

THE SUMMIT

News From and For The Washington GIS Community

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GIS, LAND SURVEY, LAND PLANNING AND POTENTIAL FOLLIES WITHIN 'OFFICIALDOM'

By, *Tim Leach, GISP*

An array of jurisdictional maps at varying scales have been digitized and included in Geographic Information Systems (GIS). Large scale representations may display the cadastre covering a section or quarter section of land with properties generalized or compiled from property assessment maps. Small scale representations may include entire jurisdictions: states, counties, or cities. They can be described as summary maps; they may provide the bases for planning applications like zoning, transportation, and land use. Many were originally drafted on large area maps to highlight features of interest with crayons, felt-pens, and highlighters. Interpretation of lines from these maps can result in boundaries enforced through policy or code. When they are represented as layers within the GIS, authority over their use can create problems as professional interests intersect. The potential for procedural follies that could be harmful to the public and GIS is described through a set of events, subtle actions and interpretations by professionals from different fields synthesized within a fictitious jurisdiction called "Officialdom" in the State of Washington.

The described events are based on conjecture. There is no intent to characterize the actions of real individuals. It is believed to be worthwhile to examine what could have happened as a hypothetical set of events purely for the purposes of professional discussion. The title refers to an article within The American Surveyor in a piece called "GIS Follies" (Leininger, 2009).

One day, a friend, a land surveyor of esteem forwarded a note seeking the opinion of a GIS professional regarding a quasi-legal description that he was reviewing. The description looked like this:

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2010 WASHINGTON GIS CONFERENCE:

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PRESIDENT'S COLUMN

Happy New Year to my GIS friends and colleagues! We start off 2010 with a bang with this very full issue of *The Summit* thanks to Chief Editor Greg Babinski and a great team of volunteer editors and contributors. This issue again exemplifies what Washington URISA is all about by bringing us together to learn from each other and to grow as a community by identifying and covering thought provoking and possibly controversial topics. We have an incredible number of talented and energetic GIS professionals throughout our region and as Washington URISA president I am proud that our chapter is able to be part of what bonds us together through *The Summit* and our annual conference.

Our conference committee, under the leadership of Chair Neil Berry, is rapidly preparing for the 2010 Washington GIS Conference at the Tacoma Convention Center on April 19-21. The keynote speaker this year will be Ian Von Essen who will inspire us with GIS collaboration and innovation at the County and City of Spokane. We have five half-day workshops lined up with a possible sixth on a wide variety of topics sure to be beneficial to any GIS professional. Our website is updated regularly so please check it often for the latest conference news and information.

I look forward to the annual Washington GIS Conference every year where I know I will again be able to meet up with my GIS friends and colleagues to exchange ideas, get inspired and have a great deal of fun. I know that I can always count on that inspiration and innovation from my GIS colleagues at the conference. What organization will have that presentation that inspires me to do more or better things using GIS? Who will that lone GIS professional be that gives a jaw-dropping presentation and makes us all wonder how they were ever able to do it all? For 2010 that could be you. It could be your presentation that inspires us or gives us that great new idea. Think about everything you have accomplished over the past year and consider presenting at the conference or entering that great map you just made. The way time flies the conference is just around the corner so now is the time to write up an abstract and submit it and get your travel authorization approved as well. The Washington URISA board members and education committee work hard to make the GIS Conference an affordable but valuable education opportunity for all GIS professionals and we would love for you to 'Rise to the Challenge' and be a part of it in 2010.

Thank you for the opportunity to serve as the Washington URISA chapter president.

Cheers,

- Don Burdick, President.



POTENTIAL FOLLIES

Continued from page 1

Scrumptious Doughnuts Incorporated -TAX PARCEL NO. 362010-1234

The North Half of the Southwest quarter of the Northwest Quarter of Section 36, Township 20 North, Range 10 East Baseline Meridian, in Officialdom County Washington; **except that portion lying South of the Urban Growth Area established by the Officialdom County Comprehensive Plan and subsequently converted to the county Geographic Information System** where the data is a layer identified and described by Federal Geographic Data Committee metadata documentation published by Officialdom County.

This sort of application could have serious consequences and serve to widen a rift between the professions of Surveying and GIS. After spending some time trying to sort through how this may have occurred, the datasets involved, and the resulting actions, I have purposely spent some time attempting to explain conjectured events so that it might be helpful to others, particularly those from other fields that may use GIS technology.

An Introduction with Cartographic Generalization

Mapped features and lines incorporated into a GIS can be examined in relation to each other. Lines may represent physical features like roads, or cultural features like boundaries. Lines of a particular theme may be grouped within one layer (e.g. roads). The placement of lines (or portions thereof) may correspond well to real world, field geographic locations. This is generally the case when lines originate from land surveys, engineering, or aerial mapping projects where methodologies specifically support or establish spatial accuracy. The placement of lines that are interpreted from existing maps, through processes like scanning or digitizing may be relative to each other or the features and lines from other themes, and may not correspond well to field locations.

With all of the different types of maps associated with local jurisdictions: area maps, detailed maps, and very accurate, survey maps there can be differences in the locations on the order of hundreds of feet, from where a line or feature on one map may be represented on another:

- Area maps of a large extent contain generalized information for clarity. Often features like roads and rivers are smoothed or offset, only representing an approximate geographic location meant to help assist the map reader.
- Maps are generally produced in sizes that are measured in inches, or centimeters. In order to represent features in geographic locations (miles, kilometers, feet, meters), some sort of scaling must occur consequently, coordinates are not as precise.
- Accuracy of published maps can be established by a statistical sampling of mapped features and field locations (USGS, 1947). Any particular feature may not be as accurate. Often, draft maps and source layers are produced that avoid the rigor associated with published products; feature locations may not be reliable.
- Accuracy and precision associated with professional land surveys can be expensive. The purpose and proposed uses of a layer in GIS determine required accuracies. In many cases, the accuracy of attribute information is more important.

The fact that features are displaced can simply be a result of viewing layer data that originates from base maps of different scales. Lines drawn on small scale (large area) maps may appear to follow the roads, streams, and other features. However, if one digitizes these lines into a computer representation, then "zooms" to scales beyond the source map's quality, inadequacies in location begin to appear as layers derived at larger scales are observed (**Figure 1**).

Differences of scale or detail during compilation results in what appears to be a mismatch in location. This appearance of a mismatch is well known by cartographers, photogrammetrists, surveyors and other mapping professionals within the geospatial communities that have to explain limitations to technical users of GIS, or craft disclaimers for applications and maps.

More than once, I have witnessed scientists and professionals from other fields "zoom" beyond a layer's quality, observe layer data in relation to others, and emphatically state: "The data are not accurate!", oblivious to issues of scale. Admittedly, it seems logical to derive an assumption that geographic information exists in either of two states: accurate, or not accurate. The geospatial professional recognizes qualifiers such as scale, purpose, time, and completeness in determinations of fitness concerning the scope of effort and expense required to compile geospatial data.

