

South Carolina Space Grant Consortium
College of Charleston
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<http://scspacegrant.cofc.edu/>

Grant Number: NNX10AM76H

Lines of Business (LOBs): NASA Internships, Fellowships, and Scholarships; Stem Engagement;
Institutional Engagement; Educator Professional Development

A. PROGRAM DESCRIPTION

The National Space Grant College and Fellowship Program consists of 52 state-based, university-led Space Grant Consortia in each of the 50 states plus the District of Columbia and the Commonwealth of Puerto Rico. Annually, each consortium receives funds to develop and implement student fellowships and scholarships programs; interdisciplinary space-related research infrastructure, education, and public service programs; and cooperative initiatives with industry, research laboratories, and state, local, and other governments. Space Grant operates at the intersection of NASA's interest as implemented by alignment with the Mission Directorates and the state's interests. Although it is primarily a higher education program, Space Grant programs encompass the entire length of the education pipeline, including elementary/secondary and informal education. The **South Carolina** Space Grant Consortium is a **Capability Enhancement** Consortium funded at a level of **\$570,000** for fiscal year 2016.

B. PROGRAM GOALS

All goals and objectives for the individual programs support the South Carolina Space Grant Consortium (hereafter SCSGC) strategic plan, created in April 2008.

Consortium Goals

The SCSGC has six goals to accomplish its mission statement. All of our research, education, and public outreach programs fulfill one or more of the goals listed below.

GOAL 1. To increase access, understanding, development, and utilization of resources in four primary areas: Science, Aeronautics, Human Exploration and Operations, and Space Technology

GOAL 2. To encourage cooperative programs among colleges and universities, state organizations, business and industry, and pre-college interests

GOAL 3. To enhance interdisciplinary research, education and public service activities

GOAL 4. To recruit and train students, educators, and professionals, especially women and underrepresented groups

GOAL 5. To promote a strong science, mathematics, engineering and technology base throughout all levels of South Carolina education

GOAL 6. To facilitate statewide communication of NASA opportunities and programs

I. Consortium Management

GOAL 2: To encourage cooperative programs among colleges and universities, state organizations, business and industry, and pre-college interests.

GOAL 6: To facilitate statewide communication of NASA opportunities and programs.

Objective I.1: (Reporting) The Management Team will provide timely reporting and responses to NASA Headquarters regarding Consortium operations and finances.

Outcome Indicator: *All reports will be submitted on time and in accordance with NASA guidelines.*

Objective I.2: (National Network) The Management Team will work to strengthen relationships with NASA Centers, the national Space Grant network, and the state's NASA EPSCoR Program.

Outcome Indicators: *Each year at least three students will participate in an internship program at a NASA Center and all faculty research projects are required to have a strong relationship with NASA scientists at one of the NASA Centers. The SCSGC Director and/or Program Manager will be present at biannual national Space Grant meetings. The SCSGC Director and Program Manager also serve as the Director and Program Manager for the SC NASA EPSCoR Program.*

Objective I.3: (Consortium Network) The Management Team will faithfully represent the diverse interest and resources of the Consortium member institutions and affiliates.

Outcome Indicators: *The roles and responsibilities of Consortium Management, member institutions, and all categories of affiliate organizations were established with the inception of the SCSGC and were updated in 2004 and again in 2006 and 2011. Relevant electronic communication is sent to all member institutions, affiliates, and interested parties, as appropriate.*

Objective I.4: (State government) The Management Team will ensure that Consortium programs are aligned with state and federal priorities.

Outcome Indicators: *Members of the Management Team provide annual reports to representatives of state and federal government on Consortium activities.*

Objective I.5: (State industry) The Management Team will foster interaction between the Consortium and state industries involved in aerospace, earth and space science and related technologies.

Outcome indicator: *Facilitate at least one student or faculty project with an industry partner in South Carolina.*

Objective I.6: (Link to public) The Management Team will seek to maintain and improve the effectiveness of the Consortium as the link between the public and NASA in the state.

