

2009



annual REPORT

Joint Air Power Competence Centre

www.japcc.org



introduction

In 2009, the JAPCC built upon its hard-earned reputation as NATO's pre-eminent advocate for the development and enhancement of Joint Air and Space Power today and into the future. The year started in fine fashion with our reaccreditation by HQ Allied Command Transformation – we were the first Centre of Excellence to undergo this process and, subsequently, received a glowing report. We continue to maintain a close relationship with both HQ Allied Command Transformation and our Sponsoring Nations, providing them with timely and relevant advice and products.

We are proud of our achievements this year, which you will see summarised within this report. I would like to highlight especially our work in encouraging NATO to move forward in respect of Space. The JAPCC Assessment on NATO Space Operations set the scene, but it was through numerous speaking opportunities and the vigilance of our staff that the message on the criticality of Space to contemporary NATO operations was well and truly transmitted.

The year was also characterised by our increasing engagement with HQ Allied Command Operations in delivering effects focusing firmly on current operations. This served to ensure that our strategic perspective on Air and Space Power transformation is fully informed by the complexities of real-world operations, and demonstrated the JAPCC's ability to provide relevant, timely support to the contemporary war-fighter. The work un-

dertaken this year on the Air and Space Power contribution to Countering the IED threat in Afghanistan thus represents a significant additional, symbiotic, line of development for the JAPCC, as well as presenting us with a number of practical challenges to overcome. Similarly, the 2009 Force Protection review of the Kabul International Airport Ground Defence Area, delivered by the JAPCC, provided planners and incoming Force Elements with the best and most recent advice with which to prepare, equip, train and deploy relevant capabilities. It is no coincidence, therefore, that our 2010 Conference takes as its theme the Role and Challenges for NATO Air and Space Power in Contemporary Operations.

As you will see, there are many other key products that the staff from our 17 Nations have produced. I encourage you to read the summary and, should you have any questions, to either visit our website or call us to discuss them.

I am pleased to report that our staff numbers have remained stable this year, with our manning maintained at around 87%. Our key leadership positions are filled. We anticipate a new Director within the first quarter of 2010 as General Mark Welsh III takes over from General Brady. I am thankful for all the advice and contribution from General Brady to endorse and promote the work of the JAPCC. We have reviewed the balance of our Subject Matter Experts and are making adjustments in order to ensure that we continue to attract the right people with the necessary knowledge and experience. During 2009, Italy filled the vacant Future Space position, the

United States filled the vacant Maritime Air, Carrier Ops post, and the Netherlands covered the vacant Information Operations position. While a degree of ebb and flow in our manning is an inevitable consequence of national requirements, it is clear that our Sponsoring Nations continue to provide highly competent personnel to fill a wide variety of positions, and for that I am most grateful.

Our Annual Air and Space Power Conference continues to grow, both in attendance and impact. This year, we were at maximum capacity and hosted over 240 participants from across NATO and many other nations. Furthermore, we published two editions of the JAPCC Journal and will continue the successful distribution of this product in order to share our ideas, and those of our contributors, as widely as possible. I want to especially thank our commercial partners, who have not only contributed to our publications, but have also provided sponsorship to allow us to produce and distribute these documents.

We look back on 2009 as another successful year in supporting NATO and our Nations. We now look forward to 2010 determined to continue to work on innovative ideas for the transformation of NATO Joint Air and Space Power.



Friedrich Wilhelm Ploeger
Lieutenant General, DEU AF
Executive Director, JAPCC

mission priorities

- **Develop and champion innovative visions, concepts and solutions for the transformation of Joint Air and Space Power.**
- **Promote and showcase the effectiveness and relevance of Joint Air and Space Power as a critical element in Air, Land and Maritime integrated operations.**
- **Partner with relevant NATO entities and nations to synchronise work and products.**
- **Provide high-quality and timely customer support with Joint Air and Space expertise to inform and enable decision-makers.**
- **Contribute Joint Air and Space expertise to Alliance decision-making processes through active leadership and participation in NATO committees, working groups and forums.**



who we are

The JAPCC is a Centre of Excellence (CoE), which was established in 2005 to contribute to the transformation of NATO's Joint Air and Space (A&S) Power.

