



Monday August 30, 2021

Cryptocurrency in the Space Economy

8:45 AM Pierce will focus his remarks on presenting the different types of available financing and currencies - including cryptocurrencies like Bitcoin and Tether, which he co-founded - to broaden investment opportunities for space. He will also discuss how the Michigan Launch Initiative will stimulate economic activity in low-Earth orbit, or LEO, satellites.

Brock Pierce, Entrepreneur & Co-founder Tether cryptocurrency

Space Harbor

No Longer a Theory: Updates on the Michigan Launch Initiative

09:15 AM Over the last several years, the Michigan Launch Initiative has laid the groundwork for Michigan to support a state-of-the-art commercial aerospace ecosystem. MLI is far more than just a theory in presentations and reports, it's moving forward with real momentum. Michigan Aerospace Manufacturers Association Executive Director Gavin Brown provides an update on how the MLI is moving forward with its horizontal and vertical launch facilities, as well as a command-and-control center, to build a space ecosystem in the Midwest.

Gavin Brown, Executive Director, Michigan Aerospace Manufacturers Assoc.
Troy Cumings, Executive Partner, Warner Norcross + Judd LLP
Brian Gulliver, Aerospace and Spaceport Practice Leader, Kimley-Horn and Associates, Inc

More Spaceports, More Opportunities

9:50 AM Did you know there are currently 13 licensed spaceports in the U.S., but none in the Midwest? Federal Aviation Administration Associate Administrator Wayne Monteith discusses the numerous capabilities spaceports can provide, importance of licensing more spaceports in America and why expanding this infrastructure is vital for the space ecosystem's future.

Wayne Monteith, Associate Administrator for Commercial Space Transportation, Federal Aviation Administration

Rethinking Space Launches: The Horizontal Approach

10:10 AM People think of a space launch as a rocket blasting through the atmosphere, but horizontal launches are becoming increasingly popular as they cater to the need for low-Earth orbit satellites. Hear from Gary Kellan from the Oscoda Wurtsmith Airport and Virgin Orbit's Monica Jan on how the federal licensing process works, the benefits of establishing horizontal launch sites and their potential users.

Elaine Taylor, Business Development, Warner Norcross + Judd
Gary Kellan, Airport Manager, Oscoda Wurtsmith Airport
Don Nolan, Director, Heavy Maintenance, Kalitta Air
Cheree Kiernan, CEO, Integrated Launch Solutions



Monday August 30, 2021

The Heart of Space in Michigan

11:00 AM Chippewa County’s Command and Control Center will be the heart of Michigan’s space ecosystem. Hear panelists discuss the latest updates on the process underway to make the facility operational, who will operate it, the technology coming to the facility and the revenue stream and jobs expected from its commercial and government customers. Command & Control

Chris Olson, President, Chippewa County EDC
Dave Buck, President, BRPH Mission Solutions
Stan Kennedy, Chief Architect, Redwire Space
Dr Christopher Griffen, Technical Director, Great Lakes Composite Institute

Highways in Space

11:30 AM There are no traffic signs, side streets or clear pathways in space. Orbiting satellites are ripe for potential collisions, which contribute to scattered pieces of debris that in turn can cause more damage to other satellites. Panelists discuss managing these orbits by boosting ground communication infrastructure to create an interstellar highway system that creates safer and cleaner space. Panelists will also talk about enhancing current debris remediation techniques to support this initiative.

Gregory H. Johnson, Colonel (Ret), USAF, Test Pilot & Business Development, Lockheed Martin Space
Adam Kall, Director of Technology, Kall-Morris, Inc.
Rick Jenet, Founder & Executive Director, Expanding Frontiers
Brandon Cesul, Technical Fellow & Principal Systems Engineer (Space), KBR Defense & Intel Business Unit

The Next Generation of Space Workers

12:45 PM An affiliate of the Boy Scouts of America, the ATLAS Space Explorer Post 2025 is the only post in the country focusing on growing the future workforce of the space ecosystem. The program is open to teens and young adults ages 12 to 19 who have an interest in careers in space technology. ATLAS Spacer Operation’s Ryan Clulo discusses the program’s work and vision for the future.

