

# NASA West Virginia Space Grant Consortium



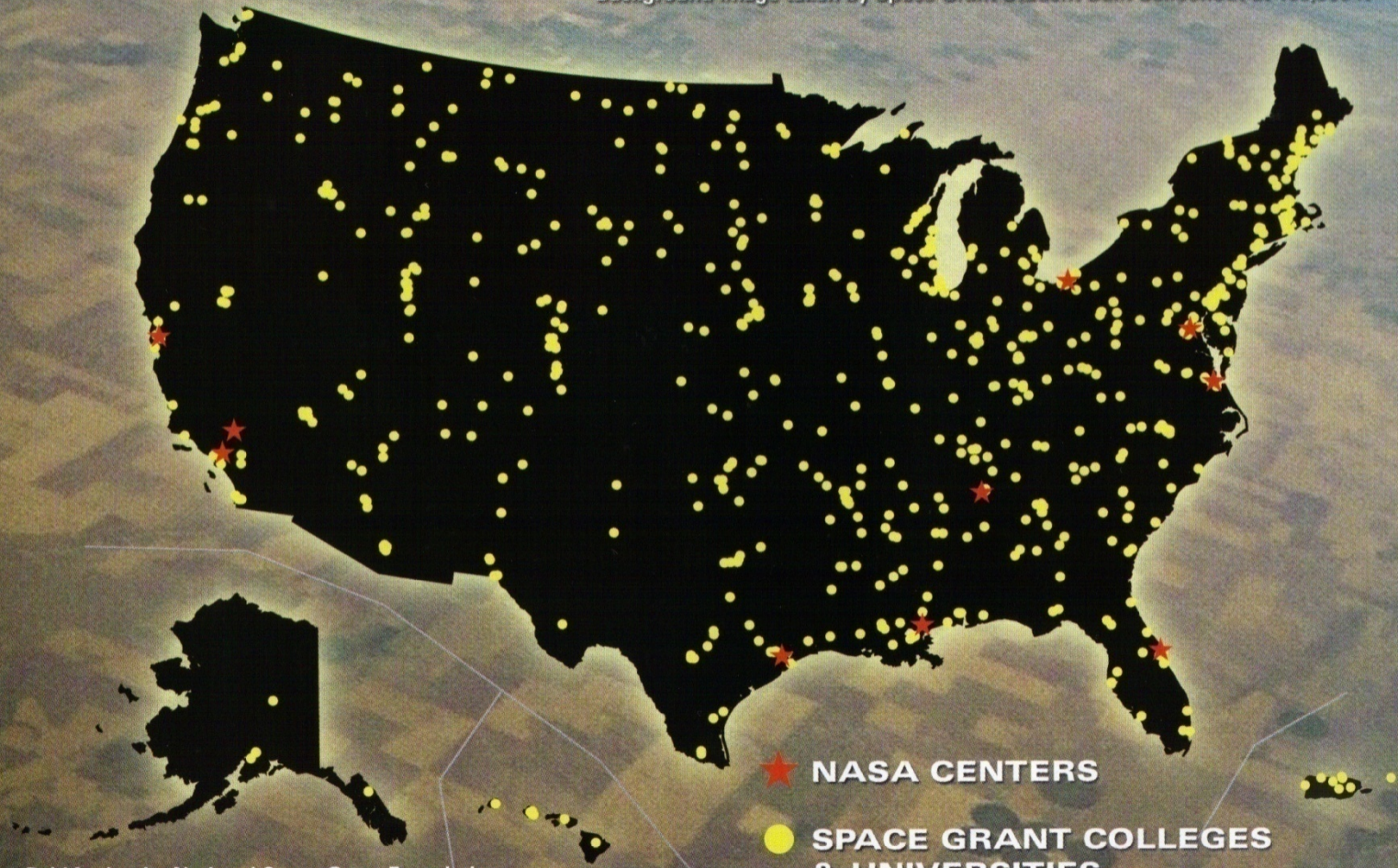
## Report to the Board of Directors

Majid Jaridi, Ph.D.