Outcome indicator: *Consortium website is updated on a weekly basis to reflect new opportunities within and/or related to NASA.*

Objective I.7: (Increase resources) The Management Team will pursue opportunities to increase the resources available to the Consortium, to broaden participation within the state, to collaborate with other state Consortia in areas of mutual interest and capability, and to assure long-term sustainability.

Outcome indicator: *SCSGC serves as a clearinghouse for information on funding and research opportunities from NASA and other agencies that support STEM-related research and education, especially in areas of aerospace and earth and space science. All targeted announcements of opportunity released from NASA will be disseminated through electronic communication and the SCSGC website each year. The Management Team will coordinate submission of proposals to NASA and other agencies on projects in STEM research and education. Encourage collaborative proposals each year to NASA or other agencies.*

Objective I.8: (Diversity) The Management Team will ensure diversity in all Consortium programs and activities by seeking to include women, underrepresented minorities, and persons with disabilities.

Outcome indicator: *Diversity will be ensured in all aspects of the Consortium and participation by underrepresented groups will increase. NASA content or other STEM educational opportunities for faculty and students are expanded within the state.*

Objective I.9: (Evaluation) The Management Team will continually monitor and seek to improve the quality and effectiveness of the SCSGC program.

Outcome indicator: *In consultation with the Campus Directors, the Management Team will continue to determine appropriate data collection and evaluation procedures that are consistent with available resources. The Consortium website was redesigned in 2011 so that evaluation data could be collected through online surveys and compiled for analysis by the Management Team.*

II. Fellowship/Scholarship Program

GOAL 4: **To recruit and train students, educators, and professionals, especially women and underrepresented groups.**

Objective II.1: (Competitiveness) Ensure the fair distribution of funds to member universities and educational affiliates.

Outcome indicator: *SCSGC will forward NASA's Annual Call for Fellowship/Scholarship applications to all higher education members and affiliates, and hold a competitive peer-review of submitted proposals for selection of awardees. Awards will reflect the diversity of the Consortium's membership and statewide balance.*

Objective II.2: (NASA Center ties) SCSGC will offer hands-on, tangible research experiences to student research fellowship awardees at NASA Centers.

Outcome indicators: *SCSGC will maintain or increase the number of SC students involved with NASA Center Internships; however this is based annually on the SCSGC budget from NASA. 100% will make a presentation at the SC Academy of Sciences (SCAS) meeting or at a national meeting. 100% will provide feedback to their Campus Director and make campus presentations.*

Objective II.3: (Industry ties) SCSGC will offer hands-on, tangible research experiences to student research fellowship awardees at aerospace and related science and technology industries.

Outcome indicator: *At least one student will receive supplemental funding through SCSGC each year.*

Objective II.4: (Mentoring and professional development) SCSGC will provide mentoring and professional development experiences to student researchers, which will develop skills that contribute to the future STEM workforce.

Outcome indicator: *100% of awardees graduate from college; 100% make a presentation at the SC Academy of Science or at a National meeting within a year of receiving the award; 80% produce a paper or abstract with their mentors within a year of receiving the award; and 50% continue on to graduate school and pursue a NASA-related discipline.*

Objective II.5: (Diversity) SCSGC will ensure funding for fellowships and scholarships to women, underrepresented minorities, and persons with disabilities through intensive marketing techniques (e.g., personal visits, direct faculty contacts, email) to encourage women and minority students to apply for funding.

Outcome indicator: *Awards to women and minorities will equal or exceed previous year applicants. At least 15 student awards will be awarded annually within underrepresented groups.*

Objective II.6: (Longitudinal tracking) All students who have received significant fellowship or scholarship assistance from SCSGC will be longitudinally tracked through first employment or beginning of advanced degrees.

Outcome indicator: *Continue arrangements with Education Programs Support Services, LLC to include SCSGC in the longitudinal tracking system so that students funded can continue to be tracked in subsequent years at least through first-employment.*

Objective II.7: (Evaluation) The SCSGC will develop methods to document, measure, and assess the impact of the fellowship and scholarship programs in conjunction with its implementation of an overall evaluation strategy (see Obj. I.9).

