

## DRAFT Minutes

### National Council of Space Grant Directors March 14 and 15, 1997 Washington, DC

NOTE: The Council meeting was preceded by a reception hosted by the Aerospace States Association on March 12, and by visits from Consortia Directors and staff to State Congressional delegations on March 13.

#### Friday, March 14th

The Council meeting was called to order at 8:30 AM by Chair Mary Sandy.

#### Chair's Report

Mary reported on recent activities and reviewed the meeting agenda. A copy of the Council's response to the draft regional realignment proposal was distributed. It was noted that Kennedy Space Center has been left off the list of participating NASA Centers. Julius Dasch responded that this was an oversight. Mary assigned leaders for breakout sessions later in the day to review and comment on the latest draft "Best Practices" document, noting that Council feedback must be completed by the end of this meeting.

Mary summarized her participation in a meeting of the Aerospace States Association (ASA) on March 13. She was invited to present an overview of Space Grant and the Directors Council to the ASA membership, followed by discussion of mutual goals and activities. The two organizations share an interest in National policy with regard to aerospace technology and education. Space Grant Consortia can provide effective National networking through its large membership, while ASA has an established link to State governments. Space Grant Directors have been added to the mailing list for the ASA newsletter to enhance communication.

During a closed session for Consortia Directors and staff, John Wefel reviewed feedback from the visits to Congressional delegations on March 13. After discussion, the following resolution was moved, seconded and approved without dissent:

" THAT THE COUNCIL APPROVES PROCEEDING WITH SEEKING SPACE GRANT BUDGET AUGMENTATION THROUGH LEGISLATIVE ACTION."

#### Program Manager's Update

Julius Dasch presented views of current events from the perspective of the Program Manager. He noted that he had a very productive working relationship with the Council and its Chairs- most recently Mary. He felt that Space Grant had reached a "turning point" at which it was increasingly important to integrate the Program with the rest of NASA's activities. He would like to see closer ties to the NASA Centers, and to the EPSCoR Program. He noted an increased priority on creating research infrastructure, citing an example of "Moonlink"- a collaboration involving Wisconsin Space Grant and the Discovery class mission: "Lunar Prospector."

Among the recent Program highlights, Julius noted that almost all Consortia now have Web Homepages. There are now 520 Space Grant affiliate institutions. The New York consortium is coordinating with Cayuga County and the Mission to Planet Earth (MTPE) office to create a remote sensing applications initiative. After 2-3 years of start-up, the NASA EPSCoR programs have begun to produce an impressive record of publication and successful grant-writing.

Julius described the DRAFT "Best Practices" document in terms of the need to respond to Administrator Goldin's mandate to measure and improve performance. The goal has been to create a set of practices which are common to all consortia, regardless of whether they are "Designated" "Program" or "Capability Enhancement" States. He thanked the Council for working with him on previous drafts, and for the input which will result from this meeting.

#### Budget Updates

Lynn Keffer reviewed recent developments in the budgeting/procurement aspects of the Program. All of NASA procurement is now moving from Headquarters to the Goddard Space Flight Center. She thanked the Directors for their prompt submission of annual budgets, and reminded them that the narrative portion of the budget should be as brief as possible to expedite processing. She asked for patience during the period of transition and HQ downsizing - matters such as foreign travel approvals cannot be turned around as quickly as in the past. She noted that the no-cost extensions on current grants would all be approved, but were delayed by a backlog at HQ. She also reminded Directors to ask their University Sponsored Research administrators to send quarterly budget updates ("272's") to her attention.

