Subject: NASA Restrictions on U.S. Citizenship in University Space Engineering Research Centers

Enclosure 1 is a recent memoranda from the Office of the Vice President—Academic Affairs to the University Research Group regarding U.S. citizenship restrictions in the National Aeronautics and Space Administration (NASA), Office of Aeronautics and Space Technology, program announcement for University Space Engineering Research Centers. Enclosure 2 is a copy of a May, 1986 memoranda on a similar topic written in response to the Department of Defense University Research Initiative. Enclosure 3 is a copy of the NASA program announcement, indicating a due date of November 6, 1987 for proposals.

If you have any questions regarding university policy in this regard, please do not hesitate to contact Belle Cole. We would appreciate being informed of any response from NASA which is contrary to the information provided in the enclosed memoranda, as well as any other indications of federal agency attempts to restrict employment based on citizenship.

Refer: Barbara Yoder
ATSS 8-582-4301
(415) 642-4301

Belle Cole
ATSS 8-582-4301
(415) 642-4301

Subject: 01, 11, 14, 20
Source: U-115, F-650

Enclosures
Dear Colleagues:

It has come to our attention that the National Aeronautics and Space Administration (NASA), Office of Aeronautics and Space Technology, has issued a program notice requesting proposals for University Space Engineering Research Centers (August, 1987). The program notice includes provisions restricting support for graduate and undergraduate students to U.S. citizens and states that individuals receiving direct funding from this program must be U.S. citizens.

I discussed with an official at NASA and AAU the problems raised for the University by these restrictions, particularly the provision that would preclude use of NASA funds for the direct costs of faculty and staff who are not U.S. citizens. Such a condition is contrary to University policy and practice.

University policy reads, in part: "The University does not discriminate on the basis of citizenship, within the limits imposed by law, in admissions, access, and treatment in University programs and activities, and application for and treatment in University employment."

Our recommendation to you is to submit a proposal in response to this program announcement, if you are prepared to do so, but to specify in the proposal that the University does not discriminate on the basis of citizenship in employment. My understanding from the conversation with the NASA official is that the inclusion of such a statement will not affect the evaluation of the proposal.

In the event that your proposal includes direct financial support for graduate or undergraduate student fellowships, it is acceptable to acknowledge that the University will accept requirements for U.S. citizenship as a condition for such support.

Bob Rosenzweig and Jack Crowley at AAU are attempting to clarify the situation with NASA, making clear the concerns of the University community. I will get back to you with any communication from them.
Please let me know if you want to discuss this further.

Sincerely,

Belle Cole

cc: Senior Vice President Frazer
    Associate Vice President Moore
    Executive Assistant Albertson
    University Counsel Dorinson
    Principal Administrative Analyst Yoder
Dear Colleagues:

Many campuses have submitted proposals for funding under the Department of Defense's University Research Initiative Program (URI), a number of which will be presented at The Regents’ meeting on May 15, 1986. In anticipation of questions that may be raised at the meeting or situations you might encounter if your proposal is funded, particularly regarding restrictions on scientific communication and participation of non-citizens, my office has made inquiries and has some information that may be helpful.

We have determined that under current Department of Defense (DOD) policy there will be no restrictions on “fundamental research” which is defined as any research project funded under budget category 6.1. Furthermore we have learned that all the URI programs will be funded under this budget category (6.1) and therefore will be “fundamental research”. It sometimes happens, however, that zealous contracting components of DOD propose restrictions which are inconsistent with the Department’s policy; if that should happen please let me know.

URI Programs do restrict fellowship support to U.S. citizens. Principal Investigators and others who work on URI-supported research need not be U.S. citizens. The fellowship restriction is consistent with the government's human resources development intent, and previous government-sponsored fellowship programs (such as NIH Training Grants and Young Investigator Awards) have been limited to U.S. citizens.

For projects involving the use of DOD facilities, it is our understanding that no special restrictions, beyond those normally in place, will be imposed for URI projects. You should be alert to any problems that might arise. Once again, please inform me of any problems in this regard.

Sincerely,

William R. Frazer

cc: President Gardner
Senior Vice President Brady
Vice President Baker
Executive Assistant Albertson
University Counsel Dorinson
Executive Assistant Copeland
Director Regin
Director Cole
•Coordinator Mears
Dear Colleague:

I am pleased to forward the final announcement of the University Space Engineering Research Centers sponsored by the Office of Aeronautics and Space Technology (OAST). The enthusiastic response to the preliminary announcement has underscored the need for long-term support to universities aspiring to play a strong engineering role in the civil space program.

