

Joint Air and Space Power Conference 2006

PANEL 3

"Joint perspectives, challenges and vision."

LTG Soligan - ACT, DCOS Transformation

- Introducing members of panel and additional remarks.

BG Baldazzi - JAPCC, ADC

- Importance of jointness in coalition operations and in multi-national airspace.
- Need to share procedures.
- Bandwidth needs negotiations with civil authorities and agencies.
- Common thought is a strong desire for worldwide standard and common vision for UAS.
- Need for a single body in NATO to handle the issue, suggestion: ACT.
- Need of NATO common rules to operate UAS in national airspace.
- Creation of multi-national standards by NATO.
- NATO is in a strong position to influence world standards.
- Radio frequency spectrum, use and allocation, needs a greater focus and a coherent management approach.
- Integration and interoperability deemed necessary.
- Need to establish a NATO UAS.

Col Choate - JUAS COE, Dep Cdr

- USAF executive agent for UAS.
- JUAS dealing with UAS operational issues.
- Role - support the Joint Operator (warfighter + homeland security) - common aircraft systems, capabilities, doctrines, TTP etc - joint integration and interoperability.
- Need of a strategic plan.
- Conducting study on MQ1s - does the USAF need more?
- Surrogate UAV good idea for training - however, need of free airspace (Canada).

LTC Tanner - JUAS COE

- CONOPS - difficult issues like C2, airspace.
three different scenarios (e.g. one was a major combatant- Korea).
- Pacific rim - limited availability of C-band frequencies.
- Second effort to integrate UAS in airspace and how do you request UAVs.
- Do we need the asset or the product?
- Developed UAS operating charts - first effort for national airspace integration and second chart for UAVs available/best suited for employment at strategic, operational and tactical levels.

Wg Cdr Strong - Eurocontrol (Joint civil-mil)

- Drafted ATC rules for use of Mil UAVs outside segregated airspace.
- Conducted at a level of safety the same for manned aircraft.
- Basic principles: No increased risk, procedures as per manned aircraft, provision of ATC services to UAV must be transparent.

Joint Air and Space Power Conference 2006

- UAVs with similar ATC-equipment as manned aircraft.
- System will not be adjusted to accommodate UAVs, same criteria, procedures etc as current manned aircraft.

Q&A

Comment: Referred to Flight Plan: Good start, needs better focused, refined. No opening remarks. Paper should not leave open questions. Analyze situation, present clear recommendations in clearest, annex.

- Priority of what functions should be performed.
- There is an open issue - who has C2? That should be clearly stated.
- AGS is not yet a NATO programme.
- Please mention SHAPE. Be aware SHAPE and ACO not synonymous.

Q – Flight Plan not well focused. Gives impression, that industry has produced UAVs, what do we do with them?

A - Yes we should have started with opening remarks. I thought AGS is a NATO programme, UAVs flying in NATO theatre for 10 years.

Q - We have UAVs - Why do we not start talking about it?

A - JAPCC doesn't want to reinvent wheel, but adding value to what other people are doing. We do not put out the gospel. That's why we included questions. We don't have NATO answers. We put questions to trigger the debate and refine inputs.

Comment: Comments are appreciated. It was a first trial to get hands on the complex subject. We invented the problem ourselves (self-tasked). But clearly there is a problem. We will write some sort of opening remarks, using what we read in national plans. A couple of open issues, we could make suggestions on those problems needed to be taken up at appropriate NAOT HQ. Flight Plan's output is useful to take it for action and to put into NATO bodies. We should use lessons learned from Afghanistan before we can fix all these problems and create new capabilities, but that is a difficult process. Where we are is a step in the journey. More work to implement the requirements and proposed solutions from operators has to be done.

Comment: Document is excellent intellectual exercise, room for improvements. Airspace Management issue. Q - What will be the implication to fly UAVs in uncontrolled civilian airspace?

A – The concept is the flexible use of airspace, freedom to users as needed. All airspace that means uncontrolled or controlled IFR (Instrument Flight Rules) will be opened to UAVs, because

Joint Air and Space Power Conference 2006

they will be flying in accordance to manned aircraft procedures – IFR or VFR (Visual Flight Rules).

Q - Will new lines be drawn for interagency developments (ref Key West agreement)?

A - Part of problem is to handle names and labels. To separate platforms is important. The output is another thing. I don't see a Key West issue. We probably won't do that.

Comment: The biggest paradigm is the different view of the Fire Support Control Line by the US and allies. There are no written rules. Everyone is looking for guidance. Look to maximize assets, rather than stay I parochial concerns.

Comment: Different experiences with underwater and air UAVs. The Navy has a concept for using one controller for above or below surface. I think there will be more paradigm changes like operating in surface or subsurface, a bigger issue will be the fact that the Army brings 9,000 UAVs in service. Technology will give us ability for flexible use of airspace.

Comment: Looking at the subject of the panel: “Joint Concepts and Visions”. It is not a comfortable win what we have as Jointness in the Flight Plan. I'm missing a little the voice of ground and naval forces. I am interested in hearing from those services perspectives on what we should do to produce an acceptable paper.

Comment: I am not here to give the position of the German Navy. I miss in this conference a couple of items regarding smaller but not micro UAVs. We have different ideas, not on a tactical level, but a certain UAV doesn't fly in that area. Looking at UAVs from board of a ship, I want some information but not covered in this panel. A bit higher in the sky I can see Navy's demands.

Q – The German TRADDOC is responsible for intelligence capability development. I fully agree that we have to start with opening requirements. I can't imagine that very small UAVs should be considered in this. Should this be subject to ATC? Definitely not when used by platoons and companies. We are talking about squadron level and rather bureaucratic airspace control. How to achieve necessary flexibility? DO NOT MENTION land component operations. They need to be involved as well.

A - Distinguish between different operating systems, and the information that comes from them. Look, Army and Marines operating separately, not sharing. The problem is who has platform and how to get information to the right people. I personally believe that all services have ground vehicles, but it doesn't mean all are operated by Army. The same is for air.

Comment: Consider attack UAVs, especially suicide UAVs, presents another layer which is incredibly full. Think about three layers – MALE, controlled in normal patterns. Think about wartime, and a sudden need for attack. Consider helicopters, MLRS, etc in the same area. In wartime you want to achieve mission, therefore you need to create solutions with sufficient

Joint Air and Space Power Conference 2006

flexibility. Create or accept risks in some cases. Remember the lower layer, it is very problematic. We are trying to address it. Remember it has to work in wartime.

A - We're trying to frame that. Some technologies from the civilian side may help. Controlled airspace is not the place for the smaller, lower altitude operations.

Comment: Layering is complicated when density continues to grow; the big sky theory will take place, especially during delivery of weapons. Enemy denial of waveforms will also complicate the situation.

Q - An operational requirement in the flight plan will only be part true, if things change. I suggest we should overcome the question: "Who is operating what?" The answer is Net Centric operation; JFC might be interested in pictures from micro drones. No such things as land, sea, or air operations are standing alone. You have suggested inventing another NATO body. Why do you not go to the NATO hierarchy, and convince them - for example the Armaments Group - to deal with?