Whilst our primary customer remains HQ Allied Command Transformation (ACT), we find ourselves increasingly engaged by the other NATO HQs, as well as our Sponsoring Nations.

Director's Vision

To be NATO's recognised agent for visionary and independent Joint A&S Power expertise.

Our Mission

As the Alliance and its Participating Nations' Joint A&S Power CoE, the JAPCC Mission is to provide innovative and timely advice and subject matter expertise, both proactively and responsively. As a CoE with a strategic and operational level focus, we offer independent thought, analysis and solutions, with the emphasis on enabling NATO's effective and efficient use of Joint A&S Power.

Organisation Structure

The JAPCC is headed by Gen Roger Brady (USAF) as our Director and Lt Gen Friedrich Ploeger (GAF) as our Executive Director. Our Assistant Director for Capabilities (ADC) is Air Cdre Jan van Hoof (RNLAf) and our Assistant Director for Transformation (ADT) is Air Cdre Garfield Porter (RAF). In 2010, Gen Brady will be replaced by Gen Mark Welsh III and Air Cdre Porter will be replaced by Air Cdre Paddy Teakle. In order to gain maximum benefit from the available manpower and to remain flexible, the JAPCC employs a matrix organisational structure. Although Subject Matter Experts (SMEs) operate within individual functional branches, they may be aligned to one of several project groups as directed by either ADT or ADC. Project Leaders are selected from our Branch Heads.

How we accomplish our Mission

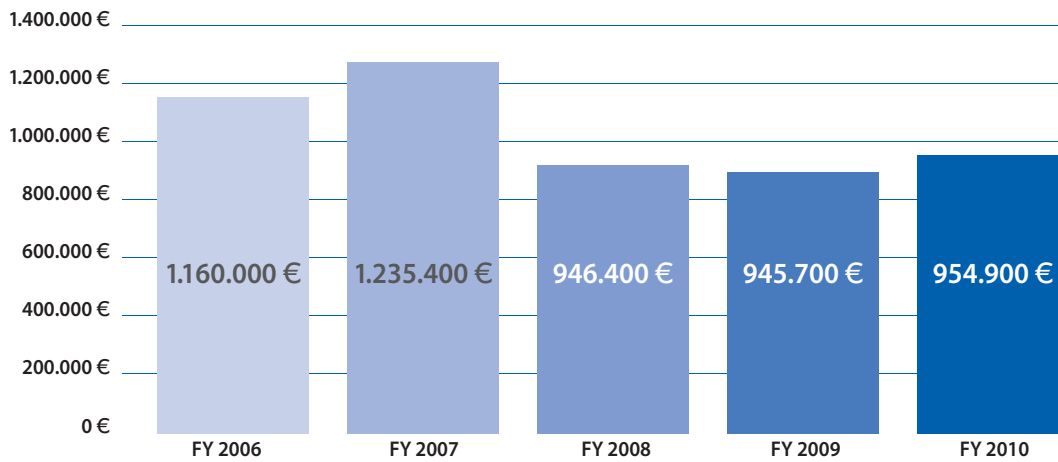
SME knowledge brought into the JAPCC organisation is exploited through a strategic and operational focus, with individuals being encouraged to apply their knowledge and experience at this level. As well as the growing body of JAPCC publications, the resulting thought, analysis and solutions are expressed in NATO forums, journals, seminars and conferences. Additionally, we engage with research organizations, industry and academia alike to explore every avenue to promote effective and efficient Joint A&S Power for NATO. Our effectiveness was further underlined in January 2009, when ACT carried out a periodic assessment (re-accreditation) and declared the CoE to be in first-class health.



