Project Summary
Rocky Mountains Cooperative Ecosystem Studies Unit

Project Title: Aerial Photo Inventory, Acquisition and Orthorectification CESU Project for LIBI and GRKO. Phase I: Inventory
Discipline: Natural
Type of Project: Technical Assistance
Funding Agency: National Park Service
Other Partners/Cooperators: University of Montana
Effective Dates: 7/15/2005 - 8/31/2005
Funding Amount: $1,742.00

Investigators and Agency Representative:
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Project Abstract:
The Rocky Mountain Network (ROMN) has determined that that acquisition and orthorectification of historical aerial photography for the ROMN parks will play an important role in supporting the I&M monitoring program as well as other park activities.
Two parks, Little Bighorn Battlefield NM (LIBI) and Grant-Kohrs Ranch NHS (GRKO), have been selected for the first round of acquisition and orthorectification because of their small size and their interest in historical changes in landscape.

The full process of inventory, acquiring and orthorectifying imagery for these two parks will be split between two separate work tasks. The first work task will be to inventory available imagery. The second tasks will involve acquiring, digitizing, orthorectifying, mosaicing and documenting the imagery. This work agreement represents the first task, or developing a thorough inventory of the available imagery.

The PI will spend a total of 50 hours inventorying available aerial photography for GRKO and LIBI. Work will be focused on available (e.g., non-classified) analog (prints or positives) imagery taken from 1935-1990 in B&W, true color and/or color near IR. The grain of the imagery should be high enough quality that it can digitized at a resolution that approximates the current set of USGS digital orthoquads (1 meter); in general, this imagery is most likely to be taken at a scale of 1:12K-1:40K.

Following 20 hours of work, the PI will provide a brief progress report and indicate whether the full inventory can be completed within the 50-hour time frame. If work cannot be completed, the PI and ROMN staff will determine what work should be completed with the remaining time. If time is remaining, it will be applied to the second project phase. Work will be completed no later than August 31, 2005.

Outcomes with Completion Dates:
The final product will be a list of the available imagery for each park along with these metadata fields:
•Photo date
•Format
•Resolution/Scale/Grain
•Agency
•Approx cost per frame
•Number of necessary photos to cover park

Keywords: aerial photography, orthorectification, inventory, Rocky Mountain Network, University of Montana