Virginia Space Grant Consortium  
Strategic Plan 2010 - 2014

Updated January 21, 2010

Mission Statement: The Virginia Space Grant Consortium acts as an umbrella organization, coordinating and developing quality aerospace-related, high technology, educational, workforce development and research efforts throughout the Commonwealth.

Vision: To serve as a catalyst for, and partner in, the enhancement of aerospace-related and high technology education, workforce development and research in the Commonwealth to foster enhanced quality of life for Virginia through workforce development and increased public science literacy.

Values: The Virginia Space Grant Consortium is committed to promoting and achieving excellence in education, workforce development and research in science, mathematics, technology and engineering at all levels in Virginia. The Consortium also seeks to encourage student and faculty diversity in these fields and to foster scientifically and technologically literate citizens.

Outcome One: Contribute to the development of the science, technology, engineering and mathematics (STEM) workforce in disciplines needed to achieve NASA’s strategic goals (Employ and Educate)

Goal 1 - Conduct quality scholarship and fellowship programs including a bridge program for freshmen and sophomore students, research awards for undergraduate and graduate students, community college STEM scholarships and teacher education STEM scholarships.

1.A Each academic year, award students in all five categories with scholarships and fellowships. Students will be competitively selected by review panels consisting of representatives from member institutions.

1.B Award at least the minimum funding amount required by NASA (currently $150,000) in scholarships and fellowships to at least 50 students each academic year.

1.C Each academic year, provide a percentage of awards to underrepresented minority and female students that is consistent with the diversity target as established by NASA (currently 24.6% for awards to minority students and 40% for awards to female students).

1.D At least 90% of students receiving research awards will attend and present at the annual VSGC Student Research Conference.

1.E Longitudinally track 100% of all students receiving significant awards to identify their next step in academia or the workforce. (VSGC has determined significant awards to be direct student support of $1,000 or more.)
1.F At least 60% of students receiving significant awards will be employed by NASA, an aerospace contractor, higher education or other educational institutions.

1.G At least 45% of undergraduate students receiving significant support from VSGC will move on to advanced education in NASA-related disciplines in their next step.

Goal 2 - Offer quality higher education programs including internship programs in partnership with our member institutions and partners.

2.A Each academic year, provide paid internships for at least 4 students at NASA Centers or with industry partners.

2.B As funding permits, continue to effectively manage the Langley Aerospace Research Summer Scholars (LARSS) Program for NASA Langley by recruiting and placing at least 125 students each year in paid internships at Langley.

2.C Conduct at least one annual higher education project in partnership with Virginia’s community colleges.

2.D Each year, conduct at least two higher education projects in partnership with VSGC member institutions.

Goal 3 – Promote diversity in all programs and activities by encouraging participation by underrepresented minority and female students and faculty.

3.A Each year, conduct at least one outreach event in partnership with Hampton University (HBCU) to promote programs and opportunities to students and faculty.

3.B Each year, conduct at least one outreach event in partnership with a non-member minority institution to promote programs and opportunities to students and faculty.

3.C Each academic year, provide a percentage of student awards to underrepresented minority and female students that meets or exceeds the diversity target as established by NASA (currently 24.6% for awards to minority students and 40% for awards to female students).

3.D Provide at least one STEM program each year for special needs faculty or students.

3.E Undertake at least one collaborative program with a non-member minority serving institution each year.

Goal 4 - Undertake programs that foster research capabilities at our member institutions and serve as a catalyst for linking university researchers to NASA and other opportunities.

4.A Conduct a New Investigator award program each year targeting tenure track faculty who are within the first five years of their academic career. At least five awards will be given annually and the research will have NASA relevance.

4.B Disseminate at least 20 research opportunity announcements to statewide networks each year.

4.C Facilitate at least five meetings with university researchers and NASA personnel as appropriate, resulting in at least two collaborative proposals being submitted.
4.D Support at least two experiential student research, mission and design programs each year.

Outcome Two: Attract and retain students in STEM disciplines through a progression of educational opportunities for students, teachers, and faculty (Educate and Engage)

Goal 5 - Provide quality precollege educational opportunities including professional development for precollege and pre-service educators and student-focused programs for students throughout the precollege pipeline.

5.A VSGC will provide professional development in STEM and using NASA resources to at least 40 teachers each year.
5.B VSGC will reach over 300 students by conducting selected student-focused programs and activities promoting participation in STEM and related careers.
5.C At least 75% of precollege educators participating in more than two days of professional development will use NASA resources in their classroom following the workshop.
5.D At least 60% of precollege educators receiving NASA resources or participating in VSGC-led short duration activities will use NASA resources in their classroom.
5.E At least 50% of all precollege students participating in VSGC-sponsored programs will express an interest in STEM careers.

Outcome Three: Build strategic partnerships and linkages between STEM formal and informal education providers that promote STEM literacy and awareness of NASA’s mission (Engage and Inspire)

Goal 6 - Conduct Informal Science Education programs in partnership with informal education members and partners

6.A Sponsor at least one program each year with the Virginia Air and Space Center and/or the Science Museum of Virginia.
6.B Consider other appropriate informal science education opportunities as funding and partnerships permit. Goal: At least one other activity per year if funding and resources permit.

Goal 7 - Serve as an effective steward of Consortium resources and a strong partner for STEM programs by effectively leveraging NASA Space Grant resources.

7.A NASA Space Grant funding will be leveraged by at least 3 dollars to 1 NASA Space Grant Dollar as evidenced in the Consortium year end Matching/Contributed Funding Report.
7.B Network and partner with other Space Grants and Space Grant organizations as appropriate.
7.C Network with NASA Headquarters and NASA Centers for program implementation. At least two such collaborations will be undertaken each year.
7.D Build and sustain effective strategic partnerships including relationships with state and federal legislators and officials. Demonstrated by evidence of state and
federal support for VSGC programs and documented attendance by these individuals at select activities and events.

7.E Each year, partner with at least 20 non-member organizations to conduct programs.

Goal 8 - Support national, regional and crosscutting initiatives that support NASA and Consortium goals as external funding permits.

8.A Support NASA’s Global Climate Change Education Program which sponsors national university, precollege and informal science education programs.

8.B Continue to manage the FAA Design Competition for Universities as funding permits.

Note: Goals are contingent upon full funding of the Virginia Space Grant Consortium by NASA at a minimum of $785,000 per year.