

2010



annual REPORT

Joint Air Power Competence Centre

www.japcc.org



**Joint Air Power
Competence Centre**

introduction

In 2010, we at the JAPCC took a hard look at ourselves to ensure that all of the work we undertake remains relevant to NATO and the Nations. If we are to do this effectively we must rigorously apply best practice to our research processes and to the presentation of our results so that we continue to provide the best military advice. The ultimate aim was to build upon our hard-earned reputation as NATO's pre-eminent advocate for the development and enhancement of Joint Air & Space Power. With this in mind, we adopted the strapline of *Relevance, Rigour, and Reputation*. *Relevance* to make sure that our products are current, expressed as simply as possible and are useful to those requesting and receiving them. We must apply increased *Rigour* to our work to ensure that our staffing processes, our approach to research and our presentation of the results are all conducted to the highest possible standard. Our *Reputation* is underpinned by our *Relevance* and *Rigour* and ensures that whenever we represent the JAPCC on paper or in person, our commitment to the organisation and what it delivers, and our expertise and pride in our subject, determines the way we are viewed by others. Another aspect of our self-assessment was orchestrated through our Sponsoring Nations in the form of an Executive Working Group (EWG). The first EWG meeting was convened to discuss past, present and future projects. We gained useful insight, and it brought us closer to the Nations without whose support the JAPCC would cease to exist. This inaugural meeting was a major success, and I look forward to hosting the next meeting of this annual JAPCC event.

We can be proud of our achievements this year, which you will see summarised

in this report. I have included some key highlights to illustrate the importance of our work. High on our list of achievements has been our support to current operations in Afghanistan, particularly in the area of countering Improvised Explosive Devices (IEDs). In September 2010 we produced a primer to summarise the ways and means by which Alliance Air & Space Power can contribute to defeating this particular threat. Additionally, we published a primer on Personnel Recovery; truly a Joint effort which underpins the moral component of warfare and invariably attracts the most intense public scrutiny. Furthermore, we continue our engagement in the topic of Forward Air Controllers through the work being done in our Air-Land Integration study. JAPCC has and will remain involved in subjects included in the new NATO Strategic Concept, such as Missile Defence, Command and Control Organisational concepts, and strategic issues concerning the Air & Space domains, which are now defined as our Focus Areas.

As you will see, there are many other important aspects of our work that our multinational staff, drawn from 17 Nations, has produced. I encourage you to read the summary and, should you have any questions, to either visit our website or call us. We want to encourage an open dialogue with our stakeholders.

I am pleased to report that our staff numbers have remained stable this year at around 85% of the established strength, albeit with some significant turnover. I am pleased to introduce our new Director, General Mark Welsh III; he brings a wealth of experience from both an operational and academic perspective. We look forward to his direction and guidance. Additionally, I assumed the

Executive Director Post mid-year and I am thankful to Lieutenant General Ploeger for all he has done to endorse and promote the work of the JAPCC. Our Subject Matter Experts, the core of this organisation, continue to remain strong. Whilst a degree of ebb and flow in our manning is inevitable, 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 Conference continues to attract some of the finest thinkers and proponents of Joint Air & Space Power. We reported last year that we were at maximum capacity but this year we exceeded the numbers once again, with over 270 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.

2010 was a successful year in supporting NATO and our Nations. We now look forward to 2011 determined to continue to work on innovative ideas for the transformation of NATO Joint Air & Space Power.



Dieter Naskrent

Lieutenant General, DEU AF
Executive Director, JAPCC

mission priorities

- Develop and champion innovative visions, concepts and solutions for the transformation of Joint Air & Space Power.
- Promote and showcase the effectiveness and relevance of Joint Air & 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 & Space expertise to inform and enable decision-makers.
- Contribute Joint Air & 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 & 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 Air & Space (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.

