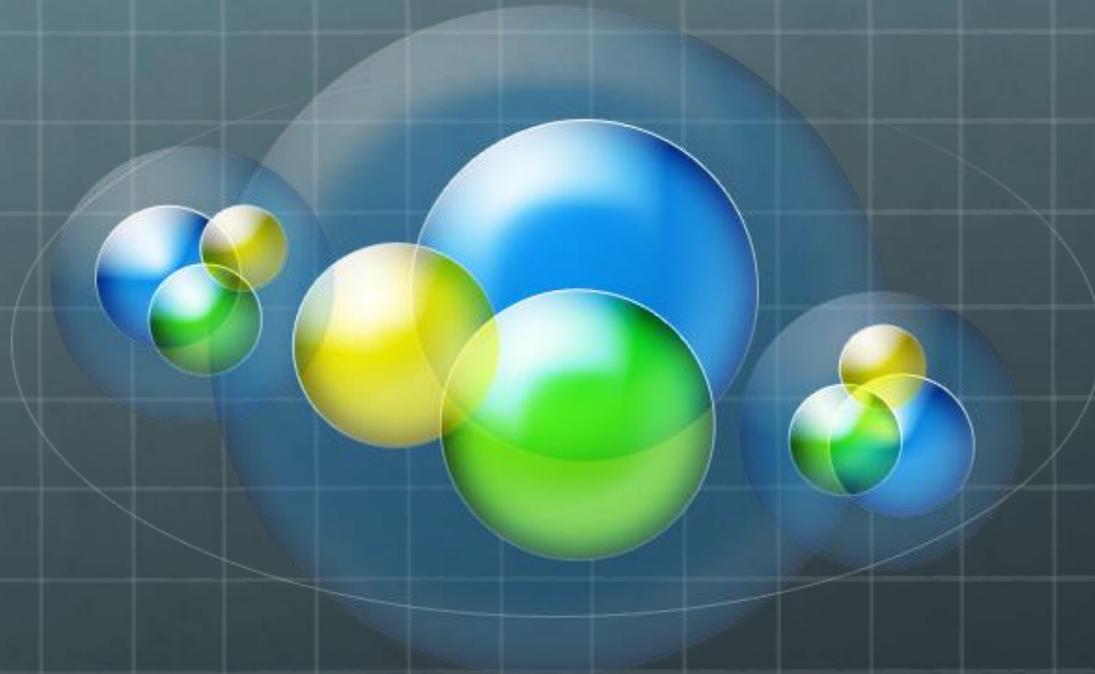


*- Summary -*



# Mid-Course Review: Space Grant Goals and Objectives



National Council of Space Grant Directors Spring Meeting  
Washington, DC  
March 1-3, 2018

# SG Strategic Plan Subcommittee



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# Process



# Summary of Tasks

- Review 2012 Strategic Plan and Assess Progress through 2017.
- Determine if Specific Actions Should Be Prioritized. Should all be prioritized?
- Determine if Additional Actions Should Be Added.
- Develop an Implementation Plan and SMART Goals.
- Engage and Receive Input from Space Grant Community and NASA

# 2012 SG Goals and Objectives

## Process

- 1) Participate in Ex-Comm kick-off telecon with each subcommittee of the strategic planning process:
  -  National SG History and Accomplishments
  -  National SG Strengths and Weaknesses
  -  NASA SG Evaluation Processes
  
- 2) SG Goals and Objectives subcommittee studies key documents
  -  2011 NASA Strategic Plan
  -  NASA Education Design Team Report, 2011
  -  NASA Education Portfolio Re-Design
  -  Federal STEM Education Strategic Plan (Co-STEM)
  -  Space Grant Overview to Obama Transition Team, 2009
  -  National Space Grant Strategic Plan, 2002-2006
  
- 3) Subcommittee evaluates suitability of goals and objectives
  
- 4) Subcommittee develops draft set of strategies and major actions.
  -  Occurs through committee survey, telecons and email discussions

# 2012 SG Goals and Objectives

## Process

- 4) Conduct survey of all SG Directors to collect feedback on draft strategies and to identify additional strategies and major actions
- 5) Subcommittee integrates feedback from SG Directors survey to develop modified set of strategies and major actions
  -  Occurs through director's survey, telecons and email discussions
- 6) Conduct presentation and discussion of proposed strategies at Fall National Space Grant Directors Meeting
  -  Work to integrate with NASA vision expressed by SG Program Manager
  -  Work to provide consistency with SG Strengths and Weaknesses Analysis and SG Evaluation Processes
- 8) Develop modification of proposed plan based on Fall Meeting input from SG community