Director (USAF)
Gen Roger Brady

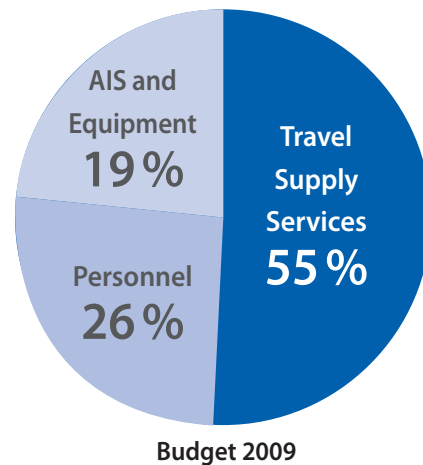


Executive Director (GAF)
Lt Gen Friedrich Wilhelm Ploeger



Budgeting and Finance

Based on the 5 year averages, the JAPCC yearly budget remains around 1 million Euros. Our Senior Resource Committee continues to provide full support for our budget. Sponsoring nations contribute to the budget according to the number of Staff Officer posts in their bid. The annual cost of each post in JAPCC is approximately 13.400 Euros. For 2009, the JAPCC budget mainly consisted of travel, supplies & services (55%), personnel related expenditures (26%) and investments, mainly for an Automatic Information System (19%).



*Assistant Director for Capabilities (ADC)
Air Cdre Jan van Hoof*



*Assistant Director for Transformation (ADT)
Air Cdre Garfield Porter*

key developments

Mission Priority Supported

Develop and champion innovative visions, concepts, and solutions for the transformation of joint A&S Power

NATO Space Operations Assessment

If the 20th Century proved that you must have control of the Air, the 21st Century may well prove that you must also have control in Space. The NATO Space Operations Assessment was published in January 2009, following its final approval by ACT, and has attracted considerable attention as a document intended to contribute to the transformation of NATO. The key elements of Space transformation are: a holistic approach; the establishment of governance; and – arguably most importantly – the development of space expertise. Concrete topics to be addressed are Combined Space Operations, Space Situational Awareness and Access to the Space Domain. Encouragingly, NATO is now pressing forward with these issues and has initiated the development of a NATO Space Policy.

Unmanned Aircraft Systems Concept of Employment (CONEMP)

The JAPCC recently completed the 'Strategic CONEMP for Unmanned Aircraft Systems (UAS) in NATO'. This document outlines a NATO vision for the operation, integration and interoperability of UAS through to 2025. It describes a capabilities-based approach to UAS, which enhances joint guidance for optimum UAS employment across a full range of military operations. Additionally, this document is intended to assist with the development of joint/coalition doctrine, Concept of Operations (CONOPS), and operational plans. It includes a detailed discussion of the UAS family of systems, components, key terms, categories and related employment concepts. The CONEMP was accepted by the NATO Joint UAV Panel and will be published and distributed in early 2010.

Forward Air Controller Simulation Accreditation

The JAPCC brought together key stakeholders from the Forward Air Controller (FAC) community to determine the criteria necessary to establish an accreditation process within NATO. In 2008, the JAPCC created qualification training standards for FACs in STANAG 3797. This standard allows for simulators, accredited by NATO, to be used to replace up to four of the 12 live controls required annually for all NATO FACs. As a result, the JAPCC took the lead in 2009 and worked with US Joint Forces Command (USJFCOM) and ACT to develop the process, accreditation criteria, methods of assessment, and recommendations for implementation within NATO. The JAPCC published the CONOPS, which was subsequently adopted by the NATO FAC Capabilities Branch at CC-Air Ramstein. This JAPCC document has laid the foundation for future FAC training within the Alliance and will have a direct impact on current combat operations. Several nations have formally requested a NATO accreditation team to aid their National FAC capabilities. Simulator accreditation will reduce resource costs as well as improve recurring FAC qualification training for participating NATO nations.

Future Air Command in a Network Enabled Environment

Following on from the 2008 capstone document, 'NATO's Future Joint Air and Space Power', the JAPCC produced a paper on Future Air Command in a Network Enabled Environment. This paper explores some of the ways in which full realisation of a network enabled capability may change the way we look at, and distinguish between, command and control. It considers the advantages this may bring, particularly (but not exclusively) in the application of A&S Power so that it can be more efficient and effective in achieving desired end states.



Mission Priority Supported

Promote and showcase the effectiveness and relevance of Joint A&S Power as a critical element in Air, Land and Maritime integrated operations

2009 JAPCC Conference

The purpose of the annual JAPCC Conference is to provide an opportunity to debate A&S issues; consequently, its focus is on areas of specific and timely interest. Each year a different capstone theme is selected and studied. Papers, reports and articles prepared on that subject are then published.

