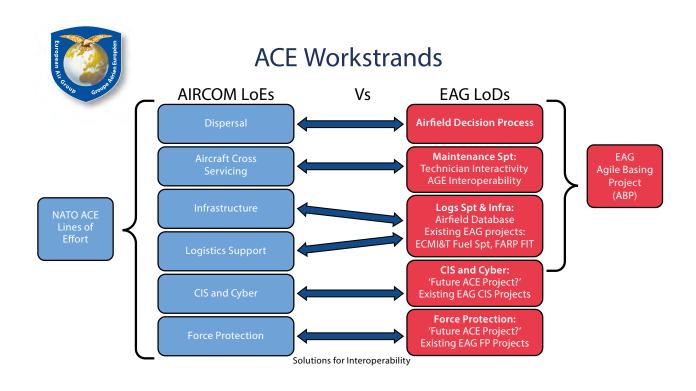
### **Agile Basing: The Future is Under Development**

The Agile Basing Project is a key initiative by the EAG to support NATO's ACE Concept of Operations (CONOPS). This project aims to deliver tactical solutions at a multinational level, ensuring alignment with strategic direction and addressing practical issues in implementing ACE.

### **Key Activities and Developments**

EAG Staff have aligned its Lines of Development with the NATO's ACE Levels of Effort:

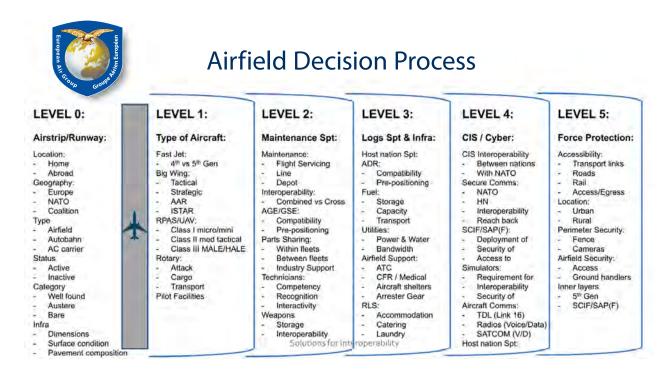
We need to ensure that we remain aligned with the NATO strategic direction and inform where practical tactical solutions highlighting particular issues in delivering intent. Additionally, EAG Permanent Staff are working closely with USAFE A4 personnel on assisting with the roll-out of prepositioned AGE/GSE and other collaborations involving ACE enabling activity.



### **Airfield Decision Process**

The EAG is collaborating with AIRCOM A4 to develop a comprehensive database to support the airfield decision process. This database will enhance the ability to disperse aircraft effectively, improving operational flexibility and resilience. Hopefully able to be shared on unclassified networks, with a classified back-up repository as required,

the team are working on a number of options utilising existing IT infrastructure as opposed to the long expensive process of a completely new network. This work will help commanders decide where to base and with whom, thus supporting the NATO bed down plans.



### **Maintenance Support**

A significant focus of the project is the development of an AGE/GSE Compatibility Matrix, expected to be completed next year. This matrix will serve as a NATO reference, helping nations determine optimal basing locations and compatible equipment for various aircraft. The initiative has benefited from multinational exercises and collaborations, such as those with USAFE, which have highlighted key issues and informed the rollout of Personal Protective Equipment (PPE) compatibility.

In parallel, EAG PS have been developing MIT – Formally known as the 'TLP for Technicians' concept. Originally a Franco/EAG initiative, now an EAG sub-project of ABP Maintenance Support, to address the lack of understanding of flight servicing and cross-country checklists interfleet. Technicians would undertake multilateral cross-training on a number of platforms during each iteration, under the supervision of the owning nations training team, familiarising themselves with, and hopefully being certified to carry out; flight inspections, basic ACS, HPR, and turn procedures. Training could take place during

TLP courses in Albacete, with investigations having taken place in Nov 24 during TLP course 24-4, with a view to a pilot'proof of concept'course taking place during TLP 25-1 in Jan/Feb 25. EAG PS will plan and execute this training with input from nations. It is hoped the initiative could be utilised during multi-national exercises and at other locations as well Albacete and TLP.

### **Logistics Support and Infrastructure**

AGILE FORTRESS (Estonia) 25, to be held in Estonia, would be the EAGs most ambitious directly managed exercise to date. As focus shifts from solely maintenance support to include logistics support and infrastructure, this 'proof of concept' exercise will involve Airfield Damage Repair teams rectifying a disused runway, deploying tactical fuels teams setting up a forward refueling point, and combat air squadrons conducting a successful aircraft operations. The exercise aims to validate logistics support and infrastructure capabilities, with participation from a number of EAG nations, supported by wider NATO colleagues. If successful, this will establish a

baseline for the reactivation/rectification of an abandoned Baltic Airstrip.

### **Conclusion**

The Agile Basing Project exemplifies the EAG's commitment to supporting NATO's ACE CONOPS through practical, tactical solutions. By fostering multinational

collaboration and leveraging joint exercises, the EAG is driving forward initiatives that improve interoperability, operational readiness, and resilience. Continued support and collaboration from AIRCOM and member nations are crucial to the success of these efforts, ensuring that the EAG remains at the forefront of agile combat employment and support.