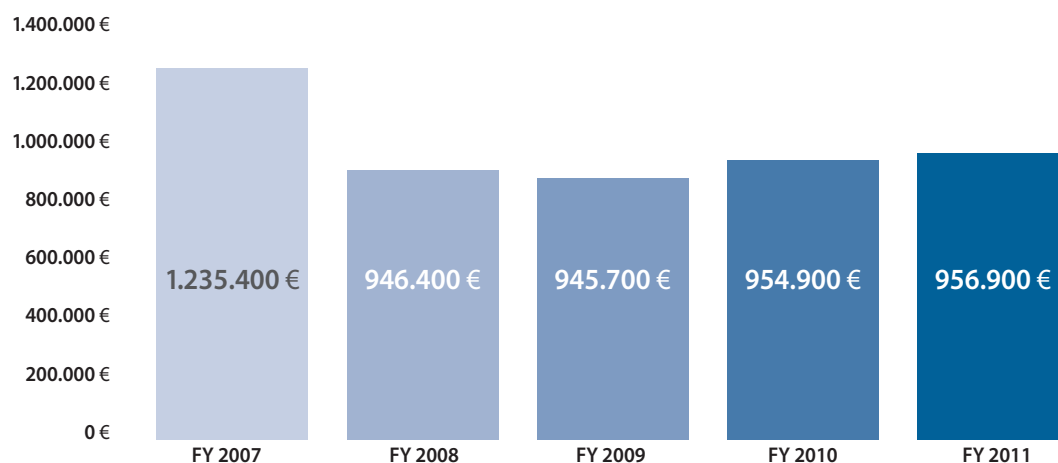
Organisational Structure

The JAPCC Director is Gen Mark Welsh III (USAF) and Lt Gen Dieter Naskrent (GAF) is 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 Paddy Teakle (RAF). 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

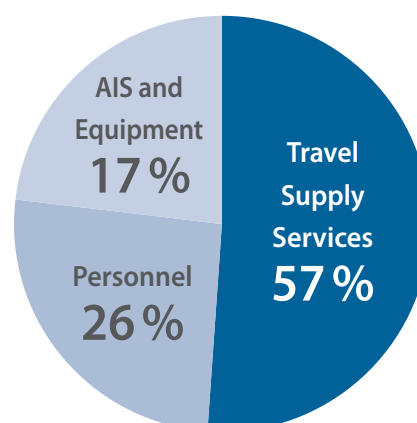
SME knowledge brought into the JAPCC organisation is exploited through a strategic and operational focus, with individuals being encouraged to apply their knowledge and experience at this level. As well as the growing body of JAPCC publications, the resulting thought, analysis and solutions are expressed in NATO forums, journals, seminars and conferences. Additionally, we engage with research organisations, industry and academia alike, to explore every avenue to promote effective and efficient Joint A&S Power for NATO.





Budgeting and Finance

Based on a 5-year average, the JAPCC annual budget remains just below one 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 Staff Officer post in JAPCC is approximately 14,000 Euros. For FY 2010, the JAPCC budget of € 954,900 mainly consisted of travel, supplies & services (57 %), personnel related expenditures (26 %) and equipment for Automatic Information System (AIS) upgrades (17 %).



JAPCC Budget for FY 2010



key developments

Mission Priority Supported:

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

Three Air Power Considerations within a Comprehensive Approach

For military airmen, the strategic landscape has changed, and it is no longer sufficient to consider military Air Power in isolation. Rather, we must adopt a far broader perspective and seek greater understanding of the overall context offered by NATO's renewed focus on the Comprehensive Approach, and the contribution made to it by the Air domain. As part of this effort, the JAPCC published a paper in September 2010 containing three subjects for consideration and discussion. The next three paragraphs summarise this publication.

An Air Basing Strategy for Expeditionary Operations within the Comprehensive Approach

All too often the short-term imperatives of expeditionary operations result in air basing decisions that do little, if anything, to support the future requirements of the Host Nation (HN). In 2010, the JAPCC completed its review of the implications of air basing within the context of NATO's Comprehensive Approach (CA). The review identified factors to be considered if the immediate need to successfully conduct an operation is not to jeopardise the longer term ability of a HN to exploit civil aviation as a key catalyst for post-conflict economic regeneration. The JAPCC's findings underlined the vital need for early and close relationships to be built between the HN, the International Community and non-NATO civil actors. These relationships should include agreement on the application of available resources, the coordination of reconstruction and development plans, and the creation of protocols for the shared use of air bases by military forces and civil

operators. Where appropriate, compliance with international civil aviation standards must take precedence over minimum military requirements and, most importantly, the complex and lengthy process of transferring authority back to the HN must be commenced as early as possible. The paper concluded that NATO must continue to champion the CA if the available levers are to be synchronised in pursuit of the desired political end state.

Governance of NATO Common Air & Space Assets

This study examined the different organisational structures and governance of NATO's common A&S assets. In order to identify the challenges in current practice, the common assets were categorized and analysed to assess ways to improve their governance. This study used five tiers of commonality ranging from NATO funded and operated assets to NATO outsourcing of contracts on operations.

Tiers of Commonality

TIER-I	NATO Owned-Common Funded (ACCS)
TIER-II	Multinational Solution-Sponsors (NAEW, AGS)
TIER-III	Multinational Cooperation (SAC, EEA, MCCE, EATC)
TIER-IV	National Augmentation (Niche Capabilities)
TIER-V	Contracting/Outsourcing (NAMS Contracts, SALIS)

Examination of each tier revealed four underlying governance issues: foundation documents; NATO decision making processes; common funding; and lack of coordination. From this, conclusions were drawn, which if addressed will allow NATO to better leverage common assets in the future:

- The governance of common A&S assets is generally orientated towards peacetime regulation rather than operational utility.



