

AIR, SPACE, AND CYBERSPACE POWER IN THE 21ST CENTURY
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DAY TWO

**INTERNATIONAL PERSPECTIVES:
DEVELOPING GLOBAL PARTNERSHIPS
10:00 – 12:00 NOON**

Brigadier Lance Mans

DR. JACQUELYN DAVIS: -- As we and our allies face increasing defense planning constraints, whether they be in the form of budget contractions, forward operating base access, environmental considerations, or as a result of changing threat perspectives. In Afghanistan, and before that in Iraq, United States is operating and did operate closely with its principal allies. Through NATO and in the context of its bilateral relationships, the US has fostered interoperability and combined training, concept development and even, lately, forces rationalization to meet common objectives.

Brigadier Lance Mans is the Deputy Director of the NATO SOF Coordination Center. I would guess that a number of you in this room have never heard of this little organization. But from my perspective, having come to know it in the last year and a half, it's a fantastic organization. The director of the organization is an Air Force officer, Major General Frank Kisner, who is also our SOCEUR commander, as many of you know.

This little organization is not part of SHAPE's program element. It is an MOU framework nation, lead nation organization, the United States is the lead nation, but working very

Apparently, it can turn on a dime because of that tail. It's a shift of balance that it throws out. Now, due to the speed of adaptability it is an important investment. To give cover, and I use something from yesterday, to the Rupert Smith paradigm shift of conflict. This is a very fast moving creature that can develop to cover that paradigm shift.

The three NATO SOF missions, and they are the same in the US as they are in the UK as well as other nations, direct action—that's the one you know a lot about. Strategic reconnaissance, extremely important. You will see there the vehicle, strategic reconnaissance but you wouldn't have picked up on the two-man patrol to the right in deep cover. That was the donkey. [Laughter] You were searching the land, weren't you? And remember from yesterday, scouting the new paradigm of conflict.

This is a very important one and growing one. It's training indigenous government forces and influencing tribal communities. This is well developed in some national, Special Forces units, capabilities, much less so in others. It is a significant emphasis in our NSCC activities, born out of a lot of what's going on in Afghanistan. It's non-kinetic. Therefore, it has great political sway, and it has great impact when you are trying to protect and develop relationships with a population.

Now, the last two missions can give a strategic advantage before battle. And, again, I've taken that from yesterday's support and method of Chinese doctrine. Now, NATO's ability to handle SOF when the alliance is committing itself to operations prior to 2007 was inadequate. It was not coordinated. It was not tied together and it was not good. Afghanistan 2006, ISAF's big entry really proved that.

This situation was taken by the scruff of the neck in 2006 by the US, principally by the then SACEUR, General James, fully supported. And he arrived with the NATO SOF transformation initiative, which the epicenter of that earthquake was the NSCC. The NSCC is, as you've heard, is US led, US frameworked. And it is an MOU organization. This is the aim. It is a focal point. It is one location to go to find out what NATO's SOF is

doing and can do. It is also an epicenter, focal point where we can level the ground, give one doctrine, one advice on how to progress SOF activity within NATO.

It's also a focal point for developing intelligence sharing, which as you know SOF activity is deeply based off intelligence activity. It is very important that there is a very good capability to share it. And we work that very hard indeed.

This is what you've got in the NSCC at the moment. There are 23 nations there, the numbers of participants, we are talking small numbers I know. But there are 140 there right now; 149 is the established strength. Twenty-three nations out of the 28 in NATO—that, for an MOU organization is a very high level of representation, by far the highest, in fact. It has high levels of interest in the alliance who wish to invest in it.

It is also—the MOU is constructed to sign in non-NATO members. And that was one of the key elements of the MOU, was that it could be opened to non-NATO. And when you look at the activity in the NATO operation in Afghanistan, there is a number of non-NATO nations fighting under the NATO mandate. And we are looking strongly to develop in that region in the future.

Communications—very important, mentioning the cyberspace. Now NATO's communications have been evolving. We are fortunate enough through US investment to have, right at the front end of technology, a communications that is capable of defending itself in cyberspace. And it will continue to be developed. It will give a far reach into national Special Forces headquarters throughout all members of this organization. A very, very important pivot to enable this organization and well supported and it was fingered at a very early state by the US entry.

