

# Positioning U.S. Companies to Compete in the Economic Great Game of Space

Thursday, 21 January 2021, 1:30-3:00 pm EST

## Program



**NEW SPACE**  
NEW MEXICO

**US Space Policies for the New Space Age:  
Competing on the Final Economic Frontier**

Bruce Cahan, J.D. and Dr. Mir Sadat  
based on Proceedings from  
State of the Space Industrial Base 2020  
Sponsored by United States Space Force,  
Defense Innovation Unit,  
United States Air Force Research Laboratory  
Illustrations by James Vaughan

In support of this report release, NewSpace New Mexico will host five webinars to delve into the substance of this study.  
[Learn More](#)

NewSpace New Mexico Webinar Hosts: Casey Anglada DeRaad and Scott Maethner



Authors:  
Bruce Cahan and  
Dr. Mir Sadat

## Positioning U.S. Companies to Compete in the Economic Great Game of Space

21 January 2021, 1:30PM-3:00PM EST  
Moderated by NewSpace New Mexico



Keynote: by Mandy Vaughn,  
President, VOX Space

### Cross-Industry Roundtable:



Brad Blair  
Moonrise Inc.



Jason Bolton  
U.S. Dept.  
of Commerce



Mike Dickey  
U.S. Space Force



Steve Nixon  
SmallSat Alliance



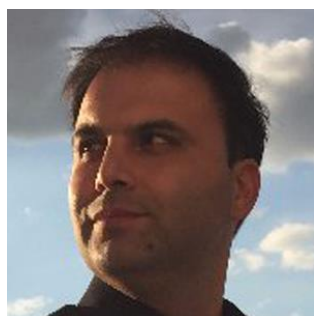
Peter Wegner  
BlackSky Global

Positioning U.S. Companies to Compete in the Economic Great Game of Space is the second webinar to delve into the substance of the recently released “Space Policies for the New Space Age: Competing on the Final Economic Frontier” [available here](#), a study on how to transform existing and emerging U.S. space policies, legislation, and strategies into action plans that will ensure U.S. strategic leadership in space for the 2040-2060 timeframe authored by Bruce Cahan (Stanford Lecturer) and Mir Sadat (former White House Official). The report is a continued assessment from the State of the Industrial Base Workshop 2020. Significant findings and recommendations in space policy and finance were developed in the Space Policy & Finance Working Group that are amplified in this report.

Authors of “Space Policies for the New Space Age: Competing on the Final Economic Frontier”



[Bruce Cahan](#) is a Lecturer in Stanford University’s Management Science and Engineering Department, a Distinguished Scholar at Stanford’s Human-Sciences and Technologies Advanced Research Institute’s mediaX Program, and an active member of CodeX Fellow at Stanford’s Center for Legal Informatics. Bruce co-founded the Sustainable Banking Initiative at Stanford, and teaches Redesigning Finance, Ethics of Finance, Buy-Side Investing and Sustainable Banking at Stanford. As an Ashoka Fellow and as CEO of Urban Logic, Inc., a NY nonprofit, Bruce researched and leads the effort to create the Space Commodities Exchange as essential “financial engineering” for the New Space Economy. Bruce is licensed as a lawyer in CA, NY and PA, and practiced as a Wall Street lawyer in NYC with the international law firm of Weil Gotshal & Manges. Bruce graduated The Wharton School at the Univ of Pennsylvania (BS Econ & Int’l Business) and Temple Law School (J.D.)



[Mir Sadat](#), Ph.D., recently departed the U.S. National Security Council at the White House, where he led the interagency on defense and space policy issues. In this role, Mir prepared the President, National Security Advisor, and White House Senior Officials on significant civil, commercial and national security space topics. Mir is also a naval officer with intelligence and space qualifications and in his preceding two naval assignments, he served as a Space Policy Strategist with Chief of Naval Operations and a Space Operations Officer with U.S. Tenth Fleet. Mir has a PhD from Claremont Graduate University and has taught at various universities in California and in Washington, DC. Prior to joining the government, Mir spent 10 years in various capacities at Lockheed Martin, Northrop Grumman, and Raytheon.

