

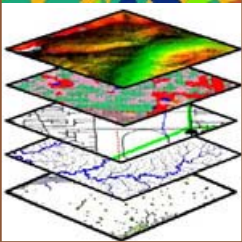
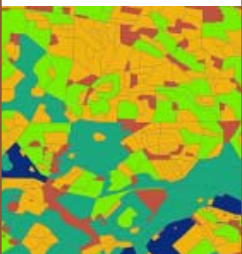
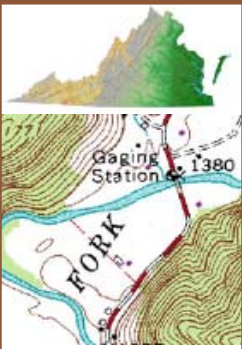
The Virginia Geospatial Newsletter

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

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



For more information contact:

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

Virginia Cooperative Extension Uses GIS as a Planning and Reporting Tool

By:

Matthew Yancey,
Extension Agent,
Natural Resources

Virginia Cooperative Extension (VCE) has six Natural Resources Extension agents distributed across Virginia, each of whom covers a multi-county district (Figure 1). One focus area of the District Natural Resources team is to develop and deliver educational workshops and seminars to forest landowners. Geographic Information System (GIS) can be an effective tool to display, monitor, and analyze the geographic distribution of these workshops and their participants.

The Northwest District covers fourteen counties, primarily those counties which

cover the Shenandoah and Upper James River Valley watersheds. Addresses of potential participants in the VCE Northwest service district were compiled by various means, so that mailings could be sent out to advertise forest landowner workshops. The search for this information started with each county's Commissioner of Revenue. The information available in each of these counties varied significantly.

Most of the counties had land use taxation records containing landowners participating in that county's forestry land use taxation program, while others had databases of forest landowners for other reasons. Some counties had every individual parcel mapped in a GIS dataset, but without land use or land cover data. The Northwest Natural Resources program

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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).

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The Virginia Geospatial Extension Program

By:
Jen Otey

Geospatial Program Developer
Virginia Geospatial Extension
Program

Starting in October, the Virginia Geospatial Extension Program will be hosting workshops throughout the Commonwealth. There will be four different workshops utilizing Environmental Systems Research Institute (ESRI) software: a one day introduction to Geographic Information Systems (GIS), a two day introduction to GIS, a one day introduction to ArcPad, and a one day Global Positioning System (GPS) and photograph workshop. Workshop locations include the Virginia Tech Hampton Roads Center, the Virginia Tech Richmond Center, the Virginia Tech Roanoke Center, and the Southwestern Virginia Higher Education Center in Abingdon.

The **ArcGIS Learner's Permit** workshop is a one day introduction to GIS. This workshop serves as an introduction to what GIS is and how it works. The target audience is individuals who are interested in finding out more about GIS, but do not have much time on their hands. This workshop will provide a brief introduction into the capabilities of GIS, using the ESRI software ArcMap. Participants will learn how to add data to ArcMap, perform basic querying functions, and learn how to create a custom map.

Location, Location, Information provides a two day introduction to GIS. This workshop serves as a hands-on

The Virginia Geospatial Extension Program to Provide Geospatial Workshops and Training Opportunities

intensive introduction to what GIS is and how it works. This course is appropriate for individuals with little or no previous exposure to GIS but who would like to learn more about GIS. Participants will learn how to add data to ArcMap, perform basic querying functions, manipulate data tables, generate new data, find existing data, and learn how to create a custom map. Participants will also learn how to use a GPS receiver and incorporate GPS data into ArcMap.

The **Introduction to ArcPad** workshop is a one day course that provides an overview of ESRI's ArcPad software. The software supports mobile GIS and field mapping applications. Many people are tired of conducting paper inventories and having to enter them into the computer by hand. By using ArcPad the inventory data is entered straight into a handheld computer, eliminating the time and cost associated with conducting a paper inventory. Potential mistakes are also eliminated when transferring the paper inventory to the computer. Once the

inventory is collected in ArcPad it can be quickly downloaded to the computer. It can be used immediately to make maps and analyze the data. Inventories can also be updated easily.

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For additional information and registration, go to the workshop Webpage: <http://www.cpe.vt.edu/gisworkshop> or contact the Virginia Geospatial Extension Program



Introduction to ArcPad will provide participants with a hands-on experience!

By:

Chris Hardesty, ENP
Regional Coordinator
Public Safety Communications
Division of the Integrated Services
Program within VITA

GIS, a technology that a decade, or even five years ago, was foreign to most public safety operations, is now almost exclusively considered mission-critical. In Virginia, lives are saved daily because public safety entities are equipped with state-of-the-art dispatch mapping applications that pinpoint wire-line and wireless 9-1-1 calls. Some agencies have broadened the scope of GIS applications used to include automatic vehicle location (AVL), crime/statistical, emergency operations, in-vehicle, 9-1-1 address/map maintenance, and mass notification, to name a few. Public safety professionals are becoming more educated in the realm of GIS and its capabilities; thus placing a higher priority on obtaining such applications, and higher expectations of GIS vendors in the public safety market to provide timely solutions that exploit such technologies.

Implementing such solutions presents a major challenge for GIS and public safety departments. In many cases, the respective departments do not have a clear understanding of the other department's business processes and needs. Although a growing number of public safety agencies have their own GIS departments internally, the majority do not. Therefore most rely heavily on local government GIS departments for the data that fuels their GIS applications.

Virginia Saves Lives with GIS and 9-1-1

The most fundamental point of contention between the two departmental entities is that map data for public safety applications, particularly dispatch mapping, depends on the attributes of the data being formatted to match, or mirror, public safety databases. The best example of this is the synchronization of map data to a master street address guide (MSAG) and automatic location information (ALI) database for consistent, reliable plotting of wire-line

In Virginia, lives are saved daily because public safety entities are equipped with state-of-the-art dispatch mapping applications that pinpoint wire-line and wireless 9-1-1 calls

9-1-1 calls. The 9-1-1 system is setup in such a way that addresses in the 9-1-1 ALI, or address, database are standardized. This means when someone calls 9-1-1 from a wire-line phone, an address in a standard format is contained in the 9-1-1 data spill. The address can be parsed from the data spill and used to automatically geocode the address.

