

2014



annual REPORT

Joint Air Power Competence Centre

www.japcc.org



**Joint Air Power
Competence Centre**

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foreword

Thank you for taking the time to read the 2014 Joint Air Power Competence Centre Annual Report. I am pleased to report that this was a terrific year for the JAPCC and for Joint Air and Space Power. The organization published numerous studies that included actionable solutions for senior leaders within NATO. The precise application of combat power from the air has remained of the utmost importance to NATO since its inception, as evinced by a progressive increase in NATO's use of Joint Air Power since the end of The Cold War. In 2014, the JAPCC has been active across the spectrum of Joint Air by providing multiple studies, leading the update of several NATO publications, providing leadership in key NATO working groups, and supporting NATO Command Structure education and training events.

In this Annual Report, you will find information on major JAPCC studies published on Air-to-Air Refueling, Remotely Piloted Vehicles in Contested Environments, Joint Personnel Recovery, Enhancing support to Air Advisory Activities, the Single European Skies Project and, perhaps most significantly, on the Future Vector of Air Power in NATO. This last study was the result of an 18-month-long project that culminated in 16 essays written by senior Air Power Experts from across the Alliance, focusing on Joint Air Power at the Operational level of war and above and providing 88 key recommendations to NATO's senior political and military leaders.

The Future Vector of Joint Air Power in NATO was also the focus of the 2014 JAPCC Conference, which was held in Kleve, Germany in November. I think this was an

outstanding Conference, featuring high-level debate and discussion on how the Alliance should posture its Air Power in coming years to ensure it is available to meet our collective security requirements. The Conference emphasized that, as we prepare for the future, NATO and its member nations must actively investigate, develop and promulgate a shared vision for future Joint Air and Space Power. Some of the work to develop this vision is being undertaken today in NATO with the support of the JAPCC.

Undoubtedly in this rapidly changing world the future is hard to predict, but it is safe to assume that the Alliance will continue to be required to execute Collective Defence, Crisis Management and Cooperative Security at variable levels of intensity. For decades NATO Joint Air and Space Power has provided the asymmetric advantage to the Alliance. NATO's political and military decision-makers must continue to act collectively to preserve this advantage. We at the JAPCC stand ready to support this effort!



Frank Gorenc

General, USA AF
Director, JAPCC

who we are

The JAPCC was the first NATO-accredited Centre of Excellence (CoE) and was established in 2005. We provide subject matter expertise across a broad range of Joint Air & Space (A&S) Power topics including the development of Concepts and Doctrine, Capability Development, Education and Training, and Lessons Learned in accordance with NATO MC (M) 236.

The JAPCC has the ambition to maximize its contribution to the improvement and transformation of Joint A&S Power by way of a well-formulated engagement strategy. This strategy not only guides the approach to organizations within NATO and the Sponsoring Nations, it also enables outreach to other contemporary organizations and academia, allowing the CoE to tap into a comprehensive and diverse A&S Power subject matter pool.

Director's Vision

Be NATO's catalyst for the improvement and transformation of Joint A&S Power, delivering effective solutions through independent thought and analysis.

Mission

The JAPCC, as a team of multinational experts, is to provide key decision-makers effective solutions on A&S Power challenges, in order to safeguard NATO and the Nations interests.

Leadership

The JAPCC is headed by the Director, General Frank Gorenc (USA AF), who has led the centre since August of 2013. General Gorenc also serves as the Commander, Allied Air Command Ramstein and the Commander, United States Air Forces in Europe and Air Forces in Africa (USAFE-AFAFRICA). The JAPCC's Executive Director, Lieutenant General Joachim Wundrak (DEU AF), also serves as the Combined Air Operations Centre Uedem Commander, German Air Operations Commander and German Joint Force Air Component Commander.

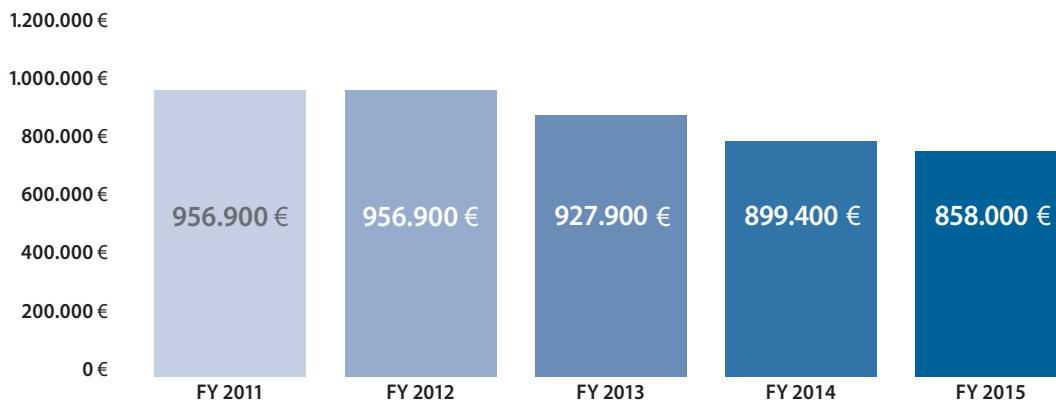
This summer, we bid a fond farewell to Air Commodore A.A.H. (Tom) de Bok (NLD AF) and welcomed Air Commodore Madelein M.C. Spit (NLD AF) as the new Assistant Director (AD). There were changes in other leadership positions as well. The Chief of Staff, Colonel Luke Grossman (USA AF), was replaced by Colonel E. Lee Wingfield III (USA AF). Colonel Joachim Hahn (DEU AF)