Outcome indicator: *Adjustments are made to the SCSGC fellowship and scholarship program to strengthen activities that are working and drop or improve activities that are not having the intended impact.*

III. Research Infrastructure

GOAL 3: To enhance interdisciplinary research, education and public service activities; to encourage cooperative programs among colleges and universities, state organizations, business and industry, and pre-college interests

Objective III.1: (Research proposals) Increase the number of research proposals submitted by SCSGC institutions in fields aligned with NASA's mission and vision.

Outcome indicator: *At least eight research awards are distributed among appropriate SCSGC institutions each year. 100% of the REAP recipients submit proposals to NASA or another federal*

agency within two years. 50% of the REAP recipients submit new proposals which are funded within two years. 100% of the REAP recipients give presentations and submit papers within a year after the end of the grant. 80% of the presentations and papers include students

Objective III.2: (Research support) Support new and developing research, especially multidisciplinary and collaborative projects, in fields aligned with NASA's mission and vision.

Outcome indicator: *50% submit proposals for a SCSGC REAP Research Grant or similar program. 100% of the REAP recipients develop presentations and papers within two years. 80% of the presentations and papers include students.*

Objective III.3: (Collaborations) Build research collaborations both within and outside the state.

Outcome indicator: *SCSGC will support at least one planning trip to a NASA Center each year from SCSGC. Submit REAP Research Grant proposal within two years of the travel/planning award.*

Objective III.4: (Diversity) Increase the participation of women and underrepresented groups in statewide research programs and facilitate their subsequent entry into STEM careers.

Outcome indicator: *SCSGC will sponsor activities that encourage women and students from underrepresented groups to enter STEM careers.*

Objective III.5: (Evaluation) The Consortium will develop methods to document, measure, and assess the overall impact of the research infrastructure programs including implementation of an overall evaluation strategy (see Obj. I.9).

Outcome indicator: *Adjustments will be made to the research infrastructure program to strengthen activities that are working and drop or improve activities that do not have the intended impact.*

IV. Higher Education

GOAL 1: To increase access, understanding, development, and utilization of resources

in four areas: science, aeronautics, human exploration and space technology; to enhance interdisciplinary research, education and public service activities.

Objective IV.1: (Curriculum and NASA content) Contribute aerospace and space and earth science materials to the higher education community in South Carolina.

Outcome indicator: *SCSGC will distribute announcements of opportunities for education and curriculum enhancement in NASA-related fields to faculty at member institutions.*

Objective IV.2: (Student Research) Provide research opportunities where students gain hands-on knowledge of scientific methods and processes, gain understanding of the importance of teamwork and experience the exhilarating feeling of discovery. Spark student interest in continuing NASA-relevant research in graduate school and/or to enter the STEM workforce by working on NASA-related endeavors.

Outcome indicator: *100% of the participants are exposed to current NASA research and 100% make presentations about their research experience at SC Academy of Science or a national meeting within one year of award.*

Objective IV.3: (Industry involvement) Establish and maintain linkages between SCSGC, higher education and industry in South Carolina by encouraging educational partnerships between the state's academic institutions and private industry.

Outcome indicator: *At least two collaborative proposals will be funded, promoting partnerships between industry and academic affiliates in South Carolina.*

Objective IV.4: (Diversity) Increase the participation of women and underrepresented groups in all aspects of SCSGC's higher education program.

Outcome indicator: *SCSGC will sponsor activities that encourage women and students from underrepresented groups to enter STEM careers.*

Objective IV.5: (Evaluation) The Consortium will develop methods to document, measure, and assess the impact of the higher education programs in conjunction with its implementation of an overall evaluation strategy (see Obj. I.9).

Outcome indicator: *Adjustments will be made to the higher education program to strengthen activities that are working and drop or improve activities that do not have the intended impact.*

V. K-12 (Precollege) Education/Public Service

Goal 5: To promote a strong science, mathematics and technology base throughout all levels of South Carolina education.

