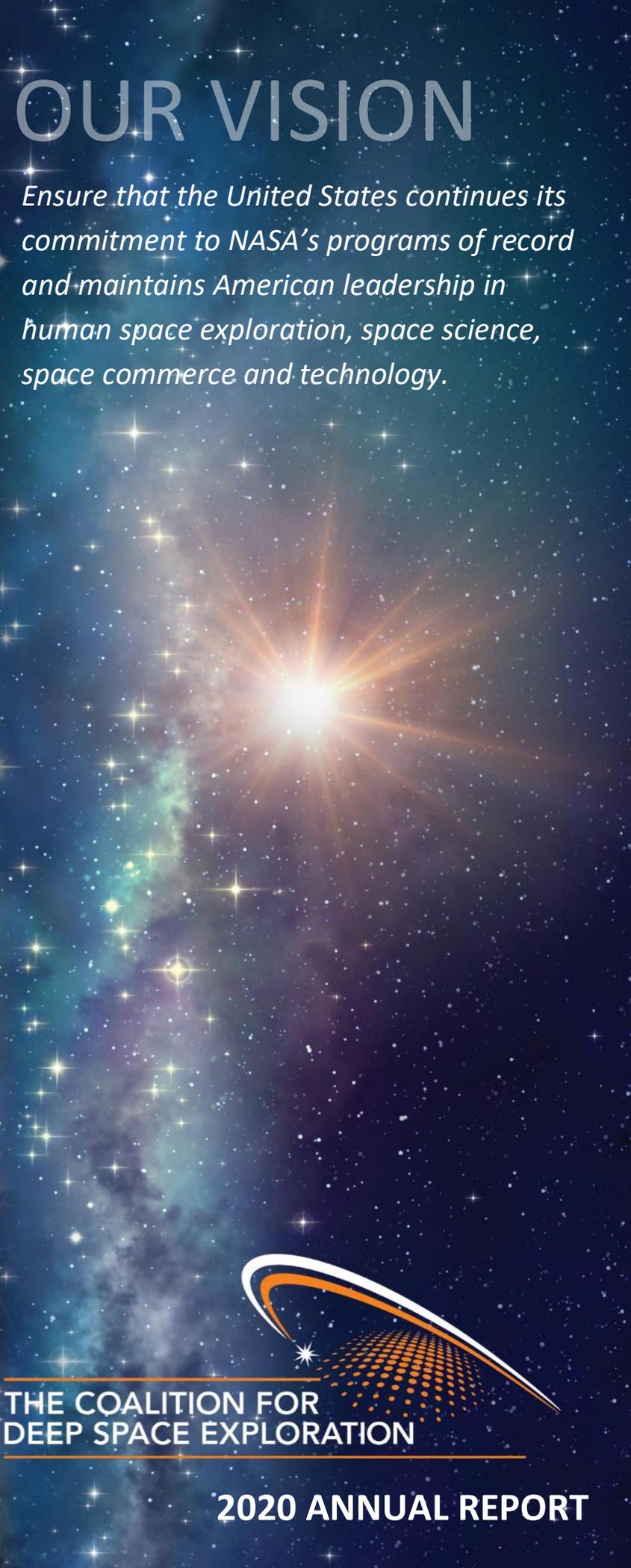
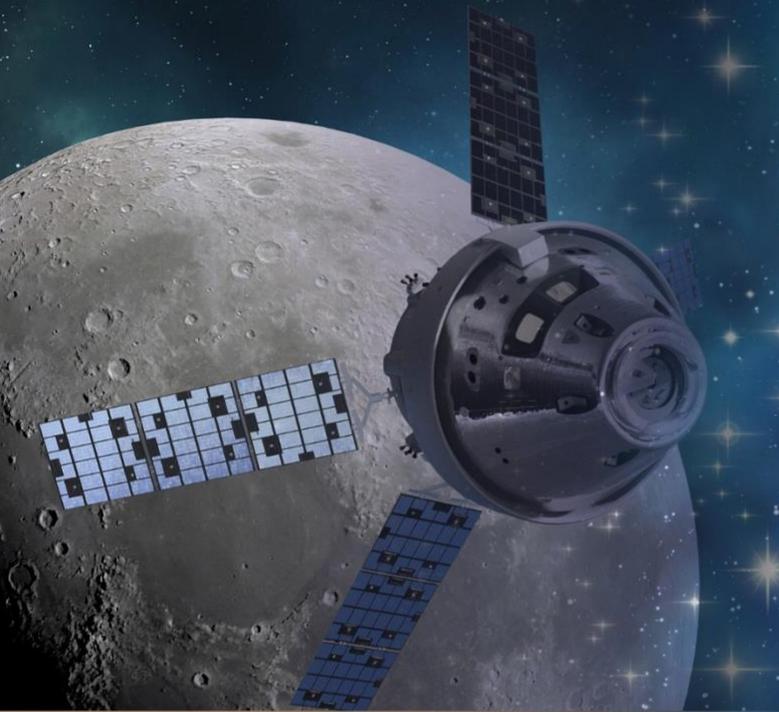




OUR VISION

Ensure that the United States continues its commitment to NASA's programs of record and maintains American leadership in human space exploration, space science, space commerce and technology.



**THE COALITION FOR
DEEP SPACE EXPLORATION**

2020 ANNUAL REPORT



The Coalition for Deep Space Exploration (CDSE) has provided yearly activity reports to our members for the past several years, but this year we are kicking off what will now be our “Annual Report,” highlighting milestones and activities immediately past. This is our inaugural issue.

It goes without saying that 2020 was a year to remember, full of challenges, but also full of promise. As with the nation and the world, this was also the case in space. Our national programs in space continue to move full speed ahead. The year saw final testing of the first Orion crew capsule, destined to take humans farther into the solar system than ever before. The Space Launch System (SLS) entered final testing before shipping to NASA Kennedy Space Center, where the Exploration Ground Systems will process and integrate Orion and SLS for their first launch together in late 2021. Meanwhile, the James Webb Space Telescope completed a comprehensive test program with a scheduled launch also in 2021.

