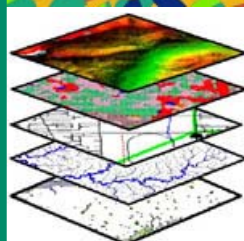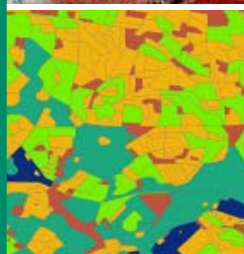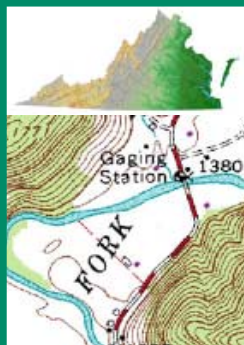# The Virginia Geospatial Newsletter

Showcasing GIS, Remote Sensing and GPS Supported Products and Services in the Commonwealth

The Virginia Geospatial Extension Program is a partnership between the Virginia Space Grant Consortium and Virginia Cooperative Extension

Virginia Tech's Enterprise GIS System: A Resource for Geospatial Analysis and Data Dissemination

By:
Seth Peery
Geospatial Applications Developer
Virginia Tech

The Information Technology organization at Virginia Tech has established an enterprise GIS system to advance geospatial research, provide a platform for the dissemination of web mapping applications, increase the university's internal operating efficiencies and provide a valuable resource to the university's partners across the Commonwealth. All services provided by the Enterprise GIS are available at no cost to Virginia Tech academic and administrative departments.

The aim of the enterprise GIS is to realize economies of scale in geospatial data storage and web application hosting – eliminating the need for GIS and Remote Sensing researchers and professionals to become experts in server administration and allowing them to focus on

> *The Enterprise GIS system at Virginia Tech is intended to be a resource for the academic and administrative branches of university community, as well as its "extended family" of valued partners, including state and local agencies and outreach constituents...*

their areas of specialization. Furthermore, the enterprise GIS provides a secure environment for the sharing of geospatial data resources across departments, helping to provide researchers "on-demand" access to imagery,

The Virginia Geospatial Newsletter is a quarterly publication developed through the Virginia Geospatial Extension Program, a partnership between the Virginia Space Grant Consortium (VSGC) and Virginia Cooperative Extension (VCE). The newsletter is published in conjunction with The Virginia Geographic Information Network (VGIN).

The purpose of the Virginia Geospatial Newsletter is to highlight innovative geospatial products and services throughout the commonwealth and to widely disseminate geospatial knowledge and awareness throughout Virginia.

If you have suggestions or comments, or if you would like to contribute to the newsletter, please contact John McGee at the Virginia Geospatial Extension Program (jmcg@vt.edu or [540] 231-2428).

What's Inside

For more information contact:

The Virginia Geospatial Extension Program
(540) 231-2428
www.cnr.vt.edu/gep
jmcg@vt.edu

Blazing New Trails: Carroll County Completes Parcel Mapping

By:
Janie Harrison, Assessor
Carroll County

Carroll County is located in Southwest Virginia along the North Carolina border. With a transportation system that includes Interstate 77, Hwy 58/221 and the Blue Ridge Parkway, the potential for economic growth and tourism is great. The county covers approximately 494 square miles and its land mass is mapped into over 32,000 parcels representing rural farm land, forest, recreational development areas, subdivisions, mountains and one (1) town.

Parcel mapping is a vital function for a county. The use of aerial photography, tax identification maps and now GIS maps, is essential in locating, identifying and assessing all property within a jurisdiction. Whether it is cadastral mapping on aerial photography and tax identification maps or the newer tools and techniques of digital mapping in ArcView, the basic concept that every parcel or polygon has a unique identifying number that links that parcel or polygon to a database of information is the same.

Parcel information has been kept in various forms. The earlier versions included indexes of the information both in alphabetical and numerical formats. These would provide basic information of property ownership, acreage and deed reference. Further information would have to be obtained through the property cards located in vertical filing cabinets. Now, with digital mapping and digital database files, all this information and more can be obtained by clicking on a polygon in GIS.

When approaching parcel mapping for GIS, it was imperative to Carroll County not only to have a completed parcel layer, but to have staff trained in GIS mapping techniques to perform hands-on maintenance, enabling the county to continually make corrections and improve the quality of the digital map. The assessor and mapping technician took a course on ArcView through Wytheville Community College to gain some basic GIS skills.

The county consulted with Brandon Moore of Moore-King and Associates for specified training and installation of components. Final direction to begin the parcel mapping came after the assessor met with Brandon, where he outlined a method he was currently using to map Floyd County. Using the digital aerial photography, imported survey maps and splitting polygons into parcels, the techniques used in both the cadastral mapping on tax identification maps and ArcView were very similar, the tools were just different.

Through the cooperation with the Twin County E911 office and the Town of Hillsville, existing layers and shape files were obtained and installed. Using the E911 road centerline, two layers were created in the parcel file, roadwork and ROWS. Using tools within ArcView and the Editor Toolbar, buffers were established for roadwork and an editable layer (ROWS) was created using the buffer wizard. Editor tools were used to create a polygon or an island (land area within a road system boundary) with the road buffers in place (see Figure 1). Once the island