- NATO common funding and decision making processes hinder, rather than assist, deployment, especially when minor differences exist between Allies over burden sharing.
- Because common assets have been established on a case-by-case basis, there is neither strategic oversight nor a NATO-wide policy to oversee their governance and use.

Assuring a Favourable Air Environment Involves More than Fighting the Air Battle

The aim of this paper was to inform the debate on how NATO can assure a favourable air environment in the complex scenarios that challenge A&S forces both over NATO territory and on expeditionary operations. In addition to Air Policing and No-Fly Zone activities, the paper considered the 'Air' implications of dealing with irregular adversaries and rogue regimes, as well as stabilisation and rebuilding in ungoverned space. The concepts and arguments considered the political and economic reasons for NATO military action and the legality of any proposed air activity. Distribution of the initial draft generated considerable constructive feedback, mainly from CC-Air Ramstein and ACT, which was incorporated into the final version published in September 2010.

Personnel Recovery (PR)

As a stand-alone publication, the JAPCC Personnel Recovery Primer provided readers with an overview of the history, the present status and future conceptual developments in the area of PR. The aim was to explain the importance of PR to NATO members in accordance with modern military planning and leadership. It describes how PR has evolved into a consolidated effort by international joint military organisations to recover isolated personnel in all situations, whether in peacetime or combat environments.

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

Annual Joint Air & Space Power Conference 2010

More than 60 Flag Officers and over 200 senior A&S Power experts from 21 countries, including Switzerland, Austria and Sweden assembled in Kleve, Germany on 13th and 14th October for the 2010 Annual JAPCC Conference. Under the theme "Roles and Challenges for

NATO Air & Space Power in Contemporary Operations” the Conference socialised JAPCC ideas and received expert feedback in the form of panels and discussion. In his Keynote Video-Address, General Stéphane Abrial, the Supreme Allied Commander Transformation, highlighted the value of Air Power for NATO: “Air issues have always been central to NATO. Today, one of the most concrete testimonies of our commitment to Article 5 of the Washington Treaty and our collective defence is our common Air Policing, in which we jointly and collectively preserve the integrity of NATO airspace.” Subsequently, four expert panels engaged in lively discussions on relevant topics ranging from A&S Power in Expeditionary Operations to Air-Surface Integration. These discussions contributed to an enhanced degree of shared understanding of the continuing relevance of A&S Power, both in terms of its contribution to contemporary operations and future conflict scenarios.

To further develop our understanding, our 2011 Conference is titled “Understanding Air Power – A Joint Appraisal” and will be conducted 11th–13th October 2011 in Kleve.

The JAPCC Journal

The JAPCC Journal continues to evolve and grow as an important element of our communication strategy to advocate NATO Joint A&S Power. This semi-annual publication is distributed to 37 Nations. We are seeking ways to improve our distribution and feedback from the articles written by a variety of enthusiastic contributors. In Journal 11, published in Spring 2010, Supreme Allied Commander Transformation, General Abrial expressed his views on Alliance Air Power and on how transformation should be a “collective effort of innovation, rooted in the Nations, focused on building



upon what already exists." Lieutenant General Stefanini, Commander, Italian Army Aviation, provided his views from a Land Component perspective on the Air Mobility Concept with attack helicopters, tactical transport helicopters, and airborne infantry. Overall, the aim of Journal 11 was to deliver a well-balanced publication, with other articles ranging from Counter Piracy, Developing a Missile Defence Capability, to Securing NATO's Space Capabilities; we believe this was achieved.

Journal 12, published in Autumn 2010, began with an interview with General Aksay, Commander of the Turkish Air Force, on how to evolve to meet future NATO challenges. The JAPCC continues to forge ahead with, and argue for, the need to develop Space expertise in the article "What Place Space?" Again, Missile Defence took prominence, with Lieutenant General Meulman's article considering the contemporary challenges for NATO in this important area. Moreover, Major General Both, Commander, European Air Transport Command, discussed the effects of fixed-wing Air Power in a Counter-Insurgency (COIN) environment and the important role Close Air Support plays in the ISAF campaign. This Journal highlighted many contemporary issues from all components and these, as always, will help to inform the work of the JAPCC.

