



Defense Orientation Conference Association

POST CONFERENCE NOTES

Virtual Conference - Friday, October 9, 2020

U.S. Space Force: Our Newest Service

Post Conference Report

(All presentations were UNCLASSIFIED)

Overview and Update of the New Service and the Key Successes Earned and Challenges Facing our Newest Service

CMSgt Roger Towberman, US Space Force Senior Enlisted Advisor

Chief Master Sergeant Towberman humbly acknowledged that his roles and responsibilities are similar to those of other service enlisted advisors. He was grateful that he did not have to create those responsibilities from scratch, as they form a great foundation, and he emphasized that the core values shared across the services are especially important. Particularly, Towberman finds that the relationship between the Space Force and the Air Force helps his teams “get out of the chute without tripping.” Missions have not stopped while transitioning to the Space Force. Towberman assures that the United States remains best in space, just as we were when we were a part of the Air Force.

When recapping the last year since Space Force’s establishment, CMSgt Towberman elaborated on how they sought to set up for success. Headquarters, Deputy Chiefs, service flags, and the service motto is in place. He knows that the service cannot be run by a few good men, so he is continuing to bring in new members of the Space Force as quickly as practical, borrowing talent from the Air Force along the way. About 2,400 service members are projected to be a part of Space Force by February of 2021. The vision for Space Force’s launch is that they make it look like they have been in existence for 30 years while being set for another 30 years of success.

Towberman feels that the ideal Space Force will not be in place until year two, where there has been adequate transition of uniform and necessary missions. He hopes to bring close to 7,000 uniformed servicemen and 10,000 civilians assigned to Space Force within 18 months to 2 years of establishment. Recruitment is being assisted by the Air Force, but there will be direct enlistment into the Space Force, where Towberman is excited about their advancing recruitment strategies. Recruits are entering in one of five officer disciplines: Engineering, acquisitions, cyber, intel, and operations.

The Space Force mission set is singular, though the space operators understand the importance of multi domain operations. The mission is “to ensure unfettered access to and freedom to maneuver in space.” Additionally, Space Force’s role as a service is to organize, train, and equip. Towberman recommended their first publication in [Air & Space Power Journal](#) for a deeper review of the doctrine of Space Force.

As previously mentioned, the Space Force culture is unique and continues to evolve. Towberman has been releasing comments regarding the culture and spoke about the speed, agility, and adaptation being the foundation of the culture. Some have rumored that Space Force is to Air Force as the Marine Corp. is to the Navy. Towberman denies this. Though he supports the comparison and admits that they have referenced the model to learn lessons from the past, the culture and how Space Force came to be is completely different.



The unique work of Space Force has digital natives of the U.S. clamoring for an opportunity to serve their country in this way. Because of this, Towberman has avoided a downward direct of culture or telling the service members what and how they are supposed to act. Instead, he feels that by his team creating conditions and framework, the culture and environment is allowing for individual excellence.



The Space Force flag was designed with the history of the Air Force Space Command in mind. Towberman is particularly fond of the *D.G.O.* (Delta, Globe, Orbit) pieces of the flag because it reminds him of the eagle, the globe, and the anchor of his teammates across the hall. Uniforms have not been finalized yet, but there are not expectations for them to change more than thread color and insignia as compared to the other services. Until then, Space Force servicemen being deployed are wearing their same uniforms. Most servicemen deploy in place, but for those deploying for important “down-range” missions, they dress to perform just as they are across the services, matching the multi-camo patterns.

To address diversity, fairness, and equality issues in the new organization, Towberman said that the leadership of yesterday tended to be one person with answers. He has an understanding that to directly affect the issues regarding diversity is to be confident that tomorrow’s leaders will be asking questions to a lot of different people from various backgrounds. Success in equality rests with diversity of thought and perspective. CMSgt Towberman quoted, “Diversity is a math problem. Inclusion is a leadership problem.”

Successes and challenges have certainly been a part of Space Force’s first year. Towberman highlighted a couple of the successes that resonate with him, for he has not spent much time reflecting as he has working. The recent transfer of servicemen into Space Force was a major lift for the service, for the first group was chosen deliberately and took hard work to try and get it right. Towberman said it might be too early to declare victory on this groundwork piece of the service establishment, but he feels confident and looks forward to the work they will accomplish.

**Overview of Mission and Responsibilities, Current Operations,
Space Launch and Satellite Control**
MGySgt Scott H. Stalker, USSPACECOM Senior Enlisted Leader

Though Master Gunnery Sergeant Stalker was only officially transferred into a SPACECOM seat a couple of months prior to the conference, he brought a fresh perspective to the role of SPACECOM. There are differences between the roles of the Space Force and the United States Space Command, being one of the 11 combatant commands with warfighting roles. Stalker also reiterated that despite the sensitive missions and exquisite gear SPACECOM oversees, the focus needs to remain on the people first. Referring to the focus on the people, every mission and their support staff receive the realistic training and accountability on every level. Junior enlisted members and their families are respected the same as the four-star generals and their families.



Stalker says that there are four missions (4D's) that focus on deterring conflict. They defend the US and allies' interests and freedom of action in space through capabilities. They deliver space combat power to the joint force. They develop ready and lethal joint warfighters. They deter by focusing on the fundamentals of deterrence from space. Emphasis lies in the **joint** efforts. The service components allow administrative control and ADCON support. Operational organizations include the Joint Task Force Space Defense out of Schriever Air Force Base (AFB). Vandenburg AFB is specific to Combined Space Combatant Command missions.

