

2021 STATE OF THE SPACE INDUSTRIAL BASE HYBRID WORKSHOP

NEW
SPACE
NEW MEXICO

14-16 July 2021

Hosted by NewSpace New Mexico for key participants from US Space Force, Defense Innovation Unit, and Air Force Research Laboratory

US Space Force



Defense Innovation Unit



Air Force Research Laboratory



Welcome to a dynamic hybrid workshop that for the third year it is a “must attend” space industry event. Contribute to developing critical solutions to support the Space industrial base.

Objectives:

- *Establish implementable recommendations for defense policy and actions to ensure the maintenance and expansion of the US space industrial base to meet national defense needs.*
- *Provide focus on short-term recommendations and actions to preserve and expand the US space industrial base in light of the disruption to the overall US economy and particular to the Space Industrial base by the COVID 19 virus pandemic.*
- *Establish these defense policies and actions in the context of the larger set of implementable whole-of-government policies and actions required to guarantee the US space industrial base needed to ensure a space future supporting US national power.*

Agenda

Wednesday, 14 July 2021

- 8:00 NewSpace New Mexico Welcome and Introduce Lt. Gov. Morales: Casey Anglada DeRaad
- 8:00 Welcome – Lt. Gov. Howie Morales
- 8:15 Key Participant – U.S. Space Force Introduction
- 8:30 Panel: State of the Space Industrial Base - Brig Gen Olson, Brig Gen Butow, Col Felt
- 9:00 An Update on America's Supply Chains and Executive Order 14017 from the White House – National Security Council - Jessica McBroom
- 9:30 The U.S. Artemis Program: Cislunar Spacepower in the Era of Strategic Competition - Dr. Bhavya Lal
- 10:00 Break
- 10:15 Maintaining Military & Intel Superiority - Maj Gen (Ret) Jay Santee
- 10:45 Space Economy - Economic Markets and Financial Tools - Bruce Cahan and Sean Ross
- 11:15 Investing in U.S. Commercial Space – Enabling Strategic Competition and Growth - Mandy Vaughn
- 11:45 Working Group Instructions - Brig Gen Butow
- 12:15 – 1:30 Lunch Break – On your own
- 1:30 – 5:00 Working Groups 1-5, Current State – Key Milestones
 - WG1-Evolving Space Operational and Support Concepts
 - WG2 - Delivering Space Mobility and Logistics Capabilities
 - WG3 - Space Information Services
 - WG4 - Pervasive Space Tech and Supply Chain Enablers for Expanded Orbital Regimes
 - WG5 - Space Policy, Economy & Financial Engineering
- 5:00 Working Group Leaders – Tag Up
- 6:00 Networking Reception - Q Station, 3225 Central Ave. NE, Albuquerque NM

Thursday, 15 July 2021

- 8:00 Welcome – NewSpace New Mexico
- 8:15 Key Participants – Defense Innovation Unit and Air Force Research Laboratory
- 8:30 Space Hybrid Architecture – Steve Nixon
- 9:00 Space Super Highway – Dr. Gordon Roesler
- 9:30 Geopolitical Strategic Competition – Dr. Mir Sadat
- 10:00 Leveraging the Emerging Space Economy to Meet Critical Gov't Needs. The shift is underway. Where should policymakers focus their efforts? – Chris Quilty
- 10:30 – 10:45 Break
- 10:45 – 12:00 Working Groups 1-5, Inflection Points
- WG1-2 Evolving Space Operational and Support Concepts
 - WG2 -2 Delivering Space Mobility and Logistics Capabilities
 - WG3 – 2 Space Information Services
 - WG4 - 2 Pervasive Space Tech and Supply Chain Enablers for Expanded Orbital Regimes
 - WG5 – 2 Space Policy, Economy & Financial Engineering
- 12:00 – 1:00 Lunch Break – On your own
- 1:00 – 5:00 Working Groups 1-5, Key Actions and Recommendations
- WG1-3 Evolving Space Operational and Support Concepts
 - WG2 -3 Delivering Space Mobility and Logistics Capabilities
 - WG3 – 3 Space Information Services
 - WG4 - 3 Pervasive Space Tech and Supply Chain Enablers for Expanded Orbital Regimes
 - WG5 – 3 Space Policy, Economy & Financial Engineering
- 5:00 Working Group Leaders – Tag Up
- 6:00 Dine Around (All walkable from Hotel Albuquerque) - Seasons Rotisserie; High Noon Restaurant & Saloon, Ponderosa Brewery, Gardunos, D.H. Lescombes Winery & Bistro, Sawmill Market