#### Financial Update

Julie Baker from the NASA Chief Financial Office described an issue with "uncosted" funding. The problem is that frugal management and other factors have resulted in many programs having large amounts of authorized funds which are unspent. For NASA as a whole, this amount of "uncosted funding" was \$4.5 billion at the end of FY95. The OMB and GAO are concerned with the size of this figure, and NASA is taking steps to reduce it. Grants to Universities tend to have a large percentage (although not necessarily a large dollar value) of uncosted funding. She asked for the Director's help in reducing unspent balances and in encouraging their University staffs to submit "272's" and other required documentation promptly. During discussion, it was noted that the turnover in grants to GSFC will "clean-up" existing Space Grant balances as of the end of any no-cost extensions granted (September '97). University Offices of Sponsored Research have come under increasing stress due to increased regulatory burdens and staff reductions, and this contributes to slow billing. Julie and Frank Owens thanked the Directors for their input, and said that more guidance on helpful measures would be forthcoming.

### Frank Owens Comments

Frank Owens addressed several questions/issues raised by the Directors. One question concerned the uneven level of interest in Space Grant by NASA's Field Centers. Frank acknowledged that this would make increased collaboration with the Centers difficult, and stated that his office would work on the issue along with the Directors.

In response to another question he noted that a grant will soon be made to the ASA and National Alliance for State Math and Science Coalitions, for the purpose of strengthening state systemic initiatives. They will initially focus on Ohio, Mississippi, and Colorado. Part of the effort is to create a data base identifying all NASA activities within a subject State, and this was described by Larry Bilbrough from Code FE. These data, in notebook form, will soon be available for all the States, and will be distributed when available.

Frank was asked if there would be pressure to combine the Space Grant and EPSCoR programs to an increased degree. A problem with this is that a relatively few states have EPSCoR programs, and that EPSCoR budgets are much larger (~\$500k per State) than Space Grant's. This will cause particular difficulties in responding to the "Best Practices" survey. Frank said he was anxious to hear more of this in the session devoted to "Best Practices" later in the day. The "Best Practices" document alludes to the "SHARP" program and Frank was asked what this was. SHARP establishes summer apprenticeships at Centers or Universities for 400-500 underrepresented minority candidates. It is not currently coordinated on a national level, but Frank would like Space Grant to help provide such coordination. A list of participants will be shared with the Consortia.

In response to a question about the future of the JOVE program, Frank that this was currently under discussion. One issue is how to deal with overlap between JOVE and the ASEE faculty- fellow program.

Frank thanked the Directors for their help and cooperation, particularly when hosting Administrator Goldin on his visits to various States.

### Fundraising Strategies

Mary Sandy chaired a forum on strategies for effective fundraising. She had previously circulated a survey asking Directors for particular success/problems in fundraising. The major issue identified by the respondents was acquiring state funding. Mary assembled a panel of Directors who had been particularly successful in attracting support from their State governments or the private sector, and each panelist commented on his/her strategies.

Mike Wiskerchen (CA) noted the decline in State support and he had identified private sources to fill the gaps. He found the major issue for industry was preparation of the technical workforce. By involving industrial partners in his consortium's efforts in this area, he attracted approximately \$2 million in private sector support. State support amounts to about \$200k, mostly in "in-kind" matching support for salaries.

Victoria Duca (OK) has had considerable success in acquiring support from the educational agencies in her State. An effective strategy has been to include the senior managers of these agencies on the consortium's advisory board.

Mary Sandy (VA) has also included senior State officials on her advisory board, and has a line in the State budget for Space Grant scholarships and fellowships.

Rick Gill (ID) identified two reasons for his success in acquiring State funding for Space Grant activities: 1) the consortium's original home was the State education department, and 2) The State Board of Education has established a competitive fund for enhancement, which has been accessed by Space Grant.

Elaine Hansen (CO) reported that she had limited success in attracting funds from industry, but had been able to acquire "in-kind" contributions for internships etc. External cash support comes primarily from the Colorado Commission on Higher Education via proposal's for competitive funding. Workforce preparation is a major issue/concern which the consortium has been able to address. A factor in the long-term stability of State support has been the broad, statewide nature of the consortium.

