AREN Project Logic Model -- NNX16AB95A -- David Bydlowski, PI - Anil Anaha, Evaluator

The Goal of AEROKATS and ROVER Education Network (AREN) is to train the next generation of scientists, engineers, and other professionals to observe and understand our planet Earth through experiential learning using NASA technology and data in real-world settings.

INPUTS	STRATEGIES /ACTIVITIES	OUTPUTS	OUTCOMES	IMPACT
NASA CAN Award Funding AREN Team NASA AEROKATS System Concepts NASA ROVER System Concepts NASA Earth Science Resources GLOBE Program NASA Science Activation Team AREN Partnerships Commercially Available Hardware Maker Movement	AEROKATS and ROVER ● Technical Development and Testing ● Operations Development and Testing ● Science Mission Development and Testing ● Low cost commercially sourced kite and kit development ● Dissemination to End Users --- Alignment of AREN concepts to NGSS and STEM models --- Engage STEM Projects and Citizen Science --- Develop cadre of 'Pilot' users --- AREN engagement in Informal Science Settings --- Development of AREN Instructional models and tools for learners in range of formal educational settings. --- Engagement with underserved populations --- Public outreach and awareness building through. --- Team and Capacity Building --- Leverage partnerships to expand reach and impact of AREN programs	AEROKATS and ROVER Inventory adequate to meet needs of project. Models Include: ● Aeropods: MonoCams (Standard, HD and Pro) / TwinCams / VideoPods / ThermoPods / Profilers / MicroPods / HoboPods / Custom Aeropods ● ROVERS: Aquatic and Terra Field handbook and online resources for end users Distribution network --- NGSS Alignment guidelines for developing lessons and courses --- Student projects and presentations (GLOBE Student Research Symposium, for example). --- Pilot testing of technologies, methodologies and instructional strategies --- After-school clubs/Non-Profit environmental institution programs --- Variety of targeted Instructional models: ● Middle and High School Instructional Units ● Undergraduate Aviation and Engineering courses ● Pre-service and Graduate Online Courses ● Independent Study/Elective Course --- Programs at minority and Native American Institutions --- Presentations at conferences, professional learning events, and media --- Synergy towards developing and integrating multi-faceted components of project --- AREN integration in Arctic and Earth SIGNS, AREN participation in Mission Earth and NASA student Engineering/Maker efforts	NASA remote sensing and in-situ observation concepts, technology, and data applied in formal and informal learning settings for all ages and socioeconomic backgrounds Educators, students, and citizen scientists apply NASA operations, NASA AEROKATS and ROVER technologies, and Earth Science concepts into a wide range of formal and informal STEM learning. AREN approaches, learning plans, and specific tools are affordably implemented into the GLOBE Program. Increased participation in the GLOBE program through involvement in AREN project and new AREN measurement protocols Affordable, licensed, AEROKATS and ROVER technologies and learning materials will be available to the public through a distribution network.	Increased student interest and participation in STEM education Increased awareness of NASA STEM opportunities Increased public engagement in citizen science Increased engagement with NASA technologies in public environmental education institutions and underserved communities through partnerships