Virtual Meeting  
November 13, 2020

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

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

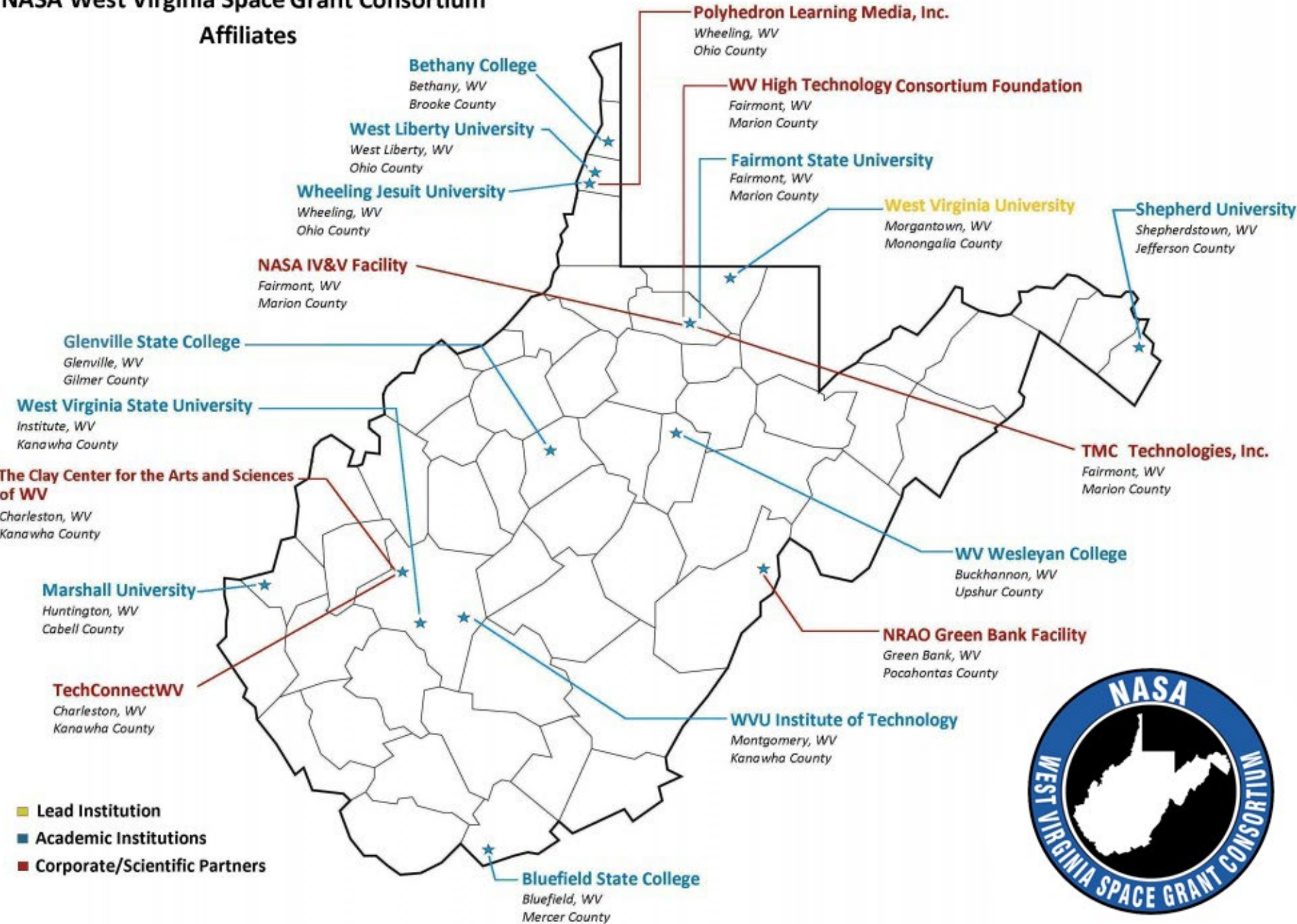


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<http://www.spacegrant.org/>



# 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.



# **NASA EPSCoR National Objectives**



- Focus on building the core strength needed to develop competitive research and technology development methods and activities for the solution of scientific and technical problems of importance to NASA.
- Contribute to the overall research infrastructure, science and technology capabilities, higher education, and economic development of the jurisdiction.



