

Joint Air and Space Power Conference 2006

Lieutenant General Schubert's Opening Remarks

Distinguished guests, Ladies and Gentlemen,

may I wish you a very warm welcome to the Joint Air Power Competence Centre Conference 2006. I would like to thank you for making the time to come to our Conference, and thank you in advance for your contribution. The aim of the Conference is to exchange ideas and opinions on the development and employment of Unmanned Aerospace Systems.

In many respects, NATO is playing “catch up” in this field since many NATO nations already have these 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, in which we hope to provide a coherent and co-ordinated plan for NATO to transform UAS technologies into usable capabilities for current and future operations. Therefore, one of our aims for the Conference is to determine whether the factors and criteria we have identified in our draft Flight Plan are correct and complete, and where we have made mistakes, omissions or even, perhaps, where we are headed in the 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. We want 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, making them indeed “glamorous and glorious” assets of the future, even if the “dull, dangerous and dirty” tasks will prevail.

I am delighted and grateful that our Conference will begin with General Smith, Supreme Commander for Allied Command Transformation, providing the strategic context and framework for us to understand the imperatives and importance of UAS. I recognise that there have been Unmanned Air Vehicles around for many years in some form or another, but the development of the technology and the almost exponential increase in the number and type of Systems over the last 10 years or so is surely transformational.

Similarly, I am looking forward to hearing General Hobbins, Director of the JAPCC and COMUSAFE, and his perspective as an Air Component Commander who must employ UAS.

The 2 keynote speakers will be followed by 4 panels,

- examining what we have learned from current operations;
- taking a look at the technology of UAS;
- then a look at the challenges we face and how we might meet them;
- and finally, discuss national and Alliance plans for UAS development.

In doing so, we hope that we will all be able to share our knowledge, views and aspirations in a frank and open debate. This relies on the willingness of every one of us to articulate our views and questions without fear of their coming back to bite us. Therefore, I

Joint Air and Space Power Conference 2006

ask every one of you to observe, throughout the Conference, the Chatham House Rule of non-attribution.

Ladies and Gentlemen, before we begin the Conference, and I hand over the control to our moderator, I would like to add some thoughts on the efficient and effective exploitation of capabilities. They are mainly based upon their assured characteristics, qualities and actual availability. Assured Capabilities would span from maintainability to general airworthiness to full operational controllability as main features, all based upon Assured Availability, of course. Operative Usability in the Field stands for what the commander would expect being available to him, for example ease of handling, robustness, reliability and combat effectiveness. This does not necessarily mean that forces have to be assigned to him. The planned and delivered effects of these capabilities must meet his requirements, however, in the joint and combined concept of network-centric operations and in the spirit of sharing information and knowledge.

The Human Interface, often talked about but rarely adequately acknowledged, encompasses everything from selection, physical and mental pre-conditioning, training, evaluation, qualification, hands-on practice, supervision and teamwork. I assess this to be one of the more important areas of interest with respect to achieving a high level of network-centric effectiveness (you may also call this full integration). The Human Interface is essential when considering the operation of manned and unmanned systems side-by-side or even as integrated force packages. We are all aware that in the air environment technology is and remains a dominant factor. Progress in aviation has been regulated or enabled primarily by technical developments, be they in airframe, engine or avionics. In the early days of aviation, ergonomic aspects were either ignored or were given a low priority. Similarly, we have bought the latest high performance technology and then worked out how to use it once we had it in service, a process that would typically last for many years, or even the service life of the equipment.

It would be natural if in the field of UAS, human factors were again accorded a low priority. I ask you to remember that these “unmanned” systems will actually be manned. Men (and women for that matter) will task them and programme them to play their parts in plans devised by men, and to operate them in the vicinity of other men. I think that we safely assume that there is an agreed operational requirement for unmanned capabilities, be it in the civilian or the military domains, albeit interpreted as different visions with different major challenges. Based upon what we at the JAPCC would define as a vision and what we have assessed as major challenges so far, unmanned capabilities are in not significantly different from manned capabilities. Exactly the same fundamental issues must be addressed and solved.

As already mentioned, we must learn from previously identified lessons and get things right from the beginning and forcefully achieve the network-centric and effects-based approach to operations as a holistic effort of the military, the academia and the industry. Humans will need to devise the concept of operations for UAS and learn to interact with them. Furthermore, whereas in the past we were engaged in a cold war and had the luxury of time to develop our concepts, doctrine and tactics, techniques, and procedures (or TTPs); today, we are engaged in real operations and will likely continue to be engaged in operations, or at least, be in high readiness to deploy, for the foreseeable future. Therefore, we do not have the luxury of long-timescales to develop the human elements of these systems. We need to address these issues now just as surely as we need to address the technical aspects of compatibility, interoperability and eventually integration. It is our intention to address all of

Joint Air and Space Power Conference 2006

these fundamental issues in our UAS Flight Plan and I expect some very useful comments from the decision-makers and functional experts in the audience,

Ladies and Gentlemen, the JAPCC has to give special thanks to the supporting organisations. Without their financial support we would either not be here to discuss the vision and major challenges related to the exploitation of unmanned systems in NATO, or we would have had to pay a much higher price to make it happen. May this also be an open invitation to future supporting organisations to consider their contribution to our annual conference and to our journals. You are getting a lot for relatively little money. As for the conference, consider the money you save by not having to travel in order to meet all the experts and decision-makers assembled here, we make effective networking easy, user-friendly and pleasant.

Ladies and Gentlemen, this conference is for you. I have told you about the JAPCC's aims for this conference, but everyone here, whether you are an academic, from a NATO organisation or from industry, will have come here with own ideas about what you hope to gain from this conference. Make sure you get what you need. We are all here to help each other in our different capacities, skills and expertise. If you have a point to make, this is the place and the time, particularly when you consider that we adhere to the Chatham House Rule.

The JAPCC is a Centre of Excellence. In order to be excellent or even competent, we need your knowledge, your views and your advice. The conference agenda has been tailored to facilitate a free exchange of opinions. Two outstanding speakers will help us setting the stage for the subsequent set of discussion panels and our conference moderator will be our expert guide through the programme. Last but definitely not least, we expect a lot to be achieved by social networking, which is an essential element of our conference.

Finally, it is my pleasure to introduce our Conference Moderator, Air Marshal retired, Philip Sturley, who has kindly agreed to give up his own time and assist us. Philip had a distinguished career in the Royal Air Force, including that of Assistant Chief of the Air Staff and culminating with his final appointment as Chief of Staff at the NATO Air Component HQ Ramstein. So he knows a bit about Air Power and, hopefully, (*stare at the audience*) crowd control. With that remark I now put us into the trusted hands of the conference moderator Air Marshal Phil Sturley.