The NSCC is engaged on counter piracy operations and I say that in support of the planning. It was a very good run from the start to a developed stage of engaging in NATO strategic planning with the SOF input and, as it is called Ocean Shield, is running at the moment. The big one, of course, is Afghanistan. And our involvement there has

been growing for the last two years. We have 20 personnel deployed down there at the moment and we will grow that because the focus of our existence is support to operations. It doesn't go off into other areas. It is support to operations.

It is seen to be the leading element of transformation in NATO because of the way it is going. And that is not me making the statement. That was actually General Craddock when he was SACEUR earlier last year. The Chief of Staff in SHAPE, a four-star German general, General Artur(?) describes this as his lighthouse of positive in his area of work. So it is seen as making very good progress and momentum.

I now take the opportunity, fed by SACEUR, for those commanders when you are going out and briefing, he gave us sound bites. He says, "It's a complex world. NATO's principal role to insure a collective security remains valid as ever in the face of new challenges, which require new approaches and new thinking." And I like to think the NSCC is well signed up to that.

Now, Jackie gave you a snapshot of our evolution. We are currently a NATO SOF Coordination Center. We are advisers. However, we have the approvals in place to change our name on the 1st of March to a NATO SOF Headquarters with a command capability. Now, our route, we will have deployable command capability. In the early stages, we won't be able to fill the whole piece. We will be looking to nations to augment. But, as you can see on the far right of that picture is what we want to be. Now that incorporates air side.

Now the air side in NATO is, in SOF terms is rather restricted. There are never enough assets. And I know it is wider than SOF activity. And Afghanistan is the real show of that. There are never enough assets to conduct our activity. The NSCC has commenced by a process of improving relationships and writing doctrine to better synchronize what already exists and has made great advances.

Now, we have quite a good injection there because we know that there are nearly 4,000 rotary wings in NATO, possessed throughout NATO. How do you access those to get them to perform in the alliance? Obviously, there are lots of other issues stitched into that because there are the pilots, training the pilots. There is the engineering. There is the protection facilities on operations. But that is something, that is quite a large pool.

Now within NATO they do have organizations, which provide assets. And it's largely done on a membership state. You've got the AWACS, which is owned by NATO and the are deployed under NATO. You've got an emerging organization or group called the air-ground surveillance, which will see the acquisition of unmanned aircraft to be owned by NATO, those participating and used.

There is a third organization, which is up and running at the moment and it is the C-17 consortium. This is a very interesting one for us because this is a consortium of NATO and non-NATO members who have three C-17s. It is based in Papa, Hungary. However, it is on an opt-in basis. You buy the hours to fly it. Now, this is a very interesting side of life because this can be done. This is precedent.

So, what do we look to in the future in terms of our air? This is a theory. But we have this momentum, this desire to turn theory into practice, theory into a tangible. Could we have a NATO SOF air wing with, based on the similar principles of the C-17 consortium? Perhaps. But it is certainly an area we will investigate in order to acquire this capability so that it takes the pressure off individual nations who are in short supply themselves—and have it that NATO SOF, under the NATO SOF headquarters, can use.

I say, a theory. There are many, many obstacles to jump and move around. But it is the future and we have aims and goals to achieve, to improve the situation in the alliance. And that will essentially focus on the troop-carrying side, which is the most in demand in Afghanistan as well as the unmanned vehicles for surveillance. Again, hugely in demand when conducting SOF activity on operations.

JOHN SHAUD: I'm John Shaud from Air University. General Abrial, as you enter the world of cyberspace with Allied Command Transformation, is that going to end up being a national responsibility or are you going to paste it together from an organizational point of view or is NATO going to take this on at Norfolk, Mons or, perhaps, in Brussels at NATO HQ?

GENERAL ABRIAL: I'm afraid I don't have the answer yet. We probably have to be patient for a few more months, until the New NATO Strategic Concept is agreed and promulgated. Today, NATO is working hard on cyber issues. I mentioned to you that we do have a Center of Excellence in Tallinn, Estonia dealing with the issue. But we have problems making progress because we are an alliance and not everybody sees cyber in the same way. Not everybody gives cyber the same weight. And we have to acknowledge the fact that cyber is very close to precise national interests. And some nations are not yet ready to make this step forward.