# NASA WV EPSCoR Objectives



- To contribute to and to advance NASA's vision and strategies as outlined in various NASA documents, specifically in terms of STEM research and workforce development;
- To contribute to the state of West Virginia's efforts at research infrastructure development particularly in the high-technology sector, and improved level of STEM education; and
- To increase the participation of underrepresented groups in all our programs.



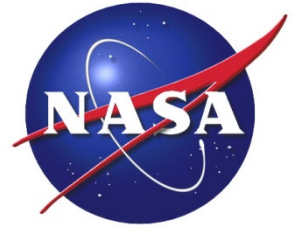
## **Membership and Organization of WVSGC**



- Academic Affiliates: WVU, Marshall, WVU IT, WV State, WV Wesleyan, Fairmont State, Shepherd, West Liberty, Bethany, Bluefield State, Wheeling University, Glenville State, and Community and Technical System of West Virginia
- Non-Academic Affiliates: NASA IV & V Facility, The Clay Center for the Arts and Sciences, WVHTF, Polyhedron Learning Media, NRAO Green Bank, TechConnectWV
- Engineering and Educational Consultant: Dr. Anne Cavalier



# **Membership and Organization of NASA WV EPSCoR**



- The NASA EPSCoR Committee consists of the WVSGC Board , and
- Two representatives from WV EPSCoR Program (Dr. Juliana Serafin 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)*
2. 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. Other Capacity Building Programs:** These programs will be made available to all faculty and researchers in the state. See the next slide.



# **NASA WV EPSCoR Menu of Programs (Continued)**



## **Other Capacity Programs Include**

- Host a grant writing workshop for the faculty and researchers in West Virginia
- Organize a science policy advocacy workshop
- Support for community outreach projects
- Contribute in the areas of strategic importance to NASA missions



# Student Research Fellowships Fall 2019- Summer 2020



PROGRAM	Affiliate	Awards	M	F	White	African American	Hispanic	Native American	Disability
Affiliate Scholarship	Bethany College	8	4	4	8	-	-	-	-
	Bluefield State College	6	2	4	-	6	-	-	-
	Fairmont State University	9	5	4	9	-	-	-	-
	Glenville State College	5	1	4	5	-	-	-	-
	Marshall University	10	6	4	8	1	1		1
	Shepherd University	14	6	8	10	1	2	1	2
	West Liberty University	7	-	7	7	-	-	-	-
	West Virginia University	20	15	5	17	1	2	-	2
	WV State University	4	2	2	4	-	-	-	-
	WV Wesleyan College	11	9	2	10	1			
	WVU Institute of Technology	4	4	-	4	-	-	-	1
<b>TOTAL</b>		<b>98</b>	<b>54</b>	<b>44</b>	<b>82</b>	<b>10</b>	<b>5</b>	<b>1</b>	<b>6</b>



# Student Research Fellowships Fall 2019- Summer 2020



PROGRAM	Affiliate	Awards	M	F	White	African American	Hispanic	Native American
Undergraduate Fellows	Fairmont State University	1	-	1	1	-	-	-
	Marshall University	6	5	1	4	2	-	-
	West Liberty University	4	-	4	4	-	-	-
	Wheeling University	1	-	1	1	-	-	-
	WV Wesleyan College	1	1	-	-	-	1	-
	West Virginia University	2	2	-	2	-	-	-
Graduate Fellows	Marshall University	3	1	2	2	1	-	-
	West Liberty University	1	1	-	1	-	-	-
	WV State University	1	-	1	1	-	-	-
	West Virginia University	10	7	3	10	-	-	-
Internships	Marshall University	2	2	-	2	-	-	-
	WV State University	3	1	2	-	3	-	-
	West Virginia University	5	5	-	5	-	-	-
<b>TOTAL</b>		<b>40</b>	<b>25</b>	<b>15</b>	<b>33</b>	<b>6</b>	<b>1</b>	<b>-</b>





# K-12 Projects

## Fall 19-Summer 2020



Participant Type	Direct Interaction	Indirect Interaction
Administrators	9	160
Elementary School Students	67	230
Elementary School Teachers	13	5
High School Students	55	50
High School Teachers	17	10
Higher Education Faculty	1	7
Informal Educators	10	27
Middle School Students	18	0
Middle School Teachers	7	5
Parents/Guardians	36	4
Pre-Service Teachers	0	5
Public At Large	110	72
College Students	5	23
<b>TOTAL</b>	<b>348</b>	<b>598</b>

