



Annual Report 2019

Our Vision

People living and working in thriving communities beyond the Earth, and the use of the vast resources of space for the dramatic betterment of humanity.

Our Mission

To promote social, economic, technological, and political change in order to expand civilization beyond Earth, to settle space and to use the resulting resources to build a hopeful and prosperous future for humanity. Accordingly, we support steps toward this goal, including human spaceflight, commercial space development, space exploration, space applications, space resource utilization, robotic precursors, defense against asteroids, relevant science, and space settlement-oriented education.



The past year has also been a year of dramatic progress in space. As can be seen in this report, 2019 is perhaps our best year yet.

Bruce Pittman, SVP and SOO

**A Message
from our
Senior Vice
President**

2019 Major Program Highlights and Accomplishments

It is my pleasure to report to the Board on the status of operations of the National Space Society. I think I can confidently say that the NSS as an organization is in the best shape that I have seen since I joined the Board in 2012. This is due to the dedication and passion of our volunteers and our staff and to the many people who have made generous contributions to this organization, in particular Dr. Herman Rubin. While we still have challenges (which I will discuss) I believe that our vision of expanding human civilization into the Solar System is finally at the point of transitioning from a dream to a plan.

Finance

The financial situation has improved significantly thanks to the generous bequest from Dr. Herman Rubin. We established a committee composed of Joe Redfield, John Strickland and Hoyt Davidson to develop a plan for how this money would be invested. The money has now been allocated into the various accounts and is collecting interest as we speak.

This bequest has now offered relief from our ongoing operational cash flow issues that have plagued us at least since I took over as SOO in 2013. Dale Skran, Karlton Johnson and I have developed a template for the evaluation of proposals for new initiatives over \$5K. This will help us make better decisions on what is the best use of funds that are available in the near term. We want to do what we can to accomplish our mission statement but we can't fund everything and we are going to have to make some challenging and wise decision about what to fund and when.

NASA Federal Credit Union

Our partnership with the NFCU continues to be very mutually beneficial and we continue to look for ways to expand the relationship. We have a new contact person at the NFCU and Gary is working closely with them to ensure that the relationship remains healthy. I believe there is a lot of untapped potential that would greatly benefit both organizations if we could just figure out the correct way to tap into it.

International Space Development Conference

We all knew that last year's ISDC would be hard to match but with the hard work and dedication of all of those involved and leadership from Greg Autry and Dave Dressler, it looks like this year's ISDC will match if not exceed it. With participation by NASA Administrator Jim Bridenstine, Executive Secretary of the National Space Council, Scott Pace, former astronauts Eileen Collins and Al Worden and noted space journalist Miles O'Brien to name just a few.

I would like to thank Greg Autry, Dave Dressler, Aggie and Mike Kobrin, Jill Jackson and the entire ISDC 2019 team who worked so hard to make this event the success that it is turning out to be. I would like to encourage the members of the BOD and BOG to get more involved in the planning and execution of our conferences and particularly in helping us get the word out to your networks about these events both to help attract attendees as well as sponsors.

Next year's ISDC will be just outside of Dallas Texas and we have a huge amount of space there to try out some new things. I want to thank Dr. Tony Paustian for volunteering to be the chair of ISDC 2020.

Space Settlement Summit

4th Space Settlement Summit was held at Cal Tech on Wednesday Nov. 13 and Thursday November 14th. Art Dula made it possible for us to get a really good deal on this historic space at Cal Tech to hold our 4th Summit. This year we expanded our horizons by getting some non-traditional players like the architectural engineering firm Skidmore, Owings & Merrill involved <https://www.som.com/news/som-releases-concept-for-moon-village-the-first-permanent-human-settlement-on-the-lunar-surface>.

Ad Astra

The most recent issue of Ad Astra commemorates the 50th anniversary of the Apollo 11 landing and is our largest ever at 100 pages. Editor at Large Rod Pyle with help from Aggie Kobrin and Geoff Notkin is still fine tuning the magazine but all in all I think it is truly a great publication and reflects very well on the NSS. In the previous issue we included a copy of the NSS Space Settlement Roadmap with the magazine. I have received a number of compliments from my NASA colleagues who are very favorably impressed by the Roadmap.