# 2018 SG Strategic Plan Process

## 1) Review 2012 Strategic Plan and Assess Progress through 2017.

-  The 2012 Strategic Plan was very relevant but too wordy.
-  No SMART goals exist for the 2012 plan so progress cannot be assessed.
-  The 2018 Strategic Plan is a guideline developed by Space Grant Consortia but requires NASA and especially Office of Education alignment.

## 2) Determine if Specific Actions should be Prioritized.

-  The committee felt that all actions should continue to be priorities.
-  The committee decided to add major actions to the Strategic Plan.
-  The committee recognizes the diversity with which Space Grants bring NASA's message and goals to their individual consortia.

## 3) Determine if Additional Actions should be Taken.

-  SMART goals must be developed that are specific yet broad to capture diverse approaches to NASA Education within consortia.
-  Question: Should the Space Grant Strategic Plan expand from STEM to STEAM?
-  Forum Feedback: The committee will post the Plan, Key Questions, and Drafted SMART Goals to the Space Grant Forum for Comment.



# 2018 Strategic Plan

## Major Actions

- Goal
  - Objectives
    - Strategies

# Major Actions

(Slide 1 of 2)



*Most important actions Space Grant should take to improve its effectiveness over the next 10 years*

- 1) Increase funding and funding stability to also include support from entities other than NASA.
- 2) Improve relationship with NASA management and the larger NASA community.
- 3) Improve visibility of Space Grant programs.
  - Ensure that opportunities and program impact are known across NASA, with local, state and federal government, with students, educators and the public.

# Major Actions

(Slide 2 of 2)



*Most important actions Space Grant should take to improve its effectiveness over the next 10 years*

- 4) Increase the number of students entering science, technology, engineering, and mathematics (STEM) disciplines by utilizing the Space Grant network and unique pipeline activities.
  - Engage students and educators in inter-disciplinary and experiential training activities.
  - Increase participation of underrepresented groups, where feasible, to stimulate the growth of a diverse aerospace and STEM workforce.
- 5) Increase industry involvement in space grant.
  - Build national and local partnerships to support internships, collaborative research and enhanced workforce training.
- 6) Conduct collaborative multi-state experiential higher education programs.

# Suggested Strategic Activities



- 1) **Maintain strong Council Executive Committee and National Space Grant Alliance activities.**
- 2) **Fulfill the intention of the National Space Grant Foundation by using its platform to build national partnerships.**
- 3) **Increase the effectiveness of the mission directorate working groups by increasing NASA participation in working group activities.**
- 4) **Create a standing communications working group.**
- 5) **Create a standing industry partnerships working group.**
- 6) **Capitalize on existing regional working groups to generate ideas for collaborative programs across Space Grant consortia and with other NASA entities and programs.**

# Goal and Objectives

## Goal

*Contribute to the nation's STEM enterprise by funding education, research, and informal education projects through a national network of university-based Space Grant consortia.*

## Objectives

- 1) Establish and maintain a national network of universities with interests and capabilities in aeronautics, space and related STEM fields using strategies that emphasize jurisdiction strengths and capabilities while addressing NASA needs.
- 2) Engage in cooperative programs among universities, aerospace industry, and Federal, state and local governments.
- 3) Engage in interdisciplinary training, research and public service programs in aeronautics, space and related STEM fields.
- 4) Recruit and train U.S. citizens, especially women, underrepresented minorities, and persons with disabilities including those that are hearing and/or sight impaired for careers in aerospace science and technology.
- 5) Promote a strong STEM education base from elementary through post-secondary levels.



# Potential Strategies for Objective 1

*Establish and maintain a national network of universities with interests and capabilities in aeronautics, space and related STEM fields using strategies that emphasize jurisdiction strengths and capabilities while addressing NASA needs.*

- a) Better advertise Space Grant through more effective use of social media, NASA TV and other methods available to the extensive Space Grant network.
- b) Seek and utilize funding from other entities to support the Space Grant network and student engagement.
- c) Promote the STEM curriculum in community and technical colleges and rural campuses.
- d) Support undergraduate scholarships, graduate fellowships, and faculty and student research programs.
- e) Conduct high-quality student group projects and competitions that increase student skills and collaboration with technical experts from NASA, industry and other partners when possible.
- f) Promote multiple evidenced-based strategies aligned with jurisdiction capabilities and needs.