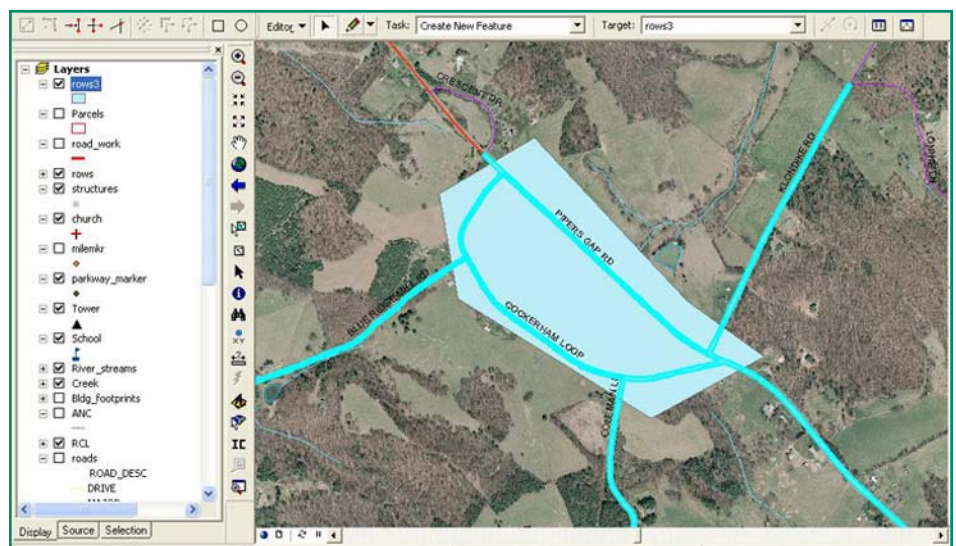Figure 1: Using roadwork and ROWS to create an island/polygon

Virginia's 2009 Five Year GIS Strategic Plan

By:
Dan Widner
VGIN Coordinator

Since 1997, the Code of Virginia has designated the Virginia Geographic Information Network (VGIN) with the responsibility for coordinating GIS functions for state and local government within the Commonwealth of Virginia. During this time VGIN has worked to establish the State Spatial Data Infrastructure and has successfully provided strong coordination for statewide base mapping services such as orthoimagery, road centerline data and geospatial metadata. Other framework data layers are at various levels of maturity and completeness. Given that it has been 12 years since VGIN was formed, it is time to collaboratively focus our efforts for the future into a structured plan that is understood and well communicated to the Virginia GIS community and other users of geospatial information in Virginia.

In 2009 VGIN will lead a collaborative effort to develop a Five Year Strategic Plan that focuses upon three areas: 1) development of plans for completion and maintenance of all framework data layers; 2) identification, prioritization and planning for the development of the most commonly needed geospatial services; 3) enhancing the Geospatial Enterprise Platform for data discovery and access to Virginia GIS data. In addition, coordinating Virginia's State Spatial Data Infrastructure with the needs National Spatial Data Infrastructure ensures that we move forward in concert as a region and a country.

A Bit of history

The Virginia Geographic Information Network (VGIN) and the VGIN Advisory Board were created in 1997 through enactment of state law in the Code of Virginia (§ 2.2-2026, 2.2-2027 and 2.2-2423). VGIN was established to "foster the creative utilization of geographic information and oversee the development of a catalog of GIS data available in the Commonwealth". Some of the core functions of VGIN are to:

- Develop & recommend **policies & guidelines** for base map data and related technologies.
- Compile a **data catalog** of geospatial data maintained by state and local government agencies.
- **Set priorities** for the development of state digital geographic data and base maps that meet the needs of state agencies, institutions of higher education, and local governments.
- Provide **services** and geographic data **products**

The VGIN Advisory Board is the executive GIS council in Virginia. It is composed of an across the board representation consisting of eighteen appointed members who represent General Assembly members (Senate and House), state agency Directors, the state Chief Information Officer, local government officials, academia, the utility industry, and the surveying community. More information about the VGIN Advisory Board can be viewed at http://www.isp.virginia.gov/vginboardhome.shtml

Virginia has established GIS user groups for state and local government that meet quarterly. In addition, Virginia has had an annual statewide GIS conference for many years. State/federal coordination is handled primarily through the Virginia USGS state liaison Diane Eldridge, as well as through proactive involvement with the National States Geographic Information Network (NSGIC). VGIN Coordinator Dan Widner is currently serving on the NSGIC Board of Directors.

In 2007, VGIN was reorganized as part of the Integrated Services Program (ISP) within the Virginia Information Technologies Agency. VGIN has long partnered with the E911/Public Safety Division (VBMP orthophotography and RCL). The business plan for the ISP describes many of the current activities and opportunities for public safety and GIS within the Commonwealth (http://www.isp.virginia.gov/pdf/ISP_Business_Plan_Final.pdf). However, it does not address the future strategic direction that is needed for GIS in the Commonwealth. This future direction will be the focus of the 2009 Five Year GIS Strategic Plan.

VT Enterprise GIS

basemap datasets, and data holdings maintained by other departments.

The Enterprise GIS is organized as a "strategic initiative" of the IT organization. It is overseen by the Enterprise GIS Research and Development Administration department, but storage management, systems administration, and database administration functions are provided by the same established departments

The AISB data center at Virginia Tech, home of the Enterprise GIS. Enterprise GIS is supported by the expertise of all of VT's central IT organization.

in IT that provide these services to the university's other enterprise systems, such as ERP, e-mail, and web hosting. By organizing the enterprise GIS in this manner, IT aims to ensure that each component of the management of the system – from the GIS applications themselves down to the databases and physical server hardware – is managed by skilled specialists in that area.

The Enterprise GIS, while operated by Virginia Tech's central IT organization, aims to remain responsive to the needs of the GIS community at Virginia tech by relying heavily upon input and guidance from the existing geospatial departments, centers, and programs including the Center for Geospatial Information Technology (CGIT), the Center for Environmental Applications of Remote Sensing (CEARS), the Conservation Management Institute (CMI), the Virginia Geospatial Extension Program (VGEP), and Facilities Information Systems (FIS). In addition to its on-campus connections, the Enterprise GIS unit a working relationship with a number of key external partners including Virginia's Secretary of Technology and the Virginia Geographic Information Network (VGIN).