The Air & Space Power Contribution to Counter-IED Operations

Building on work completed in 2009 to review the effectiveness of ISAF's current A&S Power contribution to Counter-IED (C-IED) operations, this year the JAPCC delivered to ISAF a detailed gap analysis, supported by a number of recommendations. Several of these have since been accepted by ISAF, with commensurate impact on the prosecution of C-IED operations in theatre. Acknowledging that Education and Training (E&T) continues to represent a vital activity in NATO's pursuit of C-IED enhancements, the results of JAPCC research in this area were published in a Primer entitled 'NATO Air & Space Power in Counter-IED Operations', a publication designed to reach as large an audience as possible in order to highlight the contribution made by A&S Power in addressing what has become one of the defining features of asymmetric conflict. A further contribution

to C-IED E&T is being provided by JAPCC SMEs providing briefing support to courses conducted by the newly-accredited C-IED Centre of Excellence in Spain. Finally, the JAPCC recently embarked on a further C-IED work stream, this time supporting HQ JFC Brunssum in seeking to ensure that the unique attributes offered by airborne and space-based ISR and targeting capabilities are reflected in NATO doctrine. The JAPCC will undertake this work as a full member of the ACT-led NATO C-IED Task Force.

NATO Air-Land Integration Study

In July 2009 the JAPCC Director stated that it was his intention "to task my JAPCC staff with a broader evaluation of air-land integration from a strategic perspective." Accordingly work on this significant undertaking commenced with the development of an Operational Assessment of Air-Land Integration in the Alliance. Within the task's overall scope, particular attention was paid to the targeting and planning processes, Close Air Support, helicopter Close Combat Attack, a possible Joint Fires Observer programme for NATO, Situational Awareness improvement options, and Intelligence, Surveillance and Reconnaissance capability. To date, emerging findings and recommendations primarily concern shortfalls in E&T, and specifically in exercise activities. The Operational Assessment has also highlighted the fact that Air-Land Integration must be a key consideration in the development or modification of operating concepts, doctrine, STANAGs and tactics, techniques and procedures. Furthermore, it has confirmed that while the focus for this work remains at the Strategic and Operational levels, there is clearly a close relationship between these and the Tactical level, where incidents have the ability to deliver Strategic impact. The Operational Assessment will be printed and distributed in 2011.

Mission Priority Supported:

Partner with relevant NATO entities and Nations to synchronise work and products

Force Protection

Throughout 2010, the JAPCC continued to provide a focus for the delivery of NATO Force Protection (FP) Doctrine for Air Operations, submitted in September last year as the conclusion of four years of concerted effort. Developed and drafted largely by JAPCC SMEs, the Doctrine represents a significant contribution to the Alliance's transformational goals. At the same time, the JAPCC has provided both intellectual and practical support to the development of Joint FP Policy and for NATO Combined Joint FP capability development, as well as hosting both the SHAPE FP Working Group and Annual Conference. The JAPCC also conceived, led and delivered an extremely well-received FP briefing day for NATO's International Military Staff. On the FP E&T front, 2010 marked the completion of a comprehensive review of the delivery of FP E&T at the NATO School in Oberammergau. Separate legacy courses were combined into a single course designed to reflect the demands of current operations as well as enduring FP themes. Following successful trialling of the new course, in November 2010 primary responsibility for its delivery was returned to ACT HQ, with the JAPCC continuing to provide briefing and mentoring support as required.

Information Operations

While Information Operations (Info Ops) is by definition an inherently Joint activity, the A&S Power contribution is highly significant, bringing to bear a unique suite of capabilities and tactics, techniques and procedures. Reflecting this important contribution, the JAPCC's Info Ops SME has, throughout 2010, continued to work to develop a comprehensive network of those organisations and individuals, both within the Alliance and beyond, involved in the development and exploitation of Info Ops. As well as engagement with external agencies including Joint Force Command Headquarters, the Joint Allied Lessons Learned Centre and the Organisation for

Security and Cooperation in Europe, the JAPCC has sought national-level engagement, most recently with the UK Defence Academy and Cranfield University. The JAPCC's aim throughout remains pursuing its role as the Alliance's mandated advocate for A&S Power in this area.

The NATO Air-to-Air Refuelling Initiatives

The JAPCC AAR Cell produced a report highlighting past, current and future AAR issues. This report will be published in 2011 as the NATO AAR Flight Plan. It aims to refresh NATO members, following a decade of expeditionary operations, on the AAR capability, concept and limitations, and to influence debate and future strategies. The JAPCC AAR Cell is a permanent member of the Aerial Refuelling System Advisory Group (ARSAG) and the custodian for the ATP 56(B) AAR publication. Additionally, JAPCC collaborated on the Future Technologies Aerial Refuelling (FTAR) Study, a team of 5 Nations to study various future technologies for aerial refuelling. In 2010, JAPCC participated as part of the team to address those technologies for autonomous aerial refuelling of Unmanned Aerial Vehicles (UAV) as well as providing operational experience and expertise to the study proceedings. JAPCC also provides educational briefings to member nation courses such as the US Tanker Planning Course held each year to educate US personnel on Alliance AAR issues. The JAPCC AAR Cell remains the sole staff focus for AAR issues in NATO; there is no comparative focal point within either ACT or ACO.