# Potential Strategies for Objective 2

*Engage in cooperative programs among universities, aerospace industry, and Federal, state and local governments.*

- a) Increase the interaction between Space Grant consortia and industry by increasing student internships and collaborative experiential initiatives with industry.
- b) Increase the number of industry affiliates in the Space Grant network and build strategic national and local partnerships with aerospace companies to provide enhanced workforce training.
- c) Establish more direct communication and collaboration with local and state governments and school systems to ensure greater inclusion of NASA resources, content, and programs.
- d) Use funds from state and local governments to expand the impact of Space Grant programs.
- e) Develop a closer relation to the NASA Centers and more direct role in placing students at these Centers.

# Potential Strategies for Objective 3

*Engage in interdisciplinary training, research and public service programs in aeronautics, space and related STEM fields.*

- a) Conduct multi-state, experiential higher education programs that may include team-oriented interdisciplinary research or design projects.
- b) Enhance publicity and communication of Space Grant activities.
- c) Support fellowships, research, design programs, space and aeronautics hardware programs, and internships which engage students in interdisciplinary activities.
- d) Better communicate and support experiential design competitions sponsored by federal agencies, professional societies and industry.

# Potential Strategies for Objective 4

*Recruit and train U.S. citizens, especially women, underrepresented minorities, and persons with disabilities including those that are hearing and/or sight impaired for careers in aerospace science and technology.*

- a) Effectively advertise wide range of STEM opportunities to students at Space Grant institutions.
- b) Effectively advertise Space Grant activities on each campus specifically targeting student and university organizations on campus that serve under-represented populations.
- c) Develop and promote programs specifically addressing retention and recruitment issues of under-represented populations. Integrate with similar institutions in the jurisdiction as well as with NASA programs such as MUREP (Minority University Research and Education Program).
- d) Enhance the impact and integration of Minority Serving Institutions (MSI's) and schools/programs for the hearing and/or sight impaired in the Space Grant national network.
- e) Improve efficiency and completeness of data collection processes showing the impact of the Space Grant network on student recruitment, engagement, retention, employment and diversity. Utilize this data with stakeholders to increase support for space grant.

# Potential Strategies for Objective 5

*Promote a strong STEM education base from elementary through post-secondary levels.*

- a) Support STEM training for pre-service, in-service, and informal educators (K-12), including teacher training workshops involving NASA relevant classroom content and STEM curriculum support.
- b) Promote interaction of university faculty, higher education students, and Space Grant affiliates with K-12 educators and students, including activities at Space Grant higher education campuses.
- c) Foster hands-on and team-oriented programs engaging K-12 students, educators and informal education organizations.

# Remaining Steps



- 1) Use the Space Grant Forum to collect input on the draft Strategic Plan from the Space Grant community.
- 2) Engage and receive input from NASA Office of Education, especially regarding changes in NASA OE Strategic Goals and Objectives.
- 3) Develop a Broad Implementation Plan and SMART Goals.
- 4) Use the Space Grant Forum to collect input on the Implementation Plan and SMART Goals.
- 5) Engage and receive input from NASA OE regarding the Implementation Plan and SMART Goals.
- 6) Present Final Strategic Plan and Implementation Plan at Fall 2018 Meeting.

# Possible Future Actions



- 1) We need to effectively communicate to NASA, industry, state and local stakeholders.
  - Each consortium develops and maintains a one-page document briefly describing its NASA research foci and STEM educational approaches.
  
- 2) We need to measure our annual progress against SMART Goals.
  - The APD's provide one source of SMART Goals relative to NASA interests.  
Examples:
    - Number of affiliates, percentage of MSI affiliates.
    - Number of fellowships, scholarships, and internships awarded. Percentage of awards to underrepresented or female students.
    - Number of K-12 teachers reached. Number of K-12 students reached.
    - NASA Museum Alliance and/or STEM education strategic partnerships.
  - Describe interactive projects with NASA Centers and industry partners.

***Most information is already reported annually in our APD's. A start would be to collect this information in a concise format.***