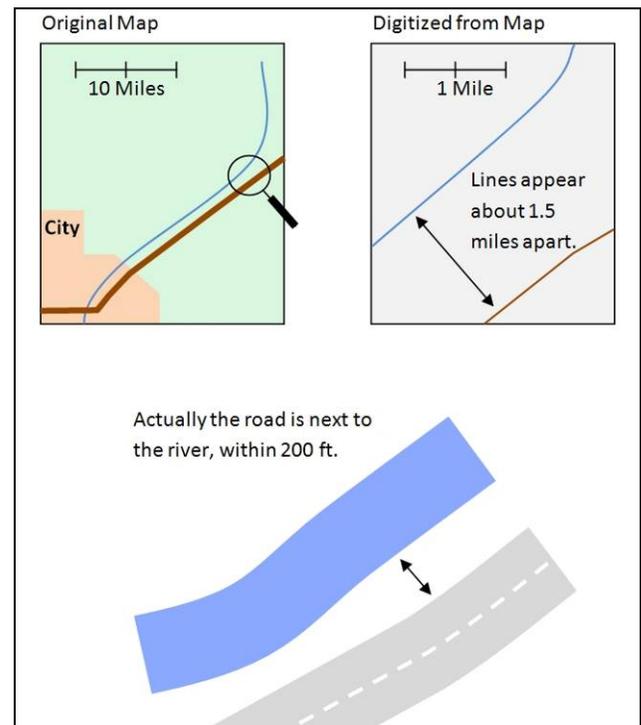


Figure 1 – A small scale map shows a road and river offset to assist the map reader. If the lines are digitized into a GIS layer, they are about 1.5 miles apart. Really, the river is next to the road.

See Potential Follies, Page 3

POTENTIAL FOLLIES

Continued from page 2

In many instances, the accuracy of GIS layer information is qualified by the validity of attribute information within the database or through the spatial connectivity of features. Either of these purposes can limit the cost and out-weight the need for locational accuracy.

Actual problems exist when users of computer systems (like GIS) make assumptions, decisions or statements that are inappropriate given the limitations of the features represented. This can be a result of ignoring disclaimers, making gross generalizations, or even being misled by disclaimers that do not adequately state limitations. It should be a responsible, and ethical professional goal to be clear and concise when stating limitations of geographic features represented within maps or applications; limitations should be "glaringly, apparent and obvious" to users. Perhaps statements should detail examples of appropriate and inappropriate use.

In some instances, the cause and effect can be obscured. Simple measuring tools on web applications may happily report distances like "1000.0534 feet" where no data or features displayed approach that level of precision resulting in a false impression of accuracy. Software tools may simply allow for the best precision possible or display a convenient number of decimals to fit a textbox parameter. Most do not synthesize the appropriate precision attained by examining the application's compiled datasets and features.

Without an understanding of the basic ideas presented above, to some it may seem that maps are simply a form of graphics supporting other professions. By extension, this can influence a conceptual simplification of GIS. In turn, this can lead to primary, organizational follies that place authoritative control of GIS in the hands of people without proper backgrounds:

- What if diligently explained limitations of GIS layer data are ignored by authoritative professionals and administrators from other fields?
- What if politicians or administrative officials assert authority over the GIS and the use of spatial information?
- Are there unique problems associated with the professional focus of controlling organizations (e.g. land use planning or information technology)?

Some land surveyors have deplored the expanding role and use of GIS without oversight warning that misuse of GIS layer data is imminent, particularly where there are representations of properties. Others have fulfilled professional responsibilities by raising concerns resulting in efforts like the GIS/LIS Addendum to the NCEES Model Rules (Joffe, 2001; NCEES, 2009). Probably, most have come to embrace GIS and mapping technology incorporating some of the tools within their own toolboxes, while realizing the genie is out of the bottle; many jurisdictions have public internet sites that allow access to a disclaimed property layer that is not authoritative and acts as an index to property records and other information.

Some land surveyors have deplored the expanding role and use of GIS without oversight warning that misuse of GIS layer data is imminent, particularly where there are representations of properties.

Plans, Boundaries, Interpretations

In Washington, counties are required by law to submit Comprehensive Land Use plans to help to ensure that growth occurs responsibly within the State. The law specifies that each county is responsible for "county-wide" plans that identify areas and elements within. There are no specific stipulations about the scale or resolution associated with area determinations; however, it is reasonable to assume they are generalized to an adequacy relevant for regional and county-wide planning and assessments (RCW, 2009a). (The entire RCW chapter more specifically identifies transportation planning.) There is no distinction in scale or purpose of supporting data so implementation may not be consistent among, or within counties.

In Washington State as in many other states, the professional land surveyor, through the "Practice of land surveying" determines the location of boundaries and subdivisions of land (RCW, 2009b):

(9) "Practice of land surveying" means assuming responsible charge of the surveying of land for the establishment of corners, lines, boundaries, and monuments, the laying out and subdivision of land, the defining and locating of corners, lines, boundaries, and monuments of land after they have been established, the survey of land areas for the purpose of determining the topography thereof, the making of topographical delineations and the preparing of maps and accurate records thereof, when the proper performance of such services requires technical knowledge and skill.

See Potential Follies, Page 8



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MAKING ARCGIS MORE ACCESSIBLE TO AN ORGANIZATION'S USERS

By Whitney K. Bowerman

GIS-enabled organizations large and small must tackle the issue of how to make their GIS information available to the masses. Having sound, reliable data is key but it is of little use if access is cumbersome or, perhaps worse, if no one knows this valuable information exists in the first place.

The issue of accessibility can be approached from a couple of angles. One is technology - the software, hardware and people that facilitate the physical access to data. The other is internal visibility - educating users on how to best articulate their needs and helping to empower them to tap into the myriad of tools available.

The ideal solution depends in part on the size of the organization. A large GIS shop has the capability to create and support custom GIS applications whereas a GIS staff of one or a few people will be lucky to successfully identify the resources to purchase an off-the-shelf product.

Desktop Mapping

Short of costly customizations there are a few methods by which to make ArcGIS Desktop more accessible to users. These include layer files, layer package files and map templates. Both layer files and layer package files provide easy access to pre-symbolized data. Layer package (new in ArcGIS 9.3.1) files also contain a map and can be added directly to maps and globes or be used to share data with other ArcGIS users. Map templates provide an easy to use standardized layout and can include data or simply the layout itself.

Web Mapping

Says Lisa Castle at King County GIS (KCGIS), "a few years ago the question was 'how can I make ArcMap more accessible? The question to ask now is 'how can I make web mapping more accessible?'" For easy dissemination of data internally, ArcServer is arguably the best way to go. There are numerous web mapping APIs available, including JavaScript, Flex and Silverlight. KCGIS has settled on using JavaScript. It provides a powerful, extensible and consistently available option, and creating an ArcServer application using JavaScript is relatively simple. King County's "Road Alert" mapping application was developed in-house using ArcServer and the JavaScript API. Likely the most time consuming part of creating an ArcServer application is building the basemap - creating a nice basemap takes time. Caching is also time consuming but can be run in the background while working on other things.

Still other options for easy data dissemination exist, such as using existing tools like ArcGIS Explorer, which can consume ArcServer map services.

Internal Visibility

Providing a network that users can plug into is key. Many organizations have GIS user groups or technical learning groups to assist staff. A help desk or service desk is critical and the more personable this can be, the better. A help desk that allows users to simply pick up the phone and connect with a support person will be more effective than one that requires them to log a ticket and wait hours or days for a response. An organization's IT department can collect user demographics, providing the support person with a list of staff using GIS so that they can better focus their efforts and outreach.

In addition to internal efforts, a variety of resources exist online. ESRI has a number of useful sites, including the knowledge base and mapping center. Even a quick YouTube search for GIS yields thousands of results.