Ryan Clulo, Atlas Space Operations

Jobs of the Future

1:00 PM Michigan is home to hundreds of space-related companies that produce more than \$3 billion in annual revenue. The state also has incredible human capital – we have the highest concentration of electrical and mechanical engineers nationwide and employ more industrial designers than any other state. Hear from panelists on what we are doing to prepare for Michigan’s jobs of the future in areas such as cybersecurity and mobility within the space economy.

Elaina Farnsworth, Founder, The Next Education
Dr. Don McMaster, President, Alpena Community College
Gregg Wildes, Innovation Leader, Dornierworks
Karl Klimek, President, 2 Perspectives



Monday August 30, 2021

Space-Enabled Communication for Advanced Mobility

Shaping the Future of Mobility with LEO 5G

| | | |
|---------|--|---|
| 1:30 PM | Autonomous vehicle technology continues to develop and promises a bright future in the American automotive industry but is at a crossroads with today's infrastructure. Volkswagen Group of America Director of Connected and Mobility Services Frank Weith highlights how space-enabled 5G technology is vital to the advancement of autonomous vehicles. | Frank Weith, Director, Connected & Mobility Services, Volkswagen Group of America |
|---------|--|---|

The Race to Connect: LEO-based 5G + Next Gen Mobility

| | | |
|---------|---|---|
| 2:00 PM | The advancement and mobility of autonomous vehicles relies on infrastructure expansions on the ground and in orbit. Kirk Steudle, the senior vice president at Econolite and former director of the Michigan Department of Transportation, discusses the race to connect space-enabled 5G in both areas to bridge the gap between connectivity in urban and rural areas so autonomous vehicle technology is accessible for all. | Glenn Stevens, Executive Director, MICHauto Kirk Steudle, Senior Vice President, Econolite Group |
|---------|---|---|

Cybersecurity is Not an Option

| | | |
|---------|---|---|
| 2:45 PM | It's a requirement for any manufacturer that wants to participate in the space ecosystem. This session will focus on the critical importance of cybersecurity and its roles in ensuring secure communication links between satellites and their ground stations. Meeting DoD standards and Cybersecurity Material Model Certification standards are required for any business – we'll dive into each and share what you need to know. | Mike Stone, Senior Counsel, WN+J Devi Narayan, CEO, Authnive Dr. Merrick Watchorn, CEO, Watchorn Innovation Group Jesse Pelligrino, President, Defense Cyber Solutions |
|---------|---|---|

Game Time: How America Can Get its Mojo Back

| | | |
|---------|---|--|
| 3:30 PM | The featured experts in this session will discuss some of the game changing technologies that are ready to revolutionize communications, encryption and quantum impact for ground, air, sea, space, cyber and our planet. Learn how these innovative technologies can put America back on track and take the lead into the "Internet of Everything & Everywhere Web 3.0" era. | Pamela Norton, CEO/Founder, Borsetta, Inc. Todd Austin, Founder, Agita Labs Lamont Silves, Sr. Director, ColdQuanta Andrew Van Timmeren, Sr. Defense Consultant, Advanced Strategic Insight, Inc. Bill Van Duyne, Chief Innovation Officer, SeaPort, Inc. Robert Sarkissian, Director Aerospace and Defense, Cadence Design Systems |
|---------|---|--|



Monday August 30, 2021

SECAM: Where Space Meets 5G to Advance Autonomous Mobility and Connectivity for the Nation.

| | | |
|---------|---|---|
| 4:10 PM | This session will cover the benefits of SECAM for Michigan and the Nation. Covered will be SECAM's impact to Michigan and its automotive industrial base, the impact to the nation and national security and the role of SECAM in the construct of national infrastructure development. | Jeff Matthews , Specialist Leader, Space Industry, Deloitte Consulting, LLP David Parent , Principal, Deloitte Consulting LLP Steven Hamilton , Senior Manager, Deloitte Transactions and Business Analytics LLP |
|---------|---|---|



Tuesday August 31, 2021

Gold Rush

The Space Revolution – Reloaded

8:00 AM

This is a must see talk for anyone dealing with, curious about, reporting on, or investing in space!

