



NASA
IOWA SPACE GRANT
CONSORTIUM

Strategic Plan

2005 – 2009 Program Years 16 – 20

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Iowa Space Grant Consortium
2005 – 2009 STRATEGIC PLAN
Program Years 16 – 20

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I PURPOSE

This plan establishes the general goals and activities of the Iowa Space Grant Consortium (ISGC) for the five-year period from April 2005 through March 2010. It is divided into sections corresponding to the various NASA reporting categories. It is based upon the NASA response to the fifteen year review, the vision and intent of the Executive Committee and the Affiliates, current State goals, and evolving NASA plans. This plan is consistent with the ISGC Mission: “To coordinate and improve Iowa's future in aerospace science, design and technology and to stimulate aerospace research, education and outreach activities throughout the state.”

II SCOPE

This plan relates only to the broad objectives of the ISGC. Specific plans are developed for each Program Year. The annual plans are developed by the Director in draft form and are reviewed by the Affiliates and the Executive Committee prior to the approval vote. The Director is given broad authority to act in the best interest of the ISGC and under the oversight of the Executive Committee. This allows the ISGC to adapt to rapidly changing priorities and opportunities.

III GOALS, SPECIFIC ACTIONS and RESPONSIBILITIES

CATEGORY I: HIGHER EDUCATION

GOAL – Support the Great Midwestern Space Grant Region

Specific Action: The Director will attend the winter regional meeting, will chair the region when needed, and will look for opportunities to collaborate with regional states. Campus Coordinators are also invited to attend the regional meetings. The Associate Director and Office Manager will attend according to the need based upon the agenda for each meeting.

Responsibility: The ISGC Director and the Associate Director will work with the regional states to develop and conduct regional programs, including programs with industry in the region.

Metrics: Conduct some interaction with another state in the region, annually. Opportunities with minority groups and community colleges are especially sought. Alignment with NASA plans and Space Grant objectives is essential.

GOAL – Maintain a base program at each campus.

Specific Action: The Director and the respective Campus Coordinator will discuss possible base program opportunities and will meet with various faculty and staff to monitor plans and budgets for the efforts. Base programs are areas where the academic affiliate wants to build a lasting capability that can become self sustaining at some future point. Alignment with NASA mission objectives is essential. The emphasis is on undergraduate participation, but student participation at any level is acceptable. Iowa State will establish a new base program based upon a competition during this five year period. Other replacement competitions may be held as the need arises.

Responsibility: The Campus Coordinator and Director will jointly monitor the base program. The base program managers are responsible for the operation and development of the individual programs.

Metrics: Establish viable base programs on all four campuses with plans for developing long-term relationships with NASA Centers, Industry, and other potential funding sources so as to become self sustaining.

GOAL – Support the recruiting and retention efforts at each campus.

Specific Action: The Director and the respective Campus Coordinator will discuss the coordination of recruitment and retention efforts with the appropriate representatives at each campus. Where possible, ISGC programs and public outreach activities will be aligned to support these efforts. Special attention will be given to the recruitment of students from community colleges into 4 year degrees in Science, Technology, Engineering and Math (STEM) fields. The ISGC will support the Iowa Academy of Science – Junior Academy programs whenever budgets allow.

Responsibility: The Campus Coordinator and Director will jointly monitor the recruitment and retention program.

Metrics: Complete an assessment of recruiting and retention efforts at the affiliate campuses and implement at least one program to support these efforts through ISGC. Collect retention and recruitment data to evaluate the impact of these efforts.

CATEGORY 2: RESEARCH INFRASTRUCTURE

GOAL – Become a NASA EPSCoR (Experimental Program to Stimulate Competitive Research) State

Specific Action: Establish the necessary committee structure and state organizational collaborations necessary to develop and submit a proposal for NASA EPSCoR funding. The intent is to make NASA EPSCoR the Research Infrastructure component of the ISGC in light of the base funding reduction in Space Grant. Should the attempt to win funding from NASA EPSCoR fail, the Director will present an alternate plan to the Executive Committee to address the research component of ISGC.

Responsibility: The Director will assemble the committee, prepare the proposal and serve as PI for the NASA EPSCoR program. It is anticipated that the membership of the ISGC Executive Committee will have significant overlap with the NASA EPSCoR committee.

Metrics: Award of the maximum level of NASA EPSCoR funds with successful projects involving many ISGC Academic and Industry Affiliates and non-Affiliates.

CATEGORY 3: FELLOWSHIPS AND SCHOLARSHIPS

GOAL – To award one \$6,000, one-time scholarship to the outstanding senior at the State Science and Technology Fair of Iowa each year.

Specific Action: The Associate Director will conduct an evaluation of the outstanding senior entrants at the State Science and Technology Fair of Iowa in conjunction with the science fair judging committee and make a primary and secondary awardee selection. The student must be enrolled in a technical science or engineering discipline at one of the ISGC academic affiliate institutions. US Citizenship or permanent legal residency is required.

Responsibility: The Associate Director presents these awards.

Metrics: Survey recipients to determine the data required for the NASA CMIS report. Track senior-level entries in the science fair since the ISGC award has been instituted. Survey senior-level entrants to the science fair to assess impact of the ISGC award.

GOAL – To award 16 new, one-year \$6,000 fellowships/scholarships each year.

Specific Action: The Director will advertise the opportunity each year in January with applications due in March and selections made by April. Half of the award funds will flow in the Fall semester and half in the Spring semester. Funds may also be applied in the summer if desired. Academic performance must be maintained at or above 3.0 GPA. Awards are renewable and are for students in support of the base program at their respective campus. US Citizenship or permanent legal residency is required. Use as a recruiting tool for underrepresented groups is also an objective of this program.