Case Study - King County GIS

As a larger GIS shop, King County GIS has on staff GIS application developers, analysts and other resources. To improve access to the agency's GIS data, KCGIS created Lib Tool, an ArcMap application to allow users to easily access GIS data. In a nutshell, it is a custom toolbar added in ArcMap that allows for easy access to the over 400 vector features classes in the County's spatial data warehouse. Users can browse data by thematic group or data type, and search via keyword, title and more. When a dataset is selected, Lib Tool adds a corresponding pre-symbolized Layer file. Each of these Layer files are maintained by the dataset's designated steward. Lib Tool utilizes Visual Basic, XML and ArcObjects, and relies on an ArcSDE data warehouse maintained by a designated database administrator. KCGIS has several dedicated application developers as well as other staff with scripting expertise and abilities.

In addition to ArcGIS Desktop, KCGIS offers a couple of ArcIMS products - Parcel Viewer and iMap. Parcel Viewer, currently in the process of being revamped into an ArcServer site, is a simple application that allows the user to search for and view King County parcel information. iMap is more heavy duty, providing users with a few tools and allowing them to create their own maps if they don't have ArcMap.

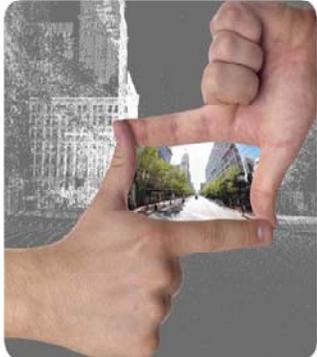
See Accessible GIS, Page 5



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ACCESSIBLE GIS

Continued from page 4

Case Study – City of Olympia

The GIS program at the City of Olympia is still in its infancy, with two dedicated staff responsible for the GIS needs of staff City-wide. As a small shop with limited funds and no GIS application developers on staff, the City relies on generic tools to provide access to GIS data. A couple of years ago they implemented Geoblade, a lightweight but clunky GIS data viewer. The other option for those wanting to access GIS data is ArcGIS Desktop itself.

The majority of the City's spatial data is stored in ArcSDE. Custom ArcGIS map templates, a Layer file library and tutorials are utilized to make connecting to this data as user-friendly as possible. A centralized internal website serves as a one-stop-shop for addressing basic GIS needs and questions. The site covers categories such as mapping, data, GIS software, training and resources.

Providing a network that users can plug into is key. Many organizations have GIS user groups or technical learning groups to assist staff.

The solutions for how to improve the accessibility of an organization's GIS data are as varied as the organizations themselves. Larger state and county agencies often have the necessary resources in-house to create custom tools, be it via the web or desktop software. So what to do if you're a smaller shop? There are a variety of off-the-shelf products to add bells and whistles to ArcGIS Desktop. Such tools make customizations accessible without in-house developers. However, because every system is different a generic product will most likely not be a perfect fit. Hiring an outside consultant is another option but this can be expensive. Additionally, if custom code breaks it can be difficult and expensive for a small shop to fix, and bugs are common with new ArcGIS software releases.

Perhaps one of the best moves a small shop can make is to invest, if possible, in developing internal web mapping applications. Working internally has far fewer complications than building a public-facing mapping site and a simple web map can often satisfy internal users needs. After all, customizing desktop GIS software can only go so far - they are still very complex programs where ease-of-use is far from the primary focus.

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Thanks to Lisa Castle (King County GIS Center) and Julie Fogde (Washington State Department of Transportation) for their contributions to this article.



CONGRATULATIONS TO GIS PIONEER

MARTY BALIKOV:

2009 SUMMIT AWARD WINNER.

Michelle Lortz recently interviewed Marty Balikov, 2009 Summit Award winner, for *The Summit*.

Summit: Tell us a little about yourself; where you grew up, your educational & professional background.

Marty: I grew up in a northern suburb of Chicago called Highland Park. I have two older brothers and a sister whose careers range from environmental law to social work. I went to the University of Oregon (go Ducks!) for my undergraduate work thinking I was going to study architecture. However, after studies in fine arts, graphic design and geology, I found myself in the Geography Department taking cartography classes from Bill Loy while he was finishing up the first Atlas of Oregon. My first job in applied geography was delivering pizzas for Dominos in Eugene which quickly convinced me that I had better get some real experience and a master's degree if I wanted to do more with my life than run a pizza shop.

Summit: How did you become interested in GIS and how long have you been involved with it?

Marty: It's been over 25 years now since I started on my Masters Degree in Cartography at the University of Wisconsin – Madison. I worked in their cartographic lab, doing projects for USGS, grad students, etc., and taught the lab section of the basic cartography series as a teaching assistant for Philip Muehrcke. I had recently started taking classes in remote sensing and was starting to focus on a thesis topic around image maps when Nick Chrisman joined the faculty from Harvard to start teaching GIS. GIS clearly pulled together geography, cartography, and remote sensing and started me on an academic path that led to a position with ESRI after my graduation in 1986.

Summit: How did you arrive at your current position, and what do you *really* do?

Marty: I was hired as a project manager in professional services at ESRI back when there were only about 100 employees. After an exciting four years I left Redlands to work as a consultant implementing the City of Seattle's GIS program including designs and prototyping for Seattle City Light and Seattle Public Utilities. In 1994 I took the opportunity to create and run the GIS program at King County where we designed and implemented all the basic data layers and maintenance procedures for the county GIS over the next four years. I had the opportunity to come back to ESRI as the Regional Manager changing my focus from a single agency to spreading the technology to all public and private organizations in a five state area.

At the time of this award I was just finishing up almost 12 years as the Regional Manager for ESRI. In that role I was responsible for software sales, training and services for the northwestern states of WA, OR, MT, ID and AK with a staff that grew to about 40 people located primarily in Olympia. That was a crazy, fun decade of ensuring that my team provided all of the latest in ESRI news, software, support, training and professional services. I'm now leading an ESRI consulting team providing enterprise planning and implementation services in natural resources, forestry, local and state government.

See Marty Balikov, Page 6

MARTY BALIKOV

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Summit: What technological changes have you observed or experienced since you became familiar with GIS?

Marty: In 1985 I was running a team for the Wisconsin State Cartographer's office that produced map and air photo indexes with photocopied maps, wax and stick-on lettering. My first GIS projects at ESRI were developing large network databases from the Digital Line Graph (DLG) data to create routable transportation networks for the continental US. Developers on my project created ESRI's first dynamic segmentation tools in an INFO program and ArcInfo 3.4. My design for the Digital Chart of the World pushed the limits of ArcInfo's ability to process and manage very large coverage's and my 1989 prototype for Rand McNally proved the ability to create feature linked annotation and export color separations to pre-press systems.

The Seattle City Light design required modeling connectivity across coverage tile boundaries for their electric network to enable circuit tracing. Digitizing the circuit maps fell back on tried and true methods of prepping paper copies to assure complete capture. I'm sure that there are dozens of readers who remember working with highlighters in hand, prepping SCL and King County source maps for digitizing. I know we are all glad that the days of hand digitizing voluminous complex map series are over.

The King County GIS implementation focused on serving data centrally to many departmental and project users and, with the release of ArcView, we were able to design GIS for the personal computer user for the first time. This was a huge change as we were finally able to put GIS in the hands of casual users and we started building libraries of published shape files from our coverage libraries.

The last few years have brought tremendous change and opportunity as web services have enabled another revolution in the delivery of spatial data and analysis. We have strong data management tools, replication services, cross-platform standards-based web and IT environments, fast web mapping, powerful geographic analysis and modeling tools that support customization and application development and can be shared across our user communities. I believe our key challenges now are to educate and break through organizational barriers to truly begin to manage our world geographically.

Summit: What advice do you have for those beginning their career in GIS?

