



Learn. Reach. Achieve.

ONLINE CONFERENCE

NewSpace Industrialization

**January 12-13, 2021
Online | Pacific Time**



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Overview

In the summer of 2020 the US Space Force, Air Force Research Laboratory, and Defense Innovation Unit published a report on the importance of establishing an industrial base to sustain US economic and military leadership in space. Shortly after, Deloitte announced a memorandum of understanding to develop a master plan that identifies the required infrastructure, human capital development, governance and financing necessary to support the United States Space Force mission and position California as a global leader in the future of the commercial space industry. The next space industrial base is headed to southern California.

While innovative technologies, commercial applications, and new business models drive the commercial space economy, return on investment is by and large realized by well-established aerospace primes and select NewSpace companies. For NewSpace startups to experience the same ROI the industry itself must continue to develop. For new players to succeed and grow from startup to maturity there must be a better marketplace, increased demand, and greater economies of scale. This online event will bring together leaders in NewSpace for an in-depth executive discussion on how to establish a sound NewSpace industrial base.

Learning Objectives

This conference will provide attendees an opportunity to:

- Evaluate locational strategies for establishing an industrial base
- Review the importance of US-based manufacturing
- Improve supply chain efficiency
- Examine the benefits of standardization & commoditization
- Rethink the marketplace for improved B2B interaction and transactions
- Evaluate opportunities for vertical integration and M&A activity
- Meet & collaborate with NewSpace executives in an interactive format
- Explore new partnership opportunities with leaders in Moon and Mars programs

Who Should Attend

- Federal agencies & regulatory authorities
- NewSpace startups
- Aerospace primes
- Launch service providers
- Satellite manufacturers
- Procurement managers
- Parts & component suppliers
- Mission directorates, project managers
- Business development & sales executives
- Chief technology officers, engineers

Agenda

TUESDAY, JANUARY 12, 2021 - PACIFIC TIME

7:45 – 8:00 am

Log In

How to Establish an Industrial Base

8:00 – 9:00 am

Keynote Address: Strategies for Establishing an Industrial Base

- Vandenberg Air Force Base—Visions of a Thriving Spaceport
- Location strategy and site evaluation
- Maximizing the potential for job growth and stimulating local economies
- Governance and financial aid
- Proposed timelines

Jeff Matthews, Specialist Leader, Government & Public Sector Space Industry Practice, Deloitte

9:00 – 10:00 am

Industrial Base VS Regional Clusters

- Centralization VS clusters
- Ports and landing sites VS manufacturing sites
- Center of Excellence VS economic base (Silicon Valley)
- Academic and workforce hubs
- The role or strategy behind aerospace hubs

Gavin Brown, Executive Director, Michigan Aerospace Manufacturers Association (MAMA)

10:00 – 11:00 am

The Constellation Effect—Frequency Standardization & Hardware Commoditization for Greater Industrialization

- Industrialization and its dependence on constellations for economies of scale
- Frequency standardization initiatives
- Hardware commoditization trends
- How to break down innovation silos while maintaining competition and innovation
- Collaboration to create synergies and cohesiveness within the supply chain
- Accelerating production to minimize launch delays
- Will standardization and commoditization result in a mass market?

Alexandre Vallet, Chief, Space Services Department, Radiocommunication Bureau, International Telecommunication Union (ITU)

11:00 am – 12:00 pm

Is the NewSpace Industry Ready for a Broader Industrial Base?

- The importance of US-based manufacturing
- Establishing a better marketplace for B2B transactions
- Impacts on the ecosystem and economies of scale
- Evaluating all opportunities within an industrial base
- Vertical integration and M&A opportunities for aerospace primes
- Exit strategies for NewSpace startups
- Implications of security issues in relation to industrialization
- Impacts to quality control and integration
- Drivers for and hurdles against an industrial base

Moderator: Debra Werner, Correspondent, SpaceNews

Ray O. Johnson, Operating Partner, Bessemer Venture Partners

Jim Cantrell, CEO and Co-Founder, Phantom Space

Online Course Agenda

WEDNESDAY, JANUARY 13, 2021 - PACIFIC TIME

7:45 – 8:00 am

Log In

8:00 – 9:00 am

Keynote Address: The International Space Station—the 1st Base in Space

- NASA programs and initiatives
- International partnerships
- Future plans & initiatives
- Facilitating moon & Mars missions

9:00 – 10:00 am

Building the In-Space Supply Chain

- In-space servicing
- Robotic systems for in-space assembly and manufacturing
- Building critical infrastructure to support a robust and sustainable in-space economy
- Promoting a B2B marketplace for in-space goods and services

Rob Hoyt, President and Founder, Tethers Unlimited Inc.

10:00 – 10:30 am

Status & Update on Private Property Rights in Space

- Outer Space Treaty
- Goals of the private space sector
- Impacts on the industrialization of space

Wes Faires, Advocate, Private Space Sector; Founder, Space Rights LLC

10:30 – 11:00 am

The First Privately Financed Mission to the Moon

- Resource extraction
- Cost-effective lunar transportation
- Enabling the development of a lunar industry
- Construction of a lunar industrial platform
- Partnerships & collaborative efforts
- Supply chain needs

Kyle Acierno, CEO, iSpace Technologies U.S.

