

DRAFT Minutes

National Council of Space Grant Directors
November 1 and 2, 1996
Boulder, Colorado

Friday, November 1st

The Council meeting was opened at 1:00 PM by Chair Mary Sandy who announced that a preliminary count indicated that 46 consortia were represented. This count was later amended to 49 consortia represented.

Mary reviewed recent developments and activities of the Executive Committee prior to the meeting. The agenda for the Boulder meeting was planned with a number of specific issues in mind. These were summarized by Mary as follows:

- In response to concerns expressed by Julius Dasch at the May meeting about Consortium relations with, and responsiveness to, external requests for support, Mary had distributed to the Directors a letter she had written to Julius, noting the Council's desire to cooperate in making any needed improvements in external relations. Roberta Johnson was charged with developing a draft information sheet, which could be used to summarize Space Grant policies and mechanisms for response to requests for support. Discussion of the draft is on the meeting agenda.
 - The Executive Committee planned to incorporate discussions of the Space Grant Strategic Plan's major themes into Council meetings. About one third of the themes are to be covered at each of the next three meetings. On the agenda for Boulder are:
 - Management Strategies
 - Connecting with Cooperative Extension and Sea Grant programs
 - Recruiting Women and Minorities
 - Building Research Infrastructure
 - Mary requested from Julius his thoughts on consortium evaluations, in light of Mr. Goldin's charge at the Williamsburg Conference, and a draft set of "best practices" was distributed by Liz Ward at the Boulder meeting.
 - Council Working Groups have been organized around five major NASA strategic enterprises:
 - Aeronautics (already active)
 - Space Science
 - Human Exploration and Development Initiative (HEDI)
 - Mission to Planet Earth
 - Student Mission Opportunities (created in lieu of the old "Technology" enterprise)
- Breakout sessions for these Groups were planned for later in the meeting.

- In the Government Relations area, the recent elections provide an impetus to reevaluate congressional priorities, and the spring Council meeting is again being planned for Washington DC, so that Directors can visit congressional delegations.
- Discussion is planned for the proposed realignment of regional consortia.
- Mary and Elaine Hansen are looking into how the Council might work with the Aerospace States Association, and they met with ASA Director Pagliasotti to enhance the dialogue with that organization. Elaine reported that this had been a positive meeting, with emphasis on the desire to coordinate initiatives and to avoid competition between ASA and Space Grant. During the discussion, Mr. Pagliasotti agreed to retract his staff's request for information on K12 programs and self evaluations from the consortia. NASA Headquarters provided ASA with a summary report on K-12 programs, compiled from the CMIS data-base. Directors who have programs involving systemic reform or national/state education standards should provide brief background to Mary and Elaine for consideration in shaping a joint Space Grant/ASA project.

Management and Operational Strategies

The first agenda item was a discussion, led by Gary Moore (WI), of management and operational strategies used by Space Grant Consortia. Gary had polled the Directors prior to the meeting and received 35 responses. His review indicated that there were not a few, discrete management practices in use; rather, that management styles tended to occupy various positions along a continuum of practices in several areas, for example "Management Organization" showed practices spanning a range from highly centralized management to highly decentralized management. A panel of 14 directors was assembled for discussion of the various important management styles.

"Management Organization" - Louisiana was cited as an example of a highly centralized consortium. Director John Wefel noted that the large number of consortium participants, as well as state requirements for competitive awarding of matching funds, required a centralized management approach. Mississippi, on the other hand, used a decentralized approach, with each member institution having a large degree of autonomy and self-management.

"Dispersal of Funds" - Strategies for dispersal of funding ranged from fully-competitive (i.e. all funds dispersed on the basis of annual competitive proposals), to a "block grant" style in which pre-agreed amounts were dispersed to consortium members for programs planned in advance. Wisconsin is an example of the fully-competitive style, with peer-reviewed proposals for all programs. Competition helps ensure high quality, and a dynamic program. Many consortia have found that advance planning and year-to-year continuity of programs is made easier by a "block grant" approach. Often the programs supported are identified in the consortium's original proposal to NASA, as is the allocation of funds for each. Arizona, Pennsylvania, Illinois, and Colorado are examples. Many consortia utilize a mix of approaches with some programs, fellowships for example, competed annually, and others supported via pre-agreed allocations.

