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**Makkovik bedrock mapping project – implementing  
a map-based digital GIS data capture system**

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The 2006 field season marked the first year of a multi-year, 1:50 000-scale, bedrock mapping project with the goals of interpreting the geology of the Aillik domain of the Makkovik Province and of producing regional geological maps. The first field season covered all of the Makkovik map area (NTS map sheet 13O/03). The outcome of this project will be a detailed, comprehensive, GIS-integrated geological map and associated database, which will also be a valuable tool for mineral exploration and for land-use planning. To achieve this goal in

a timely fashion, a map-based digital GIS data capture system was implemented. The hardware and software components of the system used in the field are briefly summarized. The hardware device, the HP IPAQ 6510, is a Pocket PC with a built-in internal GPS, thereby requiring one less piece of equipment. This device is a durable handheld computer with an external keyboard. At base camp, a tablet PC (Compaq tc4200) was used to draw contacts as the data was collected and to create a preliminary geological map. The software utilized was ArcPad 6.0.3 (ESRI) which enabled both the visualization of field data and the capture of data into a database structure at the outcrop. Field data was captured using an ArcPad add-in program called Ganfeld, developed by the Geological Survey of Canada, which creates a series of shape files for point data. The project geologist is capable of customizing the files and associated look-up-tables to suit individual project requirements. These files can then be compiled for creation of the digital maps. Maps can be published as a GIS-integrated geological map, where the user can select station locations and download the actual field notes of the geologist, in addition to other geological data collected, including any photos of the outcrop. The resulting end-product is a map that provides more useful information for digital applications, as well as a map that can easily be printed in hard-copy form.