The Enterprise GIS team offers a number of services to Virginia Tech departments, based on a vendor-neutral approach that combines the most appropriate technologies from ESRI, Google and other geospatial providers to best meet client needs. The "core" service, on which many of the others rely heavily, is spatial data hosting using the ESRI ArcSDE platform, backed by an Oracle database instance managed by the Database Administration and Applications (DBAA) team within IT. Departments are given an account in

ArcSDE to which they may upload data and at their sole discretion, share it with other users of the system. The ArcSDE instance serves data directly to ArcGIS Desktop GIS clients, and also to ArcGIS Server web mapping applications. Enterprise GIS provides hosting for Web mapping applications built using ESRI ArcGIS Server as well as Google Maps, and in consultation with CGIT, as appropriate, offers assistance in the development of these applications.

In a move that is unique within a higher education setting, Virginia Tech Enterprise GIS team has implemented and continues to develop an instance of [Google Earth Enterprise](#) for use by faculty researchers as well as the larger community of state agencies and other partners within Virginia. Google Earth Enterprise enables Virginia Tech to create its own "globe" populated by highly detailed basemap data for Virginia with overlays created by Virginia Tech researchers, and is the capstone of a multilayered set of services based on Google Earth that include assistance in the development of KML network links and the use of Google Earth as a visualization platform capable of linking to rich nonspatial content. Finally, the Enterprise GIS unit has assumed the full cost of Virginia Tech's share of the ESRI higher education site license for the Commonwealth, eliminating the need for individual colleges or departments to "buy in" to the license each year.

The Enterprise GIS team recognizes the importance of training users to derive maximum benefits from server-based GIS technologies, and to that end is committed to providing formal

VA's GIS Strategic Plan

Five Year GIS Strategic Plan Development

The approach that will be taken with the 2009 Five Year GIS Strategic Plan will be one that is stakeholder driven and built upon consensus. VGIN takes the approach that user needs and user input should drive our activities. Therefore, the first step to initiate the strategic planning process will be to conduct a series of interviews with key stakeholders (May – June 2009) that represent the spectrum of geospatial practitioners and users of geospatial data in Virginia. These include local, state and federal government, academia, private and non-profit. The interviews will be designed to glean from the stakeholders what they believe are the strengths, weaknesses, opportunities and threats for GIS in Virginia.

Broader outreach methods such as online surveys will be designed and released (June 2009) to:

a) capture as much input as possible
b) provide input opportunities to those who cannot participate in the planned meetings.

The VGIN Advisory Board will play a key role as an executive steering committee, providing guidance and oversight along the way. Because of their stature as executives representing diverse interests, they are uniquely positioned to provide this role.

After the interview phase, a series of town hall style meetings (August – September 2009) will be held with users and practitioners across the state to share the compiled results and solicit feedback. After the feedback is received and documented, a draft strategic plan will be will be created, reviewed by the VGIN Advisory Board and shared for comment (September – October 2009). The final strategic plan will be reviewed and approved by the VGIN Advisory Board before being released in its final form (January 2010).
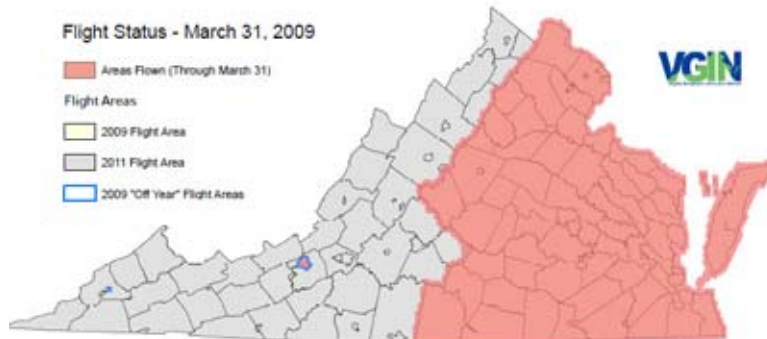
The Five Year GIS Strategic Plan will only be as good as we make it. This will be your opportunity to have a voice in the future direction of GIS in the Commonwealth. GET INVOLVED!

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2009 VBMP Update

By:
Stu Blankenship
Geospatial Projects Manager
VGIN

Here's a quick summary for the 2009 VBMP orthophotography acquisition program. Image acqusion for the 2009 project was completed on Tuesday, March 31st.

Overall, the acquisition went smoothly, and Sanborn got off to a quick start with the first flights occurring on February 1st. As of February 25th, 87% of the images had been acquired and then our late season snow storm occurred along with a long string of cloudy or rainy days. The flights in the eastern "core" flight area were completed on Tuesday, March 24th. The remaining "off year" flight areas (UVA Wise and Blacksburg) were acquired on Tuesday, March 31st.

The latest data for the 2009 flights is now available on the VBMP Orthophotography web page at http://www.isp.virginia.gov/vbmporthophotography.shtml. The available data includes a shapefile and a Google Earth kmz file of the centers of the captured photos along with their acquisition date. An interactive map with this information is also available. In addition, there is a map in pdf format that shows the specific flight areas captured along with the percentages of photos acquired listed by date.

We have specified that the final data products be delivered within 6 months from the end of acquisition. With that in mind, we expect all data deliverables to be available by the end of September.