## F-35 Technicians' Interoperability and Cross-Weapon Loading

## Supporting Agile Combat Employment through building trust to improve maintenance interoperability.

The importance of operating the F-35 in Europe and establishing tactical interoperability cannot be overstated. It ensures that the aircraft remain operationally ready and effective in the face of evolving security threats, particularly in the complex and varied European operational environment. By enhancing cooperation in maintenance, NATO member states can achieve greater flexibility, efficiency, and sustainability, ensuring that the F-35 continues to provide a strategic advantage in both conventional and crisis operations. Through close cooperation with USAFE 5th GEN Office, the EAG expanded their activities for the projects dealing with F-35 Technicians Interoperability and F-35 Cross-Weapons Loading of Common Ammunitions.

for flight, is one of the primary goals. The project aims to address how this tactical interoperability shall be achieved according to the nation's military airworthiness regulations by establishing a Standard Operating Procedure (SOP). Multiple Tabletop Exercises were held in the support of drafting the SOP. At the meetings, maintenance crews, airworthiness representatives, and policy makers from the Netherlands and one other nation at each event, gathered to simulate various cross-servicing scenarios and worked together to define and refine procedures that will be easy to understand at the tactical level.



The F-35 Technicians Interoperability project plays a crucial role in achieving the tactical interoperability for unsupervised cross-servicing across operational F-35 nations. Un-supervised cross-servicing will ensure that aircraft can be serviced and maintained without needing oversight or intervention from a sending nation. The ability to share F-35 support for the performance of Cross-Servicing Joint Technical Data (CS-JTD) tasks and to release the aircraft



The F-35 Technicians Interoperability project plays a crucial role in achieving the tactical interoperability for unsupervised cross-servicing across operational F-35 nations. Un-supervised cross-servicing will ensure that aircraft can be serviced and maintained without needing oversight or intervention from a sending nation. The ability to share F-35 support for the performance of Cross-Servicing Joint Technical Data (CS-JTD) tasks and to release the aircraft for flight, is one of the primary goals. The project aims to address how this tactical interoperability shall be achieved according to the nation's military airworthiness regulations

by establishing a Standard Operating Procedure (SOP). Multiple Tabletop Exercises were held in the support of drafting the SOP. At the meetings, maintenance crews, airworthiness representatives, and policy makers from the Netherlands and one other nation at each event, gathered to simulate various cross-servicing scenarios and worked together to define and refine procedures that will be easy to understand at the tactical level.

The F-35 Cross-Weapons Loading of Common Ammunitions project refers to the CS-JTD capability to load and operate the same types of munitions across different versions of the F-35, regardless of which nation or military service is operating the aircraft. This offers clear benefits in terms of interoperability, logistic efficiency, and operational flexibility. It also presents several challenges which require strong cooperation between the nations and well-defined procedures. The first approach was

made in May 2024 during the first project meeting where twelve F-35 nations gathered in Amsterdam to discuss safety, training and legal related topics. Standardisation of how to load common-weapons will be reviewed in more detail in the second project meeting in Spring of 2025.

These hands-on interactive events and standardisation of procedures help to build a strong sense of interoperability among the F-35 nations. They ensure the development of clear procedures and roles, address national (airworthiness) regulations, support challenges, and foster the continuous improvement of tactical interoperability. In leading these projects, the EAG plays an essential role in ensuring that CS-JTD tasks can be carried out seamlessly and independently, enhancing overall operational readiness, mission success, and interoperability between nations.





All attendees in front of an F-35 (Pictures made by SGT. Ole Andreas Vekve, Norwegian Armed Forces).



## Eurofighter Typhoon Interoperability Project (ETIP): Small Steps Make Big Advances

The ETIP project has remained active for another year, reaching more than 10 consecutive years. It remains one of the most active projects, with a multitude of events carried out throughout the year.

During 2024, the two Forums planned have been held. The first of them in June at Lossiemouth Air Base, Scotland. The second one during the month of November at Gando Air Base, Spain. Taking advantage of this trip to introduce the ETIP project to 46th Wing (SPAF), a currently Hornet unit based there, and which will soon become a Eurofighter unit. In this way, it has been possible to join them into the project even before the aircraft themselves arrive in Gran Canaria.

In addition to the Forums mentioned, different combined maintenance activities have also been carried out, mainly at the TLP facilities, at the Albacete Air Base, but not only there. For the first time ever, the 4 Eurofighter nations shared a deployment together and, despite the enormous distance and the tremendous effort that it meant for everyone, including EAG, this historic occasion was used to carry out X-servicing and X-maintenance activities in Australia, during the celebration of the Pitch Black 24 exercise. The EAG flag has never been shown so far before.

In addition, in parallel, the Flight Safety community has maintained a continuous flow of information that has allowed our units to maintain a high standard of safe operation throughout the year.

Finally, in the operations area, an agreement was reached between the nations, moving from the existing SOPs version to a reduced guide of items to be briefed every time 2 Eurofighter units from different countries, carry out mixed or combined operations. Focusing on those aspects that each nation carries out differently and that will allow them to improve the synchronization of the operations to be carried out.



Initial presentation to all attendees.



LOG and Maintenance syndicate.



FS and OPS Syndicate.



Attendees in front of a Eurofighter.





## Moving ahead on the Communication and Information Services (CIS) Development within the EAG

The EAG continues to demonstrate its unwavering commitment to enhancing CIS among its member nations. In 2024, the EAG organized two pivotal CIS meetings that played a crucial role in reviewing and refining the products and strategies essential for maintaining interoperability and operational excellence.

The first CIS meeting of the year took place in Brussels during the first semester. This gathering brought together key stakeholders from EAG nations to evaluate the progress and effectiveness of various CIS initiatives. Among the primary topics of discussion was the scenario concept of the VOLCANEX24 exercise and the delivered Site Survey Checklist, a cornerstone event designed to promote interoperability and standardization among EAG nations to deliver agile front line solutions. The meeting provided an invaluable opportunity to assess the exercise's framework, objectives, and outcomes, ensuring that it remained aligned with the evolving needs of the EAG nations. The EAG also actively participates in the TIDESPRINT events to identify validation and verification processes for testing purposes. These engagements are instrumental in refining the quality of EAG's products and ensuring they meet the highest standards of excellence.