Rick provides both almost unknown history and context for what many today mischaracterize as a contest between “billionaires and their toys”. He shows how what we see happening today has deep roots, and is the result of a long, often behind the scenes war of ideas and clash of cultures. He also flips other critiques on their heads, providing a context for the rise of a multi-trillion-dollar New Space industry that is both greener than green and built on the promise of an abundant future for everyone. We can guarantee you that after this presentation you will not look at what is happening on the High Frontier the same way again.

Rick Tumlinson, Founder SpaceFund, Space Frontier Foundation and EarthLight Foundation

The Smart Space Money is on....

8:45 AM

Morgan Stanley values the global space economy at \$350 billion today, noting it will top \$1 trillion by 2040 – with 50% of the projected growth coming from satellite broadband. Where’s the smart money going now? This session will focus on where to invest today and growth areas for tomorrow.

Steve Hamilton, Senior Manager, Deloitte Transactions and Business Analytics LLP
Ellen Chang, Managing Partner, Syndicate 708
Megan Crawford, Managing Partner, SpaceFund

Access to Capital

9:30 AM

You just closed on a major aerospace deal, now what? There are several options to fund projects. From traditional bank financing and support programs, to unique funding options such as WHAT, panelists will present opportunities Michigan and other Midwest companies can explore to gain access to capital for new equipment, buildings and other enhancements. The discussion will also include key steps in the process, such as when to bring in your team, accountant, and attorney.

Kyle Sasena, First Vice President- Commercial Banking, Independent Bank
Irina Litchfield, President, Lumeria
Kent Takas, Senior VP, Group Manager, Independent Bank
Chris Cook, Director – Capital Access, Michigan Economic Development Corporation





Tuesday August 31, 2021

Made for Space

Lunar Rover Case Study

10:45 AM NASA astronauts still have yet to explore 95% of the Moon’s surface, and to do so, they will need a set of wheels that can endure those long road trips. Derek Hodgins of Lockheed Martin talks about the unique partnership with GM Defense to design the next generation of lunar rovers that can travel farther distances on the lunar surface with or without humans on board.

Derek Hodgins, Lunar Exploration Campaigns, Lockheed Martin Space

Small-satellite Electric Propulsion Comes of Age

11:20 AM Small-satellite constellations have become reliant on low-power electric propulsion technologies because of their excellent fuel efficiency. The hurdle facing the industry now is to commercialize the propulsion products and the manufacturing processes in time to meet the exponential demand. Dr. Brad King will describe the challenges of mass-producing satellite electric propulsion systems and describe lessons learned in bringing Orbion’s products to market.

Brad King, CEO, Orbion Space Technology

Growing a Commercial Space Ecosystem

1:00 PM Economic viability for space operators requires systems that are affordable and reliable. These systems also need to be serviced while in space. This panel will discuss innovations in the manufacture and sustainment of small satellite spacecraft and their support systems.

Brent Abbott, CEO, NanoAvionics
Jeremy Schiel, Co-Founder & CDO, Orbit Fab
Rick Jenet, Founder & Executive Director, Expanding Frontiers
Dirk Wallinger, CEO, York Space Systems

Add it Up

1:45 PM 3D printing, or additive manufacturing, has gained steam over the last few decades on Earth. This panel will explore the uses for additive manufacturing on Earth to make parts being used in space, such as Lockheed and its fuel containers for satellites. It will also look at expanding the capabilities of additive manufacturing in space to make replacement components for shuttles, rockets and other equipment already in orbit.