The problem for GIS departments is that requirements for synchronizing map data to the MSAG and ALI database typically differ from the respective GIS department's standard GIS data model. Generally, there are two ways to overcome this dilemma. The GIS department can adopt a data

model that meets public safety's requirements, or the data can be processed in a buffer program that reformats the data before propagation into the public safety operational environment. Some buffer programs are provided by the public safety GIS vendor, while some innovative GIS departments have developed their own tools to accomplish this.

Once agreement is reached on how data will be formatted for public safety, the map data considerations are just beginning. Public safety dispatch mapping applications rely heavily on good, quality map data. It is often said that, "no data is better than bad data, especially for public safety." Good data saves lives and bad data costs lives.

Generally, there are three, and sometimes four, map data layers that are critical for the proper function of public safety dispatch mapping applications: road centerlines (RCL), emergency service zones (ESZ), and political boundaries. Political boundaries do not necessarily interact with the incoming 9-1-1 data, but serve as the most basic frame of reference for the 9-1-1 telecommunicator. The fourth essential layer, although optional, is one that consists of features that are attributed with individual addresses; typically driveway entry points, building location points, building polygons, or parcels.

Most dispatch mapping applications function the same way. When a wire-line 9-1-1 call is received at the public

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GIS in Public Safety – Rockingham County: Past, Present & Future

By:
Stefanie McGuffin
GIS Coordinator
Rockingham County

While many organizations use Geographic Information Systems (GIS) to improve decision-making, nowhere else is the need for complete, current, accurate, and precise spatial information more important than for emergency response. Beginning with the initial 9-1-1 call until the proper responding agency arrives at the incident, the spatial data utilized must be correct at all times.



As GIS professionals we are constantly maintaining data and assuring its accuracy. One of the most time consuming challenges we face involves creating and maintaining spatially correct road centerline and addressing information. It is, however, that very information, that forms the basis of a powerful GIS.

The foundation of the GIS in Rockingham County was a direct result of a County-wide 9-1-1 addressing project which began in 1996. Before this project, residences in the County had only a rural route and box number address while the Harrisonburg/Rockingham Emergency Communications Center (HRECC) utilized a grid identification system, linked to a structure's telephone number, to locate an emergency caller. Due to inaccuracies in this system 9-1-1 addresses were needed to assure the provision of timely emergency response to our citizenry. Rather than

hiring a consultant, the County decided that the addressing project be managed and carried out by existing staff and full-time temporary employees, who would be used to verify structure location and type and to notify residents of their new 9-1-1 address.

Through the project, many layers of geospatial data were developed. Aerial photography was acquired, all road centerlines in the county were gathered using GPS technology, and structures were identified and digitized from the aerial photography. The initial project involved base map development, address assignment and notification, and developing a map viewing system for the HRECC. These tasks were completed over an 18 month period. The primary results

of the project were the ability to supply spatial information used to locate an emergency caller, and to produce an accurate, detailed map display viewed by the 9-1-1 telecommunicator. The ability to perform this type of analysis and map display was a critical component of moving spatial technology into public safety.

Since that time, the arena of public safety has become increasingly dependent on GIS technology. We have been able to provide data that allows for reduced response times, a spatially enabled Master Street Address Guide (MSAG), geocoding of wireless 9-1-1 calls, etc. Local law enforcement agencies use GIS data for detailed crime analysis, geo-profiling of criminal activity, identifying trends or "hot spots" of gang or theft related

Continued on Page 9



Example of the map display used by 9-1-1 telecommunicators. Included are structures, streets, addresses, fire hydrants, and orthophotography.

Introducing The Virginia Metadata Portal

By:

Lyle Hornbaker

Local Government Manager

VITA/VGIN

Does this sound familiar?

You've just left a very interesting Board of Supervisors meeting where a potential mass evacuation was the hot topic. Several weeks ago a major thoroughfare in a neighboring city closed due to a car crash. The rush hour traffic had been diverted into your sleepy little rural county causing major problems for locals and "detourees" alike. Tonight those local citizens turned to their elected officials to express their anger at the seeming lack of preparedness.

Now the Board wants to know how a large scale evacuation might affect the county including not only possible traffic problems but other things like critical utility infrastructure, facilities that might need protected and potential flooding areas. They even want to know about hotel space and restaurants for your jurisdiction. The worst part is that want a review of these items for all your neighboring jurisdictions within 50 miles!

You already have some of this data (maybe) but finding it and then getting the information for all of your neighbors will be hard. Then you remember the Virginia Metadata Portal at GISData.Virginia.gov. A simple search

reveals data on roads, utilities, imagery, evacuation plans, restaurants, hotels and much more. Some of it even points to layers that you entered. A few quick downloads and you're well on your way to producing the maps that the Board needs.

Why was the portal created?

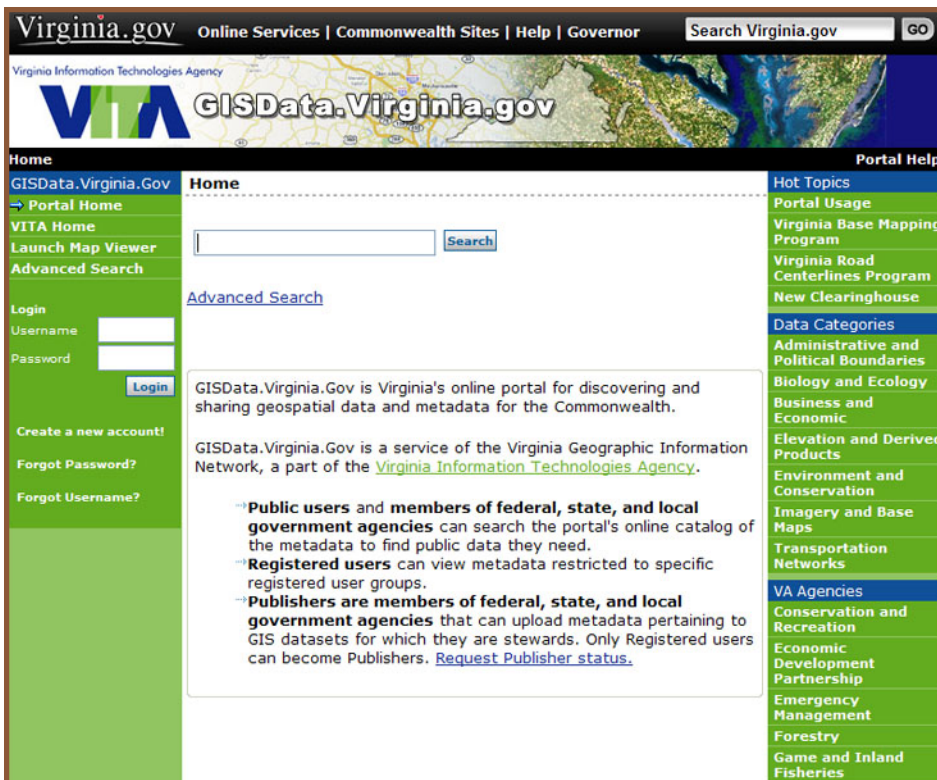
While this may be a dream scenario at the moment, it came closer to reality with the implementation of the Virginia Metadata Portal in August. Researching available data is often the first step in creating new maps. Finding metadata can help speed that process. Using a good single source of metadata is even better.