The theme of the 2009 Conference was NATO at 60 and the evolving A&S Power Challenges for the 21st Century. Panellists and participants discussed training & exercising NATO A&S Power, leveraging NATO's common A&S assets, assuring a favourable air environment in operations short of war and assuring the space domain.

More than 40 General Officers and over 240 senior Air Power experts from 22 countries assembled in Kleve, Germany on the 14th and 15th of October 2009. Among them for the first time were officers from Morocco, Jordan and the United Arab Emirates.

In his Keynote Address, Admiral Luciano Zappata, the Deputy Supreme Allied Commander Transformation, emphasised that new threats, such as cyber attack and interference with space assets, would require a renewed interpretation of our understanding of the principles underpinning the NATO Alliance and that any future

military operations would need to be conducted in harmony with non-military and non-NATO organisations. Subsequently, four expert panels engaged in lively discussions resulting in a common understanding that transformation is not only important for NATO forces, but also for developing ideas and doctrines to meet the challenges of the new security environment.

The 2010 Conference is scheduled for 12-14 October and will focus on the Role and Challenges for NATO A&S Power in Contemporary Operations.

The JAPCC Journal

The JAPCC Journal continues to be a window through which the world sees the JAPCC. In Edition 9, DCOM CC-Air Ramstein reminded us that opportunities to harness the collective power of our A&S assets are only limited by our imagination and energy. Other potential areas of common endeavour, from small satellites to air transport, were also placed in the spotlight. We also looked at training and exercising from collective basic training opportunities through to emerging initiatives in the Live, Virtual and Constructive domains, which have the potential to change how we prepare from the unit/individual level to the highest reaches of command.

Edition 10 highlighted that, whilst dominating the Air environment is paramount, Space is rapidly reaching, if not already at, a similar level of importance. This journal also highlighted that in contemporary operations the creation of a favourable situation in the Air doesn't end with driving competitors from the sky. With that in mind, a number of authors studied this issue through a wider lens; the articles on Air Basing, Air and CIMIC and Air Law all added to what is a most timely dialogue.

Joint Air and Space Education, Training, Exercise and Evaluation (ETEE) in NATO Forum

Throughout 2009, the JAPCC has been developing a roadmap to explore the current and future issues with regards to this topic. To this end, key agencies across NATO attended a forum to discuss issues of training, exercises, NATO TACEVAL program and the NATO lessons learned process. The forum identified opportunities for improvements and these are incorporated in our ETEE work. The JAPCC roadmap acknowledges the work of the ACT commissioned ETEE report and also looks more specifically at areas that pertain directly to Joint A&S Power.

**Mission Priority Supported
Partner with relevant NATO entities and
nations to synchronise work and products**

Governance of NATO's Common A&S Assets

Common A&S assets are usually established by foundation documents such as Memoranda of Understanding (MoU). These foundation documents define the level of governance and the collection of mechanisms that allow the organisation to make decisions. The diversity and complexity of the various governance models, however, may result in inefficiencies or even unavailability when such assets are most needed for NATO operations. This project identifies important aspects for the establishment and employment of common assets, examines the underlying causes of problems in governance, and provides conclusions and recommendations ranging from changes to the consensus-based decision-making system to expanding the scope of common funding.

Air Transportation and Air-to-Air Refuelling (AT & AAR)

The JAPCC has forged strong links with NATO agencies, as well as the European Air Group (EAG) and the European Defence Agency (EDA), to take forward work on AT and AAR interoperability, doctrine, and tactics, techniques and procedures (TTP). This has included work on a final draft of AJP 3.3.4 Vol. II for AAR doctrine as well as developing Air Transport doctrine within the framework of AJP 3.3.4.



Supporting NATO Joint Personnel Recovery (JPR) Efforts

JAPCC SME worked with EDA in developing a European personnel recovery architecture and concept. We have also instructed and evaluated JPR training at the Tactical Leadership Program (TLP). Furthermore, we continue to strengthen relations with the NATO Special Operations Coordination Centre to help develop aviation concepts for both fixed and rotary-wing.

NATO School Oberammergau

In 2009, the JAPCC continued to work closely with the NATO School Oberammergau. We provided SME support for courses in Force Protection (FP), Movement and Transportation (M&T), Imagery Intelligence Orientation, Electronic Warfare and Command and Control. The JAPCC also provided facilitator support to the Movements Operational Planning Course, the Expeditionary Logistics Course, the Operational Logistic Planning Course and the Space Operational Planning Course.