Marty: GIS is a growing field but growing into specific areas of practice rather than growing for the GIS generalist. I see the greatest need for people who can provide GIS skills with specific domain knowledge. I see the need for engineers, marketing/retail specialists, utility, health, public safety, telecommunications, economic, community development and information technology specialists to bring GIS into their business practices. That translates to jobs for the people who know that business and know GIS tools and methods. I believe that people starting their GIS careers now should be either bringing GIS into your current job or should focus on getting a starting position with the organization that does the type of work to which they want to apply your GIS skills. In particular, I see need and potential growth of GIS positions within Information Technology departments.



Marty Balikov, 2009 Summit Award Winner

Summit: Do you foresee an expansion of GIS use into areas that aren't currently being served?

Marty: Yes, GIS will continue to evolve and grow becoming an integral part of all public facing web services for government, NGO's and businesses. GIS has to become accepted as a mainstream information management tool to become fully integrated into the business systems that run both private companies and government. Those organizations look to their IT teams to provide accurate, reliable information. We need these GIS and IT working together to provide integrated web services to provide better information to consumers, decision makers and the general public. The technical skills needed here include all of the web development API's, object oriented programming languages, relational database management system administration and GIS/mapping services. As the cost barriers are broken by the ability to mash up publicly provided web services we will see an increasing use of GIS by non-profits, community organizations and small entrepreneurs. I am seeing continued growth of GIS in utilities, public safety, health, tribal communities, energy and real estate management organizations.

See Marty Balikov, Page 7

US TOPO: A NEW GENERATION OF MAPS FROM THE USGS

US Topo is the next generation of digital topographic maps from the U.S. Geological Survey. Arranged in the traditional 7.5-minute quadrangle format, digital US Topo maps are designed to look and feel like the traditional paper topographic maps for which the USGS is so well known. At the same time, US Topo maps provide modern technical advantages that support wider and faster public distribution and enable basic, on-screen geographic analysis for all users.

US Topo maps are available free on the Web. Each map quadrangle is constructed in GeoPDF® format from key layers of geographic data – orthoimagery, roads, geographic names, contours and hydrographic features - found in *The National Map*, which is a nationwide collection of integrated data from local, State, Federal, and other sources.

US Topo users can turn geographic data layers on and off as needed; zoom in and out to highlight specific features or see a broader context; and print the maps, in their entirety or in customized sections, on a wide variety of printing devices. Additional analytical tools are available free for download. File size for each digital 7.5-minute quadrangle is about 15-20 megabytes.

The prototype of US Topo, "Digital Map-Beta," has been available since June 2009 and currently covers 17 states. US Topo maps include all of the content of the earlier "Digital Map-Beta," plus integrated contours and hydrographic features.

As the US Topo product evolves, the USGS will provide digital versions of earlier edition topographic quadrangle maps and will incorporate additional geographic data layers from *The National Map*.

Coverage

As of October 2009, the USGS began to load US Topo maps to the USGS Store distribution point (<http://store.usgs.gov>) where the maps will be available for free download. Existing "Digital Map-Beta," will continue to be available for free download. As available, they will be eventually replaced by revised and enhanced US Topos produced by the USGS National Geospatial Technical Operations Center.

What Makes the USGS US Topo Different from Other Electronic Maps?

- Richer content, multiple layers of data, more than a street map
- Can be used on the computer or printed to scale
- Looks and feels like legacy paper USGS topographic maps but has technical advantages
- Nationally consistent data quality assured to high standards
- Downloadable free from the USGS Store
- Free, downloadable user tools
- Users can select from various reference systems: Latitude/Longitude, UTM (Universal Transverse Mercator), and MGRS (Military Grid Reference System)
- Direct "mash-up" capabilities with Google Maps®
- Continuous evolution and incorporation of additional data layers

For more information, see: <http://nationalmap.gov/ustopo/>



MARTY BALIKOV

Continued from page 6

Summit: How do you see GIS being affected by today's economy?

Marty: GIS has proven to be well positioned to continue to grow even during weak economic times. Our ability to provide more efficient data management, improved decision support, accountability and transparency and improved communication creates opportunities when everyone else is cutting back. Though we've seen a few layoffs of GIS positions this last year for the first time that I can remember, we have also seen new positions created and slow growth of the industry during a drop in the economy. GIS is a technology that enables efficiency, better decisions and better services for a relatively small investment. I strongly believe that we will see continued growth in our field despite the economy and have a very exciting year in 2010.

GIS is a technology that enables efficiency, better decisions and better services for a relatively small investment.

Summit: What is one the most important lessons you have learned from your experience in GIS?

Marty: I'm an optimist. I truly believe that GIS gives us the tools to methodically analyze and model our world and build products and business practices that are more efficient and effective than what we've used in the past. In terms of business and career development I've been very opportunistic. I always operate on the basis of having a clear plan but working very flexibly whether to accommodate new technology, political realities or new business opportunities either for me or my business. I think that implementing an emerging technology requires a positive attitude and flexibility and I think that many of our greatest opportunities may not be visible until we have already begun to explore new problems and new solutions.

Summit: Congratulations again Marty on your 2009 Summit Award, your achievements and continued goals. Thank you for sharing some of your experience and thoughts of wisdom with us.

Marty: Thank you Michelle. I'm very grateful for this award and appreciate the chance to share a little of my experiences with others.

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POTENTIAL FOLLIES

Continued from page 3

Some professionals may have a general understanding of GIS, without knowledge regarding scale and limitations of use associated with layer data. Some may assume that layers are meant to be used ubiquitously within computer systems because locations are derived from coordinates. Metadata describe the lineage and accuracy of a layer and help to qualify appropriate use. However, many layer datasets were created prior to the adoption of metadata standards and some GIS compatible layer datasets do not contain metadata files. In these cases, research may be required to ascertain fitness for use. Application interfaces and map products utilizing layers should contain disclaimers. Lack of knowledge concerning real limitations of GIS layer data can lead to inappropriate decisions.

At one county ("Officialdom County", Washington), the Urban Growth Area (UGA) boundary, a component of the Comprehensive Plan was originally formed from small scale zoning maps at a county-wide scale. Internally, over time, GIS layer representations may have improved resulting from updates. However, the current GIS layer and underlying parcels are presently, generally disclaimed from fitness of use, for any particular purpose. In other words, the metadata state that the layers are not of adequate quality for many uses which would include the description of property boundaries. The metadata exceed the minimum ethical requirement for content (GISCI, 2009). The following is paraphrased from metadata for all layers:

The data are provided on an "as is" basis with "all faults". There is no warranty of any kind or implied fitness for any purpose; the distribution of this information does not constitute a warranty of any kind.

More specific to planning applications, the following interpretation rules are within Officialdom's zoning code to address inconsistencies noted within maps:

To resolve the location of any zone boundaries use the following interpretation rules:

- A. *When the zoning boundary follows a street centerline, the zone boundary can be interpreted to match the adjacent right-of-way boundary.*
- B. *If the boundaries appear to follow existing lots, use the lots as boundaries.*
- C. *If the boundaries appear to follow hydrographic features, use the meander lines as boundaries for navigable bodies; use centerlines for streams or creeks.*

These interpretation rules specify a hierarchy in resolving inconsistencies with mapped representations of zoning areas and property boundaries. What is not clear in this interpretation is the specific source for property boundary and zoning information. It is clear that mapped representations of lines on summary, zoning maps may be different than those associated with properties; they may need interpretation. Perhaps it is within this section of the code that some ambiguity is perpetuated. There are no distinctions related to the accuracy, scale, or the origin of source information.

By omission, it is easily assumed that all information can be interrelated without regard to scale. Since the term "zoning boundary" is used, shouldn't the position be established by a proper land survey? Could one avoid this issue by not using the term "boundary"?