Space.nss.org

The new website has been up and running for many months now and I for one have been very pleasantly surprised by how well this transition went and how few issues we have had. This is due in no small part to all the review and testing that Dale Skran and the website upgrade team did. Please let us know if you have any comments or suggestions.

Membership

Our membership numbers are trending up slightly at about 7300 voting members. Burt Dicht, our VP of Membership has started a number of initiatives to expand our membership focusing on increasing renewals and especially first year renewals. In addition, now that we have the new website up and the magazine revamped, we will be starting a new push to attract new, younger members for whom Apollo is just a 3 historical footnote but are excited about what Musk, Bezos and Branson are doing in space. The Artemis Program to put the first female astronaut on the Moon by 2024 is also generating a lot of excitement which hopefully we can channel into new members and supporters.

Enterprise in Space

The Enterprise in Space was approved by the Board as an official project of the NSS over 4 years ago. While the overarching goal of launching a spacecraft to orbit carrying student experiments to space and then returning it to Earth has not been accomplished a number of valuable results have resulted from the tireless efforts of the EIS team. For the last several months I have been working with the EIS team to assess the progress that has been made to date and lessons learned. One of the conclusions that has been reached among the team members, which I concur with, is that the project needs to be restructured to reflect the current situation.

The EIS program as originally structured was comprised of three key elements 1) the orbital vehicle team led by Shawn Case, the education team led by Lynne Zielinski, and the Ali virtual tutor effort led by Alice Hoffman who was the overall EIS project manager. The current plan is that the orbital vehicle team under Shawn Case is forming their own 501 c3 not for profit organization and this organization will

attempt to solicit the funding, develop the hardware and carry the responsibility and liability for the orbital vehicle. NSS will no longer be responsible for donations or the legal liabilities with regard to the orbital vehicle.

The Ali/AI development team will continue to operate under the existing agreement. They have made considerable progress and will be presenting their latest results at ISDC and I would encourage all of the BOD members to take advantage of this opportunity. You can contact Alice Hoffman for more details. This has been a complicated negotiation so if any member of the Board would like more details, please feel free to contact me.

Success Story

A lot of the things that we advocate at the NSS are multi-generational by design and so it is gratifying when we get visible indications that we are succeeding. Here is one example that offers reinforcement that we are on the correct path. In Oct. 2016 we held a 1-day workshop at the VC firm DFJ which was hosted by Steve Jurvetson. As an output to this workshop we put forward 5 recommendations to the incoming Trump transition team.

1. Reestablish the National Space Council
2. Enable a Thriving Space Economy
3. Establish a Public/Private Lunar Base
4. Establish a Space Commodity Futures Exchange
5. Establish a Major Space Breakthrough R&D Effort

Keeping score, #1 successfully completed, #2 and #3 good progress being made, but the most interesting one was #4. Bruce Cahan, who is a lawyer on the faculty at Stanford University in both the Business and Engineering Schools proposed this topic and led the discussion with the help of Dr. Sarah Cooper of Amazon AWS and Dr. John Cumbers of SynBioBeta. After the event Cahan and I along with Sarah and John decided to write up an article for the New Space Journal and over the next year we went through several drafts which eventually led to the article being published in Sept. 2018 <https://www.liebertpub.com/doi/abs/10.1089/space.2017.0047>. On July 20th of last year Cahan and I were on the Space Show talking about the article You can listen to the show online at <https://www.thespaceshow.com/space-commodities-futures-trading-exchange>

Just last week the Space Commodity Futures Exchange was briefed at the White House and was also brought to the attention on NASA Administrator Bridenstine who was very interested and requested more information. In addition, the concept has also gotten support from the DoD, DoC and the USGS. So, while this is not a done deal yet I think it looks promising and the NSS can rightfully take some credit.

Recommendation #5 we are still working on.

Management Company

The transition by DMG to Virtual Inc. <https://virtualinc.com/>, our new association management company is now complete. Having Jill Jackson is continuing to work full time for us. I also think that we have made good progress on mastering the challenges we have had with the phones at HQ. As part of this we have had to get a new NSS phone number which is (202) 424-2899.

