

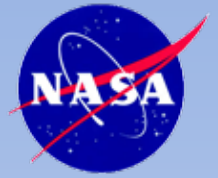
NASA West Virginia Space Grant Consortium



Report to the Board of Directors

Majid Jaridi, Ph.D.

Morgantown, WV
October 7, 2017



The NASA Vision

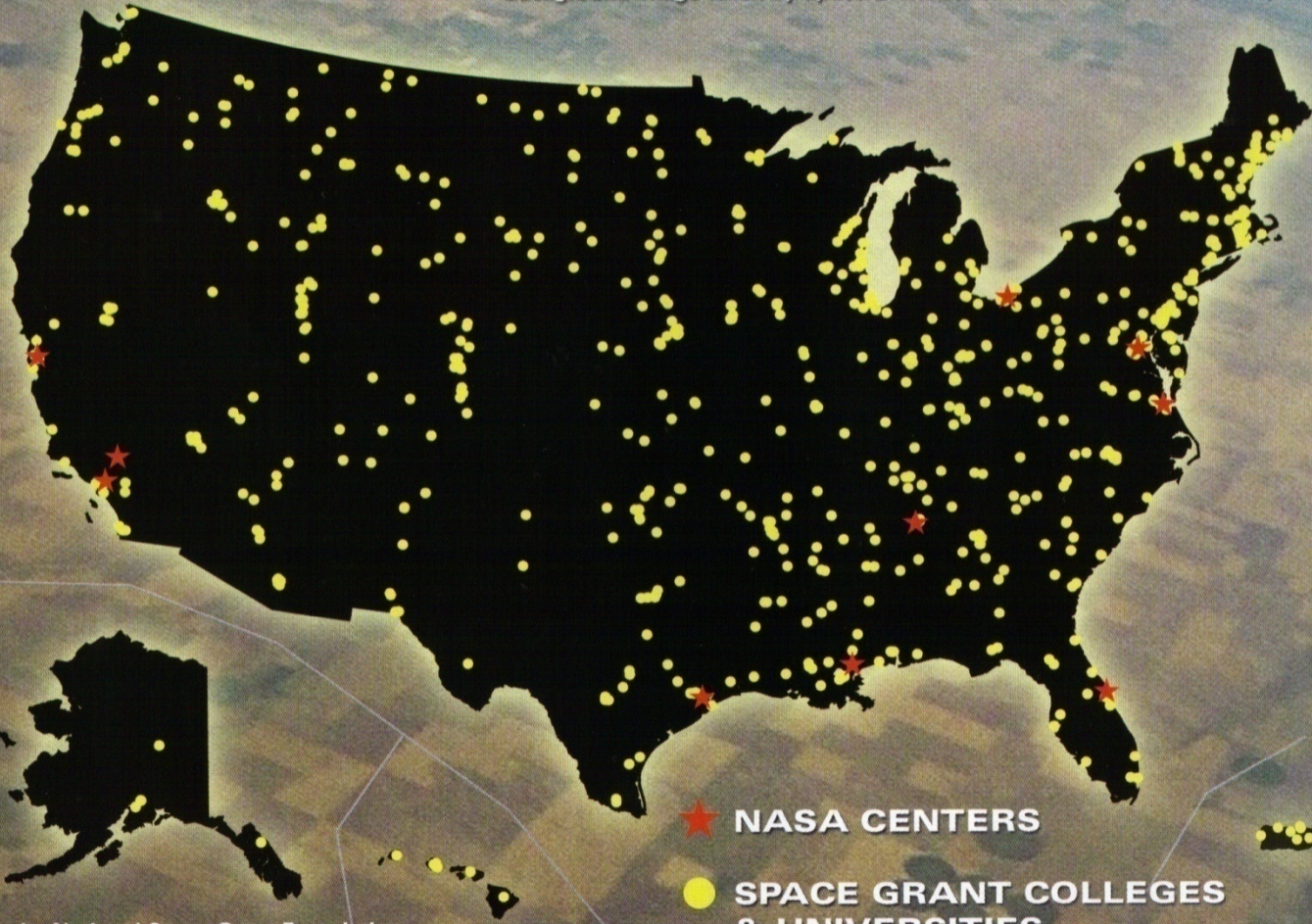
“To reach for new heights and reveal the unknown, so that what we do and learn will benefit all humankind.”