At the same time, progress continued on the lunar Gateway and the Human Landing Systems, which will enable human presence around and on the Moon. The Mars Perseverance rover is scheduled to land on the Red Planet on February 18. Other NASA science missions span our solar system and beyond, contribute to our knowledge of the universe, the origins of our planet, and ultimately, where we are going as we face the challenges of a changing Earth.

CDSE’s member companies are deeply engaged in these pursuits, unleashing the innovation and energy of U.S. industry, in partnership with both U.S. and international teams, to advance human exploration and science in deep space. Exploration and science start right here, on Earth’s surface. In addition to the thousands of jobs and inspiration for students dreaming of STEM careers, many of the projects and programs in which CDSE members participate are laying the groundwork for space commerce. Some are developing and launching new components for the International Space Station, building a customer base for space-based goods and services that will ultimately broaden national and international participation in space, and open the door to greater investment in our sector.

CDSE proudly supports all of our industry partners. We do this through extensive engagement with the media, participation in meetings, work with Congressional staff and the White House. This past year included diverse activities including ongoing work with the National Space Council; media contacts and interviews; formulation of a small business committee; meetings of our members with the NASA transition team for the incoming administration; surveys about COVID-19 impacts and advocacy for industry in both media and policy circles; ongoing interactions on behalf of our members across NASA, the FAA, the Department of Commerce, and other entities. I encourage you to read about our work, and ask for your continued support. We do this for all our members, and cannot do it without them.

Finally, I write this letter in the last days of my tenure as President and CEO of CDSE, as I step down after five years. It has been my great pleasure to develop CDSE over this time with the support of the Board of Directors and Board of Advisors – and most of all, our members. I am grateful to have had this opportunity and look to the future with great enthusiasm. The future beckons – and I have no doubt that CDSE and its members are ready and willing to meet it.

Mary Lynne Dittmar, PH.D
President & CEO, Coalition for Deep Space Exploration



CHRISTEN KAPAVIK, Director, Strategic Alliances and Operations

Christen Kapavik joined CDSE in 2018 as the Director of Strategic Alliances and Operations. In this capacity, she handles member outreach and business development, Congressional relations, and day-to-day operations. Prior to joining CDSE, Christen worked in the House of Representatives as a staffer for two different Members of Congress. While working for Florida’s eighth congressional district, which is home to Kennedy Space Center and Cape Canaveral, she worked on space policy and national security, in addition to a wide portfolio of other issues. Christen was introduced to space as a Florida native who grew up watching Shuttle launches in her backyard. Christen also has small business background and is co-owner of Odyssean, LLC and its flagship brand Battle Board. She graduated with a bachelor’s degree in Political Science from Bob Jones University.



JAMIL ESTÉFANI CASTILLO, Manager, Space Policy and Digital Communications

In January 2020, CDSE was pleased to add its second full-time employee Jamil Castillo. She manages and writes for CDSE’s digital communications, including the daily “Deep Space Extra” newsletter, as well as all social media accounts. Jamil is also the development lead of space policy blogs and white papers, and co-lead of the Deep Space Podcast. Prior to joining CDSE, Jamil worked for Bryce Space and Technology, where she was involved in projects related to the economic development of low Earth orbit, cybersecurity policy adaptable to space systems and private investment in start-up space companies. She also contributed her research on anti-satellite capabilities to the Space Security Index project in 2018. Jamil received her master’s degree in Space Law from McGill University. Before beginning her career in space, she was an aviation lawyer working on drone and safety policy, teaching air regulations to air traffic control students, and serving as a volunteer adviser on the International Civil Aviation Organization’s (ICAO) Safety Management Panel.



The Coalition continues to work with the Griffin Communications Group for media relations and outreach, as well as creative work. Griffin is a strategic marketing and communications agency, with specialized expertise in the space industry.

BOARD OF DIRECTOR COMPANIES



Jacobs



SILVER MEMBERS

AXIOM SPACE

COLLINS AEROSPACE

**FUTURAMIC TOOL AND ENGINEERING
COMPANY**

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MEMBERS

AIRBUS

ALL POINTS

AMRO FABRICATING

ASTROBOTIC TECHNOLOGY, INC.

BARRIOS TECHNOLOGIES

BWX TECHNOLOGIES, Inc.

CAIN TUBULAR PRODUCTS

CIMARRON INC.

CISLUNAR SPACE DEVELOPMENT COMPANY, LLC
EMF, INC.

ENSIGN-BICKFORD AEROSPACE & DEFENSE

ENERSYS

EXPERIOR LABORATORIES

FASTENER DEPOT

HOUSTON PRECISION FASTENERS

ICF MERCANTILE, LLC

ISYS TECHNOLOGIES

MADE IN SPACE

MRI TECHNOLOGIES

NANORACKS

NTS

NLOGIC, LLC

ONYX AEROSPACE

PARAGON SPACE DEVELOPMENT CORPORATION

PILGRIM AEROSPACE FASTENERS

RDI ENGINEERING, LLC

RS&H

RUAG SPACE

SPACE NATION

SPINCRAFT, STANDEX ETG

SOLVAY COMPOSITE MATERIALS

TAYCO ENGINEERING

TAYLOR DEVICES, Inc.

VACCO INDUSTRIES

VOTAW PRECISIONS TECHNOLOGY, INC.

WEETECH, INC.

OUR MISSION:

Our mission is to reinforce the value and benefits of deep space human exploration, science and commerce with the public and our nation's leaders, building lasting support for American leadership in space on a long-term, sustainable basis.

ENGAGEMENT

On the Hill: Congressional Engagement

CDSE met with various members and staff throughout the year on topics relating to space, and the impact of the various government closures to CDSE member companies, as well as the larger space sector. Dr. Dittmar also participated in an industry roundtable with the staff of the House Science, Space and Technology Committee regarding Covid-19 impacts on April 22, 2020.