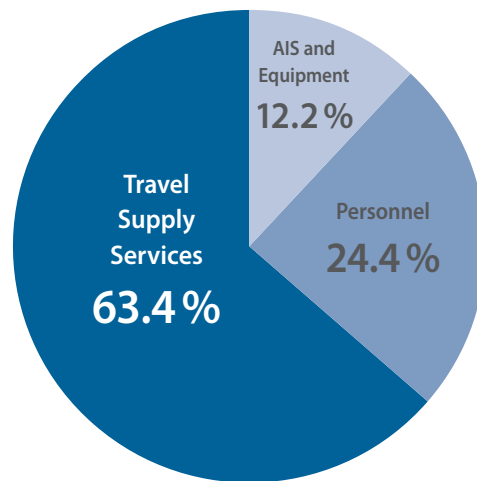
Director (USA AF)
General Frank Gorenc



Executive Director (DEU AF)
Lieutenant General Joachim Wundrak



became Head, Assessment, Coordination and Engagement (ACE) Branch after the departure of Colonel Konrad Wassmann (DEU AF) and Branch Head, Command, Control, Communications and Computers, Intelligence Surveillance and Reconnaissance+Space (C4ISR+S), Colonel Uwe Heilmann (DEU AF), was succeeded by Colonel Erik Abma (NDL AF). Branch Head of Combat Air (CA), Colonel Bernard Willi (USA AF), and Branch Head of Air Operation Support (AOS), Colonel Gustavo Cicconardi (ITA AF), continued in their posts.



JAPCC Budget for FY 2014

Personnel

The JAPCC has lost significant capability and capacity due to manpower decreases over the past four years. This trend continued, with JAPCC ending 2014 with 71 % of the posts bid and 62 % manned. Since 2010, the



Assistant Director (NLD AF)
Air Commodore Madelein M.C. Spit



Chief of Staff (USA AF)
Colonel E. Lee Wingfield III

JAPCC has lost more than 25 % in overall manpower, with 36 of a planned 58 Subject Matter Experts (SMEs) available. At the year's close, the JAPCC's critical SME capability shortfalls were (filled/positions available):

C4ISR+S

ISR (0/3), Air Battle Manager (1/3), Cyber (0/1), Air Ops Planner (0/1), Air Leadership (0/1)

AOS

AAR (1/2), Support RW, JPR, Littoral & Special Air Ops (2/3), Electronic Warfare (0/1)

CA

EW/SEAD (0/1), CAS/JTAC (0/1), SOF (0/1), UCAV/UAS/UAV (1/3), BMD (0/2), MPA (0/1)

ACE

E&T (3/4), Research, Analysis & Intel Support (1/2), PAO/Assistant Editor (0/2)

The Support personnel fill rate is an overall 69%; however, the Admin/Personnel positions are at 53 %, which transfers a significant administrative burden to the other members of the centre.

Additionally, some SMEs failed, upon arrival, to meet the job description requirements for their post, resulting in reduced overall effectiveness for the JAPCC. The two main challenges for these SMEs were limited English language skills and inexperience with staff work at the operational level.

The JAPCC continues to actively mitigate these shortfalls through cross utilization, internal education and training as well as creative technological solutions.

Budgeting and Finance

Based on the JAPCC Medium Term Finance Plan and taking into account of the actual number of assigned staff officers, the JAPCC Budget for 2014 remained just below 900,000 Euros. Our Senior Resource Committee (SRC) continues to provide full support to our budget on the basis of 'minimum military-requirements'. As described in the JAPCC Operational Memorandum of Understanding, the sponsoring nations contribute to

the budget according to the number of staff officers in their bid. The current corresponding annual cost per staff officer is approximately 14,300.00 Euros. For Fiscal Year 2014, the approved budget of 899,400 Euros was expended primarily on travel, supplies and services, personnel related expenditures and replacement of furniture as well as hard- and software upgrades for automated information systems.

Since the SRC authorized budget transfers at the Chapter level for the NATO Air Power – Future Vector Project, the centre was able to complete a very flexible budget execution, which allowed the cost effective realization of our overall Program of Work (PoW) with sufficient resources available to address additional unanticipated project-related activities on short notice.