Conclusions

With the recent impressive but ultimately unsuccessful lunar landing attempt by the Bersheet lander attention is once again focused on the Moon. With NASA's outreach to the commercial sector to develop lunar landers, both large and small, our support for use of public/private partnerships seems to be taking hold. We are in the middle of a paradigm shift in space exploration and development which is pitting the future and against the past. The future will ultimately win but the past is putting up one heck of a fight. This is a time where we need to hold fast with our efforts and keep pushing for the future that we have been advocating for these many years.

With Vice President Pence's recently call for the US to land astronauts on the Moon by 2024 along with Jeff Bezos' recent presentation of their Blue Moon lunar concept

<https://www.theverge.com/2019/5/9/18550258/blue-origin-moon-lunar-landerjeff-bezos-space> and Elon Musk's Starship lunar lander <https://www.geekwire.com/2019/elon-musk-spacex-starship-moon-mars/5> the moon looks closer than ever. But NSS must work very hard to ensure that space and in particular the return to the Moon does not become a partisan issue.

But we need to ensure that we are using our resources and skills in the best possible way to get the maximum bang for our efforts. We now have a level of resources that we have not had since I have been involved with the organization. The decisions we make on how to proceed over the coming weeks and months will set the stage for what could be the most exciting era of space exploration, development and eventually settlement that humanity has ever seen.

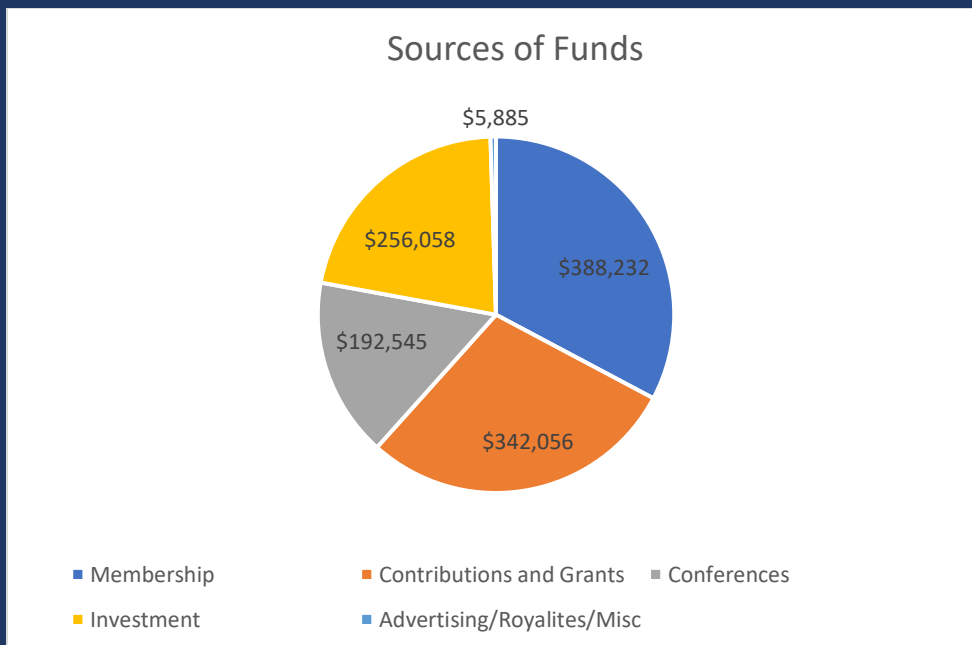
Financial Summary

The NSS independent auditor reports, a complete set of financial statements, and our annual 990 filings to the IRS can be obtained online at <http://space.nss.org/national-space-society-public-finance-documents/> or by calling our headquarters office at (703) 234-4135. The charts below detail our programmatic efficiency and source of funds followed by a financial summary of our activities for the year ending December 31, 2019.

Programmatic Efficiency



Sources of Funds



Summary of Financial Activity for the Year

Ending December 31, 2019

Income	
Membership	\$ 388,232
Contributions and Grants	\$ 342,056
Conferences	\$ 192,545
Investment	\$ 256,058
Advertising/Royalties/Misc.	\$ 5,885
Total	\$ 1,184,776
Expenses	
Education and Communication	\$ 731,165
Policy and Research	\$ 234,974
Fundraising	\$ 52,295
Management & General	\$ 118,562
Total	\$ 1,136,996
Balance Sheet	
Increase (Decrease) in net Assets	\$ 47,780
Net Assets at Beginning of Year	\$ 1,573,144
Net Assets at End of Year	\$ 1,620,924

Please visit <http://space.nss.org/national-space-society-public-finance-documents/> for complete set of financial statements.