Responsibility: The Campus Coordinator and Base Program Managers will make the selections and will oversee these Scholarships/Fellowships.

Metrics: Survey recipients to determine the data required for the NASA CMIS report. Evaluate the demographics of the awardee pool vs. Iowa demographics. Track the post-award movement of the awardees until graduation.

CATEGORY 4: GENERAL PUBLIC

GOAL – To continue support of aviation, scientific and non-formal educational programs which enhance public awareness, scientific literacy, and appreciation for the sciences and technology with an emphasis on those projects that will have a lasting impact.

Specific Action: The ISGC will continue to support activities such as the Aviation Fair and Iowa Public Television (IPTV) technical programming which are available to the public. The Director and Associate Director will call an annual meeting of all of the outreach affiliates to develop project plans for the next year of the ISGC in this category. Specific activities to be funded will be included in the annual plans. New collaborations with state government organizations will also be sought.

Responsibility: The Consortium Office serves as the primary interface for these activities and will continue to seek out and develop opportunities to interface with the general public and present the ISGC and its programs to the people of Iowa. The Consortium Office will also continue to look to the Campus Coordinators for guidance and information on new opportunities and ideas to expand this important interface. Campus Coordinators are encouraged to continue to develop and exploit opportunities to inform and educate local governments and businesses about the Consortium through the use of discretionary funds.

Metrics: Maintain support for the State Aviation Fair as long as there is an educational component and the audience is at or near 10,000. Maintain support for IPTV as long as the viewership for the ISGC-sponsored programs remains at about 500,000 people. Ensure that the new programs receive state-wide exposure and have a lasting impact on Iowa.

CATEGORY 5: K-12

GOAL – To support NASA educational programs in Iowa.

Specific Activity: The Associate Director will develop ISGC ties to each NASA program and ensure alignment with ISGC and State educational objectives. ISGC will work with NASA

Explorer Schools and the NASA Educator's Resource Center to develop specific activities that ISGC will support or provide. Where appropriate, Industrial Affiliate involvement will be sought.

Responsibility: The Associate Director will oversee the management of these activities as appropriate. He will also report the results of the work at the annual Science Teachers Conference of the Iowa Academy of Science to be held in October each year.

Metrics: The Associate Director will assess the number of teachers and students impacted in Iowa.

GOAL – To support science education programs in Iowa.

Specific Activity: ISGC will partner with the Iowa Science Teacher Section of the Iowa Academy of Science to support the annual fall science educator conference. ISGC will provide at least \$500 annually for support of the conference as well as hosting an exhibit booth and conducting educator workshops. The ISGC will also support the Survey of Enacted Curriculum for use across Iowa when budgets allow.

Responsibility: The Associate Director will oversee the management of these activities as appropriate.

Metrics: The Associate Director will assess the number of teachers impacted in Iowa.

GOAL – To conduct various educational activities for grades Kindergarten through 12th to promote a strong science, math and technology educational base as outlined in the NASA Strategic Plan for Education.

Specific Activity: The Associate Director will award grants to allow K-12 educators to attend educator workshops at NASA Centers in partnership with regional states and Space Education Initiatives. Educators that attend these workshops will join the ISGC Partner Network and conduct professional development and student learning activities. Space Explorers Inc. educational products will be made available to Partner schools.

Responsibility: The Associate Director will oversee the NASA Center Workshops and oversee the Network activities and communication.

Metrics: The Network will assess program effectiveness. The Consortium Office will track the number of students and teachers impacted.

GOAL – To conduct a Space Week activity for precollege students.

Specific Activity: The Associate Director will implement an International Space Week Challenge that will be conducted on a regional basis and partner with space related popular outreach national publications or broadcasts to reach a broad audience outside the K-12 audience.

Responsibility: The Associate Director will oversee the management of these activities as appropriate. He will also report the results of the work at the Great Midwestern Space Grant Regional meetings.

Metrics: The Associate Director will assess the number of teachers and students impacted in Iowa.

CATEGORY 6: EXTERNAL RELATIONS

GOAL – To conduct various new activities with industry or other groups to support and provide opportunities for ISGC faculty, staff, and students. Such activities could build into collaborative projects suitable for other categories above.

Specific Activity: The Director will network with industry, government, academic, and non-profit groups to seek opportunities to use ISGC facilities and personnel.

Responsibility: The Director is responsible for activities in this category.

Metrics: Development of at least one new opportunity for an ISGC affiliate each year.

IV Management

The organizational structure of the ISGC is not planned to change. Note that the amount of time devoted to ISGC management may be adjusted by the Director to as low as 50% without prior approval of the Executive Committee.

The cash matching funds assessment to the academic affiliates is also to remain fixed at \$50k for ISU and UI, \$25k for Drake and UNI annually. Each affiliate will pay 15% of the match to the Consortium Office annually to defray expenses of the management of the ISGC that cannot be paid with NASA funds. Each Academic Affiliate will assist the Director in meeting the full matching requirement through fund-raising or any other means necessary.

The Director's central emphasis for the next five years will be in the following areas:

- Increase Base Program connectivity to NASA Centers and align ISGC programs with NASA priorities
- Make as many of the ISGC programs as possible, self sustaining through private giving or have a long term impact on Iowa.
- Align ISGC with Iowa priorities and strengthen ties to Iowa Government and Industry.
- Elevate the impact of the ISGC in Iowa.