What We Do

Key decision-makers require innovative solutions to address the improvement and transformation of NATO Joint Air & Space, with ever decreasing resources. Rather than focusing purely on force structures, the JAPCC advocates the development of existing capabilities and generation of new capabilities to support the concepts of force effectiveness and force efficiency.

The JAPCC Provides Solutions to Address Air & Space Power Challenges

Our PoW is comprised of Projects, Activities and Tasks, all of which drive the organization's battle rhythm and deliver value-added output for the Alliance. The PoW is dynamic in nature and can be adjusted monthly based upon the acceptance of Requests for Support (RfS). In addition, the JAPCC hosts a number of major events that also affect the internal battle rhythm. These include an Annual Joint A&S Power Conference, the biannual meeting of the Air Operations Working Group (AOWG), the Maritime Air Coordination Conference (MACC), the JAPCC Steering Committee (SC) meeting, the Senior Resource Committee (SRC) meeting and the production of a semi-annual Air Power Journal.

The components of the PoW are differentiated by scope and scale:

Projects. A JAPCC project provides solutions to an A&S Power challenge received from a NATO or SN key decision-maker through an RfS. A project can also be internally generated based on Lessons Identified, or through other engagement avenues. These internally generated projects normally will not commence until a key stakeholder is identified.

Activities. Activities form the majority of the JAPCC's PoW and consist of recurring or enduring tasks in support of an Alliance key decision-maker. Activities are normally pre-planned within the JAPCC annual calendar. Typical examples of activities are the custodianship of NATO doctrine (Allied Joint/Tactical Publications) or the chairmanship/co-chairmanship of a NATO working group.

Tasks. A task differs from an activity in its periodicity, usually comprising a single, non-recurrent event (e.g. presenting at a conference). The often seemingly random nature of a task often precludes scheduled planning within the PoW.

JAPCC Focus Areas – 2014/2015

Joint Air Power Development

Air Power is an essential element in virtually all military operations. It can be employed over the full spectrum of military operations at any level in support of national, joint or multinational operations and objectives.

There is a continuous need to examine what part NATO Air Power will play in achieving future Alliance objectives, and to identify how that future might become reality. NATO's Strategic Concept 2010 states we must develop and maintain robust, mobile and deployable conventional forces to carry out both our Article 5 responsibilities and the Alliance's expeditionary operations, including the NATO Response Force (NRF).

Doctrine, Standards and Procedures

Fundamentally, joint forces require high levels of interoperability and systems that are conceptualized and designed with joint architectures and acquisition strategies. This level of interoperability reduces barriers that limit the ability of JFCs to achieve objectives. The goal is to employ joint forces effectively across the range of

military operations. Pivotal to that goal is the development of standard terminology, training, relationships, responsibilities, processes and procedures.

Education/Training and Exercises/Evaluation (ETEE)

NATO's Strategic Concept and the Chicago Summit 2012 list Collective Defence as the number one priority. As we re-deploy from ongoing operations, NATO must ensure it possesses robust contingency readiness. ETEE is a foundational element to building a strong NRF, supporting Connected Forces Initiative and developing the necessary capability to deliver NATO Forces 2020. The JAPCC will support ETEE across Collective Defence, Crisis Management and Cooperative Security.

Missile Defence

According to NATO's Strategic Concept 2010, the greatest responsibility of the Alliance is to protect and defend our territory and our population against attack. Therefore, the Alliance must develop the capability to defend our populations and territories against ballistic missile attack. This is a core element of our collective defence, which contributes to the indivisible security of the Alliance.

Space Support to NATO Operations

Although there is no NATO Space policy at the political level, there is a mandate at the military/political level. MCM-0108-2012, 'NATO's Approach to Space' provides guidance, initiatives and tasks for the development of Space support to NATO operations.

Active Engagement

In order to avoid duplication and to work efficiently across the NATO organization and the Nations in the improvement and transformation of Joint A&S Power, sharing of knowledge and coordination of the Program of Work is required. Furthermore, the purposes of active engagement are to:

- provide information about JAPCC and its activities to NATO HQs and SNs;
- understand Joint A&S Power challenges in order to inform JAPCC PoW;
- demonstrate relevance by ensuring continued support to NATO and SNs;
- identify possible topics and partners for future co-operation.

key developments

Joint Air Power Development

The JAPCC's support to Joint Air Power development in 2014 includes the following:

Air Power in NATO – Future Vector Project. The Future Vector Project (FVP) is the outflow of a study performed by the JAPCC in response to a challenge raised at the 2012 JAPCC Conference to determine if there was a danger of Joint Air Power capabilities falling to the point that they would no longer be available to meet Alliance security requirements. The objective was to identify viable options and solutions to guarantee that A&S Power continue to be key enablers for the security and success of NATO and its Allies. The final product was two compendia, each of 8 essays; Part One: political and military strategic essays, was published July 2014; Part Two: military- and operational-strategic essays, was published November 2014. The essays were publicised through outreach to the key decision-makers in NATO and the Nations via a team of volunteer senior leaders and were debated at the 2014 JAPCC Annual Conference.