House and Senate Hearings

CDSE attended the below hearings and provided recaps to CDSE members via email:



- [House Commerce, Justice, Science, and Related Agencies Subcommittee Markup](#), July 8, 2020
- [House Commerce, Justice, Science, and Related Agencies Full Committee Markup](#), July 14, 2020
- Senate CJS Subcommittee Hearing, [Oversight of NASA's Budget and Activities](#), September 23, 2020
- Senate Commerce Committee Hearing, [NASA Missions and Programs: Update and Future Plans](#), September 30, 2020

Special Programming (All events virtual)

- Congressional Staff Happy Hour and Professional Development Discussion with Jared Stout, May 20, 2020
- CDSE Congressional Briefing, The Path to Launch: An Update on Artemis Program Milestones, June 18, 2020
- CDSE Congressional Briefing, Powering the Future: Space Science and Human Space Exploration, July 22, 2020

CDSE Congressional Space Studies Series (CSSS)

CDSE's Congressional Space Studies Series (CSSS) completed its third year of programming in 2020. CSSS provides a foundational understanding of NASA's programs in human space exploration, space science, and a broad overview of space commerce to Congressional staff, featuring national leaders from NASA, industry and NGOs conducting lectures and Q&A with interested staff in a "no spin" environment. The course traditionally runs January – October with a break in August and features one module each month. At its conclusion, CDSE provides a certificate to all participants who attend eight of the nine sessions. The course continues to receive high marks from staff attendees.

National Space Council Users' Advisory Group

Representing CDSE, Dr. Dittmar was reappointed to [the National Space Council's \(NSpC\) Users' Advisory Group](#) (UAG) by NASA Administrator Jim Bridenstine in June 2020. She served on the Executive Committee, as well as the full UAG and co-chaired the Economic Development and Industrial Base subcommittee (ED&IB). The ED&IB subcommittee addressed spectrum management and allocation and made recommendations for further evaluation of the nation's approach to managing spectrum. The committee also reviewed NASA's plans for economic development of low Earth orbit, and recently completed a draft of a white paper exploring the concept of an in-space U.S. Strategic Propellant Reserve modeled on the U.S. Strategic Petroleum Reserve.

Dr. Dittmar also served on the Exploration and Discovery subcommittee of the UAG chaired by NASA Advisory Council General Lester Lyles primarily focused on human space exploration and space science, as well as the Space Policy and International Engagement (SPIE) subcommittee chaired by former astronaut Dr. David Wolf. In addition, she attended meetings of the Technology and Innovation (T&I) subcommittee, chaired by former astronaut Col. Pam Melroy. All in all, Dr. Dittmar attended or participated in 16 ExCom meetings, six National Space Council meetings, five UAG meetings, six UAG outreach sessions, two closed UAG briefings and co-chaired four meetings of the ED&IB subcommittee this past year, as well as participated in four meetings of the Exploration and Discovery subcommittee, 3 meetings of the Space Policy subcommittee, and 2 meetings of the T&I subcommittee.



Federal Agencies

NASA

CDSE leadership and members regularly confer with NASA leadership in the Office of the Administrator, Human Exploration and Operations, Space Science, the Space Technology Mission Directorate, the Office of Legislative Affairs and NASA Public Affairs. In particular, CDSE maintained frequent contact with NASA managers and personnel involved in the direction of programs in which CDSE members are engaged, providing updates on member activities and serving as a conduit for member communications with the agency. Similarly, CDSE remained in constant contact with NASA's Office of Legislative Affairs to maintain situational awareness of Congressional activity conducted by the agency, and with the Offices of Public Affairs and Office of Communications to coordinate CDSE outreach activities with those of the agency as appropriate. Finally, CDSE facilitated meetings of its members with NASA personnel and maintained member awareness of NASA meetings and events of interest to them.

FAA: Commercial Space Transportation Advisory Committee (COMSTAC)

Representing CDSE, Dr. Dittmar was appointed to the FAA COMSTAC by the Department of Transportation Secretary Elaine Chao in September 2019 and reappointed in early 2020. She participated on the full committee and on the Innovation and Commercialization Working Group (CICWG) during 2019. She now serves on the Safety Committee, reviewing proposed standards for safety of human spaceflight systems and making recommendations back to the FAA regarding future regulatory approaches.

FAA Advisory and Rulemaking Committee (ARC): Streamlined Launch and Reentry Licensing Requirements

CDSE participated in two dozen meetings and telecons of the FAA ARC, coordinating inputs from CDSE member companies as appropriate. Dr. Dittmar authored a letter for the record on behalf of the organization for a House hearing and submitted another letter through the ARC, co-authored with CDSE members, supporting the rule-making process. CDSE and several CDSE members also submitted inputs through the FAA Notice of Proposed Rulemaking (NPRM) docket. CDSE hosted FAA's Office of Commercial Space Transportation Associate Administrator Gen. Wayne Monteith in a meeting held at a member company's facilities, hosted another at CDSE facilities, and attended a third with CDSE member companies, staff and FAA/AST senior staff at the Department of Transportation.

Department of Commerce / Office of Space Commerce

Throughout 2020, CDSE engaged regularly with the Office of Space Commerce (OSC) to discuss developments regarding Space Situational Awareness (SSA), Space Transportation Management (STM), regulatory frameworks and provided input as requested as to how the OSC could support the industry. In June, CDSE participated in a Congressionally mandated study underway by the National Academies of Public Administration regarding the role of OSC in addressing data management and other issues pertaining to SSA and STM. The study was released later in 2020.

State Department

CDSE continually engages with staff at the Department of State regarding space matters and serves as a liaison between the agency and industry on various topics. In September 2020, CDSE responded to an inquiry from a Department of State report regarding Executive Order 13914 — encouraging international support for the recovery and use of space resources — with answers from our industry members, as well as the CDSE team.

