

**Hearing before the  
Subcommittee on Strategic Forces  
Committee on Armed Services  
United States House of Representatives**

**“NATIONAL SECURITY SPACE: 21<sup>ST</sup> CENTURY CHALLENGES, 20<sup>TH</sup> CENTURY  
ORGANIZATION”**

**Testimony by  
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Chairman Rogers, Ranking Member Cooper, distinguished members of the Subcommittee on Strategic Forces, I am honored to be invited to appear today before the Strategic Forces Subcommittee, and to appear with my esteemed colleagues, Admiral James Ellis, former Commander-in-Chief of the U.S. Strategic Command, and Marty Faga, former head of the National Reconnaissance Office. There have been no finer leaders for American security than Jim Ellis and Marty Faga. It is a privilege to appear again before this Subcommittee. Your work on behalf of the American people is essential, and I commend you for holding this very important hearing today.

You have asked that we focus on “the challenges we face in the national security space domain and how these challenges relate to the organization and management, leadership structure, acquisition process, operational authorities” for the space mission. I will focus more on the challenges we face and offer a set of recommendations.

First, let me say that I am appearing here today as a private citizen. I am not representing the Center for Strategic and International Studies where I am the president and CEO. CSIS does not take positions on policy matters. Our boards and commissions do, but CSIS does not. So I am appearing here today in a private capacity.

I know that our time is brief, so I will focus briefly on 10 propositions. I would be pleased to amplify on any of these propositions during the question and answer period.

First, we once could count on assured use of space-based resources for any operational mission for the Department of Defense and the intelligence community. That is no longer the

case. Adversaries have moved aggressively to create capabilities to challenge our use of space. It is a serious threat, and very real.

Second, we have good broad space policy guidelines. But those space policy guidelines are not accompanied by sufficient operational planning when it comes to continuity of operations. We lack the redundancy and capacity to reconstitute space resources in the event of a dedicated attack. More importantly, there is no operational doctrine concerning defending space or responding to imminent threat against space resources. The scale of vulnerability is great, and the detailed assessment and operational planning required to ameliorate these vulnerabilities is insufficient.

Third, space systems will be attacked (and this includes the elements of the system on the ground). Indeed, the first strike in a conventional war could well be in space. We have not devoted adequate time and focus on what it takes to operate space systems in a contested environment.

Fourth, the passage of time gives us options that we did not have in the last century. The huge expansion of commercial activity in space, and the internationalization of commercial space activity, are opportunities not just threats.

Fifth, perhaps the greatest near term threat we face is the vulnerability of our space systems—satellites yes, but certainly ground-based support systems—to cyber disruption. Cyber-attack is the most powerful step an adversary can take without triggering a redline to war. We have seen public displays of Russia's hacking capabilities. We must assume they are already inside important space IT systems. The Secretary should immediately launch an assurance review of space control systems. The space command and control architecture must be mapped to exquisite detail and a vulnerability assessment must be undertaken.

Sixth, while individual combatant commanders may anticipate some disruption, none of them has fully anticipated the impact on their plans of a robust attack on space systems (here used generically to refer to on-orbit and terrestrial elements). We need to stress-test our war plans. I would give this assignment to the Chairman of the Joint Chiefs of Staff and ask him to report back next year on his findings.

Seventh, every incoming Administration conducts a fundamental review of the policies, budgets and problems that they inherit. This is a time for making fundamental choices for at least the first four years of a presidency. After conducting the stress test, the next Secretary of Defense and the next Director of National Intelligence should establish a joint review committee to establish a vulnerability baseline for all space systems and assess the program-of-record to address these vulnerabilities. This is the time to get a proper balance between plans and resources.

Eight, our global positioning system is subject to jamming and could be attacked. We should plan now to install new chips in receiver units that allow that unit to receive the signals from all global positioning systems. There needs to be some care in implementing this, to be sure, but GPS is too critical for our war-fighting to have it jeopardized by hostile action.

Nine, as I mentioned earlier, the huge expansion of commercial space activity is an opportunity. I believe we should substantially shift our focus in space-based communications to rely on commercial platforms, including foreign satellites. Redundancy is the key and we need many more channels to insure continued communication links.

Ten, I believe we should start now to diversify our remote sensing systems. I use the term remote sensing to encompass all of our reconnaissance platforms. We still need high fidelity systems, to be sure. But we cannot count on their assured continued operation in time of combat. So we need to diversify our capabilities through hosted payloads on other satellite platforms.

### Organizing for Space

Now let me come to the point of your hearing, which is the role that leadership and organization plays in our space program. I have spent a good deal of time talking this through with colleagues who are far more knowledgeable than am I about space. Honestly, there is no consensus on the way forward. We are not well organized to deal with the new challenges we face in space. The old structure may have been sufficient when space was an uncontested area of operations. That time has passed.

I have discussed several broad options with my colleagues who do specialize in the space mission. It seems to me we have four alternatives

- Alternative 1: Create a 5<sup>th</sup> military service, a Space Service
- Alternative 2: Elevate the Space Command to become a Unified command on par with the Strategic Command and other combatant commands
- Alternative 3: Establish the space mission along the lines of the Missile Defense Agency, as a unified agency with a focused mission reporting directly to the Secretary of Defense.
- Alternative 4: Model a new relationship for space analogous to the Department of Navy which has a Navy and a Marine Corps. In this instance, a Space Service would be established within the Department of the Air Force, but with separate budgets, career management, etc.

As I stated earlier, there is no consensus among my space expert friends on which alternative we should pursue. I have spent a lot of time studying the organization of the Department of Defense. Every organizational question comes down to “moats and gates”. Organizations naturally define borders for themselves and build bureaucratic moats to protect those borders. And because of the complex and integrated way we must now fight wars, the Secretary has to find ways to build bridges across the moats.

For various reasons, I would advocate elevating the Space Command to become equal in stature to the Strategic Command, as a joint war-fighting unified command. I think all of the other options make the moat too wide and the gates/bridges too few. We know how to work with unified commands in the joint command system. If you feel we need to beef up the

capabilities of that command, we can always add the exceptional budgeting and acquisition procedures we use currently for the Special Forces Command.

I used to be the Comptroller for the Department of Defense. Honestly, I don't like carving out and giving exceptional budget controls to sub-elements of the Department of Defense. We have too little money in general to operate the Defense Department and the Secretary needs maximum flexibility to allocate resources where he believes they are most needed for the array of missions he faces. Therefore, as a matter of principle, I resist carving out exceptional budgetary authorities. But I also have to admit that the space mission is in danger, and we need exceptional efforts at this critical time.

#### Conclusion

Chairman Rogers, Ranking Member Cooper, distinguished members of the Subcommittee, I thank you for holding this very important hearing, and for inviting me to be a part of it. There is no single area in the Defense Department that has me more worried than the resiliency of our space assets. I am grateful that you are devoting so much time to this critical question. I would be pleased to answer any questions you might have for me.