NASA’s Reduced Gravity Student Flight Opportunities Program as an Effective Educational Outreach Platform for Native Americans

T.M. RITTER, M.L. GRIMSLEY, University of N. Carolina at Pembroke — We present the experiences from a microgravity research and outreach program utilizing the specially converted C-9 aircraft flown by NASA. Over the past four years several multidisciplinary groups of Native American undergraduate students from UNC Pembroke and UNC Charlotte have participated in NASA’s Reduced Gravity Student Flight Opportunities Program. All of the experiments and outreach demonstrations performed have investigated the affects of microgravity and hypergravity on fluid related phenomena. The vigorous outreach portion of the project has taken our experiences across the state in order to stimulate an interest in science and math within the Native American communities. Our outreach presentations have been held at various levels of schools, government functions, local and national Native American conferences, and area powwows. Our outreach presentations include both multi media and hands-on involvement by the audience and emphasize a good understanding of the fundamental science. Together, the hands-on experience, discussion, and flight video provide a complete and portable outreach package on NASA and the Reduced Gravity Student Flight Opportunities Program.

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