Military Implications of 'Single European Sky'. Based on the Directorate's decision to positively answer the European Air Chiefs Conference (EURAC) members' RfS, a combined JAPCC-led team, including members from the German AOC and CAOC Uedem, executed a project which analysed the impact of the implementation of the SES on the aerial activities of Air Forces in Europe. The project team was supported by domain-related experts from NATO, EUROCONTROL, EDA, EAG, Allied Air Command Ramstein and European nations through a wide collaborative network. A briefing on the topic was delivered to the EURAC Conference during its 2014 meeting on 5 September, in Brunnen, Switzerland. The main outcome of the discussions on the topic was a '*Position Statement of the European Air Chiefs Conference on the JAPCC Report on the Implications of the Single European Sky*' that summarizes Air Chiefs common grounds on the way ahead to mitigating the impact of the SES. A full report containing the detailed findings of the project and key actionable recommendations was delivered in to EURAC members in December 2014.



The NATO Defense Planning Process (NDPP). The JAPCC has expanded its cooperation with ACT/SEE Enhanced Capability Group throughout 2014, providing a deep resource to the next NDPP cycle. Updates for capability codes have been provided by our SMEs in CBRN, Rotary wing operations, and Joint Personnel Recovery. Our AAR section has begun a reassessment in conjunction with ACT/SEE and NCIA on the data behind AAR capabilities and requirements. This work by experts will greatly enhance the upcoming process, and the JAPCC is further expanding its support in the beginning of 2015.

Air Transport. The JAPCC participated to the development of the European Air Advanced Transport Training Course (EAATTC). The active contribution of the JAPCC was recognized during several meeting of the Educational and Training Ad Hoc Working Group. These contributions led, in part, to the creation of a new training course for the instructor pilots who are going to teach during the future EAATTCs, increasing the level of the courses.

Additionally, the JAPCC is a candidate to assume the duties of the current Chairman of the Air Transportation Working Group (ATWG) starting the summer of 2015. Germany has also expressed an interest in the Chairmanship of this group. The final decision will be taken in spring of 2015.

Finally, the JAPCC has initiated an Air Transport-related study focused on the training exercises and interoperability. Title of the study is 'NATO/EU AIR TRANSPORT TRAINING, EXERCISES AND INTEROPERABILITY' and it should be issued by summer 2015.

Air-to-Air Refuelling. In March 2014 JAPCC released the study: 'Air-to-Air Refuelling Consolidation'. The project built upon the existing AAR Flight Plan with an update and review of NATO AAR capability following the Doctrine, Organization, Training, Materiel, Leadership, Personnel, Facilities, Interoperability (DOTMLPFI) capability development methodology. The update was delivered just before the spring EURAC Conference, with the classified version gaining the attention of several key decision leaders within the NATO Command Structure.

After nearly two years of work as the Chair of the NATO AAR Working Group and with the assistance of the Aerial Refuelling Systems Advisory Group, the US Joint Standardization Board and the European Defence Agency, the JAPCC finalized four significant Standards Related Documents (SRDs) to support ATP-3.3.4.2 through the NATO AAR Working Group. The SRD on AAR Tanker and Receiver Clearances and Technical

Contribute Joint Air and Space expertise to Alliance decision-making processes through active leadership of, and participation in, NATO committees, Working Groups and fora.

Compatibility is a comprehensive document created to facilitate nations establishing AAR clearances before conflicts arise. The AAR Aircrew Certification and Currency SRD works in concert with establishing AAR clearances since an agreed training standard is one of the pillars to a clearance. Finally, an online AAR Matrix has been established and is hosted on the JAPCC site. This is the first consolidation of AAR Clearances to be produced and will aid the Alliance in future operations by providing a one-stop reference for current clearances. Further, this visual depiction has already increased the dialogue regarding AAR clearances between many nations. The JAPCC is maintaining close relations with AAR SMEs across NATO in order to continue building upon the momentum gained in enhancing AAR interoperability.

NATO Air Traffic Management (ATM) activities. The JAPCC provided subject matter expertise to NATO's efforts towards developing and maintaining the capabilities required for ATM support to the full range of NATO missions in peace, crisis and conflict and also to safeguarding collective defence requirements within the civil-led initiative 'Single European Sky'. JAPCC participated actively in the meetings of the ATM Committee, the ATM/CNS Working Group and the SESAR Integrated Project Team. As consequence of its contribution to supporting the Allies and their partners towards mitigating the impact of civil initiatives to modernize the ATM systems, JAPCC was invited to sit as permanent observer to the Military ATM Board facilitated by



EUROCONTROL. The JAPCC SMEs continue to help generate solutions designed to mitigate the impact of civil ATM modernization processes on collective defence capabilities.