Objective V.1: (NASA dissemination) Contribute aerospace and space and earth science materials to the formal and informal education communities in South Carolina.

Outcome indicator: *SCSGC will distribute announcements of opportunities for education and curriculum enhancement in NASA-related fields to formal and informal educators across the state; Maintain and update the SCSGC website to provide opportunities and information to formal and informal education groups as well as the general public.*

Objective V.2: (Pre-service Educators) SCSGC will increase the number of quality educators pursuing STEM education degrees.

Outcome indicator: *SCSGC pre-Service awardees will be tracked to see how many complete their degree programs and become science and math teachers in SC. At least two awardees will pursue a career teaching in STEM fields. SCSGC will also query their use of NASA educational materials in the classrooms.*

Objective V.3: (Science and education events) The SCSGC will support activities of scientific discovery across the state and will support NASA's commitment to renewing a spirit of exploration and discovery and will use the excitement of space exploration to promote this policy to the general public.

Outcome indicator: *SCSGC staff will develop and host opportunities to promote NASA throughout the state of South Carolina. In 2012, the SCSGC will host several statewide events to celebrate Space Grant's 25th anniversary and will host educator workshops and a few talks promoting use of NASA data and current results from NASA's missions.*

Objective V.4: (Diversity) Increase the participation of women and underrepresented groups in all aspects of SCSGC's pre-college/general public program.

Outcome indicator: *SCSGC will sponsor activities that encourage women and students from underrepresented groups to enter STEM careers.*

Objective V.5: (Evaluation) SCSGC will develop methods to document, measure, and assess the impact of the pre-college/public service programs in conjunction with its implementation of an overall evaluation strategy (see Obj. I.9).

Outcome indicator: *Adjustments will be made to the pre-college/public service program to strengthen activities that are working and drop or improve activities that do not have the intended impact.*

C. PROGRAM/PROJECT BENEFITS TO PROGRAM AREAS

*All FY16 projects remain in progress except the 2016 Palmetto Academy and NASA internships.

- In 2016, SCSGC directly funded 9 faculty for research and 22 students as follows: 9 faculty for research support and infrastructure, 2 graduate students, 8 undergraduate students, 3 Minorities in STEM (MIST) awards, 1 Kathy Sullivan Fellowship, 3 STEM Outreach Fellowship, 2 Carolina Ballooning Initiative awardees and 3 NASA internships.
- We are currently supporting 10 member faculty/staff awards totaling \$20,583 for projects related to the upcoming August 2017 Eclipse in South Carolina.
- Palmetto Research Academy awards support 6 faculty mentors and 12 students. REAP projects included 29 student participants. Our REAP projects have resulted in 4 publications, 1 presentation, and 2 new grant submissions. Our Palmetto Academy 2016 program resulted in 30 presentations, 11 publications and 7 new grant submissions, 1 new grant was recently awarded \$600K.

- SCSGC is working closely with 1 undergraduate student who is Blind/Visually impaired and 1 teacher who is Deaf and a team of English-as-a-second-language learners in a local high school. We also support a variety of professional development opportunities. Dr. Runyon, SCSGC Director, teaches Earth Science for Teachers and Space Science for Teachers for pre- and in-service teachers. 12 teachers participated in 2016. Dr. Runyon and the SCSGC also hosted four six-hour workshops for pre- and in-service teachers in 2016. NASA activities and resources were shared with the 60 participating educators through these workshops. Aerospace career opportunities in STEM were also shared.
- **Formal and Informal Education:** See Section D below for more information.

D. PROGRAM ACCOMPLISHMENTS

All of our programs are currently in progress and are scheduled to end on June 14, 2017 with the exception of the NASA 2016 Internships and the Palmetto Research Academy.

