The First Word

I am pleased to announce that this newsletter was recently purchased by GeoResearch, Inc. of Bethesda, Maryland and Billings, Montana. The new ownership not only assures the continued publication of MAPS ALIVE as a unique resource for real-time mapping information, but offers new opportunities for increased editorial coverage and market expansion. I continue to guide, edit and contribute to this newsletter as a senior member of the GeoResearch staff. As MAPS ALIVE transitions to its new role as a GeoResearch publication, it will be published quarterly rather than bimonthly.

Since publication of the first issue in July 1992, MAPS ALIVE has provided in-depth coverage of developments in real-time mapping and the GPS/GIS industry from both a new technology standpoint and a user application perspective. "With the purchase of MAPS ALIVE, we plan to continue the newsletter's industry-leading role of in-depth technical reporting while expanding coverage to include broader subjects we think will be of particular interest to end users of the technology," commented Dr. Douglas Richardson, GeoResearch president. "As a GeoResearch publication, MAPS ALIVE will augment our existing suite of communication vehicles, such as our annual GPS/GIS Conference, book publications, internet home page and our GPS/GIS training classes, to provide timely information on new developments in this field of technology for the user community."

The change in ownership positions MAPS ALIVE to fill an expanded role in an expanding marketplace. It also affords me the opportunity to work for a ground-breaking company. The GeoResearch staff looks forward to continuing to serve newsletter readers with the latest information and editorial on exciting field technologies in the years ahead.

Battlefield Maneuvers

Speaking of innovative projects, historical photographs and sketches are now being explored as a mechanism to accurately reconstruct civil war battlefield events and locales. In a rather unusual pilot project, the National Park Service (NPS) will use advanced GPS/GIS technology to spatially position events and cultural features based on historical photographs and old sketches of the civil war battlefield at Antietam National Battlefield. These historical sources will be scanned and georeferenced to photographic images of the battlefield area. GPS/GIS will then be used to locate the cultural features. Dr. Stephen Potter of the NPS hopes that the project will result in a quick and inexpensive process for locating historical features which are difficult to find on the ground today.

The NPS has contracted with Greiner, Inc., who will work with GeoResearch to develop and refine the new archeological and historical technique. The project will use advanced GPS/GIS technology to orthorectify historical imagery in the field. While in the field, cultural features indicated on the imagery will also be assigned coordinate points. A contemporary photograph of the same area will then be scanned and registered. By calibrating the two images through the selection of similar points, a three-dimensional data set will be generated.

The historic and contemporary imagery will then be superimposed, rendering accurate locations for the original historical features in the field. Once the sites are located, the Greiner/GeoResearch team will use the GeoLink® GPS/GIS Field Mapping System to display both images in the field, enabling the field inspector to walk the sites and use the GPS/GIS software to view both images until they correctly line up. "If this experiment is successful," commented Dr. Potter, "it could catapult the archeological study of historic landscapes well into the 21st century."

Bill Elliott, Editor

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