11:00 am – 12:00 pm

Establishing a Martian Industrial Base

- Goals of the first colony
- Partnerships & collaboration
- Funding needs
- Proposed timelines

Vera Mulyani, CEO & Founder, Mars City Design

Speakers



Kyle Acierno

CEO, iSpace Technologies U.S.

Kyle Acierno is an international expert in commercial space and a specialist in lunar exploration. He acts as the CEO of iSpace technologies US, and previously served as the Vice President of Global Sales & Strategy in Tokyo as well as the Managing Director of iSpace Europe. iSpace managed the front-running competitor in the Google Lunar XPRIZE, Team Hakuto and has raised over \$120M USD to build a lunar transportation system, including a lander and a rover. iSpace plans to have its first privately financed mission to the Moon in 2022.

Kyle is a governing member of the International Space University served as a member of the Hague Space Resources Working Group, including acting as the chairman of the technical working group. He received a Masters of Space Studies from the International Space University and Bachelor of Arts in International Security.

Gavin Brown

Executive Director, Michigan Aerospace Manufacturers Association (MAMA)

Jim Cantrell

CEO and Co-Founder, Phantom Space

Mr. Cantrell is a well-known entrepreneur, automotive executive, the founder of numerous startups, small satellite subject matter expert and has worked on over 45 satellite and deep space missions and has served as an aerospace executive over the past 33 years.



Wes Faires

Advocate, Private Space Sector; Founder, Space Rights LLC

I am an advocate for the forward progress of the concept, with respect to off planet resource utilization under the current legislation, creating a favorable climate for property rights in Outer Space. This includes interacting with competent national authorities of States-Party to the Outer Space Treaty long-term goal of achieving, without litigation, a positive interpretation of the Outer Space Treaty regarding private property rights. On multiple occasions I've attended the United Nations Committee on Peaceful Uses of Outer Space (Legal Subcommittee) as a silent observer on behalf of the private sector.



Speakers



Rob Hoyt

President and Founder, Tethers Unlimited Inc.

Dr. Rob Hoyt is a 'relentlessly-inventive' Technologist and Executive with expertise in advanced space technologies, additive manufacturing, plasma physics, and scientific algorithms. He co-founded Tethers Unlimited Inc in 1994 and has built it into a multi-\$M space and defense R&D firm that is pioneering advances in small satellite technologies as well as in-space manufacturing and robotic assembly capabilities. In 2020 he sold TUI to AMERGINT Technologies Holding, a Blackstone-backed venture. He also co-founded ScienceOps Inc., a big-data algorithm and web analytics firm purchased by Acquisio in 2012. Over the past twenty-six years he has pioneered the development of technologies for in-space manufacturing and assembly of space systems, affordable mitigation of orbital debris and radiation belts, propellantless propulsion for spacecraft, and mesh-networked communications for satellites.



Ray O. Johnson

Operating Partner, Bessemer Venture Partners

Dr. Ray O. Johnson is an international business and strategy consultant, serving on numerous Boards of Directors and Advisory Boards. He is currently an Operating Partner with Bessemer Venture Partners. Previously, he was the Senior Vice President and Chief Technology Officer of the Lockheed Martin Corporation, where he led engineering, technology, production operations, global supply chain, program management, and logistics and sustainment. He had responsibility for more than 70,000 people, working on more than 4,000 programs that provide some of the nation's most vital security systems.

Prior to joining Lockheed Martin, he held executive positions with Science Applications International Corporation (SAIC), including Senior Vice President and General Manager of the Advanced Concepts Business Unit. He had a 21 year career in the US Air Force. He interacts at the highest levels nationally and internationally with leaders in government, industry, and academia, and he is frequently sought as an expert in the media and as a speaker on business, strategy, innovation, and education.

Dr. Johnson is a full Academician of the International Academy of Astronautics (IAA) and a fellow of the International Society for Optical Engineering (SPIE), the American Institute of Aeronautics and Astronautics (AIAA), and the Institute of Electrical and Electronics Engineers (IEEE). Dr. Johnson is a member of Eta Kappa Nu, Tau Beta Pi, and Phi Kappa Phi. He holds Ph.D. and M.S. degrees in electrical engineering from the Air Force Institute of Technology and a B.S. degree in electrical engineering from Oklahoma State University.

Speakers



Jeff Matthews

Specialist Leader, Government & Public Sector Space Industry Practice, Deloitte

Jeff is a specialist leader at Deloitte Consulting LLP with more than 19 years of private and public sector experience focused on finance, enterprise architecture transformation, technology commercialization, and market strategy. Currently, he is a leader in Deloitte's Government & Public Sector Space Industry practice where he provides subject matter expertise on commercial space technology trends, industry strategies, and launch systems economics.