Mission Priority Supported:

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

Joint Integrated Air & Missile Defence

This project aims to identify challenges and provide recommendations for the integration of NATO's Future Air & Missile Defence System. Throughout the second half of 2010, the JAPCC has supported NATO Organi-

sations in policy and doctrine developments in the area of Integrated Air and Missile Defence (IAMD) and in preparing for Lisbon Summit Heads of State and Government (HoSG) decisions on the introduction of NATO Missile Defence. Listed here are examples of the main engagement activities:

- Support for the NATO Air Defence Committee (NADC) in discussions on integrating space into NATO's Integrated Air Defence System (NATINADS).
- Supporting the NADC and NATO's Military Authorities (NMA) to investigate the consequences at the political/military level of introducing NATO Missile Defence.
- On order of SACEUR/C-JFCB, analysis of the US European Phased Adopted Approach (EU PAA) for Missile Defence in relation to the development of a US-NATO CONOPS for Missile Defence, by Com CC-Air Ramstein.
- Support the NADC to tailor NATO's Air Defence Capstone Document and Air Defence Policy to the requirements of the new NATO Strategic Concept.

- During the 2010 JAPCC Conference, hosting discussions on the future of NATO's Air Policing mission.

Countering Hybrid Threats

HQ ACT has the lead for developing a capstone document on Countering Hybrid Threats. JAPCC contributed to this subject from an A&S perspective and submitted a paper as JAPCC's contribution. The study highlighted the challenges to Air Power of the hybrid threat environment. JAPCC presented its work to the Countering Hybrid Threats Workshop in Turkey.

Conference and Exercise Support

In addition to hosting the Annual Conference, the JAPCC has been in demand to present its views and products at numerous external conferences and E&T events throughout the year. Whilst the following list is not exhaustive, it serves to highlight those activities where SMEs have presented on behalf of the organisation:



Support to NATO Organisations:

- Concept Development and Experimentation (CD&E) Conference 2010
- NATO C-IED Task Force
- Emerging Security Challenges Division (ESCD) C-IED Conference and Demonstration
- Hosted the Space portion of the NATO Global Commons workshop
- Bi-Strategic Commands (Bi-SC) Air Force Protection Seminar
- Participated in the NATO Response Force (NRF) 15 and 16 NATO Network Enabled Capability (NNEC) Assessments
- Air Izmir Commander's Conference
- Hosted 3rd NATO Research and Technology Organisation (RTO) Space Project related to Space situational awareness
- NATO Joint ISR activities at Tactical Leadership Program (TLP)
- JALLC sponsored NATO Lessons Learned Conference
- NIAG Study Group 146 – Protection of low-flying aircraft
- Info-Ops support to JFC-Lisbon, JALLC and CAOC-10
- Info-Ops Harmonisation Conference
- Forward Air Controller Conference
- Courseware support for NATO Force Protection Course
- Comprehensive Approach inaugural Stakeholder Meeting
- SHAPE HQ Rotary Wing Employment in Special Operations



Support to National and External Agencies:

- Polish National Defence Academy Conference
- 9th Congress on EU Security and Defence 2010
- Spanish International Cátedra Alfredo Kindelán Conference
- RAF HQ Air Command, Air Warfare Centre & Defence Academy
- European Air Group Study on Combat Search and Rescue (CSAR) and Joint Personnel Recovery (JPR)
- 2010 Multinational Ballistic Missile Defence Conference
- USSTRATCOM Strategic Space Symposium
- US National Defense University
- JPR Agency and JPR Education and Training Working Group
- European Air Group Course on Personnel Recovery CJPRSC2010
- European Air Transport Fleet (EATF) Diplomatic Clearances and Landscaping Studies

- German Space Symposium

- German European Security Association Conference Keynote Address

Support to NATO and Multi-national Exercises and Experiments:

- Participated in the US Schriever Space Wargame as NATO representative
- Exercise NIMBLE TITAN 10
- Exercise JOINT OPTIC WINDMILL
- Development support of Exercise RAMSTEIN DYNAMO

Mission Priority Supported:

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

**NATO Steering Bodies and Doctrine**

JAPCC personnel fill chairman, 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)
- Joint ISR Panel
- Aerial Refuelling System Advisory Group (ARSAG)
- ARSAG Interoperability Panel
- NATO Air-to-Air Refuelling (AAR) Panel

Co-Chairmanship:

- Maritime Air Coordination Conference
- ARSAG Lighting, Formation, and Markings Panel

Panel Member/Working Group:

- Movement and Transport Forum
- Air Operations Support Working Group (AOSpWG)
- Bi-SC Force Protection Working Group
- ACT Joint ISR Integrated Capability Development Team
- NATO Air Transport Panel
- NATO Search and Rescue (SAR) Panel
- Helicopter Inter-Service Working Group (HISWG)
- NATO Counter-IED Task Force
- Joint Capability Group on Unmanned Aerial Vehicles (JCGUAV) & Joint UAV Panel (JUAVP)
- SIGINT/EW Working Group
- NATO Electromagnetic Spectrum Denial (ESD WG)
- Combat Service Support Working Group
- Logistics Planning Advisory Committee

NATO Doctrine Support:

- Custodian: ATP-56(B) – NATO AAR Procedures
- Custodian: STANAG 7215 – Signal Lights; submitted for higher approval
- Custodian: STANAG 7218 Colour Markings; submitted for higher approval
- Custodian: ATP 3.3.4 VOL II NATO AAR procedures; at AOWG/AOSpWG for approval
- Custodian: ATP 3.3.4 Vol I NATO Air Transport procedures
- Custodian: ATP 3.3.4.3(B), ST 3998-TTPs for NATO Air Transport Operations
- Drafting team: ATP-49 Use of helicopters in Land Operations
- Study Draft: AJP-3.3.9 NATO Personnel Recovery Policy/Doctrine
- Joint Operational Guidance: JPR
- Review: AJP 3.3 Allied Joint Doctrine for Air & Space Operations

JAPCC's Strategy-to-Task Framework

The JAPCC Memorandum of Understanding explicitly connects the organisation to NATO, ACO, ACT and the Nations. This is reflected in our Vision, Mission, and Mission Priorities as shown on the following page. In 2010 we reviewed our process through what we termed the JAPCC Improvement Campaign (the 'JIC'), which highlighted the need to more clearly define our annual work streams, key stakeholders, and our customers. To this end, we formulated the JAPCC Comprehensive Plan for 2011 in order to articulate the interrelationships that exist between: our Mission Priorities and our products, and the activities through which we pursue them; our key stakeholders and customers; and the strategic context within which the JAPCC operates, and the resultant Focus Areas that we identify in order to inform our work. The overall aim is to guide and inform the transformation of NATO A&S Power. The strategic context offers inputs from external sources, including NATO Strategic Guidance, Comprehensive Political Guidance and NATO Military Authorities' Strategic Priorities and Objectives, as well as Bi-SC guidance in the form of Priority Shortfall Areas and High-Level Capability Requirements, all of which inform our Focus Areas. These are consolidated with internal guidance from our Director, Executive Director and from National positions, through the forum of the JAPCC EWG. The Strategy-to-Task Framework of the JAPCC Comprehensive Plan is shown in the schematic on the following page.

JAPCC Focus Areas for 2011**Space**

The JAPCC will focus its efforts in 2011 on continuing to press for an agreed Alliance position on Space, emphasising both the ubiquity and the inherent opportunities and vulnerabilities that the Space domain represents.