# " Positioning U.S. Companies to Compete in the Economic Great Game of Space "

## Agenda

NewSpace New Mexico Welcome: Casey Anglada DeRaad

Introduction Webinar & Report: Bruce Cahan & Mir Sadat, Authors

Keynote: Mandy Vaughn, President, VOX Space

Cross-Industry Roundtable Panelists:

Moderator: Casey Anglada DeRaad, NewSpace New Mexico

Peter Wegner, BlackSky Global

Jason Bolton, U.S. Department of Commerce

Mike Dickey, U.S. Space Force

Steve Nixon, SmallSat Alliance

Brad Blair, Moonrise Inc.

Q&A – Led by Scott Maethner, NewSpace New Mexico

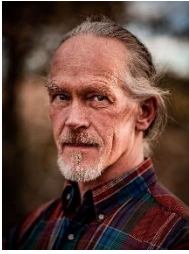
Wrap Up and Report Overview – Bruce Cahan & Mir Sadat

## Speaker Information:



Mandy Vaughn, President, VOX Space

Mandy is the President of VOX Space. Mandy originally joined Virgin Orbit, VOX Space's parent company, in 2015. As Senior Director of Business Development and Mission Management, she supported business development on the LauncherOne program for both government and commercial customers and served as mission manager for customers including OneWeb and NASA, in addition to spearheading the creation and registration of VOX Space. In 2018, Mandy was also selected to serve on the National Space Council's Users Advisory Group. Prior to Virgin Orbit, Mandy was with General Dynamics where she was responsible for the space control & space protection investment portfolios. Mandy has a BS in Mechanical Engineering and an MS in Aeronautics and Astronautics, both from MIT.



**Brad Blair, Chief Technology Officer, Moonrise Inc.**

Brad Blair is a geologist, mining engineer and mineral economist. With over 30 years of commercial mining and ISRU-related aerospace experience, he created the first commercial lunar resource business model for the NASA Exploration Team in 2002, developed economic models for commercial lunar mining for Raytheon and Bechtel, served as a consultant for the Canadian Space Agency to develop a plan for underground lunar tunneling and commercial mining, served as a Guest Lecturer on lunar and asteroid mining at Singularity University, served on the Board of Directors for the National Space Society and is a founder of multiple startup companies including Made in Space, NewSpace Analytics, Moonrise Inc. and OrbChem LLC. He is a trained and experienced cost estimator using the NASA and Air Force Cost Model (NAFCOM) and has competed in two NASA Centennial Challenges. Brad is also the lead author of a book about Space Mineral Resources, wrote two chapters of the ULA Commercial Lunar Propellant Architecture, and helped design a boulder grabbing and retrieval concept and prototype for the NASA Asteroid Return Mission (ARM) program.



**Jason Bolton, Director, U.S. Department of Commerce**

Mr. Bolton currently serves as Director for the Defense Industrial Base Division at the Bureau of Industry and Security, part of the U.S. Department of Commerce. The program authorities executed under his purview include Section 705 of the Defense Production Act, Section 232 of the Trade Expansion Act, and Part 768 of the Export Administration Regulations. Born and raised in Western North Carolina, Jason transitioned to the U.S. Government in 2005 from the American Enterprise Institute, where he advised on international trade publications and AEI's investment practices. Before moving to Washington in 2003, Jason worked in investment banking, management consulting, and business intelligence, including contracts with Merrill Lynch and Aetna International in Hartford, ING Group in Santiago, BearingPoint in Budapest, and Honeywell International in Phoenix. Jason holds a Bachelor of Arts in Political Science and Public Policy from Trinity College in Hartford, a Master's in Business Administration in Entrepreneurship and Strategy from Case Western Reserve in Cleveland, a Master's in International Management in Political Risk Management from Thunderbird in Phoenix, and a Master's in Liberal Studies in Political Theory and Comparative Politics from Georgetown in Washington.