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Making Spatial Decisions Using GIS

By:
Bob Kolvoord, Professor
James Madison University
and
Kathryn Keranen,
GIS Trainer and Consultant
Fairfax County, VA

Last year, ESRI Press released a new series of books, the Our World GIS in Education Series. The series consists of *Thinking Spatially Using GIS* (Level 1) by Napoleon and Brook, *Mapping Our World and Analyzing Our World* (Levels 2 and 3) by Palmer, Palmer, Malone and Voigt, and *Making Spatial Decisions Using GIS* (Level 4) that we wrote.

While the first three books are really focused on K-12 students and teachers, *Making Spatial Decisions Using GIS* is focused at broader audience, from advanced high school students to undergraduates at community college of four year institutions to professionals in the field looking for some additional training. The book emphasizes geographic inquiry and analysis through GIS-based scenarios.

We're excited about the design of the book and we'd like to share the content and structure with you. The book contains five modules that focus on interesting content and cut across a range of domains including:

● Module 1 – Hazardous Emergency Decisions – Identifying evacuation areas and traffic routing (using Network Analyst) in a hazardous materials emergency

● Module 2 – Demographic Decisions – Looking at the changing demographics of urban areas (Chicago and Washington DC)

● Module 3 – Law Enforcement Decisions – Analyzing Crime Patterns

● Module 4 – Hurricane Damage Decisions – Observing the patterns of hurricane destruction on land use
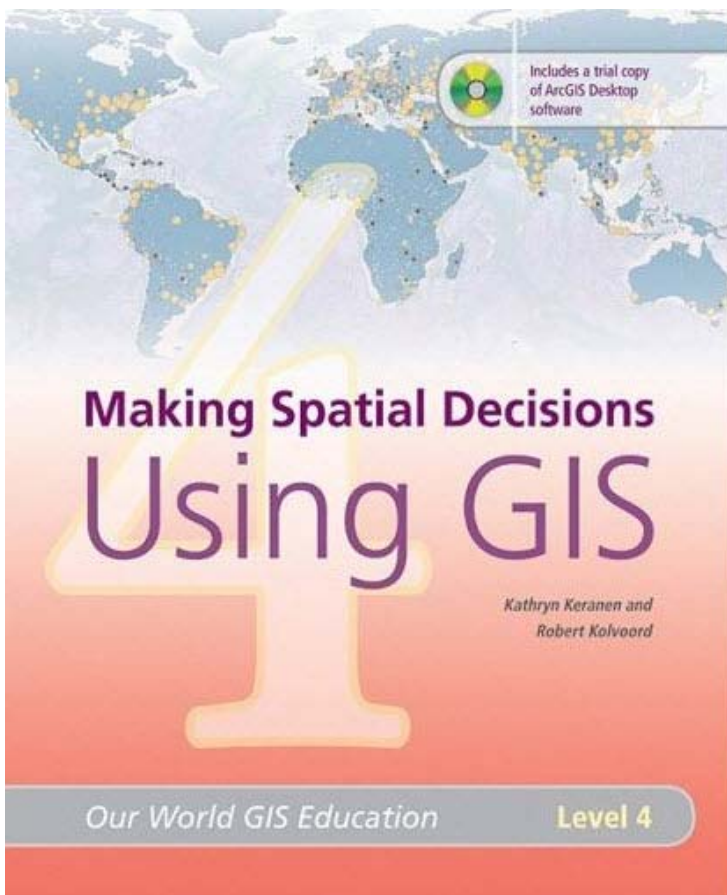
● Module 5 – Location Decisions– Using weighted decision-making in choosing the location for a new home or business

As noted above, the design of the book is modular - there are five modules and in each one, there are three activities. The first activity in each module is very detailed and provides step-by-step

directions to the user. The second activity asks the user to repeat the analysis from the first activity with a new set of data, but without the step-by-step directions. The third activity

Includes a trial copy of ArcGIS Desktop software

Making Spatial Decisions Using GIS

Kathryn Keranen and Robert Kolvoord

Our World GIS Education   Level 4

Carroll County

was created, it was copied and saved in the Parcel.mdb file or parcel layer where individual parcel mapping was accomplished using the tools in Editor with the parcel layer overlaying the digital photography. Referring to tax maps and recorded plats, the polygon/islands were cut into individual parcels and identified using the attributes table where a parcel id was assigned as a unique identifier linking the new parcel/polygon to the parcel database.

For more accuracy in the mapping, surveys on file were entered into a deed plotting program and saved in a plats folder as .dxf files to be imported into ArcView. The survey .dxf file would be added as a polyline layer and then would be exported into a shape file. Using editor and working on the plats folder, the survey would be moved and rotated to fit visible property lines and features shown on the aerial photography, saving the edits when satisfied with the survey's placemen (see Figure 2). When making the polygon cuts around a survey placement, the snapping tool was used for accuracy.