This new concept provides an opportunity for universities to participate in advancing the Nation's capability in space technology. I am confident that through the cross-discipline research, this program will foster innovative ideas, collaborative efforts, and excellence in U.S. space engineering and science. I further believe this program is responsive to improving America's competitive posture but, more importantly, it is a commitment to seek new talent that can energize an American resurgence in space.

Enclosed with this announcement is information on a pre-proposal conference. Arrangements are being made to broadcast the conference via satellite to each NASA Center at which time we will respond to questions and give guidance that will help in proposal preparation.

Proposals should be postmarked by November 6, 1987, to be evaluated for selection in March 1988. Questions regarding this program notice should be directed to Steven Hartman at (202) 453-2737.

I look forward to your participation.

Sincerely,

Raymond S. Colladay
Associate Administrator for Aeronautics and Space Technology

Enclosures
University Space Engineering Research Centers

NASA's Office of Aeronautics and Space Technology (OAST) plans to establish a number of university-based Space Engineering Research Centers. The goal is to enhance and broaden the capabilities of the nation's engineering community to meet the needs of an expanding space program. These Centers are intended to foster creative and innovative concepts for future space systems as well as to expand the nation's engineering talent base for research and development.

The funds to be provided by NASA for these centers can be applied to engineering research projects, Center development, support for graduate and undergraduate students who are U.S. citizens, and training in advanced space engineering.

The OAST seeks focused research in one or more of the traditional space engineering disciplines, and in cross-discipline combinations, as well as advancements in engineering education. (The term "cross-discipline" is intended to describe activities that cross the boundaries between the engineering and science disciplines in order to bring together the knowledge, methodologies, and engineering tools needed to advance space systems.) Interactions between these university-based Centers, other universities, various industrial organizations, and NASA Centers are encouraged. Such interactions should be of mutual benefit and may improve the transfer of information or technology thus enhancing the development of research programs.

These Centers are expected to perform research and to develop technologies relevant to operational bases on the moon, to manned and unmanned operations to Mars, to space flight missions to other parts of the solar system, and to space flight operations in the future, such as envisioned by the National Commission on Space. As a result of this proposal notice, we expect to obtain from the academic research community descriptions of emerging technologies and cross-discipline objectives that meet this test of relevancy and merit support under this program. Accordingly, a list of examples with this notice has not been provided.

Each Space Engineering Research Center will be established under a grant. The long-term plan and funding profile should reflect a rate of development consistent with the goals and objectives of the Center. Individuals who are to receive direct funding from this program must be U.S. citizens. Consideration should be given to including underrepresented minorities.

Up to eight Centers may be established in the first year of this program, based upon the proposals submitted in response to this announcement. As the Center develops, NASA expects to increase the Center's annual funding from approximately $0.5M to more than $1M. Attention should be given to the Center's ability to develop the capability to attract grants and other support to eventually become self-sustaining.

It is anticipated that a similar number of Centers will be added over the next several years, depending on the success of the program and available resources.

Program Management

The overall program will be managed from the Office of Aeronautics and Space Technology under the direction of a program manager. The program manager will be responsible for the proposal evaluation process, the program evaluation, and general oversight and administration.

A technical monitor at appropriate NASA Centers will be appointed as a continuing contact with each university Center. The technical monitors will insure the timely flow of information and technology transfer between the university center and NASA programs and foster collaborative arrangements which may involve the exchange of personnel and the use of facilities.

Engineering and scientific review panels composed of government, industry, and university experts will evaluate proposals and submit their evaluation to a steering committee. The steering committee will recommend priorities for selection by the Associate Administrator of OAST.

The Director of the University Space Engineering Research Center and staff will be responsible for the development and operation of the Center, the content of the engineering research, the achievement of the planned goals and objectives, and coordination among engineering and science departments. The Center Director will also provide measures against which to evaluate the performance of the center.

As part of the annual review process, each Center will host a symposium to report technical progress. In addition, the Center Director will provide updated program schedules and funding projections and an assessment of the performance of the Center against the program plan. From this information, NASA will formally assess the performance of the Center and may be assisted by specially constituted review teams.

Should NASA elect to terminate a Center grant, funding will be stepped down over a three-year period in equal decrements.

Additional Guidance

The university Center's programs may involve collaborative activities with other universities, industrial and other organizations as well as one or more NASA Centers.

During the proposal preparation, it may be desirable for the university staff to obtain additional information
on the expertise, facilities, and activities of organizations titles of the participants should be appended.

Proposal plans should indicate the types of collaborative activity that may evolve. Collaborative activities would of necessity be negotiated as the program develops.

A knowledgeable individual at each NASA Center who can be contacted for information is indicated below. All participants should be aware that the contacts are for information and should not provide direction to the university program.