Before joining Deloitte, Jeff served as the director of venture strategy and research for the Space Frontier Foundation where he was also a board member. His previous experience as an advisor in \$600M+ of venture capital raises for early stage technology companies, commercializing government technologies, and deep insight into the commercial space market allows him to bring a unique perspective to government and commercial clients. Jeff has contributed expertise and analysis on the space industry to Reuters, Forbes, NBC News, Discovery News, The Wharton School, the Open Group, and the American Institute of Aeronautics and Astronautics (AIAA).



Vera Mulyani

CEO & Founder, Mars City Design

Vera Mulyani is an innovative entrepreneur and visionary leader, with multidisciplinary skills in human centered design and science.

Mulyani has developed a distinct concept of Recycling Cities, which consisted of transforming damaged areas, former industrial and cosmopolitan into self-sustaining Green Zones, (ex. Ruhr, Germany) to better integrate a natural environment into human living space. Mulyani's concept of urbanism on Mars advocates a self-sustaining lifestyle on Earth. Mulyani created the original platform for designing cities on Mars, she is the CEO & Founder of Mars City Design® and the President of Mars City Foundation (501c3). Mars City Design builds prototypes of an urban infrastructure and human lifestyle for Mars, applicable to sustainable smart cities on Earth.



Alexandre Vallet

Chief, Space Services Department, Radiocommunication Bureau, International Telecommunication Union (ITU)

Alexandre Vallet is the current Chief of the Space Services Department in the Radiocommunication Bureau of the International Telecommunication Union (ITU), since November 2017. Alexandre Vallet began to work in 2000 in the R&D center of Orange dealing with communications satellites. In 2006, he joined the satellite operator Eutelsat where he was in charge of regulatory matters. From 2007 to 2017, he was the Head of the Regulatory affairs and Spectrum/Orbit Resources Department at the French Agency in charge of radio spectrum management (Agence Nationale des Fréquences – ANFR).



Debra Werner

Correspondent, SpaceNews

Debra Werner is a correspondent for SpaceNews and a contributor to Aerospace America. Debra earned a bachelor's degree in communications from the University of California, Berkeley, and a master's degree in Journalism from Northwestern University. She is a recipient of the 1989 Gerald Ford Prize for Distinguished Reporting on National Defense. She publishes a weekly newsletter on the commercial space industry called SN Commercial Drive.

Instruction Methods

Panel Discussions and PowerPoint presentations will be used in the program.

IACET Credits



EUCI has been accredited as an Authorized Provider by the International Association for Continuing Education and Training (IACET). In obtaining this accreditation, EUCI has demonstrated that it complies with the ANSI/IACET Standard which is recognized internationally as a standard of good practice. As a result of their Authorized Provider status, EUCI is authorized to offer IACET CEUs for its programs that qualify under the ANSI/IACET Standard.

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Online Course Delivery & Participation Details

We will be using Microsoft Teams to facilitate your participation in the upcoming event. You do not need to have an existing Teams account in order to participate in the broadcast – the online course will play in your browser and you will have the option of using a microphone to speak with the room and ask questions, or type any questions in via the chat window and our on-site representative will relay your question to the instructor.

- You will receive a meeting invitation which will include a link to join the meeting.
- Separate meeting invitations will be sent for the morning and afternoon sessions of the online course.
 - o You will need to join the appropriate meeting at the appropriate time.
- If you are using a microphone, please ensure that it is muted until such time as you need to ask a question.
- The remote meeting connection will be open approximately 30 minutes before the start of the online course. We encourage you to connect as early as possible in case you experience any unforeseen problems.

Requirements for Successful Completion

Participants must log in each day and be in attendance for the entirety of the course to be eligible for continuing education credit.

Please Select

NEWSPACE INDUSTRIALIZATION ONLINE CONFERENCE:
JANUARY 12-13, 2021: US \$795 (Single Connection)

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PACK OF 10 CONNECTIONS: US \$5,565 (30% Discount)

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Registration Info...

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Greenwood Village, CO 80111

phone: 1-888-305-0392
email: questions@lrainstitute.com

How did you hear about this event? (direct e-mail, colleague, speaker(s), etc.)

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Phone

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Name on Card

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Account Number

Billing City

Billing State

Exp. Date

Security Code (last 3 digits on the back of Visa and MC or 4 digits on front of AmEx)

Billing Zip Code/Postal Code

OR Enclosed is a check for \$ _____ to cover _____ registrations.

Substitutions & Cancellations

Your registration may be transferred to a member of your organization up to 24 hours in advance of the event. Cancellations must be received on or before December 11, 2020 in order to be refunded and will be subject to a US \$195.00 processing fee per registrant. No refunds will be made after this date. Cancellations received after this date will create a credit of the tuition (less processing fee) good toward any other LRA Institute event. This credit will be good for six months from the cancellation date. In the event of non-attendance, all registration fees will be forfeited. In case of course cancellation, LRA's liability is limited to refund of the event registration fee only. For more information regarding administrative policies, such as complaints and refunds, please contact our offices at 1 888-305-0392 . LRA reserves the right to alter this program without prior notice.