Participation at Events, Meetings, and Conferences

Dr. Dittmar participated in the following events representing CDSE:

- Founding Member, ASCEND conference (AIAA) Guiding Coalition (meetings throughout the year)
- Chair, “Considering Satellite Constellations,” panel at the National Academies of Sciences, Engineering and Medicine Space Studies Board and Aeronautics and Space Engineering Board Joint Meeting, June 11, 2020
- Chair, “Challenges and Opportunities for Development of Capabilities for Human Presence on the Moon,” panel at the NASA Lunar Forum, August 12, 2020
- Panel Member, “Achieving Escape Velocity from Red Tape: Regulatory and Policy Reform,” AAS Von Braun Symposium, October 27, 2020
- Chair, “Biological and Physical Sciences in Space,” panel at the National Academies of Sciences, Engineering and Medicine Space Studies Board Fall Meeting, November 5, 2020
- Moderator, “What is the Path to LEO Commercialization by 2025?,” panel as ASCEND, November 16, 2020

In addition, the CDSE team participated in the following events:

- SLS-Orion-EGS Suppliers Conference, February 12-13, 2020 (Washington, DC)
- AIAA Foundation Board of Trustees Telecon, May 19, 2020 (Virtual)
- 2020 AAS John Glenn Memorial Symposium - Powering Innovation from the Sky to the Stars, July 15-17, 2020 (Virtual)
- International Astronautical Congress, October 12-14, 2020 (Virtual)
- 2020 Wernher von Braun Memorial Symposium, October 26-18, 2020 (Virtual)
- ASCEND Conference, AIAA, November 16-17, 2020 (Virtual)
- National Academies of Science, Engineering, and Medicine, 2020 Fall Space Studies Board Meeting, November 4-5, 2020



The National
Academies of

SCIENCES
ENGINEERING
MEDICINE



Throughout the year, CDSE participated in weekly calls with industry primes, and bi-weekly calls with industry and NASA Exploration Systems Directorate leadership. Dr. Dittmar conducted regular Board meetings with the CDSE founding companies/Board members and an annual Board meeting in February of each year. CDSE leadership and staff also engaged with members on an ad hoc basis every week.

Christen Kapavik met regularly with members and the greater space community. In addition, Christen initiated and coordinated various CDSE sponsored meetings including:

- New Small Business Committee: Provides engagement with smaller member businesses; Currently 10-15 member companies are involved.
- Paul Hill, former Director of Mission Operations at NASA Johnson Space Center, Leadership Workshop, CDSE Office, February 11, 2020
- Member and Government Reception, the Washington Court Hotel, February 11, 2020
- Virtual Annual Member's Meeting, March 30, 2020 (traditionally held at the Space Symposium in Colorado Spring). This year's agenda included an update on Covid-19 impacts survey results, a Congressional and User's Advisory Group update and general discussion among members.
- Virtual meeting with Doug Loverro, Associate Administrator of the Human Exploration and Operations Mission Directorate at NASA, April 6, 2020
- Virtual Member's Meeting with speaker Lisa Callahan, Vice President and General Manager, Lockheed Martin Commercial Civil Space, June 4, 2020
- Virtual Guest Lecture with Dr. Matt Mountain, the Association of Universities for Research in Astronomy (AURA), SLS and the Search for Life, October 2, 2020
- Virtual Member Meeting with Kathy Lueders, Associate Administrator of the Human Exploration and Operations Mission Directorate at NASA, October 15, 2020
- CDSE member company roundtable meetings with the NASA Biden Transition Team, November 30, 2020

Covid-19 Support for Members

CDSE advocated on behalf of our member companies facing impacts from the Covid-19 pandemic and ensuing government shutdowns. Beginning in March, CDSE conducted two surveys to gauge the issues faced by businesses, small and large, during the COVID crisis and released two reports on those surveys to inform Congress, the White House and other entities about the state of the industry. Dr. Dittmar also participated in an industry roundtable with the staff of the House Science, Space and Technology Committee regarding Covid-19 impacts on April 22, 2020. In addition, CDSE sent summarized guidance to members regarding COVID-related relief programs for small businesses, individuals, and families.

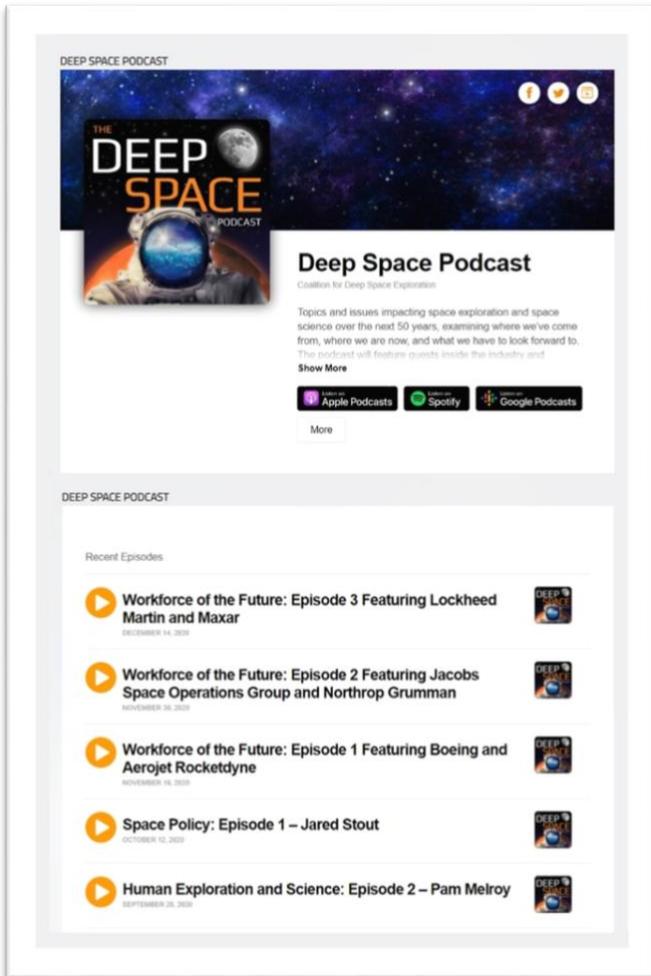
Over the past year, Dr. Dittmar spoke with press and online media at least twice a month, providing background on topics of interest to CDSE members and the broader space policy community, while also referring press to members for comment and additional publicity. In addition, CDSE published a range of statements and press releases. Finally, our social media channels on Facebook and Twitter were increasingly active, adding followers on a monthly basis.

Media Coverage

The efforts of the Coalition have been featured or mentioned in over 225 media outlets this past year, including online, print and radio. According to our media tracking service, we received over 152M impressions, totaling more than \$300,000 in advertising value.