Air C2. The complexity of the modern security environment poses significant challenges to the effective Command and Control (C2) of NATO's military forces. The strategic and operational context is changing rapidly, presenting new threats that are asymmetric, highly-disruptive and potentially catastrophic to the Alliance. The JAPCC supports Air C2 efforts with:

- continued support of the NATO Airborne Early Warning & Control Working Group (NAEW&C WG);
- Comprehensive Operational Planning Directive (COPD) maintenance;
- Comprehensive Operations Planning Course development, where the development of the COPD is evaluated continuously;
- a Functional Planning Guide for Operations, jointly coordinated with C2CoE and AIRCOM.

Framework Future Alliance Operations (FFAO). The JAPCC participated actively in ongoing efforts to move the FFAO forward. The major event this year was the FFAO Workshop, which was held in Brussels.

The purpose of this workshop was to generate Military Implications for NATO, using the Instability Situations and the Strategic Military Perspectives that were derived during the previous workshops. Ten comprehensive Instability Situations are defined: Non-State Actors, Rival States; Access to Global Commons Challenge, Use of Global Commons Challenge; Conflict in Euro-Atlantic Region; Disruptive Impact of Migration; High-Conflict; Weapons of Mass Destruction, Effect Use and Effect Threat. Enhancing alliance capacity and options through an expanded network of partners was seen to be a crucial element. ACT is expected to deliver a consolidated summary of the discussions during the first trimester of 2015.

Doctrine, Standards and Procedures

During the period, the JAPCC led and participate in the following doctrine efforts.

AJP-3.3(B), Joint Air and Space Operations. Significant progress was made on the rewrite of AJP3.3. Air power experts met again in December to de-conflict and address key or critical comment. A second study draft was produced and agreement received from the 38th Air Operations Working Group (AOWG) in April to push Study Draft 2 to nations for ratification. Thereafter

the product will be passed by the Air Standardization Board and Allied Joint Operations Doctrine Working Group for final endorsement and promulgation. As custodian, the JAPCC is closely cooperating with the NATO Standardization Organization to ensure effective progress of the product.

ATP-49G, Use of Helicopters in Land Operations.

After accepting custodianship of the ATP-49 during the 36th Helicopter Inter Service Working Group (HISWG) meeting in Bruges (BEL) in September 2013, JAPCC published the first study draft of ATP-49G in March 2014. Nations provided 369 comments and these comments were discussed during a writing team meeting in May chaired by the JAPCC. After incorporating the discussed comments, JAPCC published Study Draft 2 in July. A second writing team meeting was chaired by the JAPCC in September and 170 comments were discussed. JAPCC now is working on what is expected to be the last draft, Study Draft 3, which will be finished in early 2015.

AJP 2.7, Joint Intelligence Surveillance and Reconnaissance. Doctrine development was supported with active membership in the respective writing team as well as the preparations to host a workshop in January of 2015 at Kalkar, Germany. This activity was complemented by contribution to the regular ACO Intelligence Requirements Management & Collection Management (IRM & CM) Panel.

Enhancing NATO Joint Personnel Recovery (JPR) Capability.

In July 2014, the JAPCC published a study on Joint Personnel Recovery highlighting the need for implementation of a number of essential and required changes with regard to NATO JPR capability. Recommendations were addressed to SACEUR, ACT, SHAPE, and AIRCOM to enhance the capabilities within the NATO structure. These recommendations were well received. Additional requests for the study results from various military and civilian organizations indicate a continuing interest in the subject. Following the presentation of the JPR study, a JPR forum was host by JAPCC on 18 and 19 August 2014. Twenty-five delegates and Personnel Recovery SME's attended the forum, which has led to the advancement of doctrinal development in the JPR field.

Recovery of Personnel in Hostile Environments. In June 2013, the Military Committee Joint Standardization Board (MCJSB) received a doctrine proposal to develop an 'Allied Joint Doctrine for Recovery of Personnel in a Hostile Environment' from France. The MCJSB conducted a proposal inquiry that ended in the first semester of 2014 with a final assignment to France. In order to start the ratification process, NATO is expecting the release of the new doctrine by March 2015. France, following the assignment and to establish a guidance line of action, held a preliminary NATO SME meeting in Paris in July of 2014. A second meeting, hosted by JAPCC in October 2014, allowed the custodian to release a study draft of the assigned publication. The third meeting was held in Ramstein on 11–12 December 2014. The JAPCC will remain engaged in order to actively contribute to the preparation of future JPR doctrine.

Education/Training and Exercises/Evaluation

During 2014, the JAPCC was active in the following ETEE areas:

Chemical Biological Radiological and Nuclear (CBRN) defence from the aspect of Deployable Air Activation Modules (DAAM) project. The JAPCC actively supported the DAAM project with the aim of increasing the effectiveness of CBRN protection employed at air bases during military operations, regardless of venue. This was accomplished through participation in CBRN exercises within the series 'TOXIC TRIP', most recently held in Cazaux, France, as well as by direct contact with the JCBRN COE in Vyskov, Czech Republic. Both of activities caused the creation of a document that could be a good starting point for further discussion concerning the improvement of CBRN protection of mobile air bases.