The NASA Mission

“Drive advances in science, technology, and exploration to enhance knowledge, education, innovation, economic vitality, and stewardship of Earth.”

<http://national.spacegrant.org/>

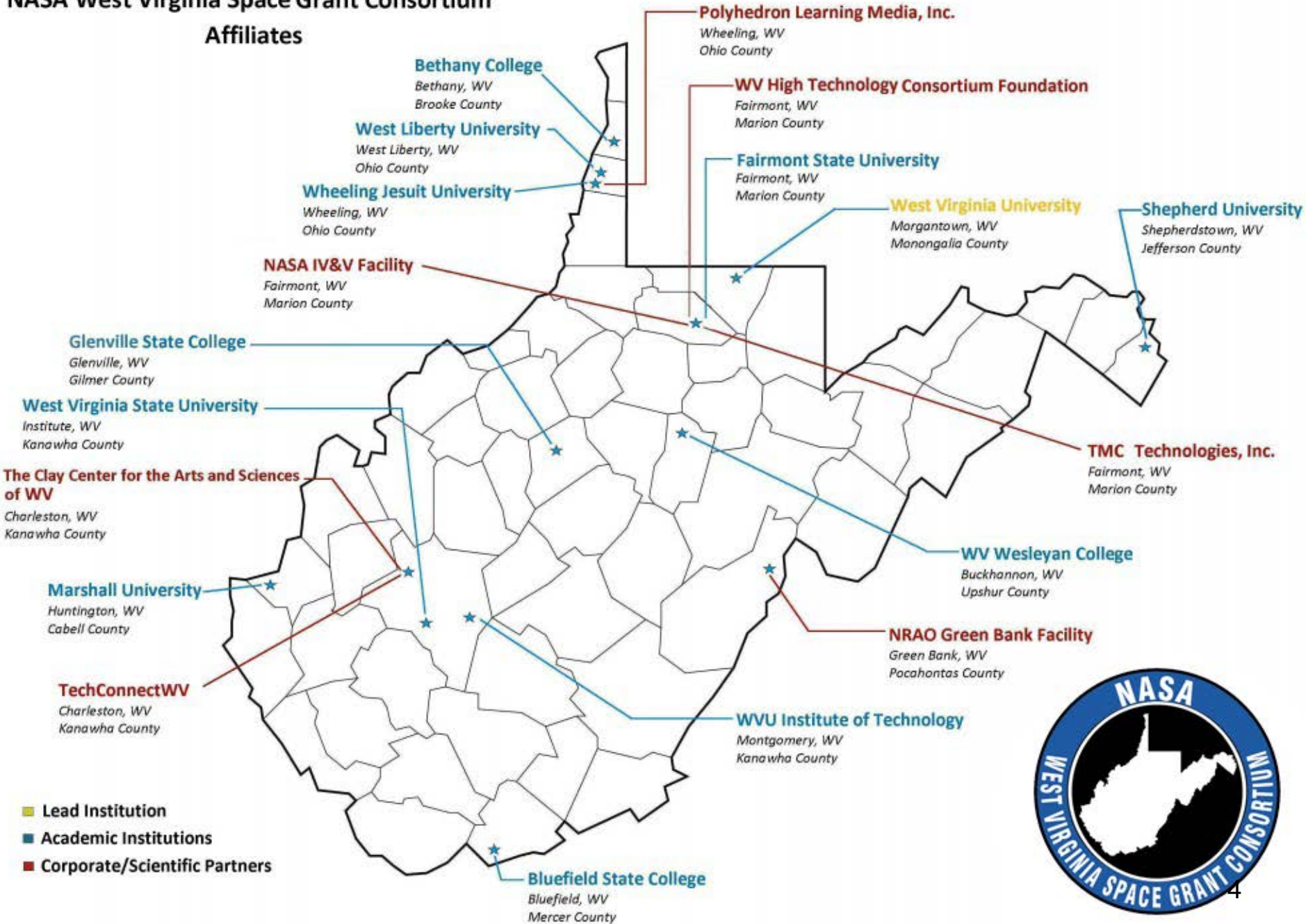
Background image taken by Space Grant Student Built BalloonSat at 100,000 ft