"Decision-Making"- Some consortia place major decisions in the hands of the Director and other central program staff, while others rely on an independent "board of directors" or

similar body. Often there is a mix of responsibilities, with day-to-day decision made by program staff, but with regular review and oversight by a Board. Hawaii uses the centralized staff decision process, Iowa relies primarily on its Board, while Montana is an example of a "hybrid" approach.

"Project Types"- In this area, programs range from those that focus on a limited number of major themes and programs, to those that encourage and implement a large number of smaller, independent projects. For example, Alaska has chosen to focus on programs emphasizing particular strengths, such as a student rocketry program at the Poker Flats test range. Michigan is an example of a consortium with a large number of programs, spanning a broad scope of project areas.

In general, Gary and the panelists concluded that one of the great strengths of Space Grant was that consortia had the latitude to design individualized management approaches which fit well with the size, diversity, and other characteristics of each state program.

Recruitment Strategies for Women and Minorities

The second strategic focus area examined was of recruitment strategies. Steve Horan (AZ) chaired the session, along with a panel of other Directors. Steve had conducted a survey prior to the meeting, and summarized its results. He found no glaring failures in this area, and noted that commonly cited methods for success were working diligently with minority and women's institutions, and the use of intense mentoring/support mechanisms for minority and women students. A common issue was the intense competition which now exists for highly qualified women and, especially, minority students.

Panelists described the experiences of individual consortia. Georgia has accessed a large pool of minority students and faculty through the four HBCU's in the consortium. They also receive support from the State, which has a strong commitment to ethnic diversity. Oklahoma has programs targeting Native Americans as well as HBCU's. They have experienced difficulty encouraging many applicants for fellowship programs from minority institutions. Nebraska has focussed on Native American and women's institutions. They have set aside scholarships specifically for minorities. It was pointed out that recent developments, e.g. in California, make it increasingly difficult to justify programs which are restricted to particular ethnic groups. One strategy employed was to incorporate selection criteria related to the "distance-traveled"- that is rewarding students for achievements which represent great advances from modest beginnings, rather than using exclusively absolute performance criteria.

Space Telescope Institute Announcement

Dick Henry (MD) announced the availability of CD-ROMS showing Hubble Space Telescope images. The CD's are available from the STI for \$39.95.

External Relations Brochure

Roberta Johnson (MI) described the draft brochure she had produced to explain the process of obtaining support from state Space Grant Consortia. Motivation for the brochure was the

problem identified by Julius and others with responses to individuals and groups desiring support for programs. Occasionally such groups did not understand the established mechanisms for allocation of funds and assumed, for example, that state consortia were required to support any relevant program in their state. Opinions on the brochure had been solicited via the "Management Practices" survey, and there was no strong consensus whether the brochure was needed, or that it addressed the problem effectively.

On the positive side, many felt that a brochure would dispel mistaken assumptions regarding the magnitude of funds available, and the perception that there were nationally- uniform, mandated allocation mechanisms. On the negative side, many felt that problems were best addressed within the relevant State, and that the diversity in practices made a single, summary brochure ineffective in communicating local procedures. Many Directors had not experienced difficulties, and questioned the need for the brochure. A vote on whether to proceed with the drafting and dissemination of the brochure was against continuation by a narrow margin (16 opposed, 15 in favor). There was a consensus that the issue should remain on the agenda for future meetings.