Support to AIRCOM. HQ AIRCOM in Ramstein, Germany was provided with significant SME support in the preparation and execution of Exercise Ramstein Ambition II in June 2014. The JAPCC filled the role as Red Force Commander and the complete OPFOR Air Team for the EXCON organization, ensuring a live enemy against which the exercise audience could operate.

Support to Joint Warfare Centre (JWC). Based on the Letter of Agreement for support between the JAPCC and the JWC, the JAPCC provided the JWC with extensive support on Air & Space throughout the year 2014. This includes continued contribution to scenario development, exercise scripting teams, exercise controllers and post exercise analysis/lessons learned.

In addition to participation in the regular preparatory meetings for Exercise Trident Juncture and Trident Lance, the JAPCC deployed multiple teams to the JWC in Stavanger, Norway to provide exercise preparation and execution for Exercise Trident Juncture in November 2014 and for Exercise Trident Lance in December 2014. Lastly, a JAPCC team deployed in October 2014 to Strike Force NATO (SFN), Lisbon, Portugal to develop a CONOPS for the new SOROTAN Scenario.

Cyber Awareness. Against the background of increasing dependence on technology and web-based communications, NATO is advancing its efforts to confront the wide range of cyber threats targeting the Alliance's networks on a daily basis. NATO's Strategic Concept and the 2012 Chicago Summit Declaration recognized that the growing sophistication of cyber-attacks makes the protection of the Alliance's information and communications systems an urgent task for NATO. The JAPCC is exploring the boundaries of Cyber and Air Power through AIRCOM & ACO Engagement and participated in the C2 COE Seminar, *C2 in Info Age*, offering insights into studies and perceptions regarding the implications of cyber for Air C2 structures.

JAPCC Research, Analysis and Intelligence Support (RAIS). RAIS efforts provided both open and classified information on military, civil and political issues in the Joint A&S Power domain in order to enhance situational awareness on developments impacting the JAPCC in its projects and activities. This included the provision of background documentation and analysis for the SOROTAN scenario development, a new part of the Trident Juncture 15 Exercise Series.

Education and Training on Space Operations. Generally speaking, Education & Training within NATO systematically instructs individuals in subjects that will enhance their knowledge and skills, develop competencies,

and provide the knowledge and competencies required for the performance of assigned duties and support life-long personal development. Space Operations is no exception to the rule. In 2014, the JAPCC provided a number of briefs and presentations that were incorporated within the curricula of the national staff colleges of Germany and the Netherlands supporting this seemingly neglected subject area.

Missile Defence

Panel on Air and Missile Defence (PAMD). The PAMD Drafting Group 1 (DG-1) is tasked to update Integrated Air & Missile Defence Policy and is held in preparation for the Air and Missile Defence Committee meeting. Two of the main topics of discussion were the follow-on tasks from the Wales Summit and the NDPP. JAPCC is an active participant in the PAMD DG-1 ongoing work.



Exercise Trident Juncture 14. The JAPCC participated in the exercise fulfilling the role of OPFOR Air during scenario development and execution.

Balancing Air and Missile Defence. The JAPCC contributed to this year's Competence Centre for Surface Based Air & Missile Defence (CC SBAMD) conference and presented a briefing from the perspective of the FVP.

Space Support to NATO Operations

Space Domain. The JAPCC continued to champion the evolution of Space Power within NATO. The NATO Bi-Strategic Command Space Working Group (NBISCSWG), reporting directly to the NATO Military Committee (MC), remains the singular forum within which the collective

expertise of the JAPCC, NATO and some national agents execute their work towards evolving Space support to alliance military operations. Of the dozen critical tasks identified for the NBISCSWG to pursue, the JAPCC led or directly supported the following:

- Awareness/Integration of Space: through the injection of Space play within general training and support to NATO panels. Specific support was provided to the Panel on Air and Missile Defence (PAMD) and the NATO School Oberammergau.
- Space Education & Training: through the advancement of a Space ETEE Department Head assignment (JAPCC is awaiting NAC designation as Space DH, which we hope will be forthcoming summer 2015), and production of a JAPCC Space flyer highlight the necessity of reaching standard definitions and approaches and the dangers to the war fighter if we do not.