The interpretation rules indicate an understanding that zoning defines areas that are underpinned on parcels, rights-of-ways or other mapped information of greater detail.

Realizing Limitations of Layer Data

Urban Growth Areas and lines from the GIS layers compiled at county-wide scales are subject to limitations. Most jurisdictions could never afford to create geographically accurate layers considering the hundreds of layers in GIS systems – though desirable. Most layers were likely constructed for the purpose of creating summary maps, compiled from short-term projects, or for specific uses that do not require the accuracies associated with land surveys.

One method to improve usefulness is to incrementally improve a layer over time by modifying generalized locations to comply with locations of more definitive underlying layers. The edited and adjusted features can be annotated within the database, and the layer's resulting metadata (per edited feature). This way, a user can determine if one layer has been rectified with other layers for the purposes of establishing relative locations. Accuracy is more importantly qualified by the relational coincidence of features between layers rather than by field measurements.

The intent of the representation of features within specific planning layers should be determined by land planning experts. They are the domain experts. The American Planning Association has defined a comprehensive coding system that can help provide consistent information across jurisdictions: Land Based Classification Standard (LBCS) (AICP, 2009b). It should be the responsibility of geospatial professionals that manage the enterprise GIS to set policies, restrictions, and disclaimers on use of resulting layer representations in applications, maps, and products. They should be working in partnership with IT/IS professionals to ensure enterprise policies are consistent with non-geospatial information within the enterprise.

In the case of GIS, it is assumed that fundamental use restrictions, metadata standards, issues of scale and purpose, and geoprocessing procedures are more appropriately addressed in policy by GIS professionals, rather than professionals from other fields.

A Path Forward

The following steps outline a path to take to improve GIS layer data, while proceeding to serve customers with regard to a planning application within Officialdom:

1. **Track, record, and identify problems with planning areas** as they are reported or found. (This is true for other layers as well.) Maps are published and require updates, so too does layer information. Tracking problems will allow updates to be made to the layer information prior to adoption of the next plan. Physical and cultural features change over time.

See Potential Follies, Page 10

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2. *Create resolution procedures for immediate problems.*

If it is clear that a line was meant to follow a nearby: road, parcel, stream, etc., note that it should be assumed that its intended location was such and record it for change. If it is difficult to determine the intended position, create procedures to resolve a location; for example, a first option may be to follow the nearest parcel line, then easement line, then physical feature, etc. Rules can be made to outline a procedure for resolution. The county has a basic set of steps to follow to address problems with the zoning map (an original base map for the UGA).

3. *Create general policy statements regarding limitations of use.* It should be recognized, noted and incorporated in statements of policy that geospatial data of this nature (land planning boundary layers and maps) are used with respect to their limitations; area calculations and other measurements are approximations.

If deterministic boundaries are required, a qualified land planning expert should make a determination on the intent of the location of the Urban Growth Area. Wetlands boundaries are similar; wetlands experts determine the extent of an area by field observation of the soils, vegetation, etc. In both cases a professional surveyor can then establish the location of a boundary when a need arises, specific to a site from which a legal description can be ascertained. A GIS professional can include a representation of the updated boundary (which is not authoritative) at that location in the next release of the dataset and within related applications with a hyperlink to the actual survey record.

The proposed solutions can be improved to be more efficient over time. They can be adopted for use on other layers of information and help to continuously improve the quality of GIS layer information. They qualify limits of geospatial data and help to clarify the need for land surveyors to establish definitive locations particularly with reference to properties and boundaries.

The Wrong Thing to Do

While it may appear to be expedient, an inference that the location of the line in the layer should be used "as is" may have significant consequences:

- "As is" could cause the proliferation of invalid legal descriptions that will erroneously encumber properties. As time goes on, the number of parcels with erroneous descriptions will increase as well as the expense to correct them.
- "As is" may perpetuate an idea of using GIS layer information inappropriately. Layer data is known to be restricted by accuracy and scale relative to use.
- "As is" may lead to assumptions that other layers can also be used "as is". In some cases the consequences may be severe or result in litigation.
- Policies and procedures affecting geospatial information may begin to be managed improperly by unqualified individuals – necessary geoprocessing procedures may be ignored and budgets may not reflect actual needs.
- Procedures to correct and update layer information may be avoided, because "as is" becomes good enough. Enterprise GIS layer data may degrade over time.

As time goes on, it is hoped that layer data will improve and approach needed and desired accuracies. This idea is supported by setting processes that appropriately recognize the life-cycle maintenance of geospatial information and should be managed by experienced GIS professionals in concert with others from the geospatial communities.

Why it's Okay to Make Corrections

An important consideration that is frequently overlooked is the relationship between a small scale map, and the line representation within a GIS layer. The line digitized to create a layer is not the same line on the source map. It is a "representation" of the original line. Characteristically, it is the small scale map depicting the whole area of the jurisdiction that becomes the official map. If this is true, the line on that map, at that scale, and at that width is the official line – even if the map is generated from a GIS.

AN EXERCISE IN SCALE: PLANNING MAPS, PENCILS AND MARKERS

Within Officialdom, a zoning map from the 1980's was used as a base to draft lines upon by planners. A zoning hardcopy map has a relative scale of 1 inch to 2 miles. This equates to an absolute scale of 1:126,720 (5,280 ft/m * 2 m * 12 in/ft).

A standard No. 2 pencil has a width of about 0.7 mm. This would be a relatively thin line. The actual drafted line was probably much wider. A line that is 0.7 mm in width is at least .0275 inches wide. On a map of this scale, .0275 would equate to (.0275 * 126720) 3,484.8 inches on the ground. This is about (3485.4 / 12) 290.4 feet.

The width associated with a standard highlighter is 2.5 - 4.7 mm. 2.5 mm is .098 inches and 4.7 mm is .185 inches. This would equate to 12,418 inches and 23,448 inches respectively. This could be between 1,034 feet and 1,954 feet respectively.

Using the assumptions above, the actual Urban Growth Boundary line as drafted by planners on the official map is actually, probably somewhere between 290 and 1,954 feet wide if it were located in on the ground.

What this means is that if Officialdom were to make small corrections to the line within the layer, (e.g. at scales where parcels are viewed) they would not actually be changing the Urban Growth Boundary line at all (in this case, the corrections would not even be visible when displayed on a county-wide map):

- In many cases, small differences in area resulting from corrections at the parcel level have little effect on the computation of area for the whole county (mathematical significance).
- The correction of the line does not really change the effective boundary. The boundary location will simply be corrected to be represented properly at a larger scale (when viewed with underlying parcels and other features).

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- The plan map is qualified for use at county-wide scales. Resolution procedures begin to be established for corrections at the parcel level.
- Problems for citizens can be resolved more quickly and responsibly, without the overhead of policy changes for minor corrections.

It is generally acceptable to make corrections to update and improve GIS spatial information. One method to help clarify these relationships within GIS applications is to allow the line displayed to get wider as one zooms in and thinner as one zooms out. This way it becomes apparent to users that the location is not definitive when viewing parcels. GIS analysts, developers and cartographers have an increasing number of alternatives to choose from to help qualify displays (internet and intranet applications) or features on maps. Cartographers and mapping professionals are educated with respect to the importance of adequately qualifying maps and displays.

Once the limitations of the data are realized, life-cycle activities related to geospatial data should be supported that help to improve the quality of locational accuracies over time. The value of geospatial data as an enterprise asset should increase and be reflected within realistic and meaningful management costs.