In the second semester, the CIS meeting was held in León, Spain, coinciding with the VOLCANEX exercise. This strategic timing allowed participants to directly observe and analyse the implementation of CIS strategies in a real-world scenario. The meeting in León was particularly focused on the Tactical Interoperability Platform, a vital tool that enables nations to share knowledge, best practices, and lessons learned. This platform is instrumental in fostering a collaborative environment where member nations can collectively enhance their communication and information systems. This meeting also focused on the preparations for VOLCANEX CIS 25, 26, and 27.

These CIS meetings serve as a testament to the EAG's dedication to continuous improvement and innovation. By regularly reviewing and refining their products, the EAG ensures that its member nations are equipped with the most effective tools and strategies to address the dynamic challenges of modern military operations. The emphasis on interoperability and knowledge sharing underscores the EAG's commitment to fostering a cohesive and resilient alliance.

The EAG's proactive approach to enhancing CIS positions it to lead its EAG nations towards greater interoperability and operational excellence. Future developments, such as integrating Deployed Air Traffic Services (ATS) with other EAG CIS products like TAK, HF communication, WIFI and 5G technology, will further cement the EAG's role as a leader in military harmonization. By identifying shortfalls and swiftly implementing solutions, the EAG will enhance the training of front-line Air Force personnel, enabling them to deliver agile and effective responses.





### Cargo Helicopter Interoperability TY Platform (CHIP)

The CHIP was created in 2022 with the aim of the project being to facilitate discussion and share tactical and operational issues, in order to develop improved interoperability between the EAG nations' cargo helicopter aircrews and supporting staff. The project had two successful meetings in 2024.



German CH-53 near Dutch CH-47.

Although planned as the first VOLCANEX CHIP "Fly-In" the spring meeting was adjusted between DEU and NLD. On April 18th, a CH-47F Chinook from the Royal Netherlands Air Force arrived at Holzdorf Airfield to assist the German Armed Forces in the process of integrating their new heavy helicopters. As a new CH-47F Chinook buyer (60 airframes), most of them to be based at Holzdorf AFB, DEU had organised a visit of the Ministerpräsident of Brandenburg, Dr Dietmar Woidke to inform him of the future of Holzdorf. The visit was hosted by our Director EAG, General Ingo Gerhartz.



Ministerpräsident of Brandenburg with EAG director in front of a CH-47F.

After this important visit also a German Air Force A400 arrived to demonstrate the ground refuel capability. The A400, as an element of the EAG FARP FIT program demonstrated a refuel of a DEU EC 145 and the NLD CH-47F helicopters.

The fall meeting of the CHIP took place in November in Viterbo, Italy. A very successful meeting where the Italian Army showed their capabilities and facilities of their



Forward Air Refuelling Point demonstration.

CH-47F units. Furthermore there were deep discussions between the Ops, Technical and rear crew personnel resulting in a lot of exchange of information and learning from each other. Also the reoccurring flight safety incident briefing was followed with great interest.

For 2025 two CHIP meetings are planned to be held in GBR and DEU.







CHIP meetings and VOLCANEX are good opportunities to exchange at each level.



**Improving Capability through Interoperability** 

# Operational Training Infrastructure





During the current year, the issue of RED FORCES has continued to be a priority for the Air Forces in our environment, especially for those of our 7 EAG nations.

However, progress has not been significant due to the lack of unanimity, or even consensus, in relation to how to deal with the shortage of adequate training in the different branches such as electronic warfare, communications jamming, high quality airborne adversaries, training ranges, etc.

During the past 12 months, the EAG has implemented several initiatives, which have included meetings with other institutions or entities in search of synergies that would allow us to move forward decisively in this area. In the current year we have been in contact with other agencies, such as the European Defence Agency (EDA),

the Joint Air Power Competence Centre (JAPCC) through its publications that shed light on possible alternatives to the problem raised, civilian companies/contractors that provide these sort of services such as DRAKEN or TOP ACES, and recently, with the NATO Flight Training Europe (NFTF)

Even this topic was discussed during las Air Warfare Symposium hosted in Madrid by the Spanish Air Force last February. All the attendees shared their point of view in this regards. Unluckily, all these meetings and efforts didn't drive us to the proper solution.

EAG will keep an eye on this matter and will push forward until an adequate solution is granted to our nations. He who follows it, gets it.



### **Advancing the Networked Synthetic Training Project**

Within the Synthetic Training Environment, the focus of the EAG in 2024 has been on advancing the NATO Networked Synthetic Training Project to enhance current capabilities and explore further opportunities for networked synthetic training.

Both the NATO Modelling and Simulation Group (MSG) and the Distributed Synthetic Training (DST) Working Group have been examining network requirements and standards to enable countries to connect digitally for synthetic training exercises, facilitating secure, joint training sessions.

The ultimate goal of NATO's efforts is to establish persistent and routine synthetic collective training for NATO coalition warfighting air elements, thereby enhancing preparation and rehearsal for NATO contingency operations. This vision is powered by coherent architectures, security procedures, common standards, and shared data, delivering regular and frequent access to high-quality, secure, immersive operational training opportunities at team, collective, joint, and coalition levels. The initiative addresses the growing demand for virtual training at the multinational level, establishing a network of advanced and immersive training opportunities for militaries.