Interactions with Sea Grant and Land Grant

A panel of Directors led by John Gregory (AL) addressed the topic of collaboration with state Sea- and Land-Grant programs. New Hampshire and Washington had joined with Sea Grant to help execute National video conferences on issues of Global Environmental Change. Washington was also engaged in helping to foster greater coordination of expertise in remote sensing technologies/applications found in its Land- and Sea-Grant extension activities. Juan Gonzalez (PR) described work with Sea Grant to provide information/education related to the marine environment in Puerto Rico. Programs are being extended to the U.S. Virgin Islands. In Hawaii, Space Grant helps bring remote sensing expertise to bear on state/local issues such as marine pollution and natural hazards. In Iowa, Space Grant had historically had difficulty having an impact when compared with the very large Land-Grant program in the State. They currently collaborate on a K-12 Science and Technology project.

J.M. Wersinger (MSFC) described two conferences held to develop recommendations on how to involve Space Grant in building expertise and programs of benefit to Land- and Sea-Grant. The consensus of the workshops was that pilot programs be initiated to institute training, and other aid which would make available data and expertise, particularly in remote sensing, for applications of interest to state extension programs. J.M. noted that MTPE was initiating an applications-oriented program, and that this might be a source of support for Space Grant consortia wanting to develop collaborative programs.

Eureca

Mike Springer from McDonnell Douglas briefed the Council on possible opportunities to fly payloads on the "Eureca" satellite. Eureca was developed for ESA and has flown once on the shuttle. ESA is not supporting reflights, but the vehicle is still available for approximately four more missions if payloads and support can be identified. Reflight will be expensive, but Mike solicited interest from Space Grant Consortia or institutions to work with McDonnell Douglas to identify funding.

The council adjourned at 5:20 PM for a reception and dinner at the National Center for Atmospheric Research (NCAR).

Saturday, November 2nd

Mary Sandy opened Saturday's session at 8:30 AM. She polled the Directors for possible dates for the spring meeting, and March 13-15 had the most support. The minutes from the May meeting in Williamsburg were approved unanimously.

On behalf of the entire Director's Council, Mary presented Steve Horan with a plaque, expressing appreciation for outstanding contributions to the Space Grant program during his tenure as Chair of the Council.

Program Manager's Update

Julius Dasch addressed a number of items from the perspective of the Program Manager.

He stated that he felt the National meeting in Williamsburg had been a great success. He particularly pointed to the poster session, which was toured by many from NASA Headquarters and was very impressive. He complimented the Directors, saying that the Space Grant Program as a whole had a continuity and esprit which was rare and gratifying.

Julius announced that the recently-completed competition resulted in the selection of four new NASA-EPSCoR states: South Carolina, Oklahoma, Nebraska, and Kansas.

He said he found the Friday sessions extremely interesting and valuable, especially the discussion on Management and Operational Strategies. He summarized his reaction by saying that he found that it was the energy and dedication applied to management that created success, rather than the use of any particular style or model.

Julius outlined several short-term goals for the program:

- To increase budget support from the States.
- To continue to strive for the goal of 26% underrepresented minorities and 40% women in the fellowship programs.
- To increase collaboration with the Land- and Sea-Grant extension programs, particularly through technologies and expertise in remote sensing developed through the MTPE program.

Julius then updated recent developments at NASA. The trend towards down-sizing continues. Pressure for severe reductions at Headquarters have moderated somewhat, but a RIF is still possible in the Fall of 1997. The Space Grant program is strong and viewed positively by most at HQ. However, the perception of Space Grant as a "block grant" rather than competitive program may make it vulnerable to future scrutiny and cuts. The JOVE program is also vulnerable because, despite its success, it is not a legislative mandate. The Space Grant budget, flat for several years, has "maxed-out" and the prospects for enhancements such as moving some Program Grant states to Designated status are doubtful.

Mr. Goldin's charge, made at the Williamsburg meeting, to ensure uniform excellence in Space Grant consortia requires a mechanism for identifying and measuring "best practices" for program attributes such as Management, Education, Research Infrastructure, etc. He suggested that the Council identify a relatively short list of items in each important category, for use in demonstrating achievement and excellence. Liz Ward distributed a list of possible benchmarks to serve as a stimulus for further discussion. She suggested that different benchmarks or standards might be used for the different categories of consortia - Capability Enhancement, Program, and Designated. Mary Sandy established a goal of having a draft list of benchmarks available for discussion at the March Council meeting.