More Details about the Problem

The description of a property presented at the beginning of this article includes a reference to a county's GIS layer (Urban Growth Area). There was no information regarding the training or type of individual responsible for composing the description. Further analysis was performed by researching Officialdom's GIS internet resources to include layer metadata and an excellent web mapping application which allowed access to the latest land survey as well as a copy of the title.

After examining the UGA in relation to other layers, it might be reasonable to assume that the original intent of the location of the Urban Growth Boundary line was to follow a stream that has a similar shape (Figure 2). Characteristically, lines that irregularly curve are often associated with hydrographic features. Cartographers may recognize that this sort of distortion is common when original base maps are of a much smaller scale. In this case the stream appears to be largely outside of the depiction of the parcel.

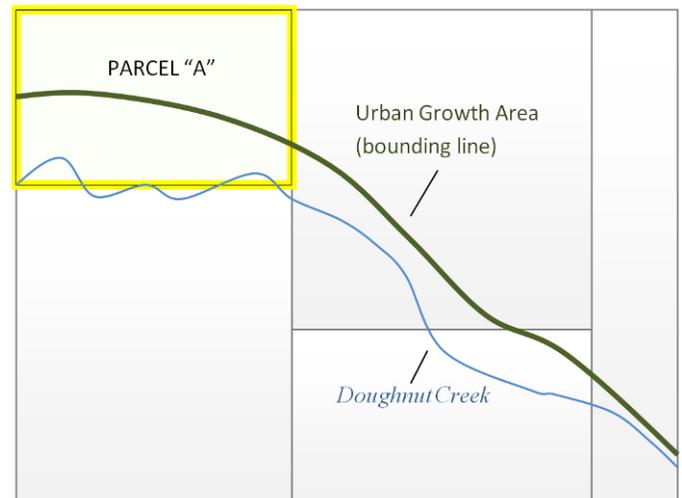


Figure 2 – View of tax parcel 362010-1234 in relation to the Urban Growth Area displayed from Officialdom's internet application

If coincidence with the stream is true and based upon proposals outlined earlier, resolution for using the UGA properly can include professionals from land planning, survey and GIS as they perform responsibly and ethically within their own professional competencies:

1. Decide that the UGA line should follow the stream:
 - a. Note that the UGA line needs to be adjusted. (Land Planner)
 - b. Flag the UGA line portion for a land survey, to follow the centerline of the stream and to establish a real boundary. (Land Planner)
 - c. Validate description with research and perform land survey. (Surveyor)
 - d. Update GIS layer during regular maintenance. The UGA layer is specified as "not authoritative" as noted within metadata. (GIS)

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2. Decide that the UGA line should follow southern boundary of the parcel:
 - a. Note that the UGA line needs to be adjusted. (Land Planner)
 - b. Flag the UGA line portion for update or by reference to the parcel survey in metadata of the UGA line. The distance between the creek and the property line is close and this judgment is consistent with zoning map interpretation rules. (Land Planner)
 - c. Validate description with research and perform land survey. (Surveyor)
 - d. Update GIS layer during regular maintenance. The UGA layer is specified as "not authoritative" as noted within metadata. (GIS)

The two solutions above are probably among the best, preferred solutions. However, a different scenario actually emerged at Officialdom.

Organizational Impediments

GIS specialists were located within Officialdom's planning organization. The GIS lead was well aware of the limitations of the underlying layer datasets and informed me that this was a hot topic internally. GIS representatives could only suggest proper actions. The UGA was viewed as deterministic; any change could only be applied within the next code update. Authority was placed at a higher level and within this organization the person was a planning official (Figure 4).

Department of Planning & Development

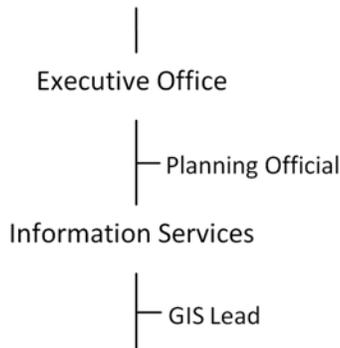


Figure 4 - Organizational chart within Officialdom's Department of Planning & Development indicates authority over GIS lead.

Subtle, organizational qualities are likely at the root of problems resulting in a legal description containing the GIS layer:

- There is an assumption within Officialdom that policy concerning the UGA is directly associated with a line in the GIS layer.
- Authority over use of the GIS layer information has been instigated or transferred by this association.

Although the planning official is competent to manage land planning issues, the GIS layer is better managed by GIS professionals trained and competent with technical aspects of the layer, database, life-cycles issues, products and linkages.

Scenario Summary with Exhibit

The authoritative official hired a land surveying firm to independently verify the location of the line from Officialdom's GIS layer. This resulted in an "exhibit" performed by a land surveying firm from which a representative illustration was derived (Figure 4).

As noted by the land surveyor who first contacted me, the exhibit did not indicate the basis of bearings, monuments and other information critical to establishing the field location of the UGA and parcel. It was titled an "exhibit" rather than a land survey, and annotated to indicate that it was not to scale. The title specifically indicates a reference to the relative location of a facility (the doughnut shop) and the county's UGA – though parcel lines are shown.

It was curious that the exhibit was signed and stamped. Generally, the stamp and signature is used to denote that the professional surveyor has, through the practice of land surveying established or retraced locations or boundaries which are depicted on a report or map. According to the Revised Code of Washington (RCW, 2009a); "Practice of land surveying" means assuming responsible charge of the surveying of land for the establishment of corners, lines, boundaries..." This exhibit and particularly the UGA line was not a product of the surveying of land. The stamp and signature also indicates that the represented work is performed or executed under the direct supervision of the indicated professional – clearly, the UGA line was not.

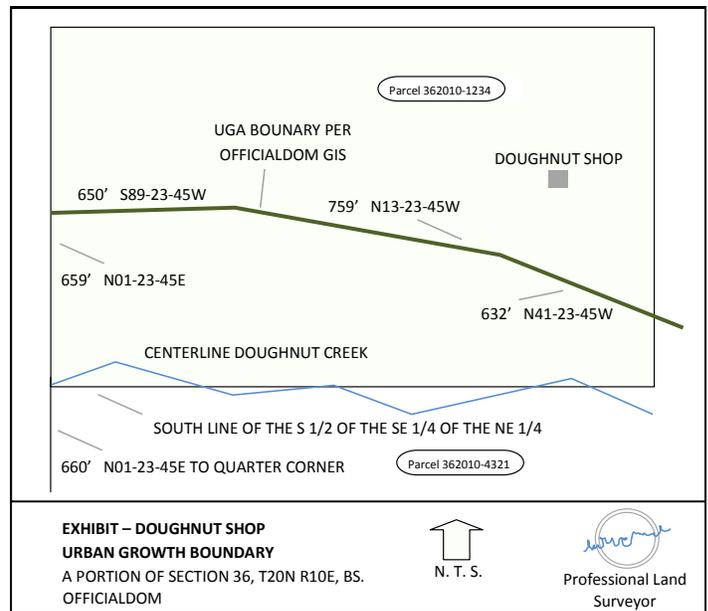


Figure 4 – An exhibit prepared by a professional land surveying firm. The file was named "Concluding Map".

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In the past, land surveyors have indicated their preference to include clarifying statements when parcel lines are depicted on any map – particularly those that are products of GIS. Recognizing the potential for harm and seeking to work responsibly with my geospatial colleagues, I made it a point to include this line any time the parcel layer was depicted: "WARNING: There may be errors or omissions of information on this map or plan..." and, when appropriate: "This is not a land survey. Please consult a professional land surveyor for accurate boundary determinations."

