**PR Number: R8213120059**

**Award Number: P12AC10881**

**Project Number: NAU-428**

**Park/NPS Unit: Grand Canyon National Park**

**Title of Project: Archaeological Geospatial Data Rectification**

**Administered through the:** Colorado Plateau Cooperative Ecosystem Studies Unit Cooperative Agreement Number H1200-09-0005

**CESU Partner :** Northern Arizona University

**Project Contacts**

**Principal Investigator:** Mark Manone, Training Coordinator Geospatial Research and Information Laboratory, NAU Flagstaff, AZ 86001 (928) 523-9159

**Partner Administrative Contact:** Cindy Judge, NAU Grant and Contract Administrator; (928) 523-6917; Fax: 928-523-1075; Cindy.Judge@nau.edu

**NPS Certified ATR:** Jennifer Dierker, Archaeologist Grand Canyon National Park, 1824 S. Thompson Street Suite 200, Flagstaff AZ 86001, (928) 638-7479, FAX (928) 638-7492, Jennifer\_Dierker@nps.gov

**NPS Technical Expert:** Charlie Webber, Archaeologist Grand Canyon National Park, PO Box 129, Grand Canyon, AZ 86023, (928) 638-7859, Charles\_Webber@nps.gov

**Funding Information:**

**Amount Funded: $4,620 +$7500** **= $12,120.00**

**NPS Account Numbers (amounts in parentheses): 1242-CECP-RYY (4,620) + 1241-GPRJ-SYC ($7,500)**

**Fund Source (e.g., ONPS, FLREA, CRPP, CESU, etc.): CPCESU Base and Geographical Information Resources Fund**

NPS Funding

Is this funded using a reimbursable account number? If yes, IMR contracting needs a copy of the Interagency Agreement.

**Project Dates:**

**Start Date: June 30, 2012**

**Any Other Product Milestone Dates you need to include:** (full dates can go in with the project description)

**End Date:** June 30, 2013

**PROJECT ABSTRACT:**

This project will continue to correct and update existing Grand Canyon National Park (GRCA) Geographic Information System (GIS) cultural resources data as one method to ensure that such records are complete, accurate, and reliable. Once the analysis and data cleaning are completed GRCA will be in a position to implement the new National Park Service (NPS) GIS geodatabase and spatial standards for Cultural Resources.

The archaeology program at GRCA has been collecting spatial data, including individual site locations and survey boundaries , for more than 50 years. Recently, a comprehensive review and synthesis of this data begun but assistance is necessary to bring the project to completion. Collection standards have changed through time, and range from the manual interpolation and plotting of UTM coordinates and survey boundaries using 15’ and 7.5’ topographic or aerial maps, to current methods of collection via hand-held global positioning system (GPS) units. These UTM coordinate data for site locations currently reside in the GRCA Cultural Resource SQL Server relational database. Archeological inventory survey data reside only in a geodatabase. Additional spatial data are maintained in a series of stand-alone personal geodatabase feature classes or as GPS Pathfinder Office rover files in individual project folders.

This project seeks to identify, update, integrate, and standardize all these data into one holistic and comprehensive cultural resources geodatabase based upon the new NPS standard Cultural Resources database.

NAU staff and students have begun the process of data identification and correction of spatial errors in plot locations and have succeeding in reviewing and correcting approximately 50 percent of the existing cultural resource spatial data. This project will continue and complete the project, resulting in a fully integrated spatial database through final data review and cleaning and development of error-reduction protocols to guide future data collection. The project will also complete necessary cleaning, developing and verifying an existing archeology survey boundary data. An updated and accurate archeological survey GIS geodatabase is critically needed for efficiently reviewing and guiding park development projects and completing Environmental Compliance (NEPA/ Section 106 review).