

**Jürgen K.G. Rosenthal**

## **JAPCC CONFERENCE 2006**

*"The Transformation of Joint Air and Space Power - the Exploitation of Unmanned Aerospace Capabilities in the Alliance"*

The second annual conference hosted by NATO's Joint Air Power Competence Centre, held from 17th until 19th October 2006, was established to discuss "The Transformation of Joint Air and Space Power - the Exploitation of Unmanned Aerospace Capabilities (UAC) in the Alliance" and to introduce the JAPCC "Flight Plan" for Unmanned Aircraft Systems (UAS) in NATO. The conference was designed to establish an exchange of information and knowledge between the participants presenting the Alliance in regard to air power and space issues of interest. This exchange should serve as a venue through which to examine avenues for cooperation and collaboration as NATO looks to current and future aerospace requirements in support of its forces in theatre. The conference took place in Kleve, Germany, at the Georgia Kleve Hotel, participated by approximately 200 NATO military, civilian delegates from 23 nations and representatives of military industries.

The objective of the Flight Plan is to review UAS (the term UAS is used in order to best reflect all aspects of operations, UAV only focuses on the aircraft, not the system as a whole) in NATO and to find out where NATO has gaps in its capabilities or issues that need to be addressed to the appropriated organisations to solve these problems. This Flight Plan also makes possible recommendations how to rectify the identified shortfalls, because lessons learned from past and current military operations show that NATO nations, commanders and their fielded forces have significant capability gaps. NATO recognised the importance of UAS already for a long period. More than five years ago, the first working groups were formed to address the issues associated with integration of UAS into NATO force structure. The initial product was a NATO Standardisation Agreement (STANAG) for Unmanned Aerial Vehicles that was published in 2002.

### **Opening Remarks and Keynotes to the Conference**

The conference was opened by the Executive Director JAPCC, Lieutenant General Hans-Joachim Schubert (GEAF). In his opening remarks, he underscored the importance of the annual event and the vital contribution that each participant would make to its success and notified that the aim of the conference is to exchange ideas and opinions on the development and employment of Unmanned Aerospace Systems. Many NATO nations already have capabilities however, NATO has not thought through how it will seek to employ them, and, therefore, does not have the concept of operations, doctrinal guidance or technical means to integrate them into current operations or exploit their capabilities. That is why the JAPCC is writing a Flight Plan for UAS to provide a coherent and co-ordinated plan for NATO to transform UAS technologies into usable capabilities for current and future operations. Another aim for the conference is to determine whether the factors and criteria, identified in the draft Flight Plan are correct and complete, and where are mistakes, omissions or developments in a wrong direction. This conference aims to facilitate a common understanding of the aerospace scope of this domain with specific emphasis on operational exploitation aspects in the Alliance. JAPCC wants to take the lead in the discussion of how NATO could or even should employ unmanned aerospace capabilities in an effects-based, task- and mission-tailored operating spectrum.

Special Guest of Honour was the Supreme Allied Commander Transformation, General Lance L. Smith (USAF). In his keynote he underlined that Centers of Excellence like the JAPCC are NATO's drivers for change and innovation. He pointed out as an important fact that the threat has changed, and the requirements to respond have changed. Technology, capabilities and environment have changed too. Now it is the job of the leaders of NATO transformation, to tie it all together and bring about the effects NATO needs in the new battlespace to succeed. "The value of JAPCC with its body of 17 nations is obvious, in our ability to be able to go to those 17 nations to bring everyone else along with the standards," he said. "ACT will bring it to the next step, in conjunction with the Allied Command Operations (ACO), using the NATO Response Force as a transformation vehicle. This is how you ultimately transform the entire Alliance." Closing his keynote, he underlined that "the fight cannot be won by the military alone."

The Director JAPCC, General William T. Hobbins (USAF), began with a discussion of the history of UAS and highlighted the circumstances that led to their further development. The decrease in electronics cost, along with increases in computing capability and miniaturization combined with improved communications and sensor capabilities led to greater availability. He also addressed the future of UAS in NATO. The Alliance is acquiring the first integrated manned-unmanned aircraft system: The Alliance Ground Surveillance (AGS) system which will be equipped with radar that detects moving ground targets and is expected to have an initial orbit capability in 2012. AGS industries is a transatlantic consortium led by Northrop Grumman Corporation and Airbus.

According to the US Department of Defence, there are 32 nations developing or manufacturing more than 250 models of UAV. Some 41 countries are operating over 80 types of UAV. The United States alone has over 18 types and is operating three thousand unmanned aircraft. Since 2001, the growth has been tremendous. Overall, unmanned aircraft spending is expected to grow ten-fold in the 10 years from 2001 to 2011. From the year 2000 to 2010, unmanned aircraft are expected to grow from 4% of total funding for all aircraft, to 31%.

## **Panel Discussions**

The JAPCC UAC Flight Plan identifies a number of problems associated with taking UAC forward in NATO. As part of the conference, four key areas were discussed in panels.

- Panel 1 – Unmanned Aircraft Capabilities in operations today.
- Panel 2 – UAC in the long view – future developments.
- Panel 3 – Joint perspectives – challenges and vision.
- Panel 4 – National roadmaps and NATO Flight Plan.

These panel discussions concluded that air and space power has can offer a lot in tackling terrorist and insurgent threats, because there are no front lines and ground forces cannot control the ground as deemed necessary to be successful in operations..

As mentioned by Lieutenant General Schubert in his closing remarks, the panel discussions helped to focus thoughts on the conference theme and will motivate and enable to refine the JAPCC UAS Flight Plan, which apparently has the potential of filling a current void in NATO. The JAPCC UAS project team will have to analyse the outcome of this conference in order to identify topics and to turn them into a visionary concept of high standards. If successful, JAPCC can contribute quite a lot to the relevance of air and space power in

NATO, something that was already addressed in great depth during the first JAPCC conference last year.

As a result NATO should develop detailed policies and doctrines to guide the future development of UAS and fully integrate them into future combined and joint operations.

The next JAPCC conference is planned to hold on 16-18 October 2007.

## **About JAPCC**

The Mission of the JAPCC is to provide innovative and timely advice and subject matter expertise, both proactively and responsively, for the transformation of Joint Air and Space Power to the Alliance and Nations. Designated as a Centre of Excellence, with a strategic and operational level focus, JAPCC offers independent thought, analysis and solutions. The mandate is to examine all aspects of air and space power as pertain to NATO current and future requirements. The JAPCC is headed by a 4-star Director, General William T. Hobbins (USAF) and a 3-star Executive Director, Lieutenant General Hans-Joachim Schubert (GEAF). Established in January 2005, the JAPCC is supported today by 17 NATO nations.