## LUNCH

### Best Practices Breakouts

Following lunch, breakout groups met to discuss the draft "Best Practices" section-by-section. Numerous suggested modifications were made, and Julius and Frank were responsive during the discussions and subsequent revision of the guidelines. They pointed out that the current effort was a first step towards an evaluation mechanism which would be more fully-developed by the time of the 5-year program evaluation in 1999. The first distribution and response to the checklist is planned for May of this year. Both Julius and Frank thanked the Directors for their input.

### ASA Presentation

Jim Pagliasotti presented an overview of the Aerospace States Association (ASA). It is based within the Executive branch of member-State's government - usually in the office of the Lieutenant Governor. ASA's principal mission is the promotion of the commercial use of space. In this regard, there is some competition between the States as they try to attract aerospace activity, but all can agree on the need for education as it relates to public support and preparation of the workforce. Therefore, educational programs have been a recent area of emphasis for ASA. Jim noted that the recent meeting of the ASA had endorsed a resolution calling for collaboration with Space Grant.

### Project NOVA

Mike Odell (HQ) introduced Mike Freeman who described recent efforts of Project NOVA. NOVA seeks to develop content courses in aerospace disciplines (mathematics, science, engineering) for use in pre-service training of teachers. A collaboration of three universities offers workshops to teams from interested universities. The teams must consist of faculty from both technical departments and education. Having completed the workshop, the teams are eligible for seed grants (\$8-30k) to use in developing a course(s) at their home institution. 54 institutions have participated so far.

### Jerry Soffen Presentation

Jerry Soffen (GSFC) thanked the Directors for their efforts in identifying outstanding candidates for the summer academy program which he created and has now expanded to Marshall and Ames.

He informed the Council of potential opportunities for student job-seekers through the Small Business Innovation Research (SBIR) program. This program distributes large amounts of NASA (~\$125M) and Dept. of Defense (~\$500M) funding to small companies to develop new technologies having commercial applications. Awards are made in two phases: \$100k for initial concept development in Phase I, followed by ~\$1.5M over two years for Phase II execution of the concept. Approximately 50% of Phase I concepts are advanced to Phase II. Jerry suggested that the winners of these awards would be potential employers of our students.

### Council Resolution of NASA Summer Academies

Mary Sandy presented the Council with a Draft resolution related to the Summer Academy program. The resolution praised the program and the opportunities it presents for students in aerospace fields. The resolution made several suggestions for improving the implementation of the program, including: Standardizing the application form and deadlines; and, moving the announcement date for the following summer earlier in the year, to November. After discussion and minor modification the Council unanimously directed Mary to share the resolution with the Directors of the four Centers having/planning summer academies.

### Election Results

Steve Horan announced the results of the voting, via ballots distributed earlier, for candidates for the Council's Executive and Nominating Committees.

New members of the Executive Committee (1997-1999) are Paul Johnson (WY - Secretary), Richard Henry (MD), Brent Bowen (NE), and Richard Hackney (KY). New members of the Nominating Committee (1997-1999) are David Downing (KS), Lad Nagurney (CT), and James Taranik (NV).

ADJOURN FIRST DAY

## Saturday, March 15

Mary Sandy reopened the meeting at 8:35 AM. She led a discussion of the dates for the next Council meeting. It was agreed to tentatively plan for October 9, 10, 11 at the Rapid City site.

### Community College Collaborations

Steve Horan (NM) led a session on involving community colleges in Space Grant programs. Also participating were Liz Ward (LaRC), Rick Gill (ID), Humberto Campins (FL), Sharon Brandt (WI), and Janice DeCosmo (WA).

Steve Horan noted the trend towards community colleges serving as feeders to four year institutions, and that several consortia, including his in New Mexico, had community colleges as Space Grant affiliates. He identified a few issues in dealing with the community colleges, including: students may not be as prepared for/familiar with research experiences; and the college administrations are focused on classroom teaching and may be resistant to allowing faculty release time for research. Offering scholarship funds to students at two-year institutions was the most effective way he found to involve them in Space Grant. The diversity of community college student enrollments is an advantage in recruiting minorities to the scholarship program.