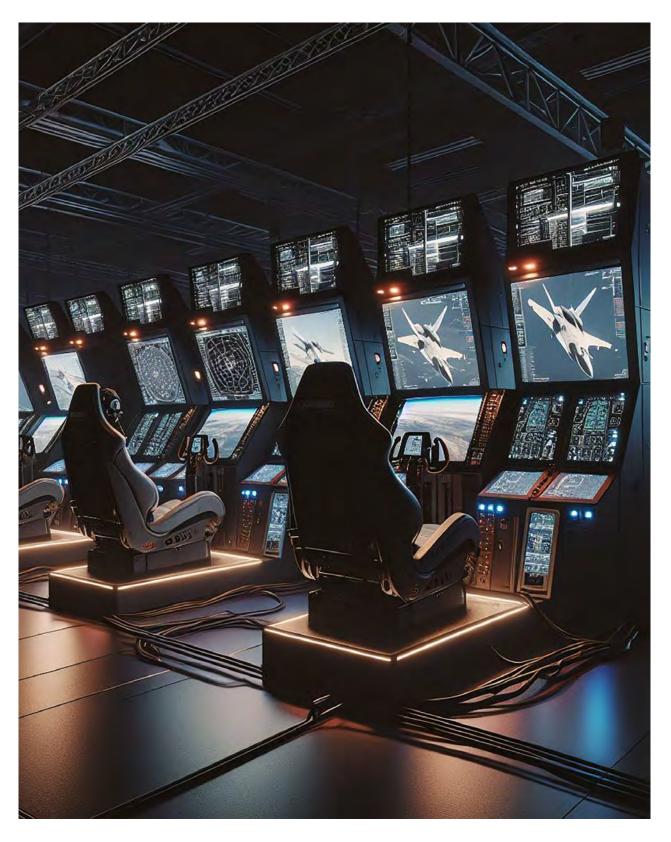
Several NATO tiger teams have been established since the last report, and the EAG is supporting two of these teams. These teams focus on integrating force objectives in line with NATO collective goals and planning exercises. One key objective is developing training objectives based on a common vision of interoperability. This aligns well with the EAG project's aims and desired outcomes. EAG Permanent Staff (PS) have coordinated efforts with NATO to establish a Concept of Operations (CONOPS) and proposed a new standardized set of synthetic training levels.

In parallel with the NATO DST Workshops, which aim at joint coalition training, EAG is concentrating on smaller-scale multinational training between air forces, fulfilling the second desired outcome of this project. Over the last year, EAG Permanent Staff contributed to the drafting of the NATO CONOPS and successfully organized two events: one in June via VTC at EAG and another at the FRA Distributed Mission Operations Centre (DMOC) at Mont de Marsan Airbase. Furthermore, EAG Permanent Staff are collaborating with the USAFE-AFAFRICOM Warfare Center (UAWC) and the GBR Joint Multinational Interoperability Assurance Network (JMNIAN) Project Office to set up VTC connections with EAG nations. This will enable briefing and debriefing missions over the Combined Federated

Battle Laboratories Network (CFBLNet), which also serves as the backbone for connecting simulators within the NATO community.

As the NATO project develops, EAG has updated the Project Initiation Form and will continue to review the

aim and objectives of the project to adapt as required. The focus will remain on expanding the Synthetic Training Network, leveraging advanced technologies, and strengthening partnerships to ensure the readiness and interoperability of allied forces through advanced Synthetic Training Networking.





### **Strengthening Tactical Data Link Interoperability**

The EAG had a landmark year in 2024, making significant strides in advancing TDL interoperability among its member nations. A notable highlight was Spain's signing of the Letter of Intent for ATDLP 7.33 (B)2, joining six other nations in this commitment. This agreement ensures a unified approach, with each nation adopting a single NATO publication and standardized Standard Operating Procedures (SOP) for their TDL operations. This alignment fosters enhanced interoperability across all EAG nations.

The year also saw the successful organization of two TDL forums, which served as platforms for collaborative development and strategic planning. Key outcomes from these events included the decision to expand the scope of the Variable Message Format (VMF) beyond its traditional Digitally Aided Close Air Support (DACAS) function. This move addresses broader operational requirements, ensuring VMF remains relevant in diverse mission scenarios. Additionally, EAG members agreed on the need for common TDL training standards. Draft syllabi for training levels 1 to 4 were developed, laying the groundwork for standardized education and evaluation frameworks across EAG nations.

Another significant development was the initiation of plans for the first VOLCANEX TDL exercise, scheduled for 2025. This exercise aims to provide advanced training for TDL operators at levels 3 and 4, incorporating both planning and simulation phases. In preparation, EAG staff

participated in the JICCEX exercise held in Toulon, France, in September. JICCEX offered a valuable opportunity to test TDL integration in a simulated environment, and discussions are underway to integrate VOLCANEX TDL into this well-established exercise framework in the coming year.

November's VOLCANEX CIS 24 exercise, held in León, Spain, tested TDL interoperability, specifically focusing on Link 16 and VMF systems. These trials provided critical insights into the technical challenges and capabilities of current TDL systems, setting a robust foundation for further development in 2025.

Looking forward, 2025 will see the publication of a finalized TDL training syllabus following the Connectivity Forum in Syracuse, Italy, in February. These documents will establish a comprehensive, standardized approach to TDL training. Furthermore, the first VOLCANEX TDL exercise will kick off with a dual-phase structure: one week of planning and one week of simulation. This exercise will not only strengthen the skills of TDL operators but also reinforce joint operational readiness among EAG nations.

In sum, 2024 has been a year of significant progress for EAG's TDL initiatives, underscoring the groups commitment to interoperability, training excellence, and operational preparedness among EAG nations in an evolving defence landscape.