Mission Priority Supported

Provide high-quality and timely customer support with Joint Air and Space expertise to inform and enable decision-makers

Joint Intelligence, Surveillance, Reconnaissance (JISR) CONOPS

HQ SHAPE asked JAPCC to lead and draft a JISR CONOPS for ISAF. The completed draft (delivered to SHAPE for final publication) brings together three urgent operational requirements: improved dissemination, storage, archival and retrieval (DSAR) of full motion video; the provision of an Intelligence Collection Management Tool; and the provision of a NATO Intelligence Toolbox. The CONOPS includes a recommendation for cross-domain access to NATO Secret and ISAF Secret information. The JAPCC also chairs the JISR Panel for NATO. In support of this, the

JAPCC hosted the MAJIC (Multi-Sensor Aerospace/Ground Joint ISR Interoperability Coalition) TTP Conference in April, bringing together many C2 and ISR specialists, operators from NATO Bi-SCs, NATO and national joint commands and components, and doctrinal agencies and organisations.

A&S Power Contribution to the Counter-Improvised Explosive Device (C-IED) Fight in Afghanistan

The JAPCC continued to contribute its support to the conduct of current operations. With IEDs responsible for inflicting the majority of Coalition, Afghan security forces and civilian casualties, work contributing to the optimal use of A&S capability was afforded the highest priority and required the involvement of SMEs from all JAPCC functional areas. Moreover, team members deployed into theatre to capture the experience of practitioners in a wide variety of roles and disciplines. These theatre visits, together with in-house research and wide-ranging consultation elsewhere, resulted in a number of recommendations to optimise the employment of in-place A&S capabilities. These recommendations were delivered to Joint Forces Command Brunssum in November 2009, and a follow-on gap analysis will be delivered in early 2010.

Kabul International Airport (KAIA) Ground Defence Area (GDA) Estimate and Force Element Requirement Review

Further support to current operations was provided by the JAPCC undertaking a comprehensive FP Estimate and Force Element requirement review of the KAIA GDA. The resulting report was delivered against demanding operational timelines and was used to inform the pre-deployment preparation and training of incoming FP Force Elements.

ANAAC C2 Development

This project focused on Air Operations within the Afghan National Army Air Corps (ANAAC), dealing with,

but not limited to, G2, G4, G5 and G7 elements that support or contribute to the planning and execution of Air Missions. The JAPCC concluded its work in the 2nd quarter of 2009. A final visit to theatre took place in March 2009 in order to conduct wrap-up discussions, provide clarification where necessary, and to gain further guidance from both the Combined Air Power Transition Force (CAPTF) and ANAAC. A comprehensive CONEMP was produced and well received by ANAAC mentors. The JAPCC is confident that this CONEMP should lead to the development of more detailed papers for Air Operations by CAPTF and the ANAAC.

NAEW&C CONEMP

The C4ISTAR Branch worked on an initiative to develop a concept that covers the employment of the NAEW&C capability, including the Mid-Term Upgrade program. This effort was undertaken in cooperation with NAEW&C Force Command, and workshops and meetings were conducted to draft the E-3A NATO Mid-Term (NMT) CONEMP with inputs from the ACCs, FC, NC3A, SHAPE and E-3A Component personnel. The CONEMP has evolved and expanded from considering only NMT to an operational employment review of the utilisation of the numerous scheduled system improvements for the E3-A and D. The JAPCC continues to support the necessary transformation of NAEW&C and believes the platform could, and should, provide its full capability to NATO expeditionary operations.