Active Engagement

The JAPCC continues to actively engage with various air power champions through working groups and other face-to-face meetings. These engagements included but were not limited to:

- Multinational Through-Deck and Aircraft Carrier Cross-Deck Operations (MTACCOPS) working group, hosted by NATO HQ in Brussels on 4–5 December 2014.
- Air and Missile Defence Committee as Head of Delegation and in EAPC format.
- NATO's Joint Capability Group on UAS (JCGUAS) meeting in Brussels where JAPCC members presented an informative study on UAS.
- EDA's Predator User Group and MALE RPAS Community Meeting.
- NATO's annual CAS Conference, where JAPCC presented on future training of TACP's and FAC's.
- Interservice/Industry Training, Simulation and Education Conference (I/ITSEC), where JAPCC presented on future training of Close Air Support enablers and discussed this topic with various Military Leaders and Industry representatives.
- Global Helicopter Operations from Ships other Than Aircraft Carriers (HOSTAC) WG and the Multinational Through-Deck and Aircraft Carrier Cross-Deck Operations (MTACCOPS) WG.
- 2015 COE POW Development Initiation and Co-ordination Meeting led by ACT at SHAPE on 10–13 February 2014.
- The AIRCOM-hosted NATO Training Group (NTG) Air Force Service Task Group (AFSTG), for which JAPCC provided secretarial support. The meeting discussed issues regarding Unmanned Aircraft Systems as well as the overall concept of AIR C2 AIRCOM Training Strategy.
- Smart Defence Project 1.16, Pooling of Deployable Air Activation Modules (DAAM).

Other Enduring Activities

The JAPCC Annual Conference

The 2014 JAPCC Conference was held from 18–20 November 2014 with the theme 'Air and Space Power in NATO – Future Vector Project'. NATO nations have in the past and continue to drastically reduce Air Power capabilities. The near-term cessation of Afghanistan

operations combined with ongoing financial crisis makes it nearly certain that investment in the required future Air Power capabilities will be under heavy scrutiny and will most likely be further reduced. The 2014 conference examined this paradoxical situation, bringing together not only Joint A&S Power experts, advocates and enthusiasts, but members of the other Operational Domain (Land and Sea) experts, key political advisors, academics and representatives from industry as well.

The JAPCC Journal

The JAPCC Journal continued to be a platform which encourages debate and showcases ideas related to all aspects of Joint A&S Power improvement and transformation within NATO and the global arena. One edition was produced in 2014, which included articles aimed at educating and informing its international readership on a variety of Joint A&S Power issues. The JAPCC Journal is considered to be a reputable information beacon which embraces the 3'R's, Relevance, Rigour & Reputation, and is JAPCC's flagship product. The normal twice-yearly publication schedule will be resumed in 2015.

NATO Bodies, Doctrine, Exercise and Training

JAPCC personnel fill chairmen, co-chairman, and panel positions on numerous NATO steering bodies as well as providing custodianship to a number of NATO Doctrine documents, as highlighted below.

Chairmanship

- Air Operations Working Group (AOWG);
- Maritime Air Coordination Conference (MACC Co-Chair);
- NATO Air-to-Air Refuelling Working Group (AAR WG);
- Aerial Refuelling Systems Advisory Group (ARSAG) Interoperability Panel.

Secretary

- NATO Bi-Strategic Command Space Working Group (NBISCSWG);
- NATO Training Group (NTG) Air Force Service Task Group (AFSTG).

Panel Member/Working Group

- Air & Missile Defence Committee (AMDC);
- Ballistic Missile Defence Operational User Group;
- Force Protection (FP) Task Force;
- FTAR/ARSAG Participation to Develop UAS AAR Procedures;
- Future Technologies for Aerial Refuelling (FTAR);
- Helicopter Inter Service Working Group (HISWG);
- Joint Capability Group Unmanned Aircraft Systems (JCGUAS);
- Maritime Operations (MAROPS) Working Group;
- NATO Search and Rescue (SAR) Panel;
- NATO Single European Sky ATM (Air Traffic Management) Research (SESAR) Integrated Project Team;
- NLD BMD Policy Group;
- NLD Knowledge Network on BMD;
- Panel on Air & Missile Defence (PAMD);
- Space Systems Concepts and Integration (SCI) 238 Working Group.

NATO Policy/Doctrine/TTP Support

- AJP-3.14 Allied Joint Doctrine for FP;
- AJP 3.3 Custodian;
- AJP-3.3.3 Air-Maritime Coordination (Part of AMCWG);
- ATP-3.3.3.1 Air-Maritime Coordination Procedures;
- ATP-3.3.4 (VOL II) Custodian;
- ATP-3.3.4.2 (ATP-56) Custodian;
- ATP-3.3.4.3 Custodian;
- ATP-3.3.6 NATO FP Doctrine for Air Operations;
- ATP-49G Custodian;
- MC FP Policy for NATO-Led Operations (MC-0610).

Participation in the Air Defence Committee and Subordinate Bodies

The JAPCC remains an active participant in the Air Defence Committee, the PAMD and its subordinate Drafting Groups. Through continuous participation in these various bodies, the JAPCC supports the development of Integrated Air and Missile Defence policy.

2015 outlook

Promote and showcase the effectiveness and relevance of Joint Air and Space Power as the critical elements in Air, Land and Maritime operations.

The JAPCC is actively engaged with NATO and Sponsoring Nations to seek new projects that contribute to solving challenges or to implementing lessons learned. The following represent a new or continuing body of work in this regard.