## Providing Awareness and Creating Opportunities for Training and Exercises

Enhancing capability through interoperability is the motto of the EAG. Among the most fundamental and effective tools at our disposal to improve interoperability between member nations are training and exercises. With this aim, the EAG's Advanced Training and Exercise Master Plan (ATMP) project was developed to enhance multinational training and improve interoperability through the synchronisation and coordination of national and multinational training and exercises, thereby creating opportunities for multinational engagement.

To support this objective, an accessible and intuitive coordination tool has been made available through the EAG's SharePoint pages to participating nations. Exercise planners, typically at the A5 or A7 level, utilise this tool. For the ATMP to be successful, it is essential that the tool is constantly refined, ensuring the information it contains is relevant, accurate, and up-to-date. To maintain this high standard, two meetings of the Coordination Board are held each year, with intermediate updates provided via email by the EAG Coordination Cell. In addition to flying exercises, the EAG now also coordinates with NATO and member nations on a synthetic training calendar. It also includes EAG activities related to ACE, primarily focusing on the interoperability of maintenance and ground support equipment.

**Recent Success Stories:** 

**Enhanced Multinational Exercises:** The ATMP successfully allowed planners to coordinate the preparation of some multinational exercises and deployments that saw participation from most member nations.

ACE Initiatives: The EAG's focus on ACE has helped to improve successful integration of maintenance and ground support equipment across multiple nations. This initiative has also helped NATO AIRCOM in streamlining operations and reduced logistical challenges during deployments.

Synthetic Training Advancements: Collaboration with NATO on the synthetic training calendar will hopefully result in more comprehensive and realistic training scenarios. Member nations play a crucial role by proposing and requesting support for their exercises and deconflicting larger scale exercises they wish to organize. Additionally, Coordination Board members provide initial plans for future trans-continental deployments, which are further coordinated at a later stage.



## **Eurofight Technical Arrangement (TA): Enhancing Mutual Air Defence Training**

The TA on Air Defence Training, widely referred to as the "Eurofight" TA, was signed in 2000 by France, Italy, Spain, and the United Kingdom. Germany and the Netherlands joined the initiative in 2003, followed by Belgium in 2006. The arrangement established a unified multilateral framework to enable participating nations to train together, enhancing operational capabilities and mutual understanding in air defence. This framework reduces scheduling times and eliminates the need for additional legal or administrative processes.

In 2020, the COVID-19 pandemic caused a near standstill in activities. Since then, participation has slowly recovered, although the availability of assets remains limited due to growing international commitments. To assess the value of the TA and identify ways to revitalize it, a Questionnaire

was distributed. The feedback underscored the continued relevance of the TA, particularly its benefits in sharing knowledge, tactics, techniques, and procedures (TTPs) and in fostering joint training across diverse environments and airspaces.

The ongoing revision of the TA, expected to be finalized in 2025, highlights the commitment of the EAG fast-jet community to sustaining and enhancing this successful and proven training platform.

DON'T MISS THIS CRITICAL OPPORTUNITY TO TRAIN TOGETHER AND STRENGTHEN OPERATIONAL EXCELLENCE!



# Enablers





### 18th EAG Advanced Aviation Medicine Course

The 18<sup>th</sup> EAG Advanced Aviation Medicine Course, held from September 16 to October 25 - 2024, brought together 10 Medical Officers from six EAG Partner Nations (UK, France, Germany, The Netherlands, Italy, and Belgium) along with Flight Surgeons from Portugal and the Czech Republic. Organized by the EAG Aerospace Medicine Coordination Board, the course aimed to enhance interoperability, share knowledge, and foster collaboration among participants.

Each of the six EAG countries hosted a module, focusing on different themes weekly. Participants gained insights into each nation's aerospace medicine capabilities, training, and research interests through practical exercises and demonstrations. The course also provided cultural experiences, strengthening collaborative ties for future cooperation.

Key highlights included:

 UK: Clinical aerospace medicine and altitude physiology, with practical experiences in vintage aircraft.



 France: Human Factors, Crew Resource Management, and Accident Investigation at École du Val-de-Grâce.



- **Spain:** Clinical aviation medicine, medical policy, and legal issues, with visits to Army Aviation and Airbus Military.
- The Netherlands: Training on night vision devices and spatial disorientation, including a visit to the "Desdemona" facility and experiencing +9Gz in a human centrifuge.
- Germany: Aeromedical Evacuation, including a flight on the A400M and discussions on medical planning for contemporary conflict environments.
- Italy: Space Medicine and transport of high consequence infectious disease patients, culminating in a closing ceremony with presentations on aeromedical policy and certification of Remotely Piloted Air Systems operators.



The course successfully promoted knowledge sharing and collaboration, preparing participants for future challenges in aerospace medicine.





### Air Warfare Symposium: A Great Opportunity to Mutually Interchange Information

For its third edition, the Symposium dedicated to Air Warfare was held at *el Ejército del Aire y del Espacio* (Spanish Air and Space Forces) HQ in Madrid from 20 to 22 February 2024. Brigadier General Andrés Maldonado, the Spanish 1 Star representative, welcomed everyone, where he emphasized the importance of face-to-face meetings and holding them outside of the EAG facilities. This approach would aim to expand collaboration and promote the valuable work of the EAG to a wider audience. After the welcome address, experts from various air forces met, and continued discussions on a wide range of subjects. Representatives from USAFE AWC and TLP also participated in these discussions.