The Assessor's Office began the parcel mapping in 2004 with existing staff; however, with workloads in place, the process was slow. In 2005, the Board of Supervisors approved a position to assist with the GIS mapping and at least one staff member was able to focus on the mapping daily. The initial goal for completion was two (2) years from 2005; however, with other responsibilities of the office and a
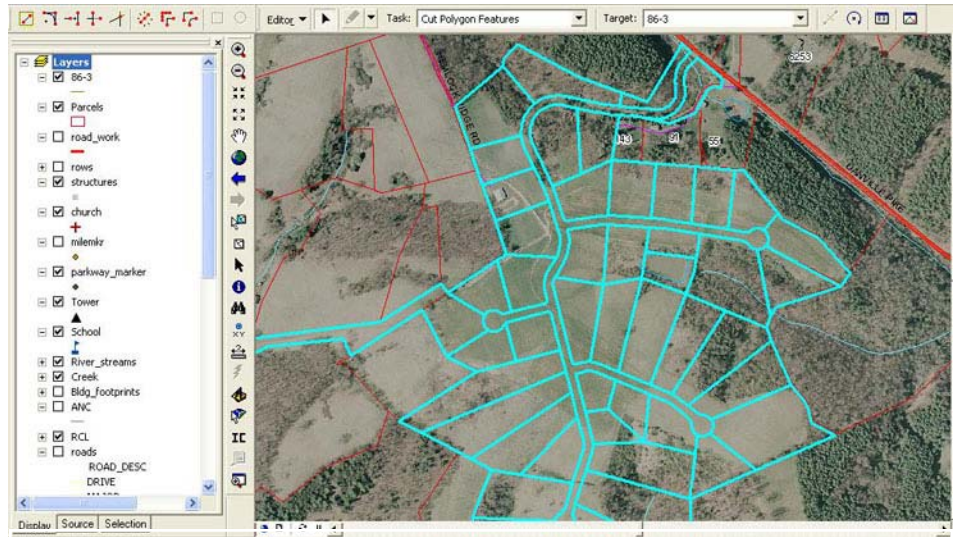

Figure 2: Subdivision plat converted into a shape file and placed for parcel editing

general reassessment that involved all staff, the project took a year longer with work being completed in 2008 (see Figure 3).

In the same time span, annual property splits were kept updated on sections

Figure 3: Mapping Technicians Sheila Newman and Stephanie Cornett work on the parcel layer.

that had already been mapped and continual proofs and edits were made by staff to improve the quality of the mapping. Benefits could be seen early on in the project development. Office staff produced printed maps and exported .pdf and .tif files to property

owners for personal use, the real estate sector in developing sales tools, other county offices for areas of economic development and foresters to develop Forest Management Plans.

Development continues with water and sewer projects of the Public Service Authority. Some of the newer projects are in digital format and are being converted to layers for the GIS. Older projects will be located by GPS and added to the water and sewer layers. Once again, county personnel in the PSA have received training to accomplish this development.

The Board of Supervisors appointed a GIS Committee in 2008 consisting of individuals from the public sector, business sector, education and local government. The initial plan and focus for the committee was a Web Browser to provide on-line service that would aid the general public in acquiring real estate data and information without a trip to the courthouse. With the completion of the parcel mapping and other developed layers, county officials

VT Enterprise GIS

training through established forums such as the Faculty Development Institute and the annual GIS and Remote Sensing Symposium, as well as custom training for departments and individual faculty/staff upon request. The
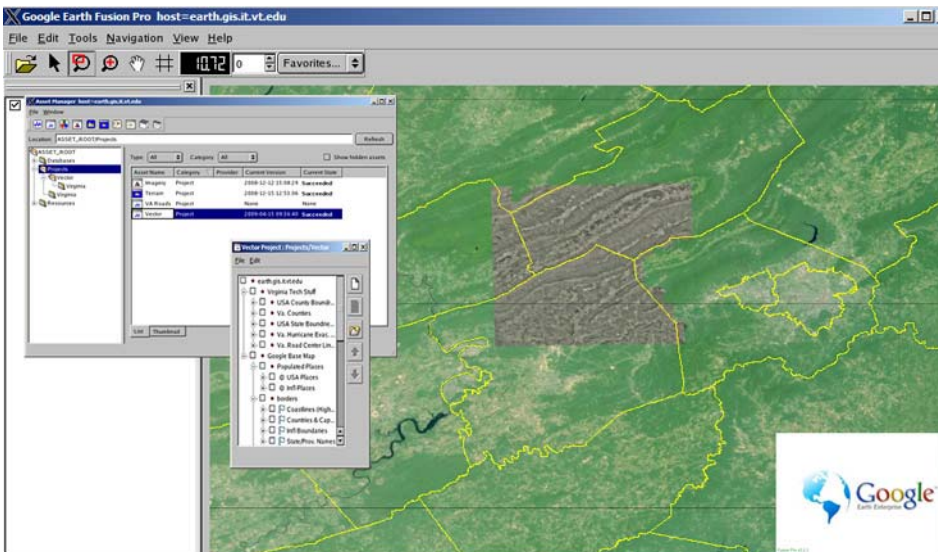

Figure 2: Testing a new image layer for the Virginia Tech "globe" in Google Earth Enterprise**.**

enterprise GIS team provides consultation to departments on geospatial database design, web application architecture, and geodata dissemination issues. A three day Summer FDI workshop will be held in June of 2009 – faculty and staff are encouraged to visit the VT FDI website for more information.

In order to provide the services outlined above, the Enterprise GIS system consists of several interoperable components. Data is physically hosted on SAN and NAS systems managed by the Systems Support team within IT, with a commitment from the Vice President for IT to remain "one

petabyte ahead of demand" in storage capacity. Two Oracle database instances constitute the backend DBMS for the ArcSDE service, which is hosted on a dedicated application server. ArcGIS Server is hosted on a separate server, and care is taken to manage load across components. Google Earth Enterprise is hosted on a virtualized server housed in the IT organization's newest computing utility; this novel architectural move is the first

in a series of planned migrations of Enterprise GIS hardware components to a virtualized environment, reflecting IT's commitment to expand the use of this technology in research and administrative applications – resulting in more efficient utilization of server resources and more environmentally sustainable power and cooling requirements.