The portal is a repository for metadata available for Virginia. Metadata is best described as "data about data." It is not the data file itself but is instead a file that includes items like a descriptive title and information about scale, accuracy, completeness, etc. You can think of it as a "library card file entry" for a data file.

The Virginia Geographic Information Network (VGIN) is mandated by the Code of Virginia to collect metadata for all state agencies and develop a catalog to make state agency and local government metadata easily accessible for anyone who needs it. Once all the metadata files are loaded, the portal will fulfill that mandate.

What's on the Metadata Portal?

Anyone with Internet access can search, review and download the

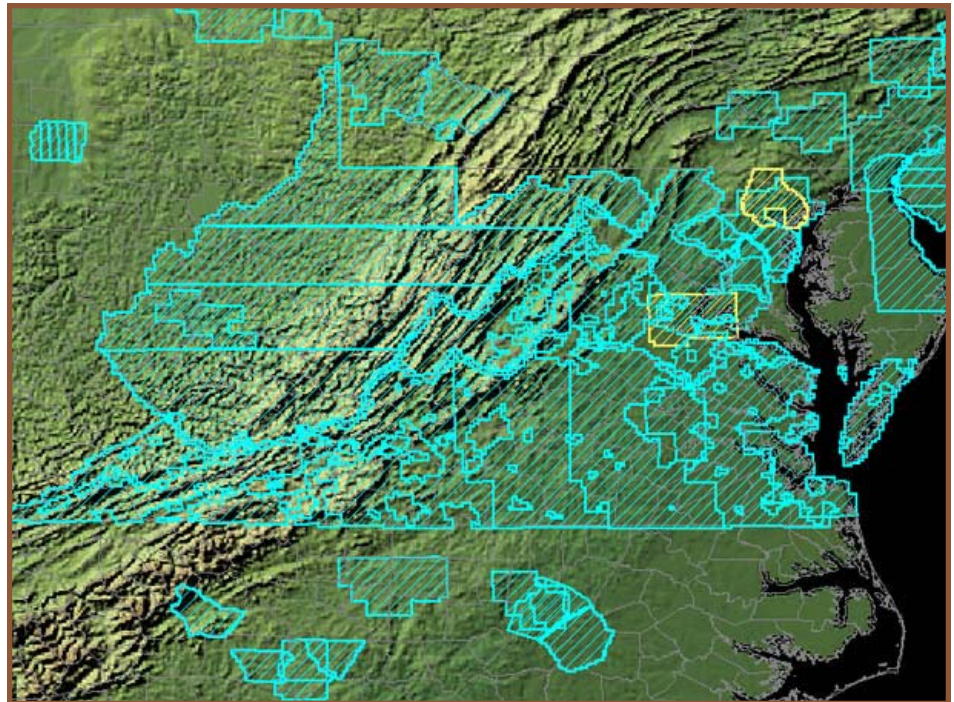


The Virginia Metadata Portal can be accessed through <http://gisdata.virginia.gov>

By: Diane Eldridge
Virginia Liaison
USGS

Virginia 2002 Orthoimagery Data Available for Free Download From the USGS

The US Geological Survey (USGS) **Seamless Data Distribution System (SDDS)** (<http://seamless.usgs.gov>) enables a user to view and download many geospatial data layers, such as the National Elevation Dataset (NED), National Land Cover Dataset (NLCD) and High Resolution Orthoimagery (DOQ, DOQQs). The main portal for the SDDS, at <http://seamless.usgs.gov>, supplies access to online downloads of raster and vector GIS datasets in a variety of formats delivering up to 3.6 GB per session. The SDDS is designed for high volume delivery on high-speed networks. All data products delivered from The SDDS are bundled with FGDC metadata specifically tailored to document the portion of the data extracted.



Footprints of Virginia Orthoimagery hosted in the SDDS (as of mid-September, 2007)

Through a partnership agreement with the USGS, the Commonwealth of Virginia (VITA/VGIN) provided the

2002 State-wide Orthoimagery collection to USGS for inclusion in this national data collection. The Orthoimagery data may be downloaded free of charge; bulk distribution for datasets is available on media for a small fee. The 2002 imagery which was collected at 6" resolution has been loaded and is currently available for download. The ingest of the 1' and 2' data sets is scheduled to be completed by August 15th.

First time users are encouraged to make use of the on-line tutorial for assistance in data downloads. For additional assistance you may contact the USGS Geospatial Liaison for Virginia: Diane Eldridge at

A screenshot of the USGS Seamless Data Distribution System (SDDS) home page. The page features the USGS logo at the top left, navigation menus for Home, Background, List of Products, Frequently Asked Questions, Links, and Contact Us. A 'Who' section lists 'Web Requirements' and 'Tutorial'. A 'System Status' section indicates the system is 'running'. A 'Posted 06-26-2007' notice mentions intermittent download problems. On the right, there are two map-based links: 'View and Download United States Data' and 'View and Download International Data'.

Virginia Cooperative Extension

Continued from Page 1

overlaid these parcels with the National Land Cover Dataset (NLCD), which is a GIS dataset containing 21 classes of land cover derived from satellite imagery. Parcels that matched up with NLCD forested areas were extracted and retained into a master database. Still other counties had even more advanced GIS datasets with land parcels already overlaid with land cover. These counties were able to send us complete lists of forest landowners pulled directly from those datasets.

One county did not have any of their landowner records available in any type of electronic format. For this county, the Northwest Natural Resources program visited the county and photocopied each page of the deed books that contained ownerships with areas of fifty acres or more. The tax map was then scanned, imported into ArcMap, and overlaid with the NLCD dataset. Finally, those land holdings that fell within a tax grid matching an NLCD forested land cover class were manually entered into the database.