Paid for by the National Space Grant Foundation
<http://www.spacegrant.org/>

NASA West Virginia Space Grant Consortium

Affiliates





Space Grant Objectives



1. Establish and maintain a national network of universities.
2. Encourage cooperative programs among universities, aerospace industry, and Federal, state, and local governments.
3. Encourage interdisciplinary education, research, and public service programs related to aerospace.
4. Recruit and train U.S. citizens, especially women, underrepresented minorities, and persons with disabilities.
5. Promote a strong science, mathematics, and technology education base from elementary through secondary levels.



Membership and Organization of WVSGC



- Academic Affiliates: WVU, Marshall, WVU IT, WV State, WV Wesleyan, Fairmont State, Shepherd, West Liberty, Bethany, Bluefield State, Wheeling Jesuit, and Glenville State
- Non-Academic Affiliates: NASA IV & V Facility, Clay Center for the Arts and Sciences, WVHTCF, Polyhedron Learning Media, NRAO Green Bank, TechConnectWV, TMC² Technologies
- Engineering and Educational Consultant: Dr. Anne Cavalier



Membership and Organization of WVSGC



Welcome to the Board
Representing Wheeling Jesuit University

Dr. Charles Wood
Director of the Erma Ora Byrd Center
For Educational Technologies



Membership and Organization of WVSGC



Welcome to the Board
Representing Glenville State College

Dr. Gary Morris
Interim Vice President for Academic Affairs



Membership and Organization of NASA WV EPSCoR



- The NASA EPSCoR Committee consists of the WVSGC Board , and
- Two representatives from WV EPSCoR Program (Dr. Jan Taylor and Dr. John Maher)



WVSGC

Menu of Programs

Research Infrastructure Programs

1. Research Initiation Grants: *To conduct research of interest to NASA in collaboration with a NASA scientist (\$20,000 NASA, \$10,000 CS)*
2. Joint University-Industry Research Opportunity Program: *To work on a collaborative research project with high tech companies in WV (\$20,000 NASA, \$20,000 CS)*
3. NASA Graduate Research Fellowship Program: *Provides funding for graduate students working on a thesis or dissertation with faculty from member institutions (\$12,000 NASA, \$12,000 CS)*



WVSGC Menu of Programs



Research Infrastructure Programs (Continued)

4. NASA Undergraduate Research Fellowship Program: *Provides support for undergraduate students to get involved in a research project under the supervision of their academic advisor (\$5,000 NASA, no CS)*
5. Student Internship Program (SIP) at NASA and High Tech Companies: *Ten-week summer research internships at NASA field centers and companies in West Virginia*



WVSGC Menu of Programs

Education

1. College Course Development Grant Program: *College level development and offering of new courses in STEM fields (\$5,000 NASA, \$5,000 CS)* K-12 Professional and Curriculum Development Program: *Pre-College STEM professional and curriculum development (\$5,000 NASA, \$5,000 CS)*



WVSGC Menu of Programs



Extension and Public Outreach

1. Extension and Public Outreach Program: *Supports outreach activities such as conferences that promote the understanding, education, development, and utilization of space. Seminars that encourage interdisciplinary training and research in aerospace-related fields (\$5,000 NASA, \$5,000 CS)*



NASA WV EPSCoR Menu of Programs



- 1. Research Seed Grant Program:** *Small seed grants to prepare for larger research efforts and proposals (\$10,000 NASA, \$10,000 CS)*
- 2. Travel Grant Program:** *To travel to NASA Centers to meet with NASA scientist to discuss and initiate research collaboration (\$1,000 NASA, \$1,000 CS)*
- 3. College-University Collaboration Program:** *Faculty from WVU or Marshall team up with faculty from smaller colleges in WV in a research mentoring role (\$20,000 NASA, \$20,000 CS)*



Meeting with Deputy Administrator Lesa Roe





Meeting with Associate Administrator Mike Kincaid





Presentation at the meeting with Lesa Roe and Mike Kincaid Building the Aerospace/STEM Workforce Pipeline in West Virginia