The exhibit performed by the land surveying firm does not include a disclaimer or words clarifying restrictions of use of any kind – other than "N. T. S." (Not to Scale).

A Review of the Events including the Exhibit

Information about the limitations of GIS layer data was forwarded to an official within Officialdom with hopes of explaining how changes to a layer in the GIS were very different than changes to the actual UGA. It was hoped that the discussion would assist the GIS lead (as an independent influence) and help to improve internal processes. But, that's not what happened.

A review of events in addition to what occurred after the exhibit was produced is presented below:

1. Land planners create various summary plans: Comprehensive Plan, Land Use, Zoning, Transportation, etc. at county-wide scales on maps.
2. Land planners protect the public by defending Officialdom's UGA from developers and others through developing code and performing permit reviews. The UGA is viewed as "deterministic" once adopted and written within code.
3. A representation of the UGA is digitized from source maps for use within Officialdom's enterprise GIS and is represented on official maps produced at small scales. GIS layer data used to make the maps is disclaimed for inappropriate uses within metadata.
4. A planning official utilizes the county's GIS and overlays parcels, at scales beyond the resolution of the UGA layer. At larger scales, the line appears to bisect a parcel.
5. The planning official is informed that there could be a problem with the UGA line at this scale viewed with other layers. There is resistance to making a parcel specific determination since the UGA has been adopted.
6. The planning official promotes using the GIS layer's UGA "as is". Problems were noted, but it is feared that any change in the UGA layer representation would also have to be resolved within Officialdom code.
7. An attempt is made to reconcile the location of the UGA layer with relation to a parcel, so that it can be used "as is". A land surveying firm is contracted to assign relative bearings and distances to the GIS layer derived UGA line as an exhibit. The exhibit displays an outline of the parcel. The product returned by the land survey firm is titled an "exhibit" with the following properties:

- It does not describe scale, or the actual parcel boundary.
 - It is not specifically disqualified from a proper "land survey".
 - It contains the stamp and signature of a professional land surveyor.
 - It contains no disclaimer or descriptive text qualifying purpose or appropriate use.
8. The planning official scrutinizes the exhibit and observes the following (paraphrased):

After review of your exhibit, our database information, and the UGA boundary line, we have ascertained that the "concluding map" showing the UGA boundary and your bearings accurately indicates the UGA bisecting parcel 362010-1234.

At this point, the planning official has made a statement qualifying accuracy without regard to scale, purpose, monuments, established boundaries, metadata disclaimers or use restrictions. In effect, the planning official interprets a GIS layer construed as a representation of the UGA lines (disclaimed for specific use, ignoring metadata) and qualifies it as "accurate". Though the representation of line could be accurate (with respect to qualifications), the planning official asserts authority for the apparent purpose of attempting to encumber a property.

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POTENTIAL FOLLIES

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The planning official may be practicing outside of his or her professional competency by assuming authority to make a boundary determination – raising ethical concerns about the process that occurred:

- **The official's statements indicate an authority to certify an exhibit as if it were a land survey:** "...the "concluding map" showing the UGA boundary and your bearings accurately indicates the UGA bisecting parcel 362010-1234." In fact, the exhibit is not a land survey and is not labeled as such. The UGA is not based on field locations; rather, it is a line originating from a small scale map and when digitized, further removed from the mapped location and is disclaimed for any particular purpose within metadata. Therefore, it is not possible to relate the location of the UGA to the actual field location of the parcel boundaries as there is no common basis to establish location. The statement incorrectly asserts a relationship with respect to the physical location of a parcel boundary.
- **The official's statements indicate an authority to qualify the accuracy of geospatial information.** "...the "concluding map" showing the UGA boundary and your bearings accurately indicates the UGA bisecting parcel 362010-1234." A land planner makes a statement affirming accuracy of geospatial information. Since the metadata disclaim the accuracy of the UGA, this statement could not be true.
- **The official has disregarded metadata disclaiming fitness of use associated with the GIS layer.** Both the parcel layer and the UGA layer contain metadata that disclaim fitness for use. The exhibit was prepared to establish validity of observed GIS layer data however the historical lineage and disclaimer within the metadata invalidate the process.
- **If the description is perpetuated, an unfounded encumbrance could be created.** Any encumbrances based on the UGA are unfounded and can be challenged. The exhibit does not establish a boundary; though, this is likely intended: "bisecting parcel 362010-1234".
- **The official is creating precedence for a process that will negatively affect GIS updates at Officialdom.** Using GIS layer information "as is" thwarts life-cycle updates to improve GIS layer information. The UGA should be properly located with relation to the parcel if the intent may be to create an encumbrance.

There are many more issues imbedded within the scenario summarized above. An over-arching problem may be the result of the organization's administrative structure. Officialdom's GIS lead should be in a position to have authority over products of the GIS. In this case, the planning official may also be assuming the authority of a professional land surveyor by establishing boundaries.

This Happens All the Time

A version of this story was shared with a friend who manages a parcel land base and is also a land surveyor at a local municipality within Officialdom. His comment was: "This happens all the time." Are we witnessing what could be the creation of procedures that may influence Officialdom for a number of years? Officialdom personnel, particularly policy makers, planners, and administrators need to be aware of the limitations that are inherent with computerized mapping systems and the products generated from them.

Further, professional and ethical responsibilities for determinations should remain within the purview of those qualified to make them. Others may have difficulty understanding that maps are not graphics and layers are not trivial – though they are similar to the graphics used in displays by planners and others over the years. The comparison of graphics to GIS is problematic as evidenced within the following description paraphrased from an actual job announcement from a land planning firm:

We desire a GIS/Graphics Manager to enhance our abilities to serve our planning clients, and improve our high quality in GIS.

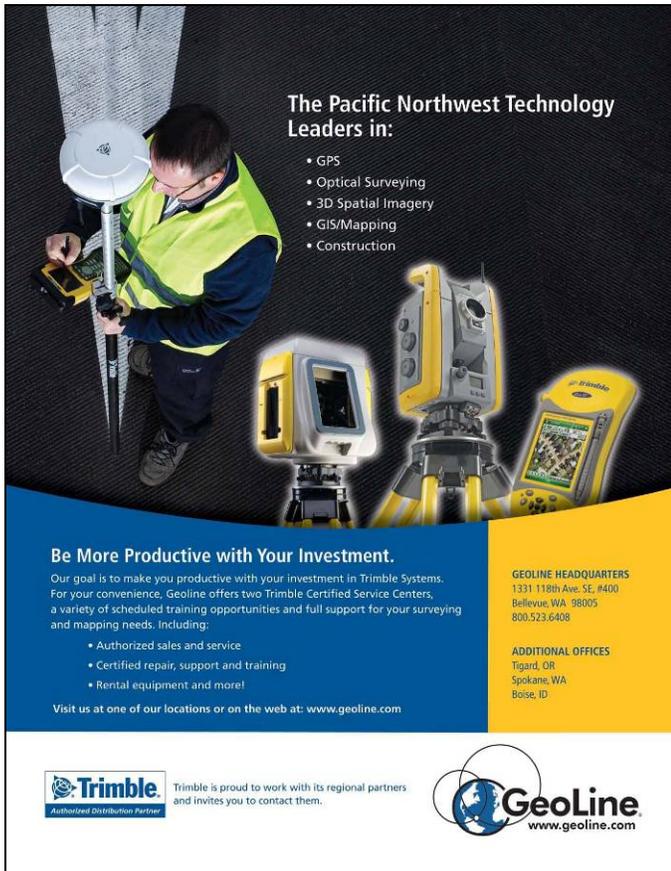
Ethical problems may be the result of administrative authority assumed by a controlling organization, rather than a professional authority based upon competence. In 1989, the Federal Geographic Control Committee (FGCC) publication called "Multi-Purpose Land Information Systems" identified organizational problems associated with locating GIS as a subordinate to Planning or Data Processing (today's IT was called Data Processing):