- **NASA internships, Fellowships and Scholarships:** 2 graduate students, 8 undergraduate students, 3 Minorities in STEM (MIST) awards, 1 Kathy Sullivan Fellowship, 3 STEM Outreach Fellowship, and 3 NASA internships were awarded, 2 Carolina Ballooning Initiative awardees and 12 Palmetto Academy student awardees.
 - SCSU supported student research on their campus, 2016/17
- **NASA Higher Education Projects**—SCSGC funded 6 faculty Palmetto Research Academy (PRA) projects at 3 SC Universities. 12 students participated. Projects ranged from earth science, biomedical science, physics/astronomy, and materials science.
 - Wofford College Physics class hosts Boys & Girls Club night, Nov 15 & 17, 2016
 - The Citadel hosted a Talk – Proxima Centauri b – inhabitation, Fall 2016
 - Ernest Just Symposium at MUSC including 250 undergraduates, 90% of which were underrepresented minorities, and some high school students.
 - Furman hosted the 2017 Meeting of Astronomers in SC, including 30 participants, 2 posters and 13 oral presentations, March 11, 2017
 - Francis Marion University hosted an Astronomy Seminar and Physics game night, 2016
 - Coastal Carolina University has been preparing to initiate an engineering program in Fall 2017.
 - Student projects at Coastal Carolina University include Radio JOVE kits to measure emission from Space, and Quadcopter Drones to conduct remote sensing
 - Claflin University Special Topics Class related to NASA applications of Nano-Materials, Fall 2017
- **Research Infrastructure Projects**—SCSGC funded 9 REAP and mini-REAP faculty projects, for a total of \$91,228. These 9 projects involve 46 participants, ranging from faculty, staff, undergraduate and graduate students. Of these 22, 1 are underrepresented minorities. Twenty-nine of these are undergraduate and graduate students, and 11 of these are either female, and 1 has a disability. Project areas include: physics and astronomy, mechanical engineering, MARS rover competition – planetary sciences, and earth and oceanic sciences. As these projects are currently on-going, interim reports submitted indicate 1 presentation, 4 publications and 2 other grants have resulted from these projects.
 - Presbyterian College – Our Campus Director supported 5 students working on his NASA project. These students were able to make presentations on their campus about this research.
 - Lander University – our campus director and 4 students are collaborating with the University of Hawaii on a spin-cast epoxy mirror project

- **Precollege Projects:** The SCSGC continues to support / offer professional development opportunities for teachers, and are often invited to present during other Professional Development workshops at the school and school district level.
 - Lady Cougars STEM Education Day; Jan. 27, 2017
 - Camp Happy Days, Space Carnival; July 2, 2016
 - C of C Early Childhood Development Center Eclipse presentation and activities, March 29, 2017
 - Society of Hispanic Engineers *Noche de Ciencias* (Science Night) at RB Stall High School – our Carolina Eclipse awardees presented Ballooning and the upcoming Eclipse, Oct. 15, 2016
 - Library Outreach Event, Wofford College, October 5, 2016
 - Hendrix Elementary Starry Night Observation Event, Wofford College, November 17, 2016
 - Hendrix Elementary Mars Habitat Event, Wofford College, March 30, 2017
 - Lander University Chemistry presentations to middle and high school students, 2016/17
 - Furman University, Planetarium shows for 600 k-12 students and teachers, Apr2016-Mar 2017
 - J. L. Mann High School Engagement Activity, 126 students, 7 faculty and 4 parents to attend a screening of movie Hidden Figures, March 3, 2017, Furman University
 - Benedict College used funds to support 1 high school student working on environmental conditions and their effects on fish
- **Formal Education Projects:** The SCSGC continues to promote STEM literacy by working with the SC Dept. of Education to plan, coordinate and facilitate workshop for K-12 educators. Currently, we are focusing on raising awareness of the upcoming total solar eclipse and the myriad of NASA resources available for classroom use. We have been asked to train a minimum of 1 K-12 educator from each school district, plus the specialty schools like the SC School for the Blind and the Military School – 128 in total. The SCSGC works closely with the SC State Museum, The Children's Museum, The Halsey Institute of Art and the Lowcountry Hall of Science and Math, Dome Education and Roper Mountain Science Center, and this past year, the SC State Parks and 3 National Parks in the Lowcountry.
- **Informal Education Projects:** The SCSGC works closely with the SC State Museum, The Children's Museum, The Halsey Institute of Art and the Lowcountry Hall of Science and Math, Dome Education, Roper Mountain Science Center and recently the SC State Parks and local National Parks. Together, SCSGC and our partners promote STEM literacy and raise awareness of NASA's mission and resources in South Carolina. Most of our campuses and partner institutions are working on events related to the upcoming 2017 Total Solar Eclipse and have been holding information sessions for their staff and docents.
Events include:
 - 2017 Charleston STEM Festival, Brittlebank Park; February 11, 2017
 - Palmetto Academy outreach events at Charleston Children's Museum, and the Roper Mountain Science Center; July 2016
 - Wofford Twin Towers Carnival – Space booth, October 20, 2017
 - Planetarium Shows at Francis Marion University to 5,000 visitors for 130 shows, 2016/17
 - In addition, we are supporting 10 member awards totaling \$20,583 for projects related to the upcoming August 2017 Eclipse. These projects began on March 1, 2016 and will be conducted through 9/30/2017. These projects have just begun and have not reported activities. Projects include: *Go Dark Charleston: Educator Professional Development for Formal Educators in the Lowcountry & *Go Dark Charleston: Educator Professional Development for Park Rangers Across the State, *Carolina Eclipse Initiative Proposal: The Air Across the Path – April Hiscock,