Security is a paramount concern for the Enterprise GIS. Within the ArcSDE system, all data owners are the sole and final arbiter of who has access to their data. While the system facilitates data sharing where appropriate and permitted, explicit

privilege grants must be issued for other departments to see data owned by a
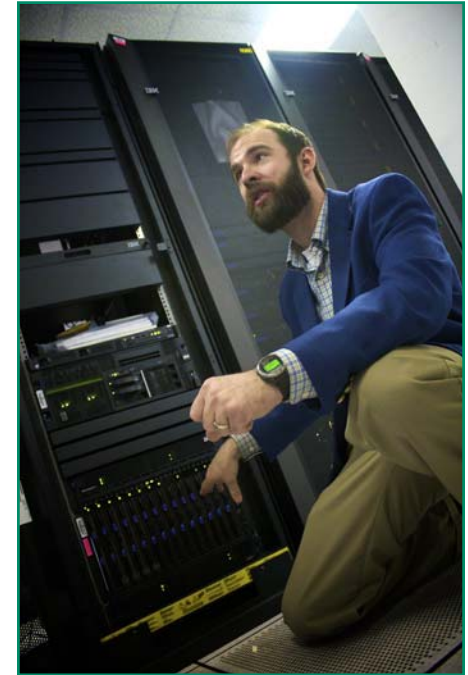
Seth Peery, Senior GIS Architect for the VT Enterprise GIS system, demonstrates the new virtualized server technology to a group of students.

given user, providing maximum flexibility. Web applications can be secured using VT PID/password or other methods for authentication, and authorization can be provided through a variety of means including group memberships and custom lists of "need-to-know" users.

To learn more about the Enterprise GIS, visit our website at http://www.gis.it.vt.edu. There you'll find a contact form to initiate communication with the Enterprise GIS team, as well as information describing the system, procedures for getting started, and a growing collection of technical support resources. The Enterprise GIS team

VT Enterprise GIS

provides all new users with a service level agreement outlining the services provided and the associated expectations. Pursuant to the Higher Education Restructuring Act, Enterprise GIS follows a project management methodology for all projects that use IT resources. All forms may be downloaded from the website.

The Enterprise GIS system at Virginia Tech is intended to be a resource for the academic and administrative branches of university community, as well as its "extended family" of valued partners, including state and local agencies and outreach constituents. By leveraging the established infrastructure and expertise of the IT organization towards GIS, it is envisioned that the efficiency of GIS analysis and the dissemination of spatial data can be dramatically accelerated.

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Movin' On
We wish you all the best..

Emily Moberg, is the new GIS Coordinator for Carroll County, VA. Wecome aboard!

Carroll County

are eager and excited to have Web GIS made available to the public. Carroll is currently negotiating with an outside host for a Web GIS Browser and hopes to have the information on-line very soon.

Using a template from Appomattox County, the committee is beginning to review and prepare their own strategic plan for future GIS Development involving the needs of the public, local government, education and business. One area of interest was the involvement of youth in GIS. Emily Nester, Extension Agent on 4-H Youth Development, a member of the committee plans on using 4-H as an avenue to educate and involve youth in future GIS programs and benefits. Other areas of development centered on the all important aspects of economic development and tourism. Having the ability and functionality to be able to make more than adequate presentations to prospective business and industry and to give the outside world access to locating amenities offered in the county such as walking trails, the Blue Ridge Parkway, stops along the Crooked Road, and the New River to name just a few.

Our GIS development so far has been made with limited resources; however by having an employee base familiar with techniques of mapping and CAD files, we have been successful and we are proud of the accomplishments so far in our GIS endeavors. We are Carroll County, and we are "***Blazing New Trails***".

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GoogleEarth Serving 2006/07 VBMP Imagery

Most GoogleEarth users have been aware that the Virginia 2006/07 VBMP orthophotgraphy has been accessible through GoogleEarth under the 'historical imagery' button (kudos to the folks at VGIN!). More recently, the 2006/07 VBMP has become the default imagery for most of Virginia in GoogleEarth.

In addition, the folks at Google have stretched the histograms of some of the imagery, making the imagery more appealing for public map-browsing.

Happy Viewing!

2006/07 VBMP imagery of Jamestown, VA as viewed through GoogleEarth

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Making Spatial Decisions

(Continued from page 6)

is an "On Your Own" that helps users customize the activity for their location.

Each activity features a focus on GIS workflow – this is an element often missing in curriculum/training materials created for K-12 audiences. The activities rely on the use of geodatabases and environments, ensuring that the GIS content is current, as well as featuring the use of a number of ArcGIS extensions, including Spatial Analyst, 3-D Analyst, and Network Analyst.

The book includes:

- Student materials and exercise instructions.
- A student resource DVD with exercise data and digital files of exercises and materials.
- A software DVD with a 180-day single-use trial license of ArcGIS Desktop software for Windows, with the above-mentioned extensions.
- An instructor resource DVD is available upon request from ESRI, and includes digital files of student materials and digital instructor materials such as project overviews, guidelines and tips on teaching the projects, answer keys, and slide shows by module. The instructor DVD also includes geodatabases

with all the student data, example maps, and more.

We'd very much love to hear your feedback and reaction to Making Spatial Decisions Using GIS. Please feel free to contact us (our e-mails are below) and share. We'd also like to know (and we regret) any errors you find.