Among the topics discussed, participants exchanged views on multi-domain operations and specially how important it is to integrate all branches in operation conception, training and execution. It generally emerged that each nation's guiding principle for this process is based on NATO doctrine to orchestrate military activities across all operating domains and environments. These actions are synchronized with non-military activities and enable nations to create desired outcomes at the right time and place. Nevertheless, many share the same challenges in making this process more effective, including the necessary workforce involved in the process, an appropriate mindset on the part of those conducting the exercise or operation, and the importance of active leadership.

Other important topics discussed during the symposium included the integration of 4th/5th generation aircraft in training and operations, the modern synthetic training, how to analyse and capitalize the different tactics and training and evaluate the collective performance of an air force.

Because of the complexity and the enthusiasm of the participants to exchange views on the subjects covered, they were not dealt with in depth; however, the discussions created links between nations that will enable the parties to make progress towards interoperability.

France has offered to host the symposium in 2025 and it will be held in Mont-de-Marsan from 28th to 29th of January 2025. The symposium will provide an excellent opportunity to tackle new subjects concerning all air forces and their activities.







The EAG remains steadfast in its commitment to fulfilling the requirements of its EAG nations. This dedication was prominently showcased at the EAG Air Cyber Forum 2024, held from May 14–16 at the esteemed Tablada Air Base in Sevilla, Spain. This illustrious event once again provided a vital platform for EAG nations and its partners like EDA and JAPCC to exchange insights, best practices, and collaborative solutions. This year's forum was particularly focused on bridging interoperability gaps, addressing the challenges of talent retention for cyber experts, and preparing for the forthcoming Cyber VOLCANEX Exercise.

The EAG Air Cyber Forum serves as the birthplace of numerous pivotal initiatives and products. Among these are the Military Aircraft Security Panel (MASP) and the sharing of Cyber Best Practice, both of which have become cornerstones in enhancing cybersecurity and interoperability. The forum's role in fostering these developments underscores its significance as a hub of innovation and collaboration.

A notable outcome of the forum was the proposal to initiate a Cyber-Industry Forum. This ambitious initiative seeks to fortify the cyber resilience of the supply chain by fostering enhanced cooperation between military and industry stakeholders. Furthermore, discussions underscored the integration of lessons learned from recent exercises and international collaborations, highlighting the paramount importance of adaptability in an everevolving threat landscape.

It is also worth noting that the EAG actively participates in various events at the NATO Cooperative Cyber

Defence Centre of Excellence (CCDCOE) in Tallin, Estonia and the NATO TIDESPRINT events. These engagements are instrumental in refining the quality of EAG's products and ensuring they meet the highest standards of excellence.

### **Forthcoming Development**

Both the EAG Air Cyber Forum and the MASP underscored the critical importance of proactive and cooperative approaches to cybersecurity. As EAG nations confront increasingly complex cyber threats, these initiatives provide a blueprint for future resilience.

The MASP is set to become a cornerstone of EAG's cyber strategy, with its success hinging on continuous adaptation to technological advancements, deeper integration of national and industrial expertise, and an unwavering commitment to fostering interoperability. A standout development in 2025 will be the A400M Cyber Workshop, focusing on incident response and coordination between EAG member nations and Airbus. This initiative aims to address vulnerabilities specific to the A400M platform and establish robust protocols for managing and mitigating cyber incidents, thereby reinforcing collective resilience.

Building on the successes of 2024 and advancing with initiatives like the A400M Cyber Workshop planned for March 2025, the EAG is well-positioned to enhance the operational security and readiness of its member nations at tactical level within the Air Forces. Together with its partners, the EAG will focus on continuation to adapt the way in securing the future of military aviation against emerging cyber threats.





### Enhancing participants' knowledge of multinational FP matters on defined topics.





The EAG FP Seminar was hosted by the United Kingdom at the RAF Force Protection Centre Honington.

From 19 until 21 November 2024, the EAG organised the annual Force Protection (FP) Seminar. This edition was superbly hosted by the United Kingdom at the Force Protection Centre at RAF Honington.

As part of the activities within the TA "SURVIVE TO OPERATE AND FORCE PROTECTION IN THE FIELD OF AIR FORCE ACTIVITY" (STOX-TA), this yearly held EAG FP Seminar is designed as a discussion and information exchange forum for Air FP Subject Matter Experts on current and future developments. EAG STOX TA Nations were invited to share their experiences, lessons identified and learned, as well as challenges faced by their operational Air FP units in the areas of trainings, exercises and up to real world operational deployments. Through the contributions of participants from other NATO entities, Centre's of Excellence and NATO Command Centre's, a broad view on subjects discussed was guaranteed.

On Day 1, FP Subject Matter Experts from Belgium, Germany, Spain, France, the United Kingdom, Italy, the Netherlands, Sweden and Norway joined the forum to exchange information about their current AIR FP Capabilities. Furthermore, nations could elaborate on a nationally chosen FP topic. Discussions included each nation's current FP situation, challenges and the desired way forward.

On Day 2, the UK hosted a cultural day. In the morning the seminar participants visited the RAF Museum in Hendon. In the afternoon they were introduced by one of the Yeoman Warders to their quarters at the London Tower.

On Day 3, several FP SMEs from the NATO Force and Command Structure joined the Seminar to present their views on different FP subjects, doctrinal discussions and current operations.





On Day 3 of the EAG FP Seminar the RAF Force Protection Experimentation Programme showed their current projects.

Overall, the FP Seminar was again well received, and participants found the Seminar very beneficial for information exchange, improve the understanding of each other's current FP status, national developments and

desired outcomes, creating mutual understanding and a strong FP network resulting in strengthening current cooperation and triggering future initiatives.



The nine STOX TA Nations were represented by their delegations during the EAG FP Seminar.