My hope is that we can develop concepts and ideas, which prove the case to the nations so that we can develop a real NATO capability. I cannot guarantee that we will be successful, at least in the short term.

DR. DAVIS: General, just a small clarification on the question if I might. As you discussed and as you described, the debate over the New (NATO) Strategic Concept includes whether cyber should be considered an Article 5 challenge or threat or not. I wonder what your personal views were on that question and how we might bring together the two sides of the debate to get responsible language in the strategic concept on cyber?

GENERAL ABRIAL: It is a very good question. [Laughter] I'm not surprised you asked it. My feeling is that, as contrary as to what had been proposed at the beginning, there is no question any more of modifying Article 5. The people who put together these very few words were very clever. We could never do better today. So my impression is that

there will be no change in the wording of Article 5. The very important factor is that all nations have a common understanding of what it means, which I might argue is maybe not the case today.

The other aspect is: what exactly do we understand? Today we have these very easy words. Article 5 deals with an armed attack. What is an armed attack today? Even nations agree that a cyber attack could be considered as armed. If this is the case, then the logical deduction would be that that is how cyber should be considered within the framework of Article 5. But I don't know whether we can agree.

My feeling is that cyber is not brand new but a new domain, which has not been explored so far. That we have to deal with this phenomenon in ACT-- and its think tank is working hard on this question—is apparent. As an aviator I sometimes think that if you have a bunch of aircraft trying to attack you, it may be better to defeat them by cyber, rather than having to launch a counterforce and using kinetic weapons.

So in my very personal view, yes, cyber is central topic. Now, should it be recognized as an Article 5 issue, I think it is a more political decision.

DR. DAVIS: Thank you. Next question. Right there.

ROGER BRADY: Roger Brady, U.S. Air Forces Europe and Commander Air Component Command, Ramstein. Several of my NATO friends here might take a crack at this but General Abrial, who has discussed air command and control with me on several occasions, will soon host a round of discussions on NATO's New Strategic Concept; it's my understanding, Stéphane, that they will include addressing any need for change in NATO organizations.

As we talk about things like the Allied Ground Surveillance System (AGS) that was mentioned by Brigadier Mans, the heavy airlift wing, a couple of other things that are going to happen, French reintegration—and, also, the latest new child on the block,

which everyone is going to get very interested in is ballistic missile defense. Does this provide impetus for a discussion of the more unified air command and control structure? By the way, as most people know, none of these capabilities that I mentioned are part of the NATO air command system.

GENERAL ABRIAL: Thank you, but I should redirect any answer to that question to General Brady. But since he asked the question, I have a problem now. [Laughter] Well done, Roger! Yeah, we have to consider many possible changes ahead. You just mentioned, rightly, we will be co-hosting the fourth and last strategic concept seminar in Washington, D.C. at National defense University (NDU) next month. And those issues you have been mentioning will be on the agenda. I don't know how the speakers who are going to be in the panels will talk of these issues. And I don't know yet, of course, what the group of experts will take from them, because these seminars are for their benefit (i.e., the Albright group of "wise persons"). Once they have heard the discussion from all of the seminars, and having deliberated on the issues, the Albright Group will issue a report to (NATO's) Secretary General on what should be the strategic concept.

On the "air" side, I do believe that we have a level of integration inside NATO, which is higher than other service components. It is probably due to the nature of our third dimension elements. But I also think that we can do better. I think that we need to integrate more. I think that we need to continue working on how to have flexible, reliable, deployable aspects of our air Command and control (C2) elements, on which we are working very hard as you know. We all work together. We need to have a vision, which will help us face today's challenges in the air domain and prepare for tomorrow's challenges.

My personal experience is that the sooner we envisage all the possibilities to integrate, or at least to be able to have our forces interface with each other in the best possible effective, efficient, and cost effective manner, then we will be on the road to helping the Alliance nations make better progress with respect to national forces development and Allied interoperability. So I hope that these difficult questions will be raised and that we

will find some answers next month. And, again, my very personal view will be in favor of more, much more interfacing and as much integration as possible.

DR. DAVIS: Air Vice-Marshal Hillier, do you want to say anything on these points, because the UK, of course, is very deeply involved in the NATO Strategic Concept discussion?