Conference and Exercise Support

In addition to hosting our annual conference, the JAPCC has been in high demand to present its views and products at numerous external conferences and training venues throughout the year. Examples of the events where JAPCC speakers featured are listed in the four main categories below:

Support to NATO organisations

- Chiefs of Transformation Conference
- Expeditionary Operations Integrated Capability Team (EO ICT) Conference

- ACT NATO Network Enabled Capability (NNEC) Conference
- Maritime Air Coordination Conference
- Kabul Force Protection Development Meetings
- CAOC Commanders' Conference
- ISAF Counter IED Development Meetings
- RTO SCI 202 Symposium on Intelligent UAS Guidance System
- RTO SCI 186 working meeting on C2 for Manned/ Unmanned Aircraft Operations
- RTO SCI: Space Protection WG Kickoff Meeting
- ACO Tactical Leadership Programme (TLP) EW Course and COMAO Course
- NATO The Road Ahead Conference
- NATO FAC Conference
- CIMIC COE Conference
- Combined Joint Operations from the Sea (CJOS) CoE Conference
- Confined and Shallow Waters (CSW) CoE Conference
- NATO ACCS ATM Interoperability Requirements
- NATO Force Protection Working Group
- NATO Movement & Transportation Forum
- Hosted ACE Rapid Reaction Corps (ARRC)
- AAR Joint Standardisation Working Group

Support to National and External Agencies:

- European Air Chiefs Conference
- Cátedra Alfredo Kindelán Conference
- RAF Staff College
- German Army ISR branch school
- German Staff College Space briefing
- German Forces Admin & Technology Academy UAS course
- Netherlands Advanced Airpower Course
- UK Defence Academy, 'Culture in Conflict'
- Belgian Royal Military Academy
- Swedish Air Combat Training School

- Romanian Strategies Conference
- Airpower Asia Conference
- USA Strategic Space Symposium
- USA JUAS COE Advisory Council Meeting
- European Air Transport Committee and the Unit Load Devices process project
- European Air Transport Framework
- AFCEA Conference 2009
- Executive Multi-National AEW Commanders' Conference 2009
- AIAA 2009 Multi National Missile Defence Conference

General Project Information and Support:

- Air C2 Working Group
- Joint Intelligence, Surveillance and Reconnaissance (ISR) Conference
- Maritime ISR Conference
- Military Space Operations and Security Conference
- Space Situational Awareness Conference
- Transatlantic Space Cooperation meeting
- SMi UAS 2009 Conference
- AUVSI Europe 2009
- Close Air Support Conference
- Joint Personnel Recovery Conference
- Air Space Management 2009
- Information Knowledge Management Working Group
- Paris Airshow Industry Support

Support to NATO and multi-national Exercises and Experiments:

- NIMBLE TITAN 10 Exercise Prep
- Joint Project Optic Windmill (JPOW) Prep
- ARRCAD ESTATE 2009
- ARRCAD PHOENIX 2009
- BELCOAST Defence Against Terrorism Ex

Mission Priority Supported

Contribute Joint Air and Space expertise to Alliance decision making processes through active leadership and participation in NATO committees, working groups and forums

NATO Panels and Working Groups

JAPCC personnel fill chair, co-chair and panel positions on numerous NATO steering bodies. We also serve as custodians of the NATO AT and AAR Doctrine, NATO Air-to-Air Refuelling Procedures Manual (ATP 56B), and Air Logistics and Force Protection Doctrine. In addition, we maintain active membership of NATO bodies.

JAPCC Chair

- Air Operations Working Group
- Joint ISR Panel
- Joint UAV Panel



- Force Protection Working Group
- Personnel Recovery Education and Training Team
- Search and Rescue Panel
- Air to Air Refuelling Panel
- Interoperability Panel Aerial Refuelling Systems Advisory Group (ARSAG)

JAPCC Co-Chair

- JTST steering group and the JTST O&T working group
- Lighting, Formation and Markings Panel for ARSAG
- Maritime Air Coordination Conference

Panel Member/Working Group

- MASINT Working Group (MWG)
- HUMINT Technical Working Group (HTWG)
- Air Operations Support Working Group (AOSpWG)
- Joint Capability Group on UAV
- Innovative Operational UAS Integration (INOUI) Workshop
- Joint Capability Group on ISR
- Air Transport Panel
- NC3B C3 Capability Coherence Sub Committee

- Imagery Management Group
- SIGINT & EW Working Group
- Joint Intelligence Working Group
- NATO Deployed Forces CIS Working Group
- NATO ACCS Communication Working Group (ACWG)
- NATO Civil Aviation Planning Committee Working Group on Aeromedical Evacuation.
- NATO Standardisation Agency Aeromedical Panel



ongoing projects and 2010 outlook

A&S Power Contribution to the C-IED Fight in Afghanistan

Having produced recommendations in 2009 geared to improving the A&S power contribution to C-IED operations, work continues in identifying further equipment, training and organisational capability enhancements. The JAPCC will offer relevant recommendations early in 2010.