USC, *2017 Solar Eclipse Initiative Grant Proposal – C of C Society of Physics Students – Mike Larsen, CofC, *Radio Astronomy of the 2017 Total Solar Eclipse over South Carolina, Andy Mount, Clemson, *2017 Solar Eclipse Workshop, Jeannette Myers, Francis Marion University, *Teacher Professional Development Workshop related to August 21 Eclipse, Linda Payne, Orangeburg-Calhoun Technical College, *2017 Carolina Eclipse Initiative– Gary Senn, USC-Aiken, *Eclipse Science Workshops for Upstate South Carolina Educators, Chad Sosolik, Clemson, *DREAM2EXPLORE Workshop, Garrison Hall, Roper Mountain Science Center

We are working closely with both the SC State Parks system and the National Parks to train at least one Ranger from each park on the upcoming eclipse with a special emphasis on eclipse viewing safety. The SC Department of Transportation and Emergency Management have been sitting in on some of these workshops.

E. PROGRAM CONTRIBUTIONS TO NASA EDUCATION PERFORMANCE GOALS

Include summary data for the bulleted list below:

- **Diversity:** Of our 15 member institutions, four are HBCU's. Of our 6 Educational Partners, two are Technical Colleges, three are informal institutions/museums and one is a K-12 Gifted and Talented school. Each of our affiliate institutions serve underrepresented communities. Of our 15-member institution campus directors, four are female, one is African American and two are Asian.
- **Minority Serving Institution Collaborations:** SCSGC continued nurturing relationships with the statewide community/ technical college system. Currently 4 HBCUs are members of SCSGC. In addition to our campus members, two technical colleges are Educational Partners. These technical schools have a significant minority enrollment. Orangeburg-Calhoun Technical College includes a 46% underrepresented minority enrollment and Trident Technical College includes a 35% underrepresented minority enrollment.
- **Office of Education Annual Performance Indicators:**
 - API 2.4.1: ED-16-1 20 (number of NIFS to racially or ethnically underrepresented students, woman and person with disabilities)
 - API 2.4.2: ED-16-2 250 (number of educators)
 - API 2.4.4: ED-16-4 15 (number of informal education events)
 - API 2.4.5: ED-16-5 12,000 (number of K-12 students)