Below is a summary of primary media engagement activities from the past year to raise awareness of the Coalition, member and industry efforts:

- January 27: Press Release – [Statement Regarding H.R. 5666](#)
- February 10: Press Release – [Statement on FY 2021 NASA Budget Request](#)
- March 3: Interview with Dr. Dittmar – [“The Race to Deep Space”](#) with Brendan Byrne (WMFE)
- April 30: Press Release – [Statement on HLS Award](#)
- May 11: Op-ed – [“Toward a brighter future: Continuity of the Artemis Program”](#) by Jamil Castillo placed in *The Space Review*
- May 30: Press Release – [Statement Demo-2 Successful Launch](#)
- June 10: Interview with Dr. Dittmar – [Money and the Moonshot, Euromoney](#)
- June 15: Press Release – [Congratulates Lueders on NASA Selection](#)
- June 26: Op-ed – [“NASA’s Mission to the Moon is About More than Cost”](#) by Mary Lynne Dittmar placed in *The Hill*
- July 7: Interview with Dr. Dittmar – [Promotion of The Deep Space Podcast Series](#) on WMFE with Brendan Byrne
- July 31: Press Release – [Statement on House FY 2021 Commerce, Justice, Science and Related Agencies Appropriations Bill](#)
- August 7: Planetary Radio Podcast: Space Policy Edition – [“Why the SLS is a National Asset, and Why That Matters”](#)
- August 18: Press Release – [Announcement of Leadership Transition](#)
- September 24: Dr. Dittmar Interviewed & Quoted – [“The Future of Space is Female”](#)
- October 15: Press Release – [Statement on FAA Office of Commercial Space Transportation on Streamlined Launch and Reentry Licensing Regulation](#)
- November 1: Op-ed – [“Space exploration is a bipartisan imperative that benefits all”](#) by Mary Lynne Dittmar placed in *The Hill*
- November 10: Dr. Dittmar appears as guest on Jacob’s [If/When Podcast “Deep Space Exploration: Proving What’s Possible”](#)
- December 22: [Statement on Passage of FY 2021 Consolidated Appropriations Act](#)



The Deep Space Podcast

In July 2020, the Coalition launched a new podcast. The Deep Space Podcast focuses on topics and issues impacting space exploration and space science over the next 50 years, examining where we've come from, where we are now and what we have to look forward to. Hosted by Dr. Dittmar, the podcast featured guests inside industry and government who shared ideas, viewpoints and provocative insights on how we can "Explore Further Together." The podcast can be streamed on Apple Podcasts, Spotify, Google Podcast and other distribution platforms and is also available on [our website](#). **Below are the series and episodes featured this past year:**

Entrepreneurs in Space Series

- John Thornton, CDSE member, Astrobotic
- Andrew Rush, CDSE member, Made In Space
- Mike Suffredini, CDSE member, Axiom Space
- Jeffrey Manber, CDSE member, Nanoracks

Human Exploration and Science Series

- Dr. Ellen Stofan, Air and Space Museum, former NASA Chief Scientist
- Pam Melroy, Space consultant, former NASA astronaut, U.S. Air Force colonel (retired)

Space Policy Series:

- Jared Stout, consultant in space government relations, former Congress, FAA, and National Space Council staff member

Workforce of the Future Series:

- Amanda Gertjejansen and Kevin Chau, CDSE members, Boeing and Aerojet Rocketdyne
- Beverly Case and David Vaughn, CDSE members, Jacobs and Northrop Grumman
- Ty Lee and Sapna Rao, CDSE members, Maxar and Lockheed Martin





Deep Space Extra

The Coalition distributes a daily news aggregator featuring the top space industry news. Current articles fit into the following categories: Human Space Exploration, Space Science and Other News. Member stories are highlighted when included. The email is distributed to over 1,500 subscribers.

Social Media

The Coalition has migrated its social media presence from news-based content only, to a strategy that revolves around space science and human spaceflight messaging. Content particularly supports the Artemis program, the James Webb Space Telescope and NASA Perseverance, as well as posts that highlight CDSE member milestones in both low Earth orbit programs and deep space missions.