Bob Kolvoord is a professor of integrated science and technology at James Madison University, where he also teaches in the Geographic Science program. He can be reached at: kolvoora@jmu.edu

Kathryn Keranen is a GIS trainer / consultant and a retired Fairfax County Public Schools teacher. She can be reached at: kkeranen@bellatlantic.net

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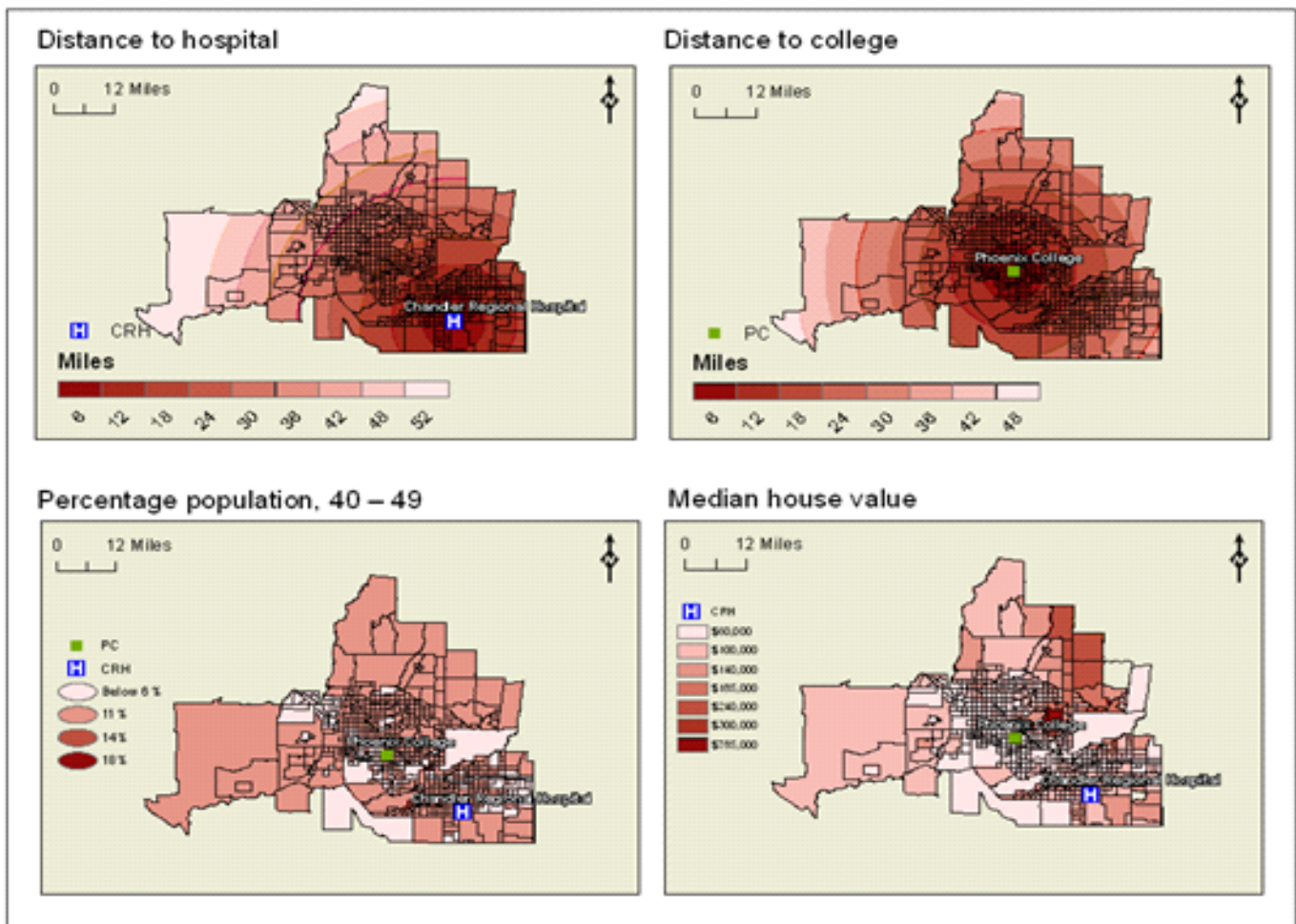
2009 Virginia GIS Conference Poster Session Announcement

By John McGee
Virginia Geospatial Extension Program
Vice President, VAMLIS

The 2009 Virginia GIS Conference will be held September 21st – Sept. 23rd, 2009 in Richmond. The Virginia GIS Conference Planning Committee is organizing a Poster Session at the 2009 conference. This is an excellent (and casual) way to share your organization's products and services with the rest of Virginia's geospatial community! This opportunity could even open new doors for your students and your organization! It could even result in cash awards or other exciting prizes!

Poster abstracts can be should be submitted through the VA GIS Conference Website (http://www.virginiagis.org).

VAMLIS and the VAPDC are especially mindful that the timing of this conference is not "the best" for the precollege and higher education communities. The conference planning committee is therefore asking that educators and students save any geospatial posters that were generated during the 2008 – 2009 academic year. Please plan on submitting these items at the 2009 conference!

Precollege and higher educational posters can be mailed to:

John McGee
Virginia Geospatial Extension Program
307C Cheatham Hall (0324)
Blacksburg VA 24061

All posters that are received over the spring and summer will be stored and taken to the conference in September.

There will be three prize categories available at the conference. The three categories are:

•**Precollege** (primary, secondary students, 4-H groups, clubs, etc.)

•**Higher education** (community college students, 4-year college & university undergraduate and graduate students).

•**Professional** (local / state / federal government personnel, land trusts, private sector, educational faculty and staff).

As in years past, precollege and higher education poster session entries can be submitted by mail (attendance is preferred, but not mandatory). We anticipate offering a limited number of student conference registration scholarships.

So please consider submitting any student work from the 2008-2009 academic year for the conference poster session at the Virginia GIS Conference in September 2009. More details to follow!

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The VT Office of Geographic Information Systems and Remote Sensing (OGIS) held its annual spring research symposium on April 17th. In addition to quality oral presentations and keynote speakers, the symposium provided students with the opportunity to engage in a geospatial poster session. External reviewers and guests judged the posters.

We are proud to acknowledge the winners of the 2009 OGIS poster session. Employers, keep your eyes peeled for a talented group of aspiring GIS professionals!