2019 NSS Leadership

Officers	Board of Directors	Board of Governors	Board of Advisors
Hugh Downs Chairman, Board of Governors	Kirby Ikin, Chair	Karlton Johnson,	Stephanie Bednarek
Alice Hoffman President	Larry Ahearn	<i>Chairman</i>	David Criswell
Kirby Ikin Chair, Board of Directors	Dale Amon	Hugh Downs, <i>Chairman</i>	Marianne Dyson
Mark Hopkins Chairman of the Executive Committee (CEO)	Greg Autry	<i>Emeritus</i>	Daniel Faber
Dale Skran Executive Vice President	Gary Barnhard	Mark Albrecht	Don M. Flournoy
Bruce Pittman Senior VP and Chief Operating Officer	John Charles	Buzz Aldrin	Graham Gibbs
David Stuart Vice President, Chapters	Myrna Coffino	Eric Anderson	Peter Kokh
Hoyt Davidson Vice President, Development	David Brandt-Erichsen	Norman R. Augustine	Alan Ladwig
Burton Dicht Vice President, Membership	Hoyt Davidson	Lance Bass	Florence Nelson
Lynne Zielinski Vice President, Education and Outreach	Max Fagin	Howard Bloom	Ian O’Neill
Anita Gale Secretary	Anita Gale	Bruce Boxleitner	Christine Peterson
Joe Redfield Treasurer	Randy Gigante	Dan Brandenstein	Seth Potter
John Strickland, Jr. <i>Assistant Treasurer (ex officio)</i>	Al Globus	Tom Cruise	Stan Rosen
Mike Snyder <i>Assistant Secretary (ex officio)</i>	Buckner Hightower	George Dietrich	Ken Ruffin
	Alice Hoffman	K. Eric Drexler	Stanley Schmidt
	Mark Hopkins	Arthur M. Dula	Rick Tumlinson
	Feng Hsu	Freeman Dyson	Lee Valentine
	Ron Jones	Don Fuqua	James Van Laak
	Todd Kapp	Newt Gingrich	Paul Werbos
	Rob Kelso	Jeff Greason	
	K. Dean Larson	Harry Hamlin	
	Jeffrey Liss	Tom Hanks	
	John Mankins	Tanya Harrison	
	Karen Mermel	Janet Ivey	
	Bruce Pittman	Mark Jannot	
	Joe Redfield	Karlton Johnson	
	Mike Ryan	Edwin Jones	
	Dale Skran	Lon Levin	
	Michael Snyder	John S. Lewis	
	John K. Strickland, Jr.	James Lovell	
	Madhu Thangavelu	Kenneth Money	
	Lynne Zielinski	Nichelle Nichols	
		Geoffrey Notkin	
		Glenn Reynolds	
		Henk Rogers	
		Harrison Schmitt	
		Michael Simpson	
		Anthony Tether	
		Maria von Braun	
		Gordon Woodcock	
		Simon “Pete” Worden	

About the National Space Society

The National Space Society (NSS) is an educational, grassroots, non-profit organization dedicated to the creation of a spacefaring civilization. The Vision of NSS is people living and working in thriving communities beyond the Earth, and the use of the vast resources of space for the dramatic betterment of humanity. The Mission of NSS is to promote social, economic, technological, and political change to expand civilization beyond Earth, to settle space and to use the resulting resources to build a hopeful and prosperous future for humanity. Accordingly, we support steps toward this goal, including human spaceflight, commercial space development, space exploration, space applications, space resource utilization, robotic precursors, defense against asteroids, relevant science, and space settlement-oriented education.

Founded as the National Space Institute (1974) and L5 Society (1975), which merged to form NSS in 1987, NSS is widely acknowledged as the preeminent citizen's voice on space. NSS has over 50 chapters in the United States and around the world. The society also publishes *Ad Astra* magazine, an award-winning periodical chronicling the most important developments in space. For U.S. tax purposes, NSS is a tax-exempt, 501(c)(3) educational, non-profit corporation. All donations to NSS are fully tax deductible (as allowed by your local laws). NSS grassroots political activities are governed by the 501(h) election, which permits a limited amount of activity aimed at influencing U.S. legislation.