**NASA Center/Installation**

<table>
<thead>
<tr>
<th>Center/Installation</th>
<th>Contact</th>
<th>Phone</th>
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<tbody>
<tr>
<td>Ames Research Center</td>
<td>William Berry</td>
<td>(415) 694-4930</td>
</tr>
<tr>
<td>Goddard Space Flight Center</td>
<td>Henry Plotkin</td>
<td>(301) 286-6185</td>
</tr>
<tr>
<td>Jet Propulsion Laboratory</td>
<td>William Weber</td>
<td>(818) 354-3480</td>
</tr>
<tr>
<td>Johnson Space Center</td>
<td>John Aired</td>
<td>(713) 483-6615</td>
</tr>
<tr>
<td>Kennedy Space Center</td>
<td>Dennis Matthews</td>
<td>(305) 867-2780</td>
</tr>
<tr>
<td>Langley Research Center</td>
<td>Dick Barnwell</td>
<td>(804) 865-2664</td>
</tr>
<tr>
<td>Lewis Research Center</td>
<td>William Brainard</td>
<td>(216) 433-6253</td>
</tr>
<tr>
<td>Marshall Space Flight Center</td>
<td>Sonny Morea</td>
<td>(205) 544-4356</td>
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Criteria for evaluation of the proposals include the following:

1. **Existing Program** – Strength and quality of existing undergraduate and graduate engineering research and training programs.

2. **Proposed Program** – Quality of the proposed engineering research—the innovative and fundamental nature of the research activities and the manner in which the cross-disciplinary activity among engineering and science contributes to the advancement of space engineering and to the nation’s pool of engineering talent.

3. **Relevance** – The potential impact of the proposed focused research area and academic training on future space missions.

4. **Management and Competence** – Technical competence, leadership, and organizational strengths of the team to broaden the nation’s capabilities in space engineering.

5. **Growth Potential** – Potential for the proposed program to attract additional support and in the long term to become an effective self-sustaining space engineering center.

The five criteria are of approximate equal weight.

**Who May Propose**

United States universities with a strong graduate and undergraduate engineering program are invited. A consortium of United States universities may also propose.

**Proposal Format and Content**

**Section #**

<table>
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<th>Pages</th>
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<tbody>
<tr>
<td>1. Title of proposed space engineering research center and Table of Contents (2)</td>
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<tr>
<td>2. Executive summary to include rationale, background, and activities leading to the proposed center. (3)</td>
</tr>
<tr>
<td>Strengths and quality of the existing university engineering and science related research and training program. The appended material may also include facility and institutional material. (appended)</td>
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<tr>
<td>3. Basis for Proposed Center – Describe how the existing engineering research and training program provides a base for the proposed Center. Include relevance and potential impact of the proposed focused research area and academic training on future space missions. (3)</td>
</tr>
<tr>
<td>4. Technical program plan for the development of the space engineering research center should indicate discipline and cross-disciplinary research, areas of focus, methods for the dissemination and reporting of information, and the development of engineering training in these areas. (6)</td>
</tr>
<tr>
<td>5. The organizational and management structures as well as how NASA, industry, other universities, and other strengths may be utilized to enhance the program and develop collaborative activities should be noted. The emphasis should be on innovative approaches to achieving the goals and objectives of the university center and on the consideration given to including underrepresented minorities. Biographic information on the principal participants should include organizational experience or management skills of the director and/or his/her immediate associates. (Available material may be considered.) Include a separate list of individuals key to the Center, identifying department affiliation, discipline, and expertise. (appended)</td>
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3
6. Team Talents – Provide a short description of how the team and/or planned additions provide the capabilities required.

7. Growth Potential – Provide a preliminary plan for gaining support other than that provided by this grant and indicate the extent to which the center may in the long term become self-sufficient.

8. The resources plan should indicate the distribution of funds to the various activities of the center. (A 5-year resource plan is adequate for the proposal even though the length of funding is not fixed.)

9. Address each of the criteria briefly and indicate proposal section numbers that provide supporting information.

Where and How to Submit Proposals

The proposal should be limited to 30 pages not including the appendices. 15 copies of the proposal should be submitted to:

Office of Aeronautics and Space Technology
Attn: Space Engineering Research Center
Program Manager
Code RS
Washington, DC 20546

To be evaluated for FY 1988 awards, proposals should be postmarked by November 6, 1987. Please do not submit videos.

One copy of the proposal must be signed by the principal investigator (proposed Center Director) and official(s) authorized to commit the institution in business and government affairs.

This announcement was prepared in conformance with the NASA Office of Procurement publication titled “Guidance for the Preparation and Submission of Unsolicited Proposals,” 1984 edition. Copies of the publication are available by writing to NASA Headquarters, Director, Code K, Washington, DC 20546.