Missile Defence

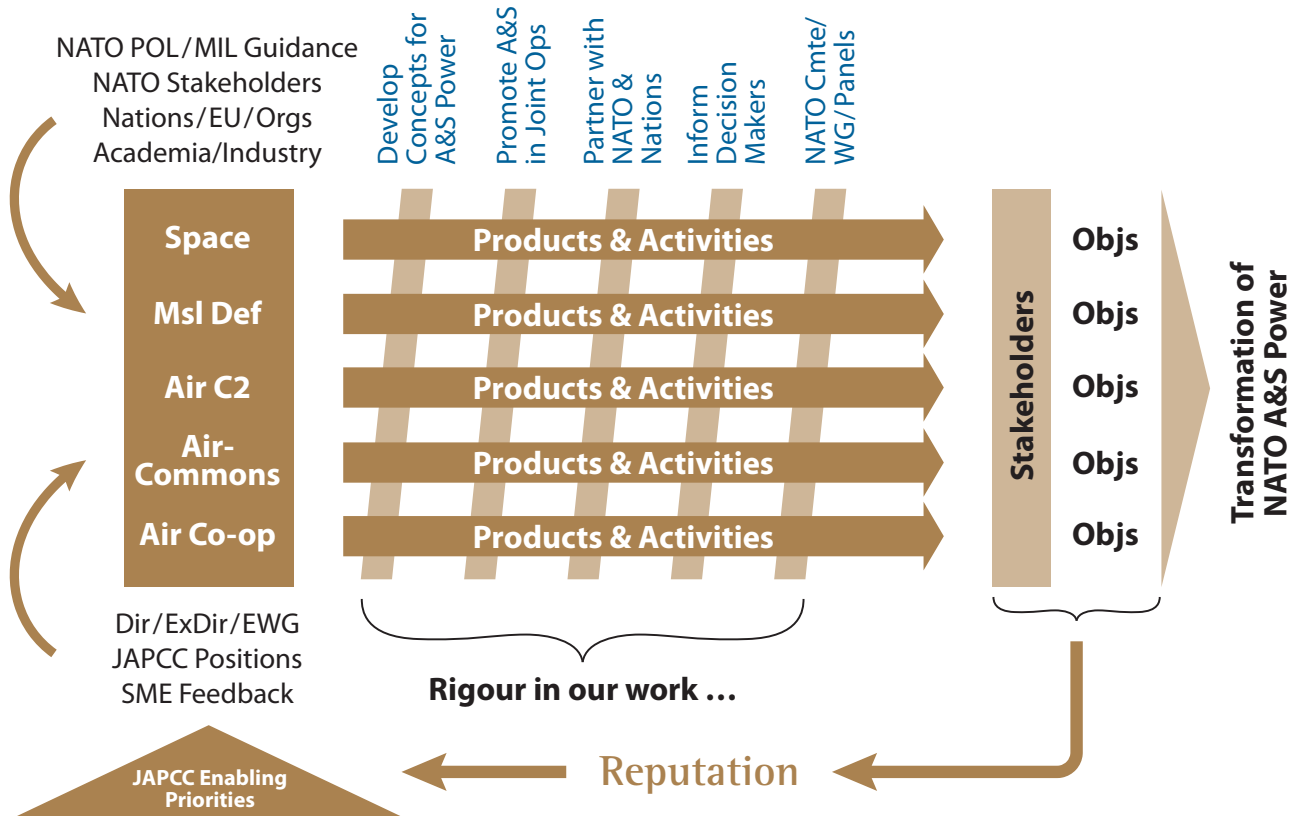
The JAPCC's focus on Missile Defence will continue in 2011, and will include the protection of fielded forces as well as territorial missile defence.

Air C2 in the New NATO Command Structure (NCS)

In the NCS, NATO has outlined proposed changes to the command and control structure of the Alliance. As the recognised

Strategy-to-Task Framework

– JAPCC Mission Priorities –



CoE for Joint A&S Power, the JAPCC will work to ensure that the changes allow the effective application of Joint Air Power across the full spectrum of warfare.

Air & Space Global Commons

SACT has outlined four different 'Commons' that make up the Global Commons. These are; Cyber, Space, Maritime, and Air. As NATO's pre-eminent advocate for the utility and transformation of Alliance Joint Air & Space Power, the JAPCC will focus its attention on the Air & Space Commons.

Pursuing Cooperation in the Air Domain

Within the Alliance, downward pressure on national defence budgets will increasingly act as an incentive to explore new and innovative opportunities for cooperation, collaboration and partnering arrangements between Nations. The JAPCC will advocate the pursuit of such initiatives in respects of the development and delivery of Air Power capability throughout the Alliance.



ongoing projects and 2011 outlook

Joint Integrated Air and Missile Defence Study

During 2010 the JAPCC and JIAMDs project team have actively participated in, and closely monitored, developments in Air and Missile Defence for the Alliance. In the first half of 2011 the JAPCC intends to develop a road map on Air and Missile Defence as a precursor to a vision paper to be completed early in 2012. This vision paper will outline Integrated Air and Missile Defence for NATO from 2025 and beyond, including the Air Policing dimension. We are linked with the Air Components and with both the International Staff and International Military Staff at NATO HQ. Both Missile Defence and Air Policing study areas should address a number of issues raised by the Alliance and by Nations.

NATO's Comprehensive Approach

As stated in the latest NATO strategy, the provision of security to the Alliance's territory and populations, through

full-spectrum Crisis Management, remains central to NATO's *raison d'être*. A key means of facilitating this security is via NATO's contribution to a Comprehensive Approach (CA), exploiting the mutually beneficial use of civil and military resources through common, shared interests and actions. HQ SACT, supported by the Civil-Military Cooperation (CIMIC) Centre of Excellence, has begun the process of defining those elements that help to put the CA into practice, identifying areas of shared civil and military interest and concern. Already fully engaged in this work, the JAPCC will continue to provide input to discussions on next steps and strategic considerations, ensuring that efforts to better harmonise NATO's CA reflect fully the unique contribution made by A&S Power.