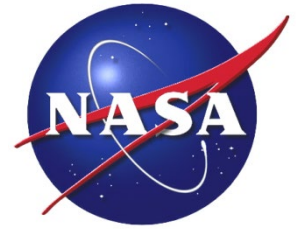


# EPO Projects

## Fall 2019- Summer 2020



Participant Type	Direct Interaction	Indirect Interaction
Administrators	7	38
Elementary School Students	936	1564
Elementary School Teachers	14	88
High School Students	106	380
High School Teachers	8	48
Higher Education Faculty	29	40
Informal Educators	64	152
Middle School Students	1,089	375
Middle School Teachers	36	47
Parents / Guardians	15	449
Pre-Service Teachers	7	42
Public At Large	5	6,731
College Students	56	135
<b>TOTAL</b>	<b>2,372</b>	<b>10,089</b>



## Current WV Space Grant Funding

1. NASA Space Grant Program	\$770,000
2. Statler College Cash Contribution	\$37,200
<b>Total</b>	<b>\$807,200</b>

Note: New policy at WVU regarding the F & A charges



## NASA IV & V Cooperative Agreement



Contract Year	Fiscal Year	Total per Year	Cumulative Amount
1	2019	\$355,076	\$355,076
2	2020	\$355,076	\$710,152
3	2021	\$355,076	\$1,065,228





## Current NASA WV EPSCoR Funding

1. Research Infrastructure Development (RID)	\$150,000
2. Fast Traversing Autonomous Rover for Mars Sample Collection (no-cost extension)	\$750,000
3. From Large to Small Scales and Back: Integrating Observations, Modeling, and Laboratory Experiments of Heliophysics (first year of a 3-year project)	\$750,000
4. An AI-based framework for real time RFI detection in radio astronomy data	\$100,000
<b>Total</b>	<b>\$1,750,000</b>



## **NASA EPSCoR Current and Upcoming Opportunities**

1. Rapid Response Research (R3): \$100,000 grants, no CS is required. Letters of Intent (LOI) to our office are due by 11/16/2020. Proposals are due by 2/5/2021.
2. International Space Station (ISS) Flight Opportunity: \$100,000, for three years. No CS. Deadline for submission is 2/15/2021.  
<https://nspires.nasaprs.com/external/solicitations/solicitations.do?method=open>
3. EPSCoR Research Program: The CAN is not out yet. Pre-proposals to our office are due by 11/17/2020.



## Pending Proposal to the EDA

### WV Small Satellites Center of Excellence

Request from the EDA	\$815,015
Cost Share	\$495,353
<b>TOTAL</b>	<b>\$1,310,368</b>



## **FY 2021 Appropriations: Where are We Currently?**



- Continuing Resolution until December 11, 2020

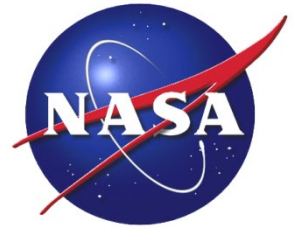
### House CJS FY 2021 Bill

- STEM Engagement Office: \$126M (+\$6M from last year)
- Space Grant: \$50M (+\$2M from last year)
- EPSCoR: \$26M (+\$2M from last year)
- MUREP: \$38M (+\$2M from last year)





# **FY 2021 Appropriations: Where are We Currently?**



## Senate CJS FY 2021 Bill

- STEM Engagement Office: \$120M (same as last year)
- Space Grant: \$48M (same as last year)
- EPSCoR: \$24M (same as last year)



## **FY 2021 Appropriations: Where are We Currently?**



### **Senate Language**

Space Grant: The Committee provides \$48,000,000 for Space Grant and directs that all 52 participating jurisdictions be supported at no less than \$760,000. NASA shall limit administrative costs to the fiscal year 2020 level and shall continue to have a goal of reducing administrative costs to no higher than 5 percent. The Committee encourages NASA to continue using funds to evaluate program performance, augment base grants, and competitively respond to local, regional, and national needs.

# NASA West Virginia Space Grant Consortium



Questions and Discussions

[www.wvspacegrant.org](http://www.wvspacegrant.org)