NATO Training Group (NTG) Air Force Service Task Group (AFSTG). Since April 2013, the JAPCC has provided the secretarial support to AIRCOM for the NATO

Training Group (NTG) Air Force Service Task Group (AFSTG). The aim of the NTG AFSTG – in the field of air Education & Training – is to improve the coordination and standardization of Education & Training in order to enhance interoperability among Alliance Air Forces, and additionally between the forces of partners.

The NTG AFSTG Spring 2014 Meeting took place in Izmir, Turkey on 17–20 March 2014. The meeting discussed relevant issues to the ETEE air related topics and generated the NTG AFSTG POW for the meeting in Vienna, Austria in March 2015.

Mitigating Disinformation Campaigns against Air Power. Since September 2014 the JAPCC has worked steadily on the 'Mitigating Disinformation Campaigns



against Air Power' project. This study examines a serious challenge facing Western Air Power – disinformation campaigns carried out against NATO and coalition forces which attempt to discredit the use of NATO Air Power. In recent air campaigns, Air Power has been routinely portrayed as indiscriminately lethal and causing massive collateral damage and civilian casualties. The study will develop several case studies to examine where NATO and Western strategic communication has succeeded in shaping the information environment in our favour versus where NATO has allowed the enemy to have the information advantage.

NATO Joint Force Protection Capability Development/Force Protection. In recent years, the JAPCC has spent considerable time and effort in the shaping of the FP

environment within NATO and attempting to 'fix' problems in support of operations. The JAPCC currently has custodianship of the majority of NATO FP doctrine on behalf of the FPWG and is moving into a consolidation phase. Incoherent development by many actors over several years has been less than helpful in support of NATO Joint FP Capability Development. While the intent remains to pursue existing drafts toward ratification, the FPWG has now asked the JAPCC to produce a single coherent publication beginning with policy and ending with the tactical level detail that is currently contained in the Allied Command Operations FP Directive 80-25. This effort will unify FP doctrine into a single document, that once complete, will add real value to NATO FP by forming the foundation for future capability.



Partner with relevant NATO entities and nations to promote and synchronize output and products.

NATO/EU Air Transport (AT) Training, Exercises and Interoperability.

The aim of this project is to follow on and update our 2011 study. First, it will report which of our solutions/initiatives from the 2011 study have been initiated or completed. Then, it will re-examine the feasibility of the remaining proposed solutions, identify any additional critical problems, and ultimately attempt to stimulate NATO to adopt the best multinational initiatives which can improve the standardization and interoperability of AT among NATO nations. This study will primarily focus on training, exercises and interoperability. The project will analyse the 'state of the art' of AT training, standardization and interoperability and attempt to demonstrate whether a multinational AT training unit in Europe is feasible. If feasible, such an initiative would be a practical example of implementation Smart Defence and/or Pooling & Sharing concept implementation. Common AT training initiatives under the NATO or the EU 'umbrella' could possibly fill existing gaps and improve the courses which are currently taught. They could also serve as a cornerstone and/or impetus for NATO AT standardization and the overall improvement of interoperability.

Future Vector Project Phase III. In 2014, the FVP essays were published and, at the Conference, a lively debate was started regarding the future of Air Power in NATO. Phase III will delve deeply into the 88 recommendations contained in the FVP and will develop a comprehensive communications plan to further define in what areas the JAPCC and other Joint Air Power organizations

can and should act to ensure that NATO's Joint Air Power is ready to defend the Alliance and to meet other future requirements.

JAPCC Joint Air and Space Power Conference, Essen, Germany, 23–25 November 2015

The Annual Conference is one of the two most important events on the JAPCC's annual calendar. It is a means by which JAPCC can present ideas, receive expert feedback, support and promote A&S power projects and provide a forum for an exchange of views at the strategic level. The 2015 conference will bring together air power experts, including members of the military services, media specialists, academics, political leaders and advisors, and representatives from industry to discuss such topics as 'Strategic Communication and Its Relationship to Airpower', 'The Media and Perspectives' on NATO Air Power and 'Airpower and Disinformation'.

This year's conference will focus on 'AIR POWER AND STRATEGIC COMMUNICATIONS – NATO CHALLENGES FOR THE FUTURE'. The goal is to facilitate the joint community's development and maturation of emerging StratCom concepts for possible transition into joint doctrine and to further effectiveness in joint operations by enabling commanders to more knowledgeably consider the potential benefits and/or risks of using StratCom in actual operations. Ultimately, NATO must improve its capability to use the information environment to advance our objectives while undermining the ability of adversaries to do the same.

Finally, we would like to thank you for taking the time to read the JAPCC Annual Report 2014. For more information on the JAPCC, please contact us via e-mail at contact@japcc.org or visit our website www.japcc.org.

Joint Air & Space Power Conference



Air Power and Strategic Communications NATO Challenges for the Future

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23–25 November 2015

Contact and reserve your seat:

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**Joint Air Power
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