Now that the database is established, records are kept in an Excel spreadsheet of every instance an individual landowner attends a forest landowner workshop. This spreadsheet can then be imported into ArcGIS and displayed as a map. Figure 2 shows an example using the data previously described. The principal function of this GIS is to

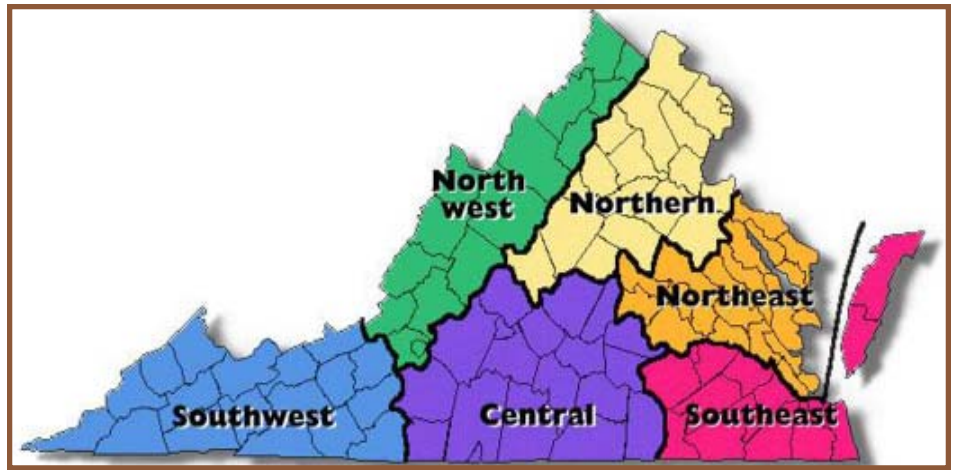


Figure 1: Virginia Cooperative Extension districts. This article focuses on the Northwest District.

identify areas where landowners have not yet been reached and to determine correlations between where programming is held and where landowners are coming from. The figure shows the locations of past workshops and workshop attendees by ZIP code, using graduated colors. All workshops were held in the Northwest District. Those ZIP code areas displaying participation outside of the Northwest District represent absentee landowners: people who own land in the Northwest District and therefore received invitations to the workshops, but live outside the

District. Additionally, this GIS is a valuable reporting tool. It can give administrative staff and local decision makers a clear picture of outreach efforts and results.

This is one simple example of how ArcGIS can be used to display and analyze spreadsheet data. The Virginia Geospatial Extension Program is currently developing an Extension bulletin, which will serve as a tutorial for Extension agents and others interested in importing an Excel spreadsheet into ArcGIS.

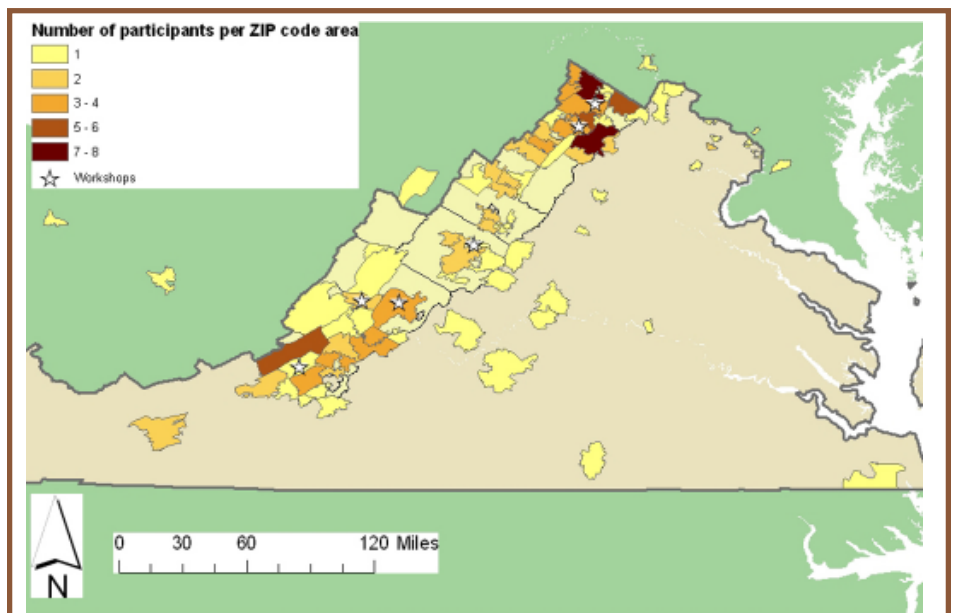


Figure 2: Map showing VCE Northwest District forest landowner workshops and participants

GIS and E-911

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safety answering point (PSAP), or 9-1-1 center, the address is parsed from the incoming data spill. If an individual address layer is present, the application searches that layer for a match. Once the match is found, the search is refined by the emergency service number (ESN), also parsed from the ALI spill; verifying that the address match has occurred within the correct ESZ. (The ESN/ESZ provides the telecommunicator with primary responder information such as the law, fire, and medical for the incoming address.) If no match is found in the individual address layer, the application then attempts to interpolate the address on the RCL based on address ranges. If a match is found, an ESZ boundary refinement is executed as described above to verify the address is located within the correct ESZ, thus rendering the proper primary responder information.

The layers described above are necessary for wire-line call plotting, but another layer is now being deemed critical—high resolution aerial imagery. This is a result of the increase in wireless 9-1-1 call volumes which, in many localities, is now outnumbering wire-line call volumes. Plotting a wireless 9-1-1 call is simple. Unlike wire-line call plotting, there is no dependency, or interaction, with the map data itself. When a wireless call is placed, a latitude/longitude coordinate is passed along with the ALI spill, the coordinate is parsed by the application, and mapped accordingly. How reliable the location is depends on many factors, but from a GIS standpoint, the data should be to the

highest degree of spatial accuracy possible to ensure reliability relative to the plotted wireless call location.

Virginia is answering the call for good map data and bridging the public safety/GIS divide. Since 2002, with funding from the Virginia E-911 Wireless Services Board and keen oversight by the Virginia Geographic Information Network (VGIN) Advisory Board, the collection and distribution of state-wide aerial imagery to state and local governments has taken place. In nearly all PSAPs in Virginia, with the exception of a few currently involved in implementing solutions, fully funded dispatch mapping systems have been implemented and 9-1-1 telecommunicators are seeing wireless 9-1-1 calls plot on the aerial imagery. Figure 1 shows a 9-1-1 calls being plotted in a dispatch mapping application. Success stories abound, and the effort to implement such technology is saving lives.