Twitter followers: 15,900

Impressions: Average of 167k/month

Facebook followers: 5,364

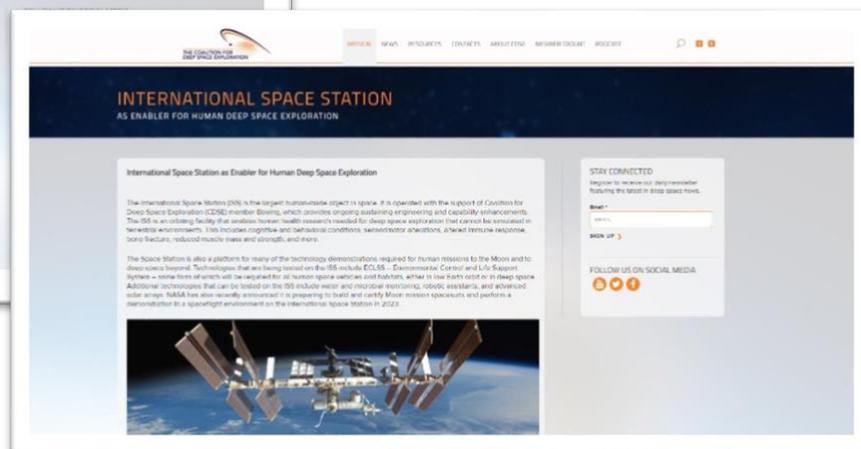
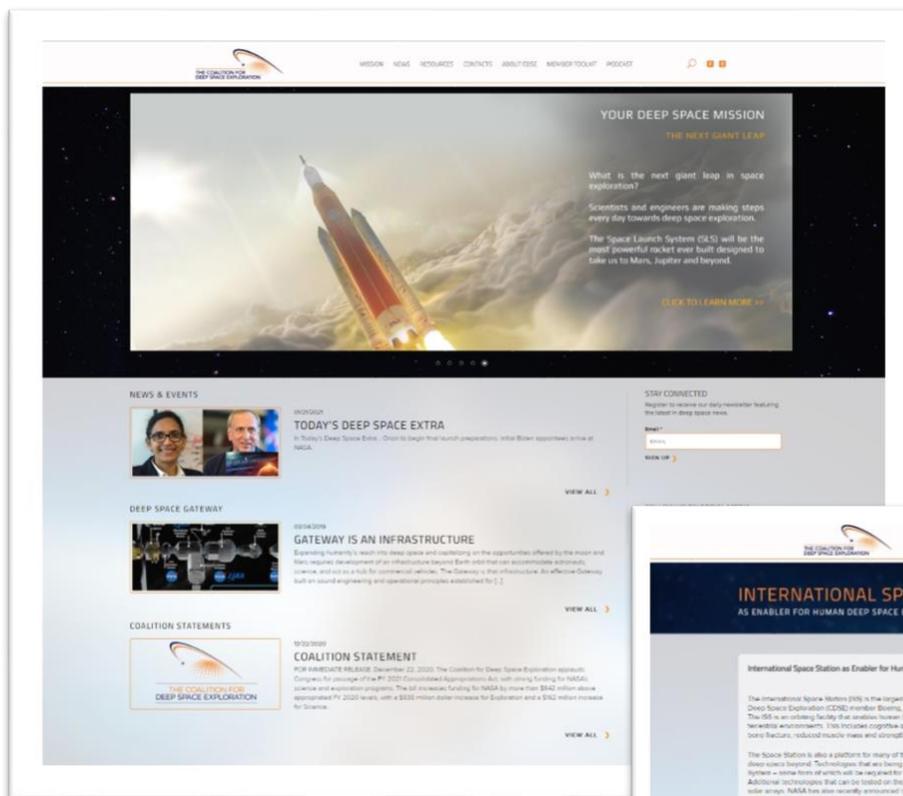
Reach: Average of 20k/month

<https://twitter.com/XploreDeepSpace>

<https://www.facebook.com/XploreDeepSpace>

Publications and Website

- [White paper](#) offering policy recommendations for the new Congress and Administration, developed in 2020 and released in January 2021
- [Policy brief](#) on the Administration's new space policy released in December 2020
- [Policy brief](#) on updates to NASA planetary protection policies for robotic and crewed missions to the Moon and future human missions to Mars
- ["Toward a Brighter Future: Continuity of the Artemis Program,"](#) paper published in The Space Review
- [Policy brief](#) on Artemis Accords



- [Policy brief](#) on the Hague International Space Resources Governance Working Group Building Blocks for the Development of an Intl. Framework on Space Resource Activities, and the President’s Executive Order Encouraging Intl. Support for the Recovery and use of Space Resources
- Added new human exploration mission content on the CDSE website, highlighting the role of the [International Space Station](#) as an enabler for the research needed to go to deep space, as well as its diplomatic value. The [human spaceflight section](#) also describes the different phases of the [Artemis program](#), and the [hardware and systems](#) needed for the program and for building the capability to go beyond the Moon.
- Added new [science mission content](#) for the CDSE website: current and future missions, highlighting the rationale behind and importance of sending probes and robots to different parts of deep space. Noted Coalition members contributions to each mission, from spacecraft development to mission operations, to launch
- Debuted [new blog](#) and added three posts



Purdue University

Purdue University joined CDSE as an inaugural university member in 2018. And in 2019, Dr. Dittmar was appointed to the new Cislunar Advisory Board (a multidisciplinary Board guiding development of the broad-based university) industry partnership supporting deep space exploration. Subsequently, she accepted an appointment from Purdue's Astro/Aero Engineering School as their first [Fellow in Space Policy for the Cislunar Advisory Board](#). She attended several meetings and traveled to Purdue in the Fall of 2019 to teach space policy courses and work

with graduate students in engineering. She is also a member of the Independent Advisory Board for Purdue's [Resilient Extra-Terrestrial Habitats Institute](#), a joint research effort funded by NASA Space Technology Mission Directorate and conducted in partnership with the University of Connecticut, Harvard University and the University of Texas at San Antonio.

The Pearl Project Institute and "Blaze" Online Accelerator

Beginning in late 2019, CDSE entered into a partnership with [The Pearl Project Institute for Innovation in STEM Literacy](#). The Pearl Project Institute is a 501c3 focused on outreach in STEM for women in particular, as well as students from diverse backgrounds. As COVID-19 spread, they shifted their focus from helping to develop a new Challenger Center in northern Virginia to creating an online accelerator called "[BLAZE](#)". Dr. Dittmar served as a "Black Belt" coach and mentor for BLAZE, and CDSE hopes to provide additional opportunities for students through future partnerships with members.

Space Generation Advisory Council

CDSE was a sponsor of the Space Generation Advisory Council's 2020 Fusion Forum, and CDSE team member Jamil Castillo led a breakout session on the role of space traffic management in the development of the space sector. Jamil was also a guest speaker for the Open Space Engineering Course hosted by the Space Generation Advisory Council's points of contact for Panama and Nicaragua. Her lecture's topic was "Space Policy: Implications for the Development of Space Activities," which she presented in Spanish.

Since the Coalition’s official establishment as a 501(c)(6) in the District of Columbia in 2016, CDSE has nearly doubled our annual revenue, from \$506,500.47 in 2016 to **\$955,789.18 in 2020**.