1st Place: Rupesh Shrestha, VT Department of Forestry ($250 prize).
Poster Title: *Discriminating and Classifying Individual Trees in an Urban Landscape using Small-Footprint Lidar Data*

2ND Place: Jason Herman, VT Department of Geography ($150 prize).
Poster Title: *Incorporating LIDAR Data within the Photo Interpretive Process to Improve the Classification and Spatial Accuracy of Wetland Mapping*

3rd Place: Susmita Sen, VT Department of Forestry ($100 prize).
Poster Title: *A trajectory-based change detection to identify reclaimed coal mines of southwestern Virginia*

The Virginia Association for Mapping and Land Information Systems

By: Qiana C. Foote,
VAMLIS President

There are several things happening with VAMLIS in the coming months. What's most important about these things is that members of VAMLIS and members of the Virginia Geospatial community participate in these events.

The first event of the spring will be the VAMLIS Annual Meeting. This meeting is scheduled not as a conference but to address the election of new officers, update the membership on issues in and around the commonwealth and to report on the activities of the VAMLIS committees. This year's meeting will be held at the Tuckahoe Library in Henrico County on May 28th from 2:00 – 4:00PM. Attendees are then invited to a networking social from 4:00 – 5:00PM.

In addition to the annual meeting being a no cost event, the presentations will be available via web conference for members that are unable to travel due to today's budget constraints Please contact VAMLIS (vamlis_org@yahoo.com) for information on attending either in person or via web.

VAMLIS will also begin our annual Renewal/Membership drive beginning in May. If you are not currently a member of VAMLIS we would hope that you would consider joining. We are the only professional geospatial organization based in Virginia. It is a volunteer organization by which members are our most valuable resource. Some of the benefits of being a VAMLIS member are: keeping abreast of new mapping sciences innovations and initiatives that

impact the state, having an organized and effective voice on industry issues in the Virginia legislature, networking opportunities, and resource for geospatial community in Virginia. Be sure to look for your Renewal/Membership pamphlet in the mail this May.

Also coming soon to your mailbox will be the Virginia GIS Conference Call for Papers. This year's theme is **"Virginia GIS: A New Spirit of Collaboration."** The Conference Committee will be looking for presentations on such topics as doing more with less, solving data management problems, dissemination of geospatial data and more. There will also be a poster session contest that will part of this year's conference (see announcement on Page 11 of this newseltter). The deadline for abstract submissions will be June 5, 2009.

Abstracts can be submitted online at the Virginia GIS conference website www.virginiagis.org . Be sure to monitor the conference web for registration information and preliminary program in the coming months.

We look forward to seeing and hearing from you soon.

Save the Date!

Mention or failure to mention any event or workshop does not constitute an endorsement by the Virginia Geospatial Extension Program or its partners.

Creating Effective Web Maps. May 7, 2009. Richmond, VA. (ESRI)
http://events.esri.com/info/index.cfm?fuseaction=seminarRegForm&shownumber=12459

Hampton Roads Defense & Intelligence User Group Meeting. May 7, 2009. Hampton, VA. (ESRI)
http://events.esri.com/info/index.cfm?fuseaction=seminarRegForm&shownumber=12270

Supporting Economic Development in the Rocky Knob Region - An Introduction to Geospatial Tools. May 8, 2009. Patrick County, VA. Provided by the Virginia Geospatial Extension Program. For additional information, contact John McGee (jmcg@vt.edu).

Loudoun County GIS Forum. May 12, 2009. Loudoun Water. Onsite registration is available. For addtional information, contact Larry Stipek (Lstipek@loudoun.gov).

Richmond Regional User Group Meeting. May 19, 2008. Details TBA. For additional information, contact Michelle Fults (mfults@richmondregional.org).

The 2009 VAMLIS Annual Business Meeting. May 28, 2009. Tuckahoe Library in Henrico County from 2:00 – 4:00PM. No registration. VAMLIS will broadcast this meeting over the Web. For additional information, contact: Qiana Foote, VAMLIS President (vamlis_org@yahoo.com). A networking social will follow (4:00 - 5:00) the meeting.

Creating Effective Web Maps. May 28, 2009. Arlington, VA. (ESRI)
http://events.esri.com/info/index.cfm?fuseaction=seminarRegForm&shownumber=12464

The 2009 ESRI ESRI Educational User Conference. July 11-14, 2009. San Diego, CA.
http://www.esri.com/events/educ

The 2009 ESRI ESRI International User Conference. July 13-17, 2009. San Diego, CA.
http://www.esri.com/events/uc

The 2009 Virginia GIS Conference: Virginia GIS: A New Spirit of Collaboration. Sponsored by the Virginia Association for Mapping and Land Information Systems (VAMLIS) and the Virginia Association of Planning District Commissions (VAPDC). September 21 - 23, 2009. Richmond VA. Oral and poster presentations can be submitted through the Website - http://www.virginiagis.org

Comin' Up Next

Spring is in the air, but we're already looking forward to the Summer! Learn more about these (and other) exciting geospatial initiatives, programs, and applications in the Summer issue of the Virginia Geospatial Newsletter.

NSF Funding to Support the VCCS
The National Science Foundation's Advanced Technological Education (NSF-ATE) program recently awarded the Virginia Community College System with a grant to faciliate geospatial efforts across the VCCS.

Project partners include: The VCCS, John Tyler Community College, Tidewater Community College, Virginia Western Community College, the Virginia Space Grant Consortium, and the Virginia Geospatial Extension Program.

Update from MWU
Mary Washington Universtiy has continued to expand geospatial offerings and has established a successful GIS certificate program.