Enhancing NATO's Space Capabilities

JAPCC initiated this project to analyse the NATO environment, exploring, evaluating and outlining common factors among Allies' initial space capabilities and/or programs while focusing on Space E&T. Knowledge and understanding are the foundational capabilities to gain a correct and robust Space awareness. To this end, this study seeks to enhance NATO Space capabilities by improving educational programs and helping to define new military roles, structures and requirements.

Counter-Improvised Explosive Devices (C-IEDs)

Work in the C-IED area in 2011 will focus on three areas: the updating and re-issue of the C-IED Primer ('NATO Air & Space Power in Counter-IED Operations') to reflect the expected ratification of revised NATO C-IED Doctrine; the review of Intelligence, Surveillance and Reconnaissance (ISR) and targeting doctrine to ensure the inclusion of C-IED-relevant factors and considerations; and briefing and mentoring support for up to five Staff Officers Awareness Courses (SOAC) conducted at the C-IED CoE. The JAPCC will also provide Info Ops SME support to the SOAC. The six month detachment to HQ ISAF of a member of the JAPCC C-IED Project team will provide all three areas with invaluable insights and current perspectives on theatre priorities and developments in this vital field.

Regional Fighter Partnership

The harsh realities of scarce funding across NATO suggest that national authorities have to do more in today's environment compared to historically traditional methods of procuring, preserving and controlling Air Power capabilities. This study aims to describe considerations for a regional fighter aircraft partnership

concept to share costs across common capabilities and enabling aspects, such as logistics, maintenance and training, while maintaining national sovereign command over assets. The focus will be on existing partnership examples in order to gain insights on cost-sharing considerations, but also to explore ways for a fighter partnership to be more robust in terms of integration and interdependence.

A&S Contribution to Counter-Piracy Study

In 2011, the JAPCC will begin a study on how A&S assets can be utilised in Countering Piracy (CP). Specifically, the aim of the study is to determine optimum

use of A&S assets in the CP mission off the Horn of Africa, in order to provide the Alliance with a tool to plan A&S asset employment. The project further aims to extract best-practice concepts for the application of A&S Power in other Maritime Domain operations.

JAPCC Support to NATO Defence Planning Process (NDPP)

JAPCC will continue to support the NDPP within the Capability Requirements Review (CRR) 12. JAPCC provides expertise on Capability Codes, Capability Statements, Capability Hierarchy, Capability Assignment Logic and Reference Capabilities Development to support derivation of Military Capability Requirements based on the agreed NATO Level of Ambition.

Chemical, Biological, Radiological and Nuclear Developments

The arrival in late 2010 of a Chemical, Biological, Radiological and Nuclear (CBRN) SME has allowed the JAPCC to begin exploring and exploiting a new area of research. As well as contributing to existing work streams, this expertise will allow the JAPCC to identify and investigate aspects of Alliance A&S Power previously unavailable to it, with a number of potential projects currently under consideration.

JAPCC Airlift Flight Plan

In order to catalogue current NATO Airlift Capabilities, work completed in 2010 will be published in the form of a Flight Plan setting out existing and planned Air Transport Capabilities, together with the various partnership programmes that support them.

NATO Airborne Early Warning and Control Force (NAEW&CF) Future Capabilities

SACEUR's CONOPS for the employment of the NAEW&CF, along with the associated Tactical Employment Guide, are driving the NAEW&CF community to consider how it should better exploit and employ the available technology and systems on board the AWACS aircraft. JAPCC continues to support the necessary transformation of NAEW&CF; the available platform could and should provide its full capability to NATO operations for both Alliance and expeditionary operations.

Command & Control/Leadership Competence Improvement

JAPCC initiated a project which focuses on the idea of using non-computer based simulation systems as learning tools and applying constructivism for the E&T of leaders. After testing this concept within JAPCC, a second experiment was executed in collaboration with the German Air Force Officer School. The latter seminar proved the value to E&T of this approach, with all participants assessing this event as high value and successful E&T allowing individuals to improve their personal command & control/leadership competence. JAPCC will complete this project in 2011 through a series of seminars to train-the-trainers to benefit internal and external audiences.

The Future Role and Mission of Air & Space Power in 2025 and Beyond

JAPCC will start a project to define and address the Future Role and Mission of Air & Space Power in 2025 and Beyond.

Joint Air & Space Power Conference

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Understanding Air Power A Joint Appraisal



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