CMIS Update

Susan Stewart updated the Council on the transition of CMIS to an Internet-based system. She summarized the advantages of such a system, including: ease and speed of submission, access from any platform, capability for affiliates to do data entry, availability of on-line help, etc. Disadvantages she identified included: uncertain access due to traffic, more complex measures required to ensure security, and the need for Directors and CMIS contacts to adjust to a new system.

The current plan calls for a number of upgrades and new capabilities compared to the present system. These include: availability of non-sensitive parts of each report (general program description, list of P.I.'s, bibliography, etc.) to all consortia, and the option of creating customized reports over the internet. EPSCoR reports will also be created and available on-line. The module listing affiliates and contacts is on-line as of September, and 34 consortia had updated this module as of October. The help-desk is available 8AM to 5PM Eastern time. The plan is to train consortium contacts via telecon, when ready to implement.

Mike Wiskerchen (CA) reported on the activities of the Council's CMIS Working Group. The working group was formed in Williamsburg and offered to work with the software developers to design and test the new CMIS systems. The group proposed that several students in 3-4 test states be supported with summer scholarships to work with the system designers. However, the \$18-20k needed to support the students could not be identified. Therefore, evaluation has taken the form of individual working group members interacting with the current system. Mike summarized his impressions, observing that there was a long lead time for system access and that the report tools seemed difficult to use. He could not evaluate the system architecture, and was disappointed that a mechanism had not been found for more extensive user (i.e. working group) involvement in the system design and testing. Julius noted that the design work was under contract and that placed restrictions on involvement by outside parties.

Feedback to University Administration

Wally Fowler (TX) stated that his efforts to obtain support from University administrations could be greatly enhanced by some form of NASA communication addressing the value of the program. Presidents, Deans, etc. receive no information about Space Grant except from the Directors, whose perspective may be seen as self-serving. Wally suggested a number of ways NASA could help such as: A letter from Mr. Goldin to University Presidents, attesting to the value and priority of Space Grant; invitations to University Presidents to launches, etc. All Directors who would like a targeted letter from NASA Headquarters to key

administrators, etc. should provide a draft to Julius. Any additional ideas for Headquarters feedback/public relations should be coordinated with Wally (fowler@csr.utexas.edu). Wally will expand his white paper to include suggestions.

Strategic Enterprise Working Groups

The Council broke into separate working groups, related to four NASA Strategic Enterprise themes: Aeronautics, Human Exploration, Mission to Planet Earth, Space Science; as well as Student Launch and Mission Opportunities. Mary charged the groups to discuss how Space Grant could best to interface with these enterprises and with their management offices at NASA HQ.

Following approximately an hour of working group discussion, the Council reconvened and heard brief summaries of each group's conclusions from the group Chair.

Aeronautics - Brent Bowen (NE) summarized the discussions of the Aeronautics group. Recent Working Group accomplishments include: Updating the survey on Space Grant interests in aeronautics; Co-sponsoring a scholarly Journal; establishing an internet network for aeronautics. Near-term, the group will focus on increasing collaboration with NASA Centers, with an early emphasis on Dryden. The group also plans to invite key NASA Headquarters staff and FAA representatives to the March Council meeting. A presence of Space Grant at the Annual EAA Oshkosh Fly-in will also be evaluated. Brent and Mary Sandy will arrange a meeting with Debbie Galloway at NASA HQ this winter.

Space Science - Roberta Johnson (MI) summarized the group's discussions related to helping advance the educational activities of the Office of Space Science (OSS). OSS has an education strategy and will be issuing AO's which will be of interest to Space Grant consortia. Even though funding will be limited, these projects could serve as useful prototypes through which Space Grant can establish credentials in helping with this endeavor. Roberta will be following events and communicating with Directors. It was noted that the \$5k supplements which have been available to PI's for education related to OSS research grants may be phased out.