In May of 2006, the Virginia Information Technologies Agency (VITA) formed the Integrated Services Program (ISP); consolidating the VGIN and Public Safety Communications Divisions, along with Radio Engineering. One of the responsibilities of the Public Safety Communications Division is to carry out the directives of the Wireless E-911 Services Board. Amongst many benefits, this reorganization is bridging safety/GIS divide. Staff members routinely communicate the public safety and GIS needs of their constituencies, which are generally from the same localities, just different departments (GIS and public safety). This is allowing for greater efficiency and effectiveness in the efforts of ISP at-large; and better service to our customers which include other state agencies and the localities of the Commonwealth.

If your department provides data to public safety entities, remember to be

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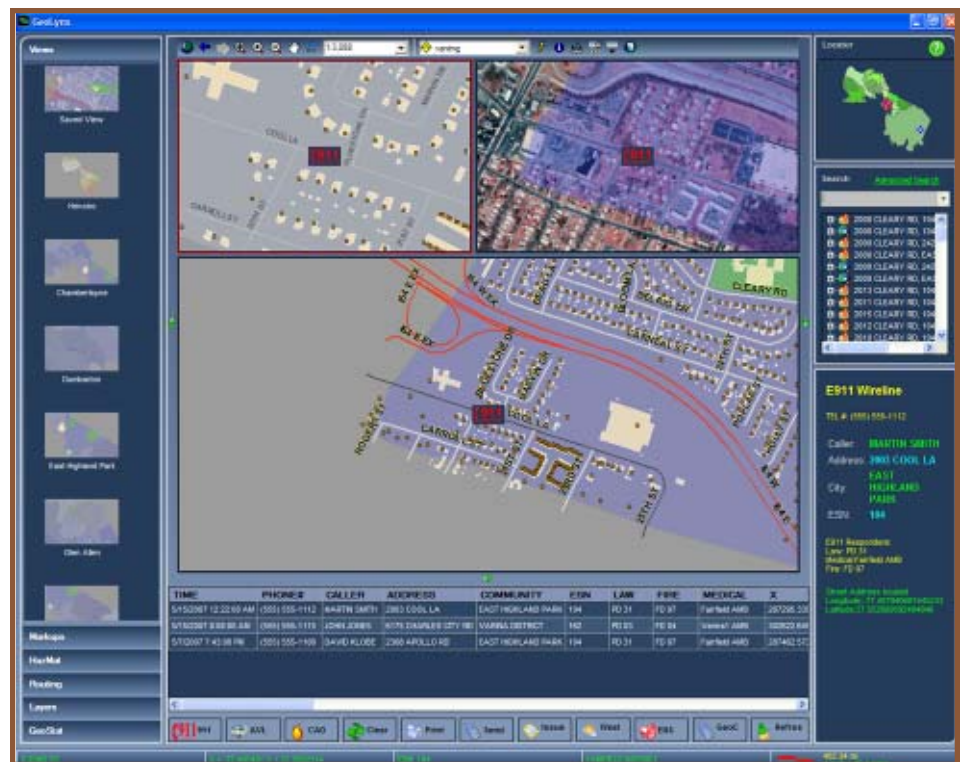


Figure 1: 9-1-1 dispatch mapping applications such as this are being used throughout Virginia to assist in making emergency response decisions.

GIS and Public Safety in Rockingham County

Continued from Page 4

activities, and more. The Department of Fire and Rescue is using GIS data in building code enforcement and inspections, fire district re-allocation, fire station siting, resource analysis, incident analysis and pre-planning. The uses of a GIS in public safety are only limited by one's imagination but they all depend on accurate, current, and correct spatial data. The road network and address layer is the "common ground" for public safety. Having a spatially accurate, complete, and correct layer to geocode against is no easy task, but it is a fantastic asset once developed and maintained.

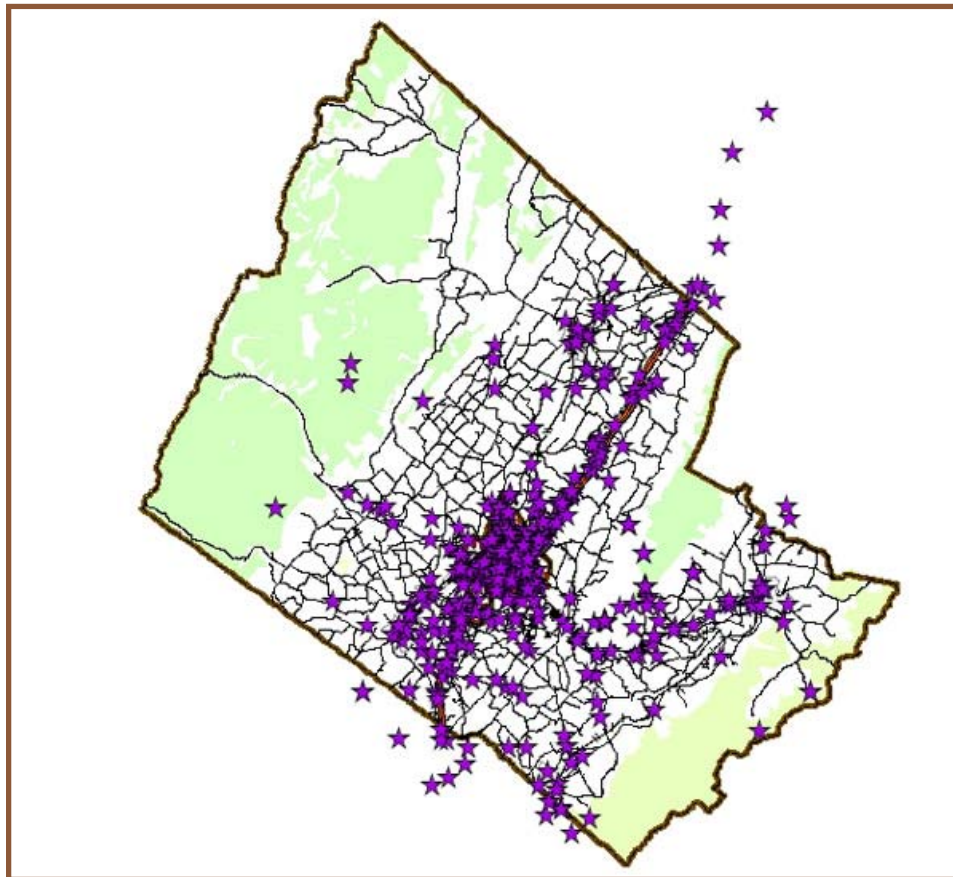
A primary focus of the GIS divisions both at the City of Harrisonburg and Rockingham County is to assure that the geospatial data utilized at the HRECC is kept up-to-date. Processes are currently in place which involve continuously updating road centerlines, building footprints, and address points. Due to the regional nature of the HRECC, multi-jurisdictional data must be combined to allow for the timely and accurate location of an emergency caller through a map display system at the call center. At this time the process of providing geospatial data updates to the HRECC is purely manual. And while Harrisonburg and Rockingham County have independent GIS divisions with comprehensive detailed data, automatic integration of the data and propagation to the 9-1-1

