

Tribal Colleges and Universities

Narrative Only

FISCAL YEAR 2007

**Compiled by
NASA Research & Education Support Services**

Tribal Colleges & Universities

American Indian Higher Education Consortium

Greenbelt, MD 20771

Tribal Colleges and University Project

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PROGRAM DESCRIPTION

The Tribal Colleges and Universities Project provides funds to support STEM research and education activities at TCUs through two initiatives: the NASA-AIHEC Enrichment Grant Program and the NASA-AIHEC Summer Research Experience Program. The Enrichment Grant Program provides modest grant awards through a competitive grant program in which funds support strategic investment in STEM education and/or research resources. These resources include faculty development, curriculum development, STEM instrumentation and equipment, K-12 educational enhancement, bridge programs, and inservice / preservice teacher training activities. The Summer Research Experience program provides support for TCU faculty and students to spend up to 10 weeks at a NASA Center as members of research, engineering, or educational project teams.

PROGRAM RELEVANCE TO NASA

The Tribal Colleges and Universities Project provides a primary vehicle for NASA to support the development of NASA-relevant science and engineering education programs at the nation's tribal colleges. The program engenders partnerships between NASA Centers and Tribal College faculty which provide multiple opportunities to reinforce a science and engineering career path for American Indian students will help address NASA's workforce requirements. In addition, the high profile presence of NASA at the Tribal Colleges, and by extension the Tribal communities, provides a strong public relations value to NASA.

PROGRAM BENEFITS TO SOCIETY

The Tribal Colleges and Universities Project is significantly strengthening the ability of the nation's Tribal Colleges and Universities to provide high quality programming in the sciences, engineering, and mathematics to their respective student populations, over 96% of which are American Indian. The project contributes significantly to the ability of the Tribal Colleges to contribute to the national effort to develop a diverse national science and engineering workforce. In addition, boty by helping to develop the science and engineering workforce at Tribal nations, and by supporting the ability of

the Tribal Colleges to deliver high quality academic programming contributes significantly to local economic development efforts in communities that are among the most economically challenged.

PROGRAM GOALS

- Strengthen collaboration between NASA and AIHEC to improve high quality NASA education and research opportunities at the Tribal Colleges.
- Provide NASA Summer Research Experience for Tribal College Faculty and Undergraduates at each NASA Center.
- Enhance STEM infrastructure at the Tribal Colleges with a particular focus on establishing Engineering Degree granting Programs to enable Tribal Colleges to expand research for Exploration Systems
- Encourage Tribal Colleges to participate in NASA research programs through small mini-grants to the colleges.

PROGRAM ACCOMPLISHMENTS

The program has made significant advances in achieving the overall goal of supporting NASA-relevant research and education programs at the Tribal Colleges. This has been achieved primarily through a strong working relationship with the Tribal College and University program office and the NASA Centers. Research and education collaborations with NASA Centers were strengthened, particularly through the Summer Research Experience Program. These research partnerships have catalyzed an expansion of research collaborations to include the National Center for Atmospheric Research, the US Geological Survey, and the San Diego Supercomputing Center. Eighteen TCUs received Enrichment Grant awards to address local STEM education and research needs that spanned the range from elementary school science and math enhancement to robotics research. Fourteen educational partnerships with K-12 schools were supported through activities under this project. In general terms, the TCU program has made a significant contribution to the capability of Tribal Colleges and Universities to provide their students and communities access to high quality science and math programming.

STUDENT ACCOMPLISHMENTS

Over 550 K-16 students were provided science and math education and research opportunities at least in part through support from the Tribal Colleges and Universities program in 2007, over 96% of which are American Indian. Students conducted locally-relevant research projects, participated in field studies, received training in research methods, completed math and science enhancement workshops, and made presentations at national conferences.