Ten programs in 2016 involved hands-on student research or outreach experiences: REAP, Mini-REAP, High Altitude Ballooning, Graduate Assistantship, Kathy Sullivan Earth and Marine Science Fellowship, Undergraduate Research Award, Minorities in STEM research award, NASA Center Internships, STEM Outreach awards, and Palmetto Academy. Plus, we are supporting 10 Eclipse projects that will involve workshops and “train-the-trainer” activities for 100s of South Carolinians. We are directly supporting 25 faculty and/or staff through Research Infrastructure (REAP, Mini-REAP) or Higher Education programs (Palmetto Academy) and Public Engagement (Eclipse Projects). We are also supporting 34 students participating in our NIFS or Palmetto Academy Program. SCSGC continues to support a two-semester course, involving science-interested students at CofC teamed with senior undergraduate engineering students at the University of Alabama – Huntsville to design and propose a planetary mission to a location in the solar system. Former undergraduate students involved in this course have all gone on to pursue a STEM-related career, have received a NASA internship and/ or gone on to graduate school for a Masters and Ph.D. SC Space Grant presented several NASA-related topics to

pre-service teachers as part of a course on *Space Science for Teachers*. Half of the students in the class are planning to teach middle school. A similar course will be offered on *Earth System Science* this summer. SC is a leader in aerospace science with the USC / McNAIR program that focuses on materials and aeronautics design. The SCSGC continues its relationship with the statewide community/ technical college system: Trident Technical College, Orangeburg-Calhoun Technical College, and Denmark Technical College. We are talking with a Tribal College about future partnership. Dr. Adem Ali and College of Charleston students are continuing their effort to develop a comprehensive dataset containing water quality and radiometric measurements from a diverse set of locations in the US Virgin Islands and South Carolina.

F. IMPROVEMENTS MADE IN THE PAST YEAR

Overall, the SCSGC has become more involved in the national space grant network; the Director was selected as the Vice-Chair of the National Space Grant Alliance board and was re-selected as the Science Mission Directorate space Co-lead in 2016 and a member of the SG Foundation Board. Discussions continue with local industry such as Boeing SC, Google Charleston and more. We have made – and continue to make - many relationships through our involvement with the upcoming 2017 Solar Eclipse. We are working very closely with the US Coast Guard, Station Charleston, STRE.AM, a local video streaming company, the Charleston Riverdogs baseball team, the Charleston Battery soccer team, SC State Parks System, National Parks, Patriot's Point (aircraft carrier), as well as many local communities who host STEM-related events to inform their residents of exciting advances and upcoming events in science and technology.

G. CURRENT AND PROJECTED CHALLENGES

Selection for a SCSGC research program is a competitive process requiring input from external content-expert reviewers. It is increasingly difficult to identify and confirm qualified reviewers for the submitted proposals. We understand that this is not just an issue in SC, or for our programs. We continue to talk with our fellow SG colleagues to identify possible solutions.

H. PROGRAM PARTNERS AND ROLE OF PARTNERS IN PROJECT EXECUTION

Member institutions: Benedict College, private, liberal arts College, HBCU; Coastal Carolina University, public, liberal arts College; The Citadel, public military College; Claflin University, independent, liberal arts College, HBCU; Clemson University, research-one University; College of Charleston, public, liberal arts College; Francis Marion University, public, liberal arts minority-serving institution (40%); Furman University, private, liberal arts College; Lander University, public, liberal arts University, minority-serving institution (24%); Medical University of South Carolina, research-one medical University; Presbyterian College, private, liberal arts College; South Carolina State University, land-grant public College, HBCU; University of South Carolina, research-one University; University of the Virgin Islands, public, liberal arts, HBCU; Wofford College, independent, liberal arts College

Educational Partners: South Carolina State Museum, informal education; Trident Technical College, Charleston, SC; Orangeburg-Calhoun Technical College, Orangeburg, SC; Palmetto Scholars Academy, Charter school for the Gifted & Talented, Charleston, SC; Dome Education Portable Indoor Planetarium Program, Mt. Pleasant, SC; Roper Mountain Science Center, Greenville, SC

Affiliate Members: SC Sea Grant Consortium, Charleston, SC; and SC EPSCoR/IDeA, Columbia, SC
Member institutions are SCSGC Executive Board Members and are permitted to vote and are eligible for awards. Educational Partners are non-voting members of the SCSGC, but are eligible for awards.