Air-Land Integration (ALI)

The JAPCC will take a strategic look at ALI in order to: examine the overall ALI process to ensure that the ways and means support the strategic ends; examine the need for closer cooperation between environmental components; provide a framework document for further work; and identify potential options for future operations. The study will attempt to improve the overall process of coordinated effort. In the broadest sense, it will identify ways in which land and air components can better work together to meet strategic objectives.

Joint Integrated Air and Missile Defence Study

The intent of this project is to investigate and describe the integrated systems needed for NATO Air and Missile Defence. It will aim to identify shortfalls and provide

recommendations to the Alliance. Joint Integrated Air & Missile Defence is a timely and relevant topic within the Alliance and is being discussed at the highest levels of the command structure. The study will provide a comprehensive examination of current capabilities, policies, and doctrine. It will also consider the near to mid-term future. The study will present recommendations and identify suggested areas for further study.

The Comprehensive Approach to Airbase Laydown

The aim of this project is to investigate how basing decisions made early on in a campaign form part of a lasting legacy, which directly affects any subsequent exit strategy. From this work, we will produce a concept paper that sets out the requirements for the establishment of an optimal balance between the air basing demands of military operations, the needs of International Organisations and Non-Governmental Organisations, and the recovery of a Host Nation's Air sector.

Non-Kinetic Air Effects (NKAE)

In ISAF operations, Shows of Presence and Shows of Force have been used to signal ISAF's intent and influence in-theatre actors. There is, however, a dearth of evidence to support the effectiveness of these techniques. The JAPCC will investigate the realities and utility of NKAE in Afghanistan in order to inform future practice; this work will also be informed by relevant aspects of the C-IED project.

Assuring a Favourable Air Environment

The work on this paper is reaching completion, and aims to inform the debate on how NATO can assure a favourable air environment in the complex scenarios that challenge A&S forces over NATO territory and on expeditionary operations. The paper examines the A&S Power issues pertaining to NATO territory and Expeditionary Operations, in order to determine and develop concepts. In addition to Air Policing (AP) and No-Fly Zone activities, the paper considers implications from an air perspective for dealing with irregular adversaries and rogue regimes, as well as stabilisation and rebuilding in ungoverned space. The concepts and arguments take account of the political and economic reasons for NATO military action and the legality of any proposed air activity.



Mission Command Concepts

The establishment of NNEC will provide both opportunities and implications for future command in the NATO A&S environment. Focus areas include collaborative planning, self-synchronisation of actions, and shared situational awareness and understanding. The JAPCC is completing a further study into these developments, which will provide recommendations for ACT's Air C2 Concept.

NATO FP Doctrine for Air Operations

Throughout the year, increasing emphasis was placed on FP for deployed forces, a trend supported by our work on the KAIA GDA estimate. With the endorsement of the NATO Standardisation Agency, the JAPCC will recast, by mid-2010, the draft FP Doctrine for Air Operations, with the intention of achieving its full ratification later in the year.

programme of work for 2010

Projects include:

- NATO Joint Air & Space Education, Training, Exercise & Evaluation Roadmap (Finalise)
- Air Power Contribution to C-IED Fight (Finalise)
- Air-Land Integration Study
- Joint Integrated Air and Missile Defence Study
- Enhancing NATO's Space Capability
- Mission Command Concepts
- Joint Personnel Recovery (JPR) Roadmap
- Air to Air Refuelling Flight Plan
- Non-Kinetic Air Effects (NKAE)
- Comprehensive Approach to Airbase Laydown
- Logistics Contribution to Expeditionary Ops
- Air Operations in Counter Piracy
- NATO's Unmanned Aircraft Systems Flight Plan, Edition 3
- Optimising Aeromedevac in Current Operations
- Info Ops and A&S Power
- ISAF Air Port of Disembarkation (APOD) Force Development Plan



Joint Air & Space Power Conference

12th – 14th
October
2010

NATO Air and
Space Power
in contemporary operations



Registration form available online
early 2010 at www.japcc.org





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