Liz Ward has taught in community colleges for approximately 20 years, and encouraged greater involvement in all consortia. Since there are regional/local differences in nomenclature, she described the Space Grant view of what constituted a "community college":

- It is a two-year college, serving as an entry point for transfer to four year institutions.
- It provides vocational and technical training.
- It provides remedial training.
- It provides continuing education for adults.

Space Grant specifically excludes for-profit schools from participation in its programs. Liz noted the American Association of Community Colleges (AACC) web site as a means to identify appropriate institutions for recruitment to State Space Grant consortia.

Sharon Brandt reported that initial efforts to involve community colleges in Wisconsin had met with little response, but the consortium continues to make an effort. They have received some applications for competitive programs, and have recruited a tribal college to the consortium. They are focusing efforts on colleges which have curriculum elements specifically relevant to space or aeronautics.

Rick Gill noted that 4 of the 9 Idaho affiliates are community colleges. He said that teaching loads did limit response from college faculty to Space Grant opportunities. On the other hand, the colleges are a source of high-quality students, many of whom start at the community college because of lack of funds or reluctance to leave home, rather than lack of academic

ability. Approximately 50% of students in the university's College of Engineering come from community college backgrounds.

Janice DeCosmo stated that the Washington Consortium had two community college affiliates - one tribal and one urban. As in other states, there was little interest in faculty development/research. The consortium therefore focuses its efforts on student scholarships and on curriculum development. Washington had a very positive experience with these aspect of community college involvement.

It was noted that involving two-year institutions in research proposals conferred advantages for grant applications to NSF and other federal agencies.

### CMIS Update

Susan Stewart reported on the status of CMIS and consortium annual reporting. As of the meeting date, 18 of 21 Phase I consortia had submitted their annual reports. Promptness and quality of the reporting was increased over previous years. Her office was providing immediate feedback to the submissions, to resolve any questions or discrepancies.

Some modules of the new, internet version of CMIS are running, but not yet available to the consortia. Use of this version is still planned for next year's ('97) reporting. Affiliates will have the ability to fill out their own forms, and then send them to the lead institution for review and incorporation into the full State Consortium report. After submission of the State report, there will be a 30 day period when data can be updated/corrected by the lead institution.

Susan is thinking of creating an internet fellowship application form, so that student applications would go directly into CMIS as they are submitted.

### Office of Space Science Outreach Plans

Jeff Rosendahl (NASA HQ) summarized the OSS education implementation plan, which has recently been finalized. The strategy is to form partnerships with the existing educational community to integrate education into the OSS research program. HQ does not want to manage the program centrally - it will be disseminated via OSS PI's (who can devote up to 10% of their time to educational activities), and through funded "Facilitators/Brokers" whose role will be to bring opportunities in research together with educational needs. Space Grant institutions clearly have a potential role as these "Facilitators/Brokers." In addition, there will be funded "Archivers/Distributors" whose role will be to disseminate information and materials produced by the network of PI's and Facilitators. Overall funding will be 1-2% of OSS' budget (\$30- 35M/year) divided among:

- individual research grants
- small education grants
- a few large educational programs
- Facilitators and Archivers
- Flight mission activities
- "Education Forums"

All the above is in the process of being incorporated into appropriate AO's and NRA's for the community to respond to. The intent is to get started as soon as possible and evaluate and make adjustments as the program matures - rather than spend any more time on detailed planning.

### Strategic Enterprise Working Group Sessions

The meeting broke into Working Groups addressing interactions with the major NASA Strategic Enterprises. Upon reconvening, the Working Group Chairs summarized their discussions for the Council as follows:

#### -Space Science

Roberta Johnson (MI) reported that the Working Group was considering a coordinated response to the anticipated OSS solicitation for "Broker/Facilitator" networks to provide outreach to the K-12 educational community. OSS will be asked for a list of its research PI's for coordination. Roberta will provide a point of contact for any consortium interested in pursuing this possibility.