AIR VICE-MARSHAL HILLIER: While I'm not personally involved in those discussions, perhaps I can offer a personal view. And I touched on it a little bit in my presentation about command and control. From my perspective, making sure that command and control works for us, rather than us working for command and control, is imperative. In this context, I would suggest that future force development, especially in the C2 arena, must be based on what you need to get the job done rather than geography, for example. Finally, I believe that we need to make sure that command and control isn't judged as remote from the wars that we are in at the moment. So I think I would just simply say that, whatever we are looking for, it needs to be that agile, adaptable, and relevant for what we are doing. That is my personal view.

DR. DAVIS: Yes. There is a question here.

CAITLIN HARRINGTON: Hi. I'm Caitlin Harrington with *James Defense Weekly*. My question is for Commodore Steele and Vice-Marshal Hillier. There has been a lot of talk in the U.S. in the past few days about the Joint Strike Fighter (JSF) program. It looks like there is going to be some delay on flight-testing, which could impact the unit price of the early production orders of that aircraft. For Australia and the United Kingdom, in particular, I'm wondering if there is any concern about the unit cost going up? Will that affect how you are thinking about your purchases as you move forward?

DR. DAVIS: Stephen?

AIR VICE-MARSHAL HILLIER: Well, again, I mean I'm not familiar with all the detail of the UK's approach in the F-35 program. But clearly, as a major acquisition program for the UK it's of great relevance. I think what the UK would be looking for from F-35 is that it has got to be capable to do what we require it to do, to be adaptable. It's got to be able to fit the full spectrum of conflict and not be just a niche capability.

And it's got to be affordable. I think the affordability issue works in two ways. It's got to be value for money within the program itself. And it's got to be affordable in relation to defense priorities. And so where does the F-35 sit? Again, in the context of the UK's defense review, it will be considered, I'm sure, against those benchmarks of capable, adaptable and affordable. But I wouldn't pick F-35 out and say that, therefore, somehow it is a particularly special focus. Every part of UK defense has to be able to justify itself against those sort of parameters in any defense review. So I don't see it as an exceptional case.

DR. DAVIS: I guess, Stephen, you don't want to wade into the debate that occurred over the weekend, reported in the *Telegraph* and the *Guardian* between our good friend Mark Stanhope, First Sea Lord, and David Richards about aircraft carriers and what they may carry and how many there may be?

AIR VICE-MARSHAL HILLIER: No. Wade into a four-star debate? [Laughter] I will perhaps only tip my toe in rather than wade in. But I think I mentioned in my presentation, that there is a debate going on in the United Kingdom at the moment looking at this defense review. I think that is entirely healthy. And one of the key parts of the debate is, what is the balance between high-, and low-end, capabilities? What are the most likely conflicts we will be in? What are the most dangerous conflicts? And what are the risks associated with taking particular courses of action.

And it is just an assessment of choices and risks, which will ultimately be political decisions. So I don't think that we should read in that the UK is going in a particular

direction as a result of these speeches, which were made. It is simply a healthy debate as part of the run up to the defense review.

DR. DAVIS: Air Commodore Steele?

AIR COMMODORE STEELE: Thanks. I think the Australian government has taken a cautious approach to acquisition of JSF. It was timely, their decision to sign up to acquiring the first 14. And from the previous government as well, I think the hedging strategy of acquiring the 24 *Super Hornets* as a bridging air capability, combat capability is again, shows that cautious approach.

We, obviously, are very interested in the schedule and cost because our F-111s are going to be withdrawn as our classic *Hornet* fleet is getting old. We want to have a networked, truly fifth generation force early in this 21st century. So we are keeping ourselves apprised of the debate and decisions relevant to the JSF program, particularly as more information about schedule and costs become available.

DR. DAVIS: General Abrial, it is perhaps not fair but I'm going to exercise the prerogative of the Chair, again, to ask you a belated question, with respect to JSF. Because General Schwartz and the United States has a decision to make, which has to do with the nuclear capable variant, wiring the JSF to be nuclear capable, I wonder if you could say something about your thinking about the future of DCA deployments in Europe as you think about the changing deterrence landscape in Europe and globally?