## The Future Effectiveness of the Military Aircraft Security Panel for EAG Nations

In an era where military operations frequently involve coalition forces, the seamless integration of diverse systems and technologies is essential. Continuous evaluation and enhancement of national systems' compatibility will enable EAG Nations to operate cohesively, improving mission effectiveness and mitigating the risk of communication failures during critical operations.

The EAG Cyber team is at the forefront of developing numerous interoperability products, such as the MASP, to further enhance collaborative efforts and technological integration among member Nations. These initiatives are crucial in ensuring that EAG and partner Nations can effectively respond to the demands of modern military operations.

As the dynamics of military aviation rapidly evolve, the MASP emerges as a crucial entity in safeguarding the security and operational readiness of EAG Nations. The MASP's mission, which includes addressing cybersecurity and fostering interoperability, is paramount in an increasingly complex threat landscape.

The inaugural edition of the MASP was notably hosted at the AIRBUS premises in Madrid, marking a significant milestone with the presence of senior high-ranking officers and vice presidents. This prestigious kick-off underscores the importance and high-level commitment to the panel's objectives.

At the forefront of the MASP's agenda is the enhancement of cybersecurity measures for military aircraft systems,

including assessing their impact on airworthiness, interoperability and standardization among EAG Nations are also critical areas of focus for the MASP. As cyber threats grow in sophistication, the panel's proactive efforts in aligning industry and military forces to identify vulnerabilities and implement robust security protocols are indispensable. The future effectiveness of the MASP will be determined by its ability to anticipate and counteract these threats, ensuring the integrity of communication systems and the protection of sensitive information, which are crucial for mission success.

Looking to the future, the MASP will undoubtedly encounter challenges, including the necessity to adapt to rapidly changing technological landscapes and evolving threat environments. However, these challenges also present opportunities for the panel to enhance its effectiveness. Greater collaboration among EAG Nations, coupled with the leveraging of shared resources and expertise will enable the MASP to develop more comprehensive and resilient security measures.

The future effectiveness of the MASP for EAG Nations will be predicated on its ability to stay ahead of emerging threats, promote interoperability, and integrate new technologies. By maintaining a proactive and collaborative approach, the MASP will continue to play a vital role in safeguarding the security and operational readiness of military aircraft systems, ensuring that EAG Nations can effectively respond to the demands of modern military operations.



Key speakers at the forum.



### **EAG support to NATO School: Force Protection Courses**

### MEMORANDUM OF AGREEMENT on cooperation between NATO School Oberammergau, European Air Group and Joint Air Power Competence Centre





The MOA was signed in Oberammergau on 26 January 2024 by the Deputy Director of the EAG and the Dean of Academics of the NATO School. Assistant Director JAPCC signed the document in Kalkar.

NSO, EAG and JAPCC signed a MoA in the field of Education and Individual Training (E&IT) by mutually supporting their operations and interests related to FP, with particular focus on NATO approved FP Courses delivered by NSO.

NSO is an accredited NATO Education and Training Facility. Their academic curriculum comprises more than 110 courses and educates annually over 10,000 students of the NATO Command Structure and NATO Force Structure, NATO member countries and NATO partners.



the topics required by these documents.

the relevant NATO subject-matter experts able to teach

The EAG FP Team supported the NSO's FP courses with their knowledge and network by teaching on the courses, including syndicate work and being part of the team for future development of the courses.



NATO FP courses taught at NSO consist of the P5-40 NATO FP Course and the N3-155 NATO Advanced FP Course (currently on pause). A mutual understanding of NATO FP promotes interoperability in a Joint & Combined environment.

JAPCC serves as the FP courses' Office of Primary Responsibility and provides an Action Officer whose task is to guard the validity of the Course Control Documents, which encompass the teaching program, and supporting the NSO in finding



# VOLCANEX





### **VOLCANEX C2 CPX 2024: Uppsala, Sweden**

From 19 May until 07 June 2024 this year's VOLCANEX FORCE PROTECTION COMMAND and CONTROL COMMAND POST EXERCISE was superbly organized and supported by Sweden at the Uppland Air Force Wing (F16), Air Warfare Center, Air Base School in the beautiful city of Uppsala a very lively University town 70km north of the Swedish capital Stockholm and also supported by the Swedish Land Warfare Centre's simulation experts located in Skövde.

After last year's Air Mobility Protection Team (AMPT) training opportunity during the European Tactical Airlift Programme Training 2023 (ETAP-T23) which took place in Beja/Portugal, the VOLCANEX FP C2 CPX 24 was designed to offer a dedicated command post exercise in a realistically simulated Non-Article-5 scenario for the seven EAG nations including the two partner nations Norway and Sweden. The weather influenced the exercise as well since the high performance computers and servers were affected by the unusually warm Swedish spring with temperatures reaching almost 30 degrees C in May. Fortunately, mobile air conditioning units were available to solve this issue quickly.

The exercise was divided in three six days long increments starting on Sunday and ending with an informal dinner each Friday evening. After an Icebreaker on Sunday afternoon including initial briefings by host nation representatives, Monday started with a morning filled with introductory briefings regarding the exercise scenario and in the afternoon the first training vignette was used to familiarize all participants with the air base, the command post functions and the handling of the simulated entities ranging from soldiers to vehicles and different kinds of aircraft. From Tuesday to Friday, the exercise participants were confronted with a slowly but steadily increasing complexity and intensity of exercise injects and tasks.

During the last week of the exercise a Distinguished Visitors Day was hosted by the commander of the SWE Air Warfare Centre Col Niclas Magnusson and was attended by representatives from Italy, Spain, the UK and the Deputy Director of the EAG. Additionally, the Chief of the Swedish Air Force, Maj Gen Jonas Wikman, visited the exercise and invited the guests to a hosted lunch.