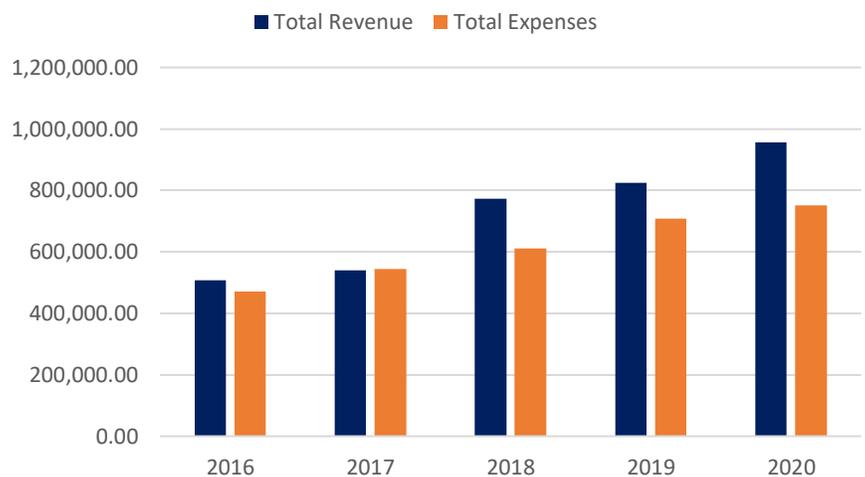
The bulk of revenue stems from annual membership dues, with a small percentage from sponsorships and workshops. CDSE has also increased from one full-time employee to three, and payroll expenses comprise the bulk of expenditures, totaling \$455,764.86 in 2020.

The second largest line item is professional services, which covers our monthly retainer for our communications firm, Griffin Communications, as well as web and administrative support each month. In 2020, we spent \$203,546.47 for professional services.

Other large expenses include about our annual reception, held in February of 2020, and office space and parking – an area in which we saved substantially in 2020 due to staff working from home starting in March.

REVENUES	
(MEMBER DUES, WORKSHOPS, SPONSORSHIPS)	\$955,789.18
TOTAL EXPENSES	\$751,963.32
Professional Services (communications, admin)	\$203,546.47
Payroll Expenses	\$455,764.86
Facilities and Transportation	\$11,457.80
Operations	\$72,930.67
Insurance	\$2,286.66
Total Travel and Meetings	\$5,976.86
NET INCOME	\$203,825.86

REVENUE & EXPENSES 2016-2020





ANDREW ALLEN, Vice President and General Manager, Jacobs Space Operations Group (JSOG)

Andrew Allen is the CEO of Aerodyne Industries LLC, a service-disabled, veteran-owned, small business that is a top engineering and IT solutions company.

He also serves in a new capacity for Jacobs as Vice President, supporting the Senior Vice President of Advanced Engineering, Research and Operations. In this role Allen represents Jacobs in industry partnerships focused on NASA and space exploration and supports other Jacobs strategic activities and business pursuits. Previous to this assignment, he was the Vice President and General Manager of Jacobs Space Operations Group at NASA's Kennedy Space Center (KSC) in Cape Canaveral, FL.

Allen's entire career has been dedicated to aerospace. Prior to joining Jacobs, he served in various space industry leadership positions including Vice President of Space Programs and Requirements for Honeywell, Vice President of International Military Aircraft for Honeywell and Associate Program Manager for Ground Operations with United Space Alliance. Selected by NASA in 1987, Allen became an astronaut in 1988 and is a veteran of three space flights – logging more than 900 hours in space as the pilot on STS-46 in 1992, STS-62 in 1994, and mission commander on STS-75 in 1996. He was the Director of Space Station Requirements at NASA Headquarters until 1997. A retired Lt. Colonel in the U.S. Marine Corps, he graduated from the Marine Weapons and Tactics Instructor Course, Naval Fighter Weapons School (Top Gun), and U.S. Navy Test Pilot School prior to his selection to the astronaut program. He has flown over 6,000 hours in over 30 different aircraft.

Allen earned his MBA from the University of Florida (2004) and BS in Mechanical Engineering from Villanova University (1977). He has received numerous awards and honors during his career including an Honorary Doctorate of Science from Daniel Webster College; Honorary Doctorate of Engineering Science from Villanova University; Honorary Doctorate of Public Service from Bucks County Community College; as well as numerous medals and accolades in recognition of exemplary military and NASA service, such as the Defense Superior Service Medal, Legion of Merit, Distinguished Flying Cross, Defense Meritorious Service Medal, Single Mission Air Medal, NASA Outstanding Leadership Medal, NASA Exceptional Service Medal, and NASA Space Flight Medal.



LISA B. CALLAHAN, Vice President and General Manager, Civil Space, Lockheed Martin Space Systems Company

Lisa B. Callahan is Vice President and General Manager of the Commercial Civil Space line of business for Lockheed Martin Space. In this role, she is responsible for all aspects of execution and growth for commercial and civil markets in human and robotic deep space exploration, communications, and weather and remote sensing. Callahan is also responsible for Michoud Operations and related activity at Stennis Space Center.

In her previous role as Vice President of Corporate Internal Audit of Lockheed Martin Corporation – reporting directly to the Lockheed Martin Audit Committee of the Board of Directors – Callahan provided independent, objective assurance and advisory activity to improve the Corporation's operations. Under her leadership, Corporate Internal Audit determined the adequacy and effectiveness of the corporation's network of risk management, internal control, and governance processes as designed and represented by management.

Her prior leadership roles also include Vice President and General Manager of the Mission Systems & Training Undersea Systems line of business for Lockheed Martin Corporation, Vice President of Lockheed Martin Corporation's Maritime Ballistic Missile Defense Program, and Program Director for Lockheed Martin's Simulation Training and Support business.

Callahan graduated from Virginia Polytechnic Institute and State University with a Bachelor of Science in Electrical Engineering. Currently, she is a member of the Dean of Engineering Advisory Board.



JIM CHILTON, Senior Vice President, Space and Launch, Boeing Defense, Space & Security, Boeing

Jim Chilton is senior vice president of the Space and Launch division of Boeing Defense, Space & Security (BDS). The Space and Launch portfolio includes the International Space Station; the CST-100 Starliner commercial crew vehicle; NASA's Space Launch System (SLS); government and commercial satellite systems; and Boeing's partnership in United Launch Alliance. Prior to his current role, Chilton led Network & Space Systems and was previously the vice president and general manager of Strategic Missile & Defense Systems and vice president and program manager for Exploration Launch Systems. He also served as program manager for the Checkout, Assembly and Payload Processing Services (CAPPS) and led final assembly and testing of space shuttle and expendable launch vehicle payloads, including hardware destined for the International Space Station.