- **6,947 statewide precollege secondary students in free immersive aerospace/STEM programs with college dual enrollment and residential components since 2008.**
- **Teacher professional development for more than 30,000 K-12 educators.**
- **Manage Graduate Research Awards for the National Academies (ACRP).**
- **National university design projects for FAA/NASA/USAF/National Academies.**
- **National Institute of Technology and Standards-funded grant for creating cybersecurity career pathways.**

Building the Aerospace/STEM Workforce in West Virginia



- **\$2.5 million for Internships, Scholarships and Fellowships (all with research component) to 3,019 students. NASA, Industry, and University funding.**
- **\$3.3 million in research seed funding for faculty in West Virginia.**
- **Numerous hands-on design projects such as Design Build Fly, RASCaL, RockSat, Mars Ice Challenge, HASP, Micro-Gravity Research, NASA Centennial Challenge, STF1, etc. , involving thousands of college students.**
- **\$3.2 million in additional funding obtained by WV researchers from sources such as: NSF, NIH, EDA, NASA IV&V, SFFP, and Industry.**
- **Profound impact on the WV Community and Technical College System: Internships, Course Development, and Faculty Fellowships.**

Building the Aerospace/STEM Workforce in West Virginia



- **Public Extension and Outreach programs have impacted an average of 3,310 per year.**
- **Numerous teacher professional development workshops and opportunities.**
- **Collaboration with and sponsoring activities at the Challenger Learning Center in Wheeling, WV, Radio Astronomy in Green Bank, WV and the NASA ERC in Fairmont, WV.**
- **Co Sponsoring the Emerging Leaders Institute (ELI) at Bluefield State College (MSI) to provide African American students majoring in STEM disciplines opportunities for mentoring and leadership development.**



Research Infrastructure Projects in FY 2016-17



REA	Total	Male	Female	Minority	Authors that have published results of research/activities	Invited papers that were presented	Self-submitted papers presented at conferences
Bethany College	2	1	1				
Bluefield State College	1	0	1				
Fairmont State Univ.	4	3	1				
Glenville State College	5	4	1	1			
Marshall University	5	1	4		3	0	3
West Liberty University	2	1	1				
WV Wesleyan College	3	2	1				
Wheeling Jesuit Univ.	3	2	1				
WV State University	7	7	0	1			
Shepherd University	4	1	3				
Subtotal	36	22	14	2	3	0	3
State Level Research Awards							
Glenville State College	1	1	0	1	1	0	1
Marshall University	1	0	1				
West Virginia University	1	1	0				
Subtotal	3	2	1	1	1		1
TOTAL	39	24	15	3	4	0	4



Student Research Fellowships in FY 2016-17



PROGRAM	Affiliate	Awards	M	F	White	African American	Hispanic	Native American	Disability
Affiliate Scholarship	Bethany College	9	4	5	7		2		
Affiliate Scholarship	Bluefield State College	6	3	3	0	6			
Affiliate Scholarship	Fairmont State University	13	6	7	13				
Affiliate Scholarship	Glenville State College	6	4	2	6				
Affiliate Scholarship	Marshall University	20	10	10	20				
Affiliate Scholarship	Shepherd University	22	19	3	20		1	1	
Affiliate Scholarship	West Liberty University	6	3	3	6				
Affiliate Scholarship	West Virginia University	20	15	5	17	1	2		1
Affiliate Scholarship	Wheeling Jesuit University	1	1	0	1				
Affiliate Scholarship	WV State University	9	4	5	7	2			
Affiliate Scholarship	WV Wesleyan College	10	9	1	9	1			
Affiliate Scholarship	WVU Institute of Technology	1	1	0	1				
Subtotal		123	79	44	107	10	5	1	1