telecommunicators' map display systems is now top priority.

To assist with this effort the HRECC was awarded a grant from the VA Wireless E-9-1-1 Services Board. The project goal is: "To create an automated, real-time map updating process which allows geospatial data at the 9-1-1 telecommunicator's workstation to be updated immediately

that will merge cross-jurisdictional data sets, establishing a secure network solution and developing a process which will update the map display at a telecommunicator's workstation.

Currently this project is in the early planning stage where stakeholders' interests and expectations are expressed and a plan for project development and requirements will be



Generalized map of Rockingham County showing wireless 9-1-1 calls received during January, 2006. Note the concentration of calls within the City of Harrisonburg (center) and along major transportation corridors including I81 (north and south) and US Route 33 (east and west).

after changes in the Harrisonburg or Rockingham County GIS are made." Project objectives include acquiring an industry-aware consultant to determine the best method of automatically integrating map data, utilizing an integrator to create a custom interface

determined. As the project moves forward, updates and progress articles will be provided via this venue. It is our expectation that once a solution is in place, it could potentially be utilized by other GIS departments and Emergency Communication Centers across the Commonwealth.

The USGS Serves VBMP Imagery

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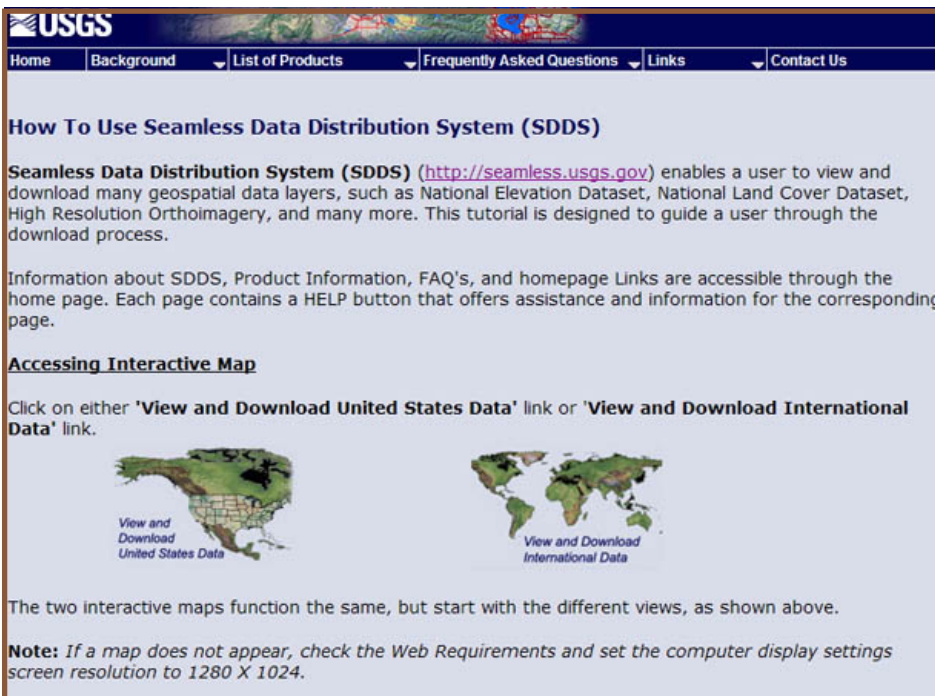
deldridge@usgs.gov. Interactive web-based training sessions can be arranged to allow users to take advantage of all tools available within the Seamless Data Distribution System.

The SDDS has experienced unprecedented growth over the past

Urban Area orthoimagery program, the National Aerial Imagery Program (NAIP), DOQQ programs, other federal agencies, and state and local governments. The Seamless Server actively works with the USGS NSDI Partnership Offices and state liaisons to assist state governments in hosting, delivering, and archiving their high resolution orthoimagery. The customer growth illustrates how pervasive use of this free data source has become.

The Seamless Server publishes map services in both ArcIMS and Open

records and links to live map, feature, and catalog services, downloadable data sets, images, clearinghouses, map files and more. A fact sheet on Geospatial One-Stop may be found on-line at <http://www.usgs.gov/ngpo/documents/Geodata-2s.pdf>. The Seamless Server also supports more than 25 applications with interactive map viewers and online data delivery as shared activities supported by the USGS and other Federal Agencies.



The SDDS provides step by step instruction through the online tutorial

several years in both content and use. Much of the content growth can be attributed to the high resolution orthoimagery obtained through collaborative efforts between federal, state and local governments. New imagery data is received from the

GIS formats and registers those services with both the *The National Map (TNM)* and Geospatial One Stop (GOS). The Geospatial One-Stop portal <http://gos2.geodata.gov/wps/portal/gos> is a catalog of geospatial information containing metadata



Movin' On
We wish you all the best...

Stephen Barbie (formally with VDOT) is now on staff with the Virginia Geographic Information Network (VGIN).

Kenny Brevard (formally with Rockingham County) is now on staff with the Virginia Geographic Information Network (VGIN).

Jules Robichaud (formally with the City of Virginia Beach) is now the GIS Manager with the Hampton Roads Sanitation District (HRSD).