Building culture and cross-domain interactions are some of Stalker's roles and responsibilities at US SPACECOM. He emphasized that there are not capabilities in space just for the sake of having things in space. SPACECOM has a diverse operational background to develop those cross-domain understandings. Land, air, sea, cyber and day to day operations within the country are affected by the way SPACECOM's team conducts their missions. Stalker's experience at US Cyber Command and the NSA helped prepare him for his new position by way of diversity, relationships, and knowledge base.

From a warfighting perspective, much of the focus within the Pentagon and the DoD is on the Indo-Pacific region. Satellite control missions affect that security and mission for unfettered global access and are extremely critical. Enemies know the importance of this mission, and therein lies challenges. Satellite control missions try to create dilemmas for the enemy. Stalker was not able to disclose more information than that.

Transitions from the Air Force into the Space Force do not stop there. Stalker imagines they will continue to have space expertise in each of the 11 combatant commands. Collectively, the forces are finding ways to accomplish the missions of space. Stalker has observed transitions and mentioned how much pride and excitement is held by each recruit. One could conclude that the sharing of talents across the forces can provide deeper insights to national security at every command.

Confirming implications of SPACECOM developing new Counter-Space weapons to thwart the latest threats coming from Russia and China, Stalker said there is no way to avoid the modernization as the battlefield of today continues to change. Jamming technologies are major capabilities that are seeming to develop rapidly alongside laser guided technologies and daily cyber-attacks. The deterrence Stalker mentioned earlier can only happen with a ready force, one that has had realistic training and understands the threats. Space is no longer a neutral zone, but the space domain is changing with brilliant minds working around the clock to neutralize the numerous threats and challenges.

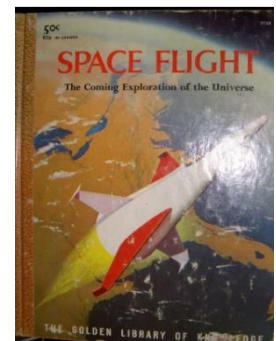
Launch capabilities have improved rapidly since the years when NASA was the sole launch provider. Partners from commercial enterprises and international entities continue to support the launch program. Commercial enterprise allows for SPACECOM to get some technologies at a lower cost, and both commercial and industry partners assist in creating decision dilemmas for adversaries. Moreover, SpaceX has the goal to have men on the moon by 2024. Even if they "fail forward," this would be a giant leap for the country and for Space Force.

New Space Force, NASA, Space Exploration, and Personal Experiences as an Astronaut

Mr. Tom Jones, NASA Astronaut

Mr. Tom Jones began by sharing a video of his career in NASA and though the sound was silent, the impact of the images was not lost. This small video was created in light of Jones being inducted into the Astronaut Hall of Fame. To quote Jones when watching the launch, "You should see it from the inside!" Jones continued by showing DOCA members a presentation of his career, a career that began as a child with this book, *Space Flight the Coming Exploration of the Universe*.

Jones shared his life and dreams that coincided with space exploration advancements. Because his love for space and exploration began at such a young age, he anticipated the moments he could qualify, at first, as a test pilot for NASA.





After 3,000 plus applicants, and three attempts, Jones was finally accepted into the space program. Comparably, in 2018, over 18 thousand applicants competed for a role in the program. Competition and requirements have increased significantly over the years. Master's degrees and significant experience just scratches the surface of what is expected from interested astronauts.

Much of Jones early space career was science based. His first three missions were science missions, and he stated that his most challenging mission was his fourth. He wrote a memoir about that fourth mission called *Sky Walking, An Astronauts Memoir*. Many brilliant images and videos were shared to capture the immensity of Jones' missions. Weather is the greatest uncontrollable factor, where the command can say no or go right up until the last second before launch or return.

In describing space walking, Mr. Jones said it is like being in control of a personal spaceship in space. The suits are built to counter the extreme body heat inside and extreme cold in space. Having the view of the cosmos outside of the laboratory was extremely different from pressing a face up to glass from the ship. After the Space Shuttle was retired nine years ago, he expects that the next human spaceflight efforts will include expanding the space station and returning U.S. transportation capabilities to and from the station. Since 2001, American astronauts have been traveling with the Russian capabilities (\$80 million dollars to the ISS per trip). Additionally, Jones expects deep space research to increase and will likely include more multi-million-mile trips. Jones mentioned that the hunt for life on the red planet is the hope for 2040.

Jones understands the need for the Space Force because the assets the country has in space require defending as a National Security issue. The anti-satellite weapons, co-orbiting snoopers and stealth ASATs, directed energy weapons, jammers, and cyber-attacks will not go away without appropriate deterrence through the Space Force and other U.S. capabilities. However, some of the capabilities will require an international approach to the problems in space (i.e. strong lasers to remove space debris). Jones says that troops in space will, or should, only have a monitoring role to make sure that international deals are upheld. All progress in space will continue to take hard work, collaboration, and a love for technological advancements. The U.S. cannot be content with landing on the moon 50 years ago and managing a space station. Inspiring potential astronauts and building the future space exploration astronauts will come from the country having a solid vision and aggressively moving forward with a coherent, long-term space program and vision.