GENERAL ABRIAL: Again, this is an issue, which is part of (NATO) Strategic Concept debate. And it is an issue, which will be dealt with next month, in and around the ACT/NDU seminar. I must say I have not studied this issue in great detail because it is not exactly in ACT's portfolio. The only experience I have is in my previous capacity (as the Chief of Staff of the French Air Force). I'm still somebody who thinks that we do need both visible (nuclear) commitments and capabilities in this field. And the link that

we have established through the years is very important to the global position of the Alliance.

DR. DAVIS: Thank you. Next question. Yes. Right here.

General Kehler: Bob Kehler, the Commander of Air Force Space Command. And this is for the entire panel. We have long histories of collaboration between our forces, either bilateral or through our alliance relationships. I think each of you at some level mentioned about the importance of space to us, both operationally and in terms of our overall national security. Could you comment on where you see opportunities for us to collaborate? I know, General Abrial, you mentioned this specifically in your remarks.

But for each of you, could you comment on where we might have some opportunities to improve our cooperation, collaboration regarding space activities?

DR. DAVIS: General Hokazono, would you like to start?

GENERAL HOKAZONO: Thank you very much for your question. As you know, Japan is one of the leading countries of the space development. But mainly the responsibility is conducted by the Ministry of Education, Culture, Sports, Science, and Technology. And three years ago Japan established a law, the basic space law, which allows us to use space for the defense of the nation. So, it was the start for the Japan Self-Defense Force, to be involved to the space matters.

At this moment, in the Ministry Of Defense, we don't have a specific project. But as the Air Self-Defense Force, we have two main areas to develop. One is space communication. And the second is space surveillance. They haven't been funded officially yet, but we are studying those issues now. Regarding the cooperation with the United States at this moment, the MOD is thinking about sending personnel to your basic space education program in order to gain the knowledge from the United States about space activities. We will go forward step by step. Thank you.

DR. DAVIS: General Abrial, do you wish to add to that?

GENERAL ABRIAL: I can just say that space, as you know, is a very sensitive issue. Not everybody has a similar understanding of what we could or should do in space and the nations have various points of view—which is probably why NATO has not been further than it is today in this domain. It is one of the new domains on which ACT is working on very hard. It's always an issue, which is very close to sovereignty matters, displaying to others what type of capabilities you need, where and when you need to look at things. It can be very hard to share with others.

On the other hand, maybe communications could be easy to share because your very specific nation's devices can be on the ground somewhere and space could just be the vehicle to make sure that he gets the information he wants or needs. On that matter I think that it will be difficult to get unified a NATO position on space.

However, that said I see some future in multinational initiatives, like the NSCC, which has been briefed here, like the helicopter initiative, like the C-17 initiative—where some nations might want to share with each other, a few of these aspects as just mentioned. And this will also help smaller nations with smaller budgets to jump into the fray. Whereas alone they could never do so.

So I think that the way we should look at the issue is to try to find what are the areas in which groupings of nations in the Alliance could and seek to work together.

DR. DAVIS: Air Commodore Steele, do you want add to that?

AIR COMMODORE STEELE: Thank you. I guess ten years ago I would have said that neither, Australia, nor the Royal Australian Air Force, in particular, and the Australia Defense Force in general is a space force. But that would be patently wrong to say today. Now, though we don't actually put assets on orbit, we are inherently involved in

the day-to-day business of the space game. When we think about space, I just think about it as a medium to conduct operations. That's all. It's an asset that we need to use.

The Chief of the Air Force in the Australian Defense Force is the coordinating capability manager for space. But space spreads across the whole spectrum of our defense force. We are investing in wideband global satellite, capabilities to go into orbit. So we are involved in that constellation. We are also involved in UHF SATCOM that is going over the Indian Ocean. And because of our relationship with the U.S. in particular, space is just another medium for sharing information.

We understand that there are opportunities for us to contribute to the situational awareness of and in space; that we all need to look out of our atmosphere into the other world ahead—as well as look down on the globe. And we believe there are some opportunities that Australia could contribute in the NASA environment as well.

DR. DAVIS: Thank you very much. Unless there is a last burning question—it remains to me to thank our panel members and close this session by showing our appreciation for the panel members and their remarks. .

[Applause]

END OF SESSION