2006 GIS FORUM AND WORKSHOPS
AGENDA FOR WORKSHOPS, MAY 15-16, 19

May 15
Monday
1:30-5:00 p.m.
White Hall
Room 310
(25 seat limit)

Introduction to GPS
Kevin Kuhn, WV GIS Technical Center, West Virginia University (kkuhn2@wvu.edu.
Overview: This half-day workshop is intended as an introduction to the basic concepts and technologies of GPS. The workshop will be composed of a lecture and hands-on demonstrations as well as a small walking field trip (weather dependant). Although Trimble and Magellan GPS units will be presented, the course will try to be as broad as possible and not specific to any manufacturer. Current GPS users are also encouraged to bring any GPS receivers they own. Any specific questions you may have or questions about the course in general can be emailed to the instructor. *Prerequisites:* No Prerequisites are required for this course. A technical background and general knowledge of GIS is helpful. *Audience:* Though the primary use of GPS has traditionally been navigation, the target audience of this course is GIS professionals, students, private individuals or anyone else that may be interested in learning more about using GPS.

May 15
Monday
1:30-5:00 p.m.
White Hall
Room 312
(25 seat limit)

Creating Metadata to Federal Geographic Data Committee Standard
Eric Hopkins, WV GIS Technical Center, West Virginia University (ehopkins@wvu.edu)
Metadata is crucial to the successful compilation, distribution and implementation of geospatial data sets. This half-day workshop provides an introduction to readers new to metadata and additional tools and resources for those already familiar with it. "What is metadata? Why do I need it? What does it look like? How can I practically produce it?" Participants should find answers to these and other pertinent questions. Numerous metadata guides exist already, on the internet and elsewhere, and metadata authors should take advantage of these publications. The focus of this workshop is a practical approach to what can be a dense, sometimes opaque subject. For more information on FGDC metadata, refer to http://www.fgdc.gov/metadata.

May 16
Tuesday
8:30-12:00
White Hall
Room 312
(25 seat limit)

National Hydrogprahy Dataset (NHD)
Jeff Simley, National Hydrography Dataset Partnership, U.S. Geological Survey (jdsimley@usgs.gov)
This 4-hour workshop will provide an overview of how the National Hydrography Dataset (http://nhd.usgs.gov/) is used around the country. *Topics Presented* - Basics of NHD; How to access NHD and bring up in ArcMap; Basic NHD data structure; NHD in mapping; Navigating the flow network; More on the NHD data structure; Point events in the NHD; Searching for events; Linear events in the NHD. ArcGIS 9.1 software will be utilized during the workshop. *Target Audience*: Individuals or agencies which utilize stream mapping data.

May 16
Tuesday
1:30-3:00 p.m.
White Hall
Room 312
(25 seat limit)

Geographic Names Information System (GNIS) - Web Applications
Dwight Hughes, U.S. Geological Survey, Geographic Names Division (dshughes@usgs.gov)
This 90-minute hands-on workshop will demonstrate the capabilities: 1) for Web and GIS applications to extract live data from the GNIS using map, feature, and XML services, and 2) for State and local partners to directly submit new features and edits to the GNIS using Web application forms. The Geographic Names Project actively seeks partnerships with State and local agencies to ensure that their data are correctly represented at the Federal level, and that the data are readily available to all Federal agencies and to the public. These are some of the primary tools to achieve that goal. *More Information*: Refer to the Geographic Names Community in Geospatial One-Stop (http://gos2.geodata.gov/wps/portal/gos) for details of all GNIS services. Click on Geographic Names under Special Interest Communities; then see the tabs in the main display, especially Resources. Also check out the new Board on Geographic Names site (http://geonames.usgs.gov) and the GNIS Web query forms (http://geonames.usgs.gov/pls/gnispublic/). *Target Audience:* West Virginia State and local agencies with data identifying named geographic features of all types, natural and man-made (except roads and highways) to be represented in the GNIS, the official gazetteer for the Nation.

May 16 Tuesday 3:30-5:00 p.m. White Hall Room G21	**ArcGIS 9.2 Presentation** *Rick Lawson, ESRI (rlawson@esri.com)* Largely through software demonstrations, this session will present the new features and functionality that are planned for the ArcGIS 9.2 release. Topics will include geodatabase archiving and history viewing, cartographic representations, the new terrain data type, the file-based geodatabase, usability enhancements, ArcGIS Server, ArcGIS Explorer, and more.
May 19 Friday 8:30-12 noon White Hall Room 312	**Remote Sensing for GIS professionals: Principles and Regional Applications** *Rick Landenberger, Research Assistant Professor and WVView Manager, Dept. of Geology & Geography, West Virginia University (Rick.Landenberger@mail.wvu.edu); Janette Bennett, GIS Manager, Canaan Valley Institute (janette.bennett@canaanvi.org)* Remote Sensing can be thought of as a two step process of data acquisition and data analysis. Initially, data about an object or phenomenon is acquired from a distance, often from an aircraft or satellite. The data is then analyzed and converted into useful information. Remote Sensing and GIS professionals use the information to address and resolve geospatial questions or issues. This 3 hour workshop is divided into a "principles" and an "applications" section. Principles covered include radiant and reflected energy and the electromagnetic spectrum, spectral, spatial, radiometric, and temporal resolution, common platforms and sensors, and basic image processing. The applications section will describe how Canaan Valley Institute acquires, analyzes, and extracts information from a variety of state-of-the-art aerial remote sensing systems including color and color-IR, LiDAR, and satellite imagery. The focus here is on watershed conservation and related issues including flood plain mapping and assessment in the Potomac Highlands region. Both ERDAS and ArcGIS 9.1 software will be utilized.

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