Human Exploration - John Gregory reported for the Human Exploration (HEDS) group. He noted that it was not the group's intention to provide a "clearing house" for AO's related to HEDS; rather as a forum for strategic planning. The Life Sciences at HQ have a good program which provides teaching materials, but these can be difficult for teachers to access, even through the NASA Teacher Resource Centers. This may be an area in which Space Grant can help. It was noted that the manned-spaceflight program can be difficult for "outsiders" to penetrate. The California Space Grant is involved in the "Kidsat" program, and there is a plan to provide educational opportunities through the International Space Station's viewing window.

Lunch - Speaker Charles Pellerin - "How to Deal in Lean/Mean Times"

Working Group Summaries (cont.)

Mission to Planet Earth - Peter Mouginis-Mark reported for the MPTE working group. There are a large number of websites related to MTPE activities, and Peter said he would distribute a list of notable ones, along with data on PI's in each state who are currently supported by MTPE grants. Peter summarized the group's discussions as concentrating on where there were opportunities for Space Grant to help MTPE further its objectives. Educational initiatives are an obvious opportunity, and the Council has had presentations from MTPE Educational Coordinator Lisa Ostendorf at its last two meetings. There may also be opportunities to participate in applied research, as described by J.M. Wersinger earlier in the meeting.

Student Launch Opportunities - Elaine Hansen and Steve Horan reported that their group had reviewed current launch/mission opportunities for students. They suggested that the Small Payloads Office at Goddard Space Flight Center should be invited to brief the Council on new opportunities at the March meeting.

Building Research Infrastructure

The final panel on Space Grant Strategic themes, addressing Research Infrastructure, was chaired by John Wefel (LA).

Bill Byrd (IA) described his state's experience in developing a comprehensive plan for developing infrastructure. The program has three "phases." Phase I is a number of small "seed grants" (\$10k) for initial idea development. Phase II awards one \$30k grant each year for "cooperative activity" with at least two Space Grant affiliates and one industrial partner. Phase III is a "showcase award" of \$100k, for a selected Phase II awardee.

In Kentucky, a Capability Enhancement Consortium, seed grants of less than \$10k are awarded based on a statewide competition. The grants require institutional match as well as release time for the PI. Results have been impressive, with an average of 8 publications, 15 presentations, and 11 proposal submittals (7 successful) per year.

Florida has been awarding grants for University/industry collaborations for several years, with 7 currently active grants. However, state funding for the program has been lost and new sources of support will have to be identified.

John Wefel distributed a sheet summarizing the results of a survey of Directors on their research infrastructure activities. In discussion it was noted that it was important to track these efforts to see how successful they were. Julius emphasized this, and pointed out that EPSCoR was making a special effort to track the results of infrastructure-building programs.

Regional Realignment

Julius reviewed the draft proposal for realignment of regional Space Grant organizations, saying that the goal was to have five regions, each with roughly equal numbers of states and a NASA Center assigned to each one. He asked for feedback from the Council on the proposal.

In response, there were several major concerns expressed. It was pointed out that the proposed dividing of the Western Region in two would break up what had historically been

the most active regional association - why tamper with success? Others noted that geography may not be the best way to organize groups of consortia - functional themes might be a better rationale. Many were concerned that by placing management emphasis on the regions, led by Centers, the national character of Space Grant might be lost, with the Centers imposing their own priorities on the consortia in their region, without regard to state or national needs.

Mary agreed to encourage more feedback and to report further to Julius at a later time.

TOPEX/Poseidon

Wally Fowler (TX) distributed a handout on the educational outreach programs associated with the TOPEX/Poseidon Mission.

National Student Model Rocket Competition

John Gregory (AL) announced that he had information related to the National Student Model Rocket Competition.

Mary Sandy adjourned the Council Meeting at 4:30 PM.