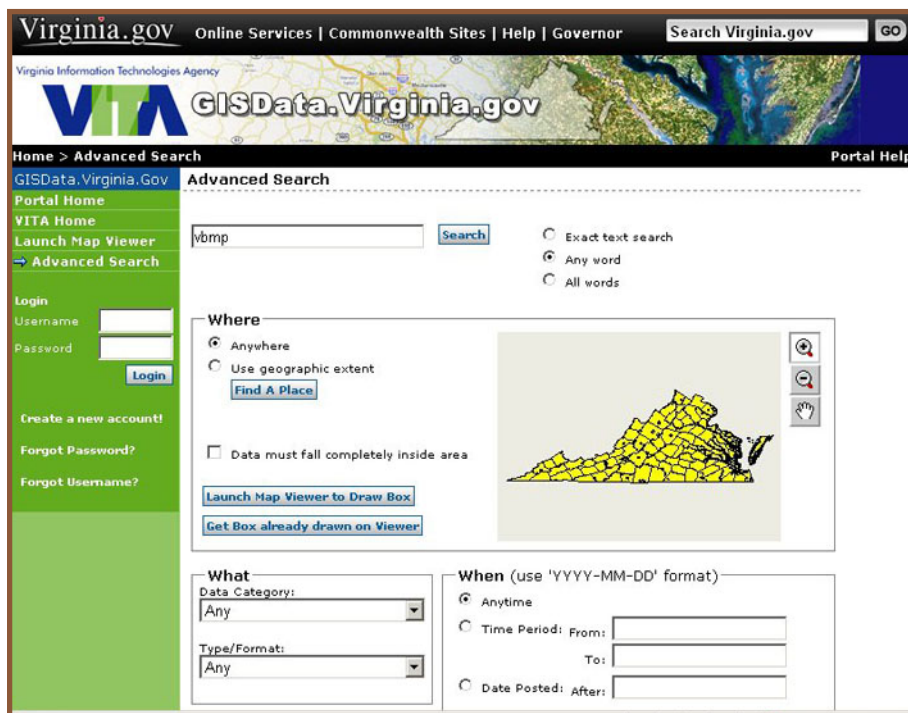
Michael Vojta (formally with VDOT) is now on staff with the Virginia Geographic Information Network (VGIN).

Clay Wise (currently with the City of Virginia Beach Department of Public Utilities) has accepted a position as the Senior Programmer Analyst with the Hampton Roads Sanitation District (HRSD).

Virginia's Metadata Portal

Continued from Page 5

metadata from the portal. It has an easy to use web interface with two types of search capability. Users can enter a



Searching for Metadata Records on the Virginia Metadata Portal

simple keyword search from the home page or create an advanced search looking at more criteria. The portal has the ability to store metadata about all types of spatial and non-spatial data. It can reference data about standard GIS data like streets and rivers or it can hold metadata that documents webservices or planned data acquisition activities. And best of all, if the metadata references an online link for the data itself or for a contact, a button click will take the lucky user directly to the URL.

Creating quality metadata.

In order to make the portal as useful as possible it is important the metadata be valid and complete. Though some governmental organizations have a solid metadata program, the quality and completeness of this information varies across the Commonwealth.

describing the metadata standards, explaining the proper use of metadata, emphasizing the importance of a sound metadata program and exposing the attendee to the basics of creating a metadata file.

The second type was directed more towards someone with a sound understanding of metadata who wanted help in fine tuning their metadata process. Called the “Metadata Retreat,” it allowed attendees to bring their own data files. The instructors assisted participants in creating or enhancing the metadata associated with those files. A major portion of the retreat focused on uploading the newly created files to the Virginia Metadata Portal and has resulted in around 40 files already on the portal.

Responding to participant feedback, future training will be a one day session, focusing on metadata basics in the morning and creating metadata in the afternoon. These sessions will be scheduled as needed. Please contact

(Continued on Page 12, Col. 1)

To help solve this challenge, VGIN, in partnership with the Virginia Geospatial Extension Program at Virginia Tech, and through the financial support of the Federal Geographic Data Committee (FGDC) just completed an initial series of training workshops. The series consisted of two types of training. The first was geared to introducing metadata concepts and training the new metadata creator. Titled the “Metadata Creator Workshop,” it focused on



Metadata training materials are available on cd-rom. Contact The Virginia Geospatial Extension Program or VGIN

Virginia's Metadata Portal

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VGIN if you would like to attend one of the classes.

I have metadata. Can I put it on the portal?

While anyone can search the portal, only Virginia state agency, local government or state institution of higher education can publish metadata files. If you are a Virginia government or Virginia higher education employee, you can post your organizations metadata to the Virginia Metadata Portal. There are over 50 active publishers on the portal and you can join them. Here's how:

1. Go to the Virginia Metadata Portal at <http://gisdata.virginia.gov>.
2. Create a registered user account ("Create New Account" on the left).
3. Request Publisher status from the portal administrator by sending an email to VBMP@vgin.virginia.gov. Please include your name, job title, organization you represent and the user name for your registered portal account.
4. Review the training materials provided by VGIN.
5. Upload your metadata!

That's all there is to it. Your metadata is now searchable from across the globe!

Contribute to the effort.

While a metadata portal is an important step for GIS users in Virginia, it's only a library. A metadata library is only as good as the metadata files it contains.

If you are a metadata custodian, you can help the effort by becoming a publisher and contributing to the library. If you have data without proper documentation, you can help by learning more about metadata and then documenting your data. Either way, the real winners are the GIS users in Virginia.



GIS and E-911

Continued from Page 8

patient. There is a learning curve for everyone involved. Be sure to understand the public safety business needs and map data requirements. Be willing to explore options for making life easier both your department and the public safety agency relying on your data. This is a formidable, yet honorable, task. A neighbor, friend, or family member may one day depend on your map data for help. When the going gets tough or frustrating, remember that your map data is literally saving lives on a daily basis!



Geospatial Workshops Offered

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At the conclusion of the ArcPad workshop, participants will be able to upload images and data to a device running ArcPad, capture data in the field, download collected data from the mobile device back to their PC, and develop user-friendly interfaces to support field-based data collection.

The Geospatial Extension Program will provide iPAQ's with GPS devices and laptop computers to support the hands-on activities and exercises for this workshop. You just need to show up ready to learn!

The **Pictures, Points, and Places** workshop is a one-day course that provides basic instruction in the use of GPS receivers. In addition, participants learn how to "link" GPS coordinates with digital pictures (this could include pictures taken with a digital camera or with other digital images such as scanned deeds, historic documents, etc.) The course is appropriate for individuals with little or no previous exposure to GPS. This workshop combines short presentations and lectures with hands-on activities using GPS receivers, related software, and desktop computers.