#### -Aeronautics

Brent Bowen (NE) reminded the Directors of the "Mach 1 50th Anniversary Celebration" at Dryden/Edwards AFB on 16-18 October, 1997. A topic of discussion at a concurrent meeting will be the role of Space Grant in aeronautics education, and Brent provided a copy of a letter addressing this topic in the meeting packet distributed to the Council. The Working Group suggested that Space Grant consider contributing to the NASA display at the annual Experimental Aircraft "Fly-in" in Oshkosh. The on-line Journal devoted to aeronautics research, organized by Brent and colleagues, is now up and running.

#### -Mission to Planet Earth

David Bartlett (NH) summarized the MTPE Group's discussions. Peter Mouginis-Mark (HI) described several recent developments and proposal opportunities relating to MTPE during the breakout. One of these was Earth System Science (ESS) Pathfinder, which is a MTPE equivalent of OSS' Discovery class missions. The competition is already underway, but there is an educational component which may provide opportunities for collaboration when the winners are identified. J.M. Wersinger (MSFC) announced the convening of a meeting on remote sensing applications at Utah State University, May 29-30, 1997. The meeting has been advertised to Space Grant Directors and a formal announcement and registration information will be forthcoming soon. Bob Gabrys (GSFC-Education Office) described his Center's initiatives in educational outreach. Initial efforts have taken place in Maryland (including the community college system) and in Vermont and Connecticut.

#### -University Flight Opportunities

Elaine Hansen (CO) and Steve Horan (NM) described discussion of flight opportunities for universities/students. There are a number of "Get-away-special" type opportunities, as well as balloon and rocket launches with accommodations for student and faculty participation. Elaine announced that she and the Aerospace States Association were proposing a



small satellite to make measurements which would be of interest in the K-12 community. The system would include a UHF downlink so that schools could receive data directly. Called a "Citizen Explorer," the first such mission is proposed to investigate ozone distribution in the Earth's atmosphere. UV radiation could also be measured for comparison with ground-based measurements made at schools. Elaine solicited interest from other State consortia in participating in furthering this concept.

#### SEDSAT-1

John Gregory (AL) announced that the organization "Students for the Exploration and Development of Space (SEDS) was in the advanced stages of completing a satellite (SEDSAT-1) to conduct a number of science and technology experiments in orbit. Included are multispectral imaging of the Earth's limb, amateur radio, and power/control system experiments. The satellite is planned to launch in the summer of 1998. John solicited interest from consortia who wanted to participate, particularly in helping to analyze and utilize the data produced after launch.

#### Native American Working Group

Hank Lehrer (NE) described a three-state (NE-KS-SD) initiative to address native American education through K-12 and tribal college programs. The three-state program is modeled after ongoing efforts in Nebraska. Also, the Space Grant Western Region Consortia are working on a web-site, program data-base, and aerospace career data-base oriented towards Native Americans. Victoria Duca (OK) is the point of contact for this effort.

#### NASA Summer Space Academies

Brian Roberts and Holly Ridings, Space Academy alumni who are still involved in the program, described the status of the programs, and plans to form an association of alumni. The program has grown from the original 19 students at GSFC in 1993, to 180 students at four Centers in 1997. A web-site has been established to describe the program and provide communications. A summer academy alumni association was begun in 1995, and has recently been formally established as a non-profit corporation. The goals of the association are to help ensure the continuity and high-quality of the academy, to provide communications among alumni and current participants, and to promote the space program generally. Current plans are to hold a fifth reunion for the first class of participants this summer and, in by 1998, to raise funds to provide a scholarship for a student in the 1998 class. A package of written material was provided to the Directors.

Mary Sandy thanked the DC consortium, particularly Ann Marie Burns, for hosting and arranging the meeting logistics, and adjourned the meeting at 1:00 PM.