### **Mike Dickey, U.S. Space Force**

Mike serves as Director of the Enterprise Strategy and Architectures Office and the U.S. Space Force Chief Architect at Peterson AFB, CO. In this role, he oversees, directs and coordinates efforts within the Space Force and multiple partner organizations to implement a resilient, multi-domain compatible enterprise for USSF mission areas. Mike retired from the Air Force with experience in missile defense, flight test, space operations and multiple staff assignments. He spent 7 years in space system development in industry before taking his current position as a Department of the Air Force Highly Qualified Expert. Mike is an Associate Fellow of the American Institute of Aeronautics and Astronautics and the recipient of the NRO Gold Medal and NASA Group Achievement Award in addition to his military honors.



### **Steve Nixon, President, SmallSat Alliance**

Steven Nixon is President of the SmallSat Alliance (a 45+ company advocacy group), CEO of a security start-up, a technology strategy consultant, and Board Member and advisor for several companies. Most recently, he was an executive at Microsoft co-founder Paul Allen's Vulcan Aerospace. Before his current roles, Mr. Nixon was the Director of Science and Technology/Chief Technology Officer of the US Intelligence Community overseeing the science and technology activities of 16 US intelligence agencies. He was the founder and first acting director of IARPA, the intelligence community's version of DARPA. Before that he was a long-time professional staff member on the House Appropriations Defense Subcommittee with oversight over both the DoD and IC space programs. In 2008, he was awarded the National Intelligence Medal of Achievement. In 2005, Space News recognized him in its global top ten list of people making a difference in space. He was also recognized that year by the National Journal's "Hill 100" as a top congressional staffer in the category of "Defense Transformation." Before working for Congress, he was an analyst at the Pentagon. He has degrees in Electrical Engineering, Mathematics, and National Security Studies.



**Peter Wegner, Chief Technology Officer, BlackSky Global**

Dr. Peter Wegner is Chief Technical Officer of BlackSky Global. He has been a pioneering innovator in the smallsat industry. He is known for the development of the ESPA ring; for leading the DoD's Tactical Satellite Missions (TacSat-1, -2, -3, -4, -5); for establishing the DoD's ORS Office and launching six ORS space missions in the first six years of the program's life; for helping to start BlackSky; and for his relentless pursuit to democratize the power of space. Dr. Wegner has served as Director of Advanced Concepts at Utah State University's Space Dynamics Laboratory, Director of the DoD's Operationally Responsive Space Office at Kirtland AFB, NM, Technical Advisor to Air Force Space Command Directorate of Requirements and a Research Engineer with the Air Force Research Laboratory Space Vehicles Directorate. He has been a lead inventor and co-inventor on five US patents. Dr. Wegner is an Associate Fellow of the American Institute of Aeronautics and Astronautics. Born and raised in Wyoming, Peter loves his ranch country and returns as often as possible to fly fish and breathe high mountain air.



**Casey Anglada DeRaad, Chief Executive Officer and Founder, NewSpace New Mexico**

Casey Anglada DeRaad is CEO and Founder of NewSpace New Mexico, a non-profit established to grow the commercial space industry in New Mexico and to create a bigger voice to NM's space industry stakeholders from industry, Air Force, the national labs, and local, state, and federal organizations. Casey is an energetic builder of partnerships and growth strategies to help all stakeholders succeed. She has over 30 years of leadership experience in space technology, business development, investment leveraging, technology engagement/transfer, strategic planning, workforce development, and portfolio investment for Air Force, NASA and private industry. Casey has promoted opportunities for New Mexico students and industries for her entire career. Casey has her Master's in EE from UNM.



**Scott Maethner, Strategy & Operations Lead, NewSpace New Mexico**

Scott Maethner (Colonel, USAF Retired) is a results-oriented leader who helps people and organizations reach their full potential. He has over 29 years of experience in the areas of science & technology, space research & operations, program management, strategy & policy development, strategic planning, studies & analysis, corporate communications, sales, marketing, and talent acquisition.