More information about the courses, including dates and locations, can be found at <http://www.cpe.vt.edu/gisworkshop/>. Other questions should be directed to the Virginia Geospatial Extension Program. Also refer to the calendar of events on Page 14 of the newsletter.



By:
Clay Wise
President, VAMLIS

Fall Update from the Virginia Association of Mapping and Land Information Systems (VAMLIS)

The VAMLIS executive committee is working on a number of issues and efforts to support Virginia's GIS community. Here is a summary of some of those activities...

The **VAMLIS Spring Conference** will be held on May 6-7, 2008 at the Omni in Charlottesville. A more formal announcement and call for papers will be out shortly. We are excited about this year's venue. VAMLIS will be providing a **full day of GIS training** the day (May 5th) before the conference this year.

The **VAMLIS executive committee is currently in discussion with the VAPDC about jointly hosting a Virginia GIS conference** once again. The target for both organizations is the 2009 conference, and we are hopeful that we can make this happen. When realized, this effort will benefit the GIS community in the commonwealth.

VAMLIS is in the process of hiring an **executive director**. This is a paid position. The executive director will help take care of many of the administrative tasks the executive committee has been handling over the past two years, and will provide continuity for our volunteer officer positions.

The **VAMLIS website** is getting a facelift! After many years the VAMLIS website is in need a good update so we are in the process of getting the new graphic design in place. There will be

an announcement when the work is complete.

VAMLIS is providing support for the **2008 Virginia Tech Office of Geographic Information Systems and Remote Sensing (OGIS) Research Symposium** which will be held in April 2008 (date and specific location TBA) on the Campus at Virginia Tech in Blacksburg. In addition to providing a venue to share information about recent advances in geographic information systems and remote sensing applications in Virginia, the GIS and Remote Sensing research symposium will feature opportunities to interact with colleagues, students, and government and industry representatives from across the state who are interested in geospatial information technology. While the symposium is intended to encourage the sharing of information and collaboration among academic faculty and staff, the symposium also draws participants representing the pre-college, community college, the private sector, and government entities from across the region.

Attendees will learn about new technologies and new applications of existing technologies, learn about new data sources and the availability of data in Virginia, and Meet potential new employees/employers.

The meeting will focus on interaction among participants and the sharing of data, applications, and techniques. The symposium will include both

presentation and poster sessions as well as a keynote speaker and guest speakers. There is no registration fee to attend the symposium.

Additional information regarding the 2008 Virginia Tech GIS and Remote Sensing Research Symposium will be posted on the OGIS Webpage: <http://www.ogis.vt.edu> in early January. In addition, an announcement will be made in the Winter edition (early January) of the Virginia Geospatial Newsletter.

The **VAMLIS Educational Committee** will be meeting via a conference call in the week of October 8th. If you are interested in joining the VAMIS Educational Committee, please contact John McGee @ jmcg@vt.edu / 540-231-2428.

VAMLIS is a volunteer organization dedicated to professional development and GIS education for the commonwealth. Without your help VAMLIS cannot succeed. **If you have an interest in volunteering for any of the committees (education, activities, executive) then please contact us.** This can be done by sending an email to the secretary (vamlis_secretary@yahoo.com), or by marking the sheet on your VAMLIS membership renewal form.



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.

ArcGIS Learner's Permit October 16th, , Richmond, VA
Hosted by the Virginia Geospatial Extension Program
Further information and registration: <http://www.cpe.vt.edu/gisworkshop>

Introduction to ArcPad November 5th, Hampton Roads (Virginia Beach), VA
Hosted by the Virginia Geospatial Extension Program
Further information and registration: <http://www.cpe.vt.edu/gisworkshop>

Introduction to GIS for Virginia Cooperative Extension December 6th - 7th, Blacksburg, VA
Hosted by the Virginia Geospatial Extension Program. Contact John McGee (jmcg@vt.edu) for additional information.

Location, Location, Information: Introduction to GIS December 10 - 11, Richmond VA
Hosted by the Virginia Geospatial Extension Program
Further information and registration: <http://www.cpe.vt.edu/gisworkshop>

Pictures, Points and Places January 16th, Roanoke, VA
Hosted by the Virginia Geospatial Extension Program
Further information and registration: <http://www.cpe.vt.edu/gisworkshop>

ArcGIS Learner's Permit February 5th, Abingdon, VA
Hosted by the Virginia Geospatial Extension Program
Further information and registration: <http://www.cpe.vt.edu/gisworkshop>

Introduction to GPS for Virginia Cooperative Extension February 12th, Richmond, VA
Hosted by the Virginia Geospatial Extension Program. Contact John McGee (jmcg@vt.edu) for additional information.

Introduction to ArcPad March 12th, Roanoke, VA
Hosted by the Virginia Geospatial Extension Program
Further information and registration: <http://www.cpe.vt.edu/gisworkshop>

Location, Location, Information: Introduction to GIS April 14-15, Hampton Roads (Virginia Beach), VA
Hosted by the Virginia Geospatial Extension Program
Further information and registration: <http://www.cpe.vt.edu/gisworkshop>

Pictures, Points and Places May 14th, Richmond, VA
Hosted by the Virginia Geospatial Extension Program
Further information and registration: <http://www.cpe.vt.edu/gisworkshop>

Virginia Tech Office of Geographic Information Systems and Remote Sensing (OGIS) Research Symposium, April, 2008, Blacksburg, VA
Contact John McGee (jmcg@vt.edu) for additional information.

VAMLIS GIS Spring Conference, May 6-7, 2008. Charlottesville, VA.
Hosted by the Virginia Association of Mapping and Land Information Systems (VAMLIS)
Note that VAMLIS is sponsoring **a full day of training prior to the conference** (May 5th). Stay tuned for further information, or periodically check the VAMLIS Website: <http://www.vamlis.org>

ESRI User Conference / ESRI Educational Conference August 2-8, San Diego, CA
For additional information and registration: <http://www.esri.com/events/uc>

For information on other National Geospatial Conferences and Workshops, visit the **National Geospatial Technology Extension Network** at <http://geospatialextension.org>

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The Virginia Geospatial Extension Program
319 Cheatham Hall (0324)
Blacksburg, VA 24061
(540) 231-2428
<http://www.cnr.vt.edu/gep>
gep@vt.edu