Chilton is a member of the International Academy of Astronautics (IAA), and of the IAA Board of Trustees, Engineering Sciences Section. He has also served on the board of directors for the National Children's Advocacy Center and the International Astronautical Federation industry relations committee. He holds a bachelor's degree in mechanical engineering from Washington State University and a master's degree from the Florida Institute of Technology. He also completed the systems acquisition course for general and flag officers at Defense Acquisition University and is a graduate of Harvard Business School's advanced management program.



MARY LYNNE DITTMAR, PH.D, Emerita

Dr. Mary Lynne Dittmar joined the Board in an honorary position as "Emerita" after stepping down from her leadership position as President and CEO of CDSE at the end of 2020. During her tenure, Dr. Dittmar transformed the Coalition from an ad hoc communications group of 4 companies to a 501c6 trade group of more than 60 companies and universities, supporting America's space programs in human exploration and science and the development of space technology, while serving as a strong advocate for the space industry. Previously she founded and managed several companies including her own consulting firm, Dittmar Associates, to which she returned in February 2020. Her prior experience includes managing systems integration for assembly, activation and checkout of the International Space Station program for Boeing and serving as Chief Scientist for Commercial Payloads for the ISS. Dr. Dittmar is a Fellow of the National Research Society and an Associate Fellow of AIAA. She served on the National Research Council's Committee on Human Spaceflight and is a member of Space Studies Board for the National Academies. She continues to serve on the Users' Advisory Group of the National Space Council and the FAA Commercial Space Transportation Advisory Committee.



JIM MASER, Vice President, Advanced Space and Launch Business Unit, Aerojet Rocketdyne

Senior Vice President of Aerojet Rocketdyne’s Space Business Unit since August 2018, Jim Maser has more than 32 years of global aerospace experience and leadership, spanning entrepreneurial space launch, human spaceflight, as well as commercial and military jet engines. Prior to joining Aerojet Rocketdyne, he served as president of James G. Advisors, LLC, a strategy, leadership and technical execution consulting firm. He also held a number of roles within Pratt & Whitney between 2006 and 2017, including vice president of the F135 engine program and president of Pratt & Whitney Rocketdyne, where he was responsible for the design, manufacture and performance of power and propulsion systems across numerous platforms.

Maser graduated magna cum laude from the University of Akron with a Bachelor of Science in Engineering and a Master of Science in Engineering. He later received a Master of Business Administration from the University of California, Los Angeles. In 2000, the American Institute for Aeronautics and Astronautics (AIAA) honored him with its George M. Low Space Transportation Award. Additionally, he serves on the board of trustees and is the immediate past president of AIAA. Maser also serves as an Advisory Board Member for Firefly Aerospace Inc. He previously served on the board of directors of the Space Foundation as well as the California Chamber of Commerce.



CHARLES J. PRECOURT, Vice President, Propulsion Systems, Northrop Grumman

Charlie Precourt is the vice president of Propulsion Systems for Northrop Grumman's Launch and Missile Defense Systems. He is responsible for key programs including the solid rocket booster for NASA’s Space Launch System, Trident II (D5) and Minuteman III strategic missile product lines, the Ground-based Midcourse Defense program and commercial rocket motors and products.

Precourt joined Northrop Grumman in March 2005 as vice president, Strategy and Business Development, and was responsible for business market analysis, developing new customer and market opportunities and matching Northrop Grumman's capabilities and synergies to customer requirements.

Before coming to Northrop Grumman, Precourt had a distinguished 15-year career with NASA. He is a veteran of four space flights—including two as mission commander—and has logged more than 932 hours in space. He was also deputy program manager for the International Space Station, chief of the astronaut corps and director of operations for NASA at the Gagarin Cosmonaut Training Center in Star City, Russia.

He served for 23 years with the U.S. Air Force, retiring as a Colonel. He is a graduate of the U.S. Air Force Test Pilot School at Edwards Air Force Base and flew as a test pilot on the F-15E development program. Precourt was an F-15 pilot/instructor/flight commander in Europe and an instructor pilot at both Reese and Edwards Air Force Bases.

Precourt earned a bachelor’s degree in aeronautical engineering from the U.S. Air Force Academy, a master’s degree in engineering management from Golden State University and a master’s in national security affairs and strategic studies from the U.S. Naval War College. He also attended the French Air Force Academy in 1976 as part of an exchange program. He is fluent in both Russian and French.

JEFF M. BINGHAM, Consultant, Member, National Academies Space Studies Board; Vice Chairman, Virginia Space Flight Authority; Senate Commerce Cmte. (retired)

PROFESSOR JACK BURNS, Department of Astrophysical and Planetary Sciences, University of Colorado and Director, NASA SSERVI

DOUG COOKE, Consultant, Cooke Concepts and Solutions; NASA (retired)

JOHN COUCH, Vice President, Futuramic Tool and Engineering Company (Silver Member/CDSE)

DAN DUMBACHER, Executive Director, The American Institute of Aeronautics and Astronautics (AIAA)

N. WAYNE HALE, Director, Human Spaceflight, Special Aerospace Services; NASA (retired)

RICHARD JACKSON, Aerospace Executive; NASA Flight Director (retired)

DR. THOMAS JONES, Planetary Scientist, Author, Pilot; NASA Astronaut (retired)

CAPTAIN WENDY LAWRENCE, NASA Astronaut (retired)

SOPHIA PORTER, BE-4 Test Operations Engineer, Blue Origin

LON RAINS, Communications Director, Space Systems Division, Northrop Grumman Aerospace Systems (retired)

ROBBIE SABATHIER, Vice President, Washington Operations and Communications, United Launch Alliance (Silver Member/CDSE)

DARREN SAMPLATSKY, Associate Director, Business Development, Collins Aerospace (Silver Member/CDSE)

WANDA A. SIGUR, President and Founder of Lambent Engineering LLC; Vice President and General Manager, Civil Space (ret), Lockheed Martin Space Systems

BARBARA SLAYTON, Vice President and Strategic Account Executive for NASA, NOAA, & NSF, Leidos (Silver Member/CDSE)

STEVEN WITKOWSKI, Space Electronics Manager, Civil and NASA Programs, Moog (Silver Member/CDSE)



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