Participants of the first exercise week in front of a SAAB 35 DRAKEN at Uppland Air Base.



Participants of the DV-Day during a briefing by a member of the EAG's exercise staff.



The project officers from SWE and the EAG discussing the exercise scenario.

The exercise set-up and scenario reflected a highly realistic operational environment at the former Swedish airbase Helsinge located 180 km to the North of Uppsala. This complete well-found airbase and the surrounding area were available in a 3D-simulation at the real world geographic location and provided the tactical maneuver elements the possibility to move and react in real time to all changes in the tactical situation.

Preparations for the next VOLCANEX FP C2 CPX are already well under way, which will be hosted by Germany from 09 to 29 March 2025 at the German Army Combat Simulation Centre in Wildflecken in northwestern Bavaria.



### **VOLCANEX CIS 24: León, Spain**

In November 2024, the NCO Academy in León, Spain, and the Spanish Combat Command (MACOM) hosted the latest iteration of VOLCANEX CIS, the EAG's premier exercise series designed to promote interoperability and standardization among EAG nations in CIS, Cyber and TDL. This year's exercise simulated the NATO ACE scenario, featuring a rapid deployment and force integration of five nations within a remarkable 24-hour timeframe.

The exercise focused on four key lines of effort: Training, Education, Transformation, and Agile Employment. CIS Subject Matter Experts worked to assess interoperability and integration, evaluating the compatibility of national systems to ensure seamless communication and coordination. They also trained and developed the skills of front-line personnel through rigorous training sessions, tested and validated new technologies by integrating and utilizing cutting-edge tools like the Tactical Assault Kit (TAK), and addressed interoperability challenges by tackling real-world issues to develop innovative solutions and adaptive strategies while showing next generation Airmen from the Academy the cutting edge technologies used in the front line.



A significant highlight of VOLCANEX CIS 2024 was its special focus on Digital Close Air Support (DaCAS).

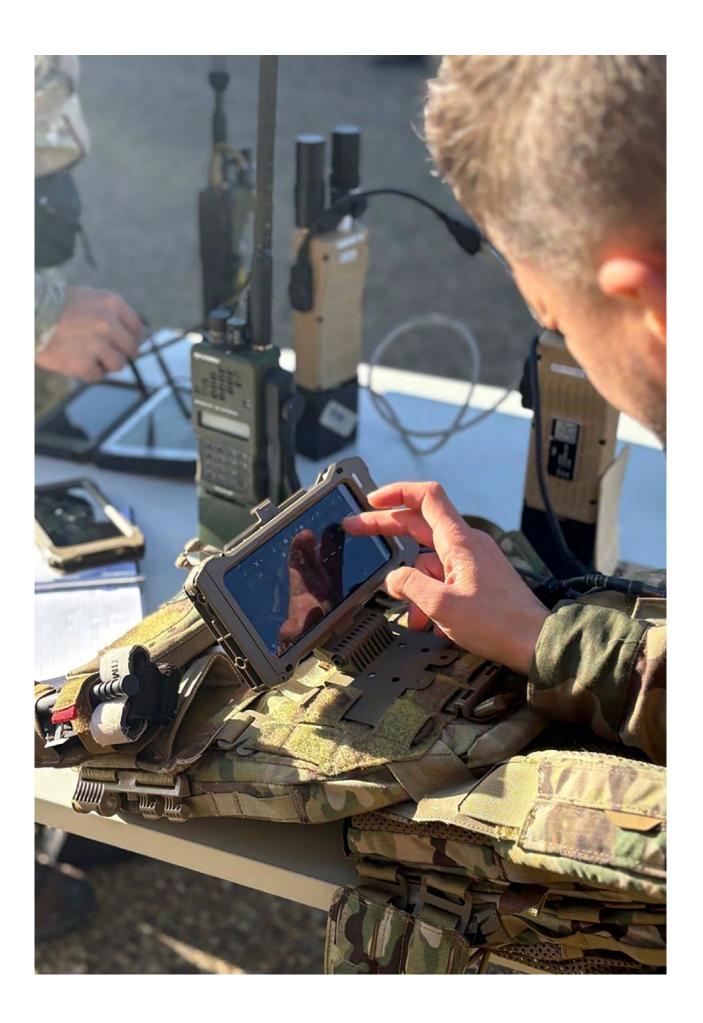
The exercise featured the participation of a FP Command Post and four F-18 fighter jets, which were instrumental in testing, refining, and validating products from the TAK suite, used during the exercise by Special Forces and Joint Tactical Air Controller. This emphasis allowed for a comprehensive evaluation in enhancing Digital Transformation.

Technicians faced a series of interoperability challenges, requiring them to think on their feet and devise out-of-the-box solutions. This hands-on experience was crucial in highlighting the importance of protecting CIS from cyber threats. Unlike previous exercises that simulated cyber threats, VOLCANEX CIS 2024 enabled military organizations to begin effectively assessing their exposure to cyberattacks.

For the third consecutive year, CIS technicians emphasized the unique opportunities provided by VOLCANEX CIS. The exercise not only allowed them to test and refine agile measures and protocols but also to identify vulnerabilities and weaknesses in advance. This proactive approach is vital for EAG Air Forces, enabling them to implement robust cybersecurity measures, safeguard sensitive information, and maintain operational continuity in the face of evolving cyber threats.

Next year, Belgium will host VOLCANEX CIS 25, featuring an enhanced scenario that incorporates exercise areas and the provision of Air Traffic Services. These services will be delivered by both Combat Controllers and Air Traffic Controllers, all within the framework of deployed operations in a multinational setting.





Notes	