Brandon Pender, Associate Director Materials, GVSC
Brian West, Additive Mfg. Lab Manager, Marshall Space Center
David Simmet, COO/Director of Sales, FAMAero, Inc.
Russ Brown, Business Development, Sciaky, Inc.



Tuesday August 31, 2021

The High Ground

Space Force and Commercial Technology

2:30 PM National security advances during the space races of the 1950s, '60s and '70s were managed exclusively by federal agencies. Today, efforts take a broader approach and lean on private companies and academia. U.S. Air Force Deputy Assistant Secretary Shawn Barnes discusses the future of a stronger and more collaborative national security and the value of partnerships with commercial enterprises.

Shawn Barnes, Assistant Secretary for Space Acquisition and Integration, United States Air Force

Miniaturizing RADAR

3:20 PM In the first of three sessions that will lead into a panel discussion, Mike Moran of PredaSAR Corporation will discuss the benefits of using synthetic aperture radar on smaller spacecraft. Traditional radar technology doesn't translate well on smaller spacecraft, but the use of synthetic apertures enables the miniaturization of radar without sacrificing bandwidth.

Mike Moran, COO, PredaSAR Corporation

Cloud Hosting + Ground Networks

3:35 PM In this second session, Ed McCarty of Atlas Space Operations explores leveraging cloud-hosted, network integration technologies and they opportunities they create for scalable and extendable ground networks.

Ed McCarty, VP Sales, Atlas Space Operations

Revolutionizing Data Protection

3:50 PM Investing in innovation is fundamental for the future of our country's national security guidance on space policy. Slingshot Aerospace CEO and Co-founder Melanie Stricklan will discuss the industry's investment vision and strategy for emerging space technology to continue to revolutionize data protection for private and public sectors.

Melanie Strickland, Co-Founder/CEO, Slingshot Aerospace

Driving Innovation and Change

4:05 PM So how all of these technologies come together? And what impact will it have on national security? Mike Carey of Atlas Space Operations leads a panel discussion with presenters Mike Moran, Ed McCarty and Melanie Stricklan on the role commercial companies have to drive change and leapfrog technologies. They will explore the benefits private business can bring to bolster our national security capabilities.

Mike Carey, Chief Strategy Officer, Atlas Space Operations
Mike Moran, COO, PredaSAR Corporation
Ed McCarty, VP Sales, Atlas Space Operations
Melanie Strickland, Co-Founder/CEO, Slingshot Aerospace



Wednesday September 1, 2021

Doing Business With NASA

Doing Business at Marshall Space Flight Center and the Johnson Space Center

9:30 AM

During the "Doing Business With NASA" segment, small businesses will receive a virtual introduction to the Johnson Space Center and Marshall Space Flight Center marketplaces. Overview will include small business metrics both direct and subcontracting, availability of small business resources, upcoming procurement opportunities, future outreach events, and how to make connection with NASA Centers.

David Brock, Small Business Specialist, NASA Office of Small Business Programs, Marshall Space Flight Center
Robert Watts, Small Business Specialist, NASA Office of Small Business Programs, Johnson Space Center

Doing Business with NASA Prime Contractors

10:30 AM

During the "Doing Business With NASA Primes" panel, those in attendance will have an opportunity to virtually connect with several NASA large business prime contractors to gain valuable information on how to more effectively market a company's capabilities to the primes. As NASA embarks on new and exciting programs (i.e., Artemis, Gateway, Human Landing System, Moon to Mars Mission, etc.), small businesses will be presented with numerous opportunities to support these programs through the prime contractor subcontracting programs."

Gina Gastelum, Aerojet Rocketdyne
Dr. Diane Sterling, Boeing
Jennifer Delaney, Dynetics
JoAnn Belt, Jacobs
Jenifer Scoffield, Northrop Grumman
Kerry Webb, SAIC
Debbie Batson, Teledyne Brown Engineering