Student Research Fellowships in FY 2016-17



PROGRAM	Affiliate	Awards	M	F	White	African American	Hispanic	Native American	Disability
Undergraduate fellows	Fairmont State University	1	0	1	1				
Undergraduate fellows	Marshall University	5	3	2	5				
Undergraduate fellows	Shepherd University	3	2	1	3				
Undergraduate fellows	West Liberty University	1	1	0	0	1			
Undergraduate fellows	Wheeling Jesuit University	2	1	1	2				
Undergraduate fellows	West Virginia University	6	4	2	5	1			
Graduate fellows	Marshall University	6	3	3	6				0
Graduate fellows	West Virginia University	9	7	2	8	1			0
Internships	Bluefield State College	2	2	0	1	1			0
Internships	Fairmont State University	1	1	0	1				3
Internships	Marshall University	1	0	1	1				
Internships	WV Wesleyan College	2	2	0	2				
Internships	Wheeling Jesuit University	1	1	0	0		1		
Internships	WVU	5	1	4	4				
TOTAL		45	28	17	39	4	1	0	3



K-12 Projects in FY 2016-17



Participant Type	Direct Interaction	Indirect Interaction
Administrators	12	15
Elementary School Students	247	955
Elementary School Teachers	57	107
High School Students	92	0
High School Teachers	2	0
Higher Education Faculty	17	2
Informal Educators	33	2
Middle School Students	570	640
Middle School Teachers	26	30
Parents/Guardians	0	640
Pre-Service Teachers	23	5
Public At Large	0	110
Undergraduate	8	0
TOTAL	1,087	2,506



EPO Projects in FY 2016-17



Participant Type	Direct Interaction	Indirect Interaction
Administrators	67	7
Elementary School Students	1250	157
Elementary School Teachers	41	18
Graduate	10	0
High School Students	220	0
High School Teachers	19	0
Higher Education Faculty	70	2
Informal Educators	58	0
Middle School Students	442	360
Middle School Teachers	59	751
Pre-Service Teachers	339	0
Public At Large	0	2201
Undergraduate	191	25
TOTAL	2,766	3,521



FY 2018 Appropriations: Where are We Currently?



- Continuing Resolution until December 8, 2017
- House CJS FY 2018 Bill
- OE: \$90M, a \$10M reduction from FY 2017
- SG: \$40M, EPSCoR: \$18M, MUREP: \$32M
- SG/OE House Language: “The Committee understands that the Office of Education is undergoing a series of internal reviews and assessments...”



FY 2018 Appropriations: Where are We Currently?



- SG/OE House Language (continued): “... the Committee expects NASA to continue implementing the programs below and to ensure that overhead costs to support these programs do not exceed five percent. The recommendation includes \$40M for the Space Grant Program. This amount shall be allocated to State Consortia for competitively awarded grants in support of local, regional, and national STEM needs.”



FY 2018 Appropriations: Where are We Currently?



- Senate CJS FY 2018 Bill
- OE: \$100M, SG: \$40M, EPSCoR: \$18M, MUREP: \$32M, SEAP: \$10M
- SG/OE Senate Language: “The Committee provides \$40 M for Space Grant and directs NASA to support an extension of the current Space Grant Program, and to allocate the entire funding amount for consortia-led institutions in all 52 participating jurisdictions according to the percentage allocation provided to States in the current 5-year grant award.”



Budget Picture for FY 2018

- Current CR expires on December 8, 2017. Congress could let the CR expire without passing a spending package and shut the government down. This is a highly unlikely scenario.
- Congress could pass another short-term CR into February, or the end of the year.
- Congress could pass a “CR Omnibus” that contains a CR through FY 2018 for some programs that Congress cannot get agreement on (Department of Interior, Department of Labor, Health and Human Services), and a spending package for others (Science programs, Defense programs, Veterans’ services, etc.).





UGANDA

NASA

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NASA West Virginia Space Grant Consortium



Questions and Discussions

www.wvspacegrant.org



Types of Cost Share Revisited

- In-kind – This is a contribution from a third party. Validation of in-kind cost-share requires documentation from the third party.
- Matching – These are hard dollars, funds, cash specifically designated for allocation to a project.
- Contributed Effort - Faculty and staff labor funded by non-sponsor sources (i.e. institution) on behalf of a sponsored project.
- Donated/Volunteer Services - Effort/ services given to a project that has a value but is provided as a free contribution.
- Unrecovered Indirect Costs - The difference between the institution's negotiated indirect cost (IDC) rate and the rate allowed by the sponsoring agency. It's also referred to as “waived IDC”.