Friday, 16 July 2021

8:00 Welcome – NewSpace New Mexico

8:15 Space Force Association Presentation

8:30 The future of US security in space - Mark Massa, Clementine Sterling, Julia Siegel

9:00 Working Group Outbriefs (~40 min each)

12:00 Closing Remarks – Brig Gen Butow

Working Groups:

Add to the conversation and move our industry forward. Last year's event brought together 150 thought-leaders from industry, the Executive Office of the President, NASA, academia, and Departments of Defense, Commerce, and Energy. The resulting report from the event shaped the national conversation and received national media coverage.

- Current State - Key Milestones
- Inflection Points
- Key Actions & Recommendations

1. Evolving Space Operational and Support Concepts. Chair: Dr. Gordon Roesler, DIU; Vice-Chair: Dr. Venke Sankaran. This working group will explore, from a user perspective, how the U.S. (and its allies) should evolve space operational and support concepts in the near term to sustain both US military and economic leadership in the space domain, enabling modular, serviceable systems and an in-space logistics infrastructure to strengthen U.S. leadership in commercial, civil and national security space. Operational concepts include but are not limited to hybrid or disaggregated architectures which leverage military, commercial and allied systems. Support concepts include but are not limited to launch, workforce development, and cross-agency/enterprise organizational constructs needed to maximize efficiency, effectiveness and rapid decision making.

2. Delivering Space Mobility and Logistics Capabilities. Chair: Karl Stolleis, AFRL. This working group will explore a multi-agency effort to establish an effective, efficient and sustainable multi-agency logistics infrastructure (both physical and digital) to support and sustain operations across all orbits and space constituting the Earth-Moon system leveraging modularity and serviceability of commercial, civil and national security space systems.

3. Space Information Services. Chair: Steve Nixon, SmallSat Alliance; Co-Chair: Payam Banazedeh; Vice-Chair: A.J. Metcalf. This working group will explore space communications/internet, PNT and the full range of Earth and space observing functions which have commercial, civil and military applications. This encompasses the commercial development of the maximum exploitation of the electromagnetic spectrum to, in and from space for information services.

4. Pervasive Space Tech and Supply Chain Enablers for Expanded Orbital Regimes. Chair: Rex Ridenoure, DIU; Vice-Chair: Dennis Poulos, DIU. This working group will explore the enablers (e.g., Technology, Doctrine, Organization, Training, Materiel, Leadership and Education, Personnel, Facilities and Policy) required to effectively operate in orbital regimes beyond LEO, MEO, and GEO to include the cis-lunar regime and beyond.

5. Space Policy, Economy & Financial Engineering. Chair: Mandy Vaughn, GXO; Vice-Chair: Katherine Koleski, DIU. This working group will identify near- and mid-term regulatory, economic and financial policies and strategies that the U.S. government (and when appropriate, allies) could leverage to incubate nascent industries and ensure the long-term competitiveness of the commercial space sector.



The 2021 State of the Space Industrial Base workshop is a hybrid event. The live version will take place at the beautiful Hotel Albuquerque at Old Town at 800 Rio Grande Blvd. NW, Albuquerque, NM 87104. Hotel Albuquerque is conveniently located in the heart of Old Town, offering accommodations and amenities. This landmark Albuquerque luxury hotel is also located across the street from Sawmill Market: a 25,000 square-foot food market with an array of local cuisine and culinary traditions. Within walking distance of Hotel Albuquerque is New Mexico Artisan Market at The Bazaar, a more than 12,000 sq. ft. space located across the Sawmill Market and Hotel Chaco. New Mexico Artisan Market is a showcase of the best of New Mexico's artisans and makers.