"Another important institutional decision is where, within county government, to locate the responsibility for an MPLIS. Placing all of the responsibilities in an existing user department (such as planning or engineering) can lead to inefficient utilization of resources within the organization and also cause problems with which management may not be prepared to deal (e.g., highly technical matters). On the other hand, placing all of the responsibility of the MPLIS in the data processing department can lead to problems as well. DP departments are often not familiar or comfortable dealing with the unique geographic and cartographic features that are such a large part of the MPLIS. Also, the MPLIS might not be given as high a priority in the DP department as users would like. Such conflicts tend to be frustrating for both users and providers." (FGCC, 1989)

Of course, this FGCC reference is probably only known or used by those from geospatial communities who might access the National Geodetic Survey (NGS) website. It is interesting this was recognized as a potential issue in 1989 and yet still today, organizations are attempting to subordinate GIS under IT or planning departments.

In 2009, at the Washington Urban and Regional Information Systems Association (WAURISA) conference, at one of the sessions, a presiding IT professional began by making a case that spatial information today is just another field in the database. Overt statements like this makes one wonder about the quality of spatial information and metadata within some organizations. It leads one to believe that some organizations may ignore any need for geospatial professionals to manage spatial information. Though it is true that shape geometry can be contained as an attribute within a field, as stated earlier there are many more ideas to consider.

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2. We shall not accept an assignment from a client or employer when the services to be performed involve conduct that we know to be illegal or in violation of these rules.

10. We shall neither deliberately, nor with reckless indifference, misrepresent the qualifications, views and findings of other professionals.

15. We shall not accept work beyond our professional competence unless the client or employer understands and agrees that such work will be performed by another professional competent to perform the work and acceptable to the client or employer. ...”

It is possible that once the land planning official was informed of the problems with GIS layer data originating from inappropriate source data, the proper, responsible and ethical course of action may have been to release responsibility for decisions regarding the use of layer information to the organization’s GIS lead; the decision to bisect the parcel may have been abated. And, procedures could begin to be established to properly address issues regarding the use of the UGA layer, updates to the GIS, and resolutions for the public.

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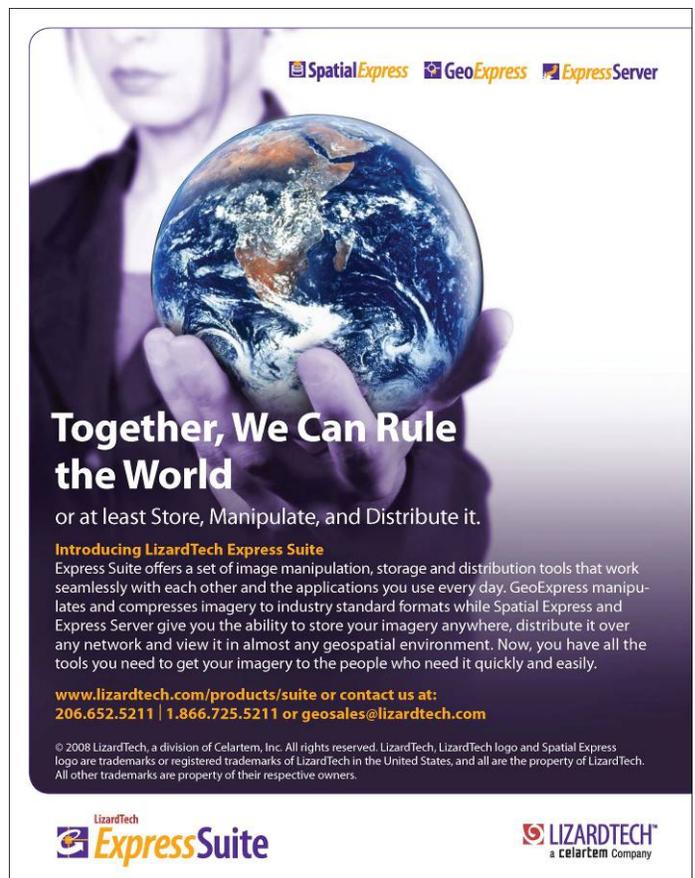
Concluding Thoughts and Ways to avoid the Follies

The GIS Certification Institute provides a way for GIS professionals to be recognized through education, work experience and contributions to the profession. Fields such as IT and Land Planning may share relevance in some topics like database design and systems analysis. The GISP is recognized as a unique professional with an ethical responsibility regarding implementation and management of GIS. Some land planners are geospatially competent and have become among the leaders in the GIS profession. They may have credentials as both an AICP, and GISP.

NCEES Model Rules (NCEES, 2009) qualify activities associated with the practice of land surveying, with a summary of activities that are not. They clarify distinctions for the survey product, based upon measurements through land survey methods. Land planning officials may not be aware of these distinctions of practice, since the rules were intended to clarify areas of ethical responsibility between surveying and GIS, and not specifically land planning.

Within the American Institute of Certified Planners Code of Ethics (AICP, 2009a), several rules of conduct may be of concern given the scenario presented above:

“1. We shall not deliberately or with reckless indifference fail to provide adequate, timely, clear and accurate information on planning issues.



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The metadata at Officialdom were generic in nature, disclaiming all layers for fitness of use; it may have helped if specific examples of inappropriate and appropriate uses were included. The exhibit should have included definitive statements disclaiming the locations of features and clarifying the work was not a land survey. The stamp and signature should not have been included.

Authority over use of the GIS should rest with the GIS lead. The GIS lead is uniquely qualified, where a planning official is not. Perhaps the most significant procedural folly was associating a GIS layer directly with policy or code. Those who use the GIS would benefit from training that takes them through a series of practical exercises that enable them to grasp limitations of layer data. After training, users could sign and retain a form acknowledging an understanding of limitations thus reinforcing responsible use. A similar process is associated with the delivery of substantial software systems.

Some problems may have been averted by designating a properly designed map product (at a particular scale) as the county's official source for the UGA. This may have helped to eliminate confusion associated with referencing a disclaimed GIS layer. Site specific procedures to resolve the UGA should be implemented. In this case, the GIS layer data should not be linked directly to policy or code; the data are not of sufficient quality. Planning officials and GIS managers should be consulting with land surveyors to assist with determinations.

Finally, when does someone know they might be practicing outside of their own professional competencies – particularly if maps and GIS layer information are thought of as graphics, or another field in the database? Maybe the future will bring model rules to address ethical issues between what is and what is not within the domain of the qualified GIS professional and those from IT or Land Planning?

Tim Leach, GISP
TimLeach3@comcast.net

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GEOGRAPHY AWARENESS WEEK @ WSDOT

By Rich Daniels, WSDOT

Geography Awareness Week & GIS Day 2009 was celebrated the week of November 16th at the Washington State DOT Headquarters in Olympia and offices in Tumwater. The highlight of the week was the annual GIS seminar held on Wednesday the 18th. Over 800 people stopped by one of the GIS displays during the week and 30 people attended the GIS Day Seminar. In addition, several people from Seattle, Wenatchee, and Spokane attended the seminar remotely via a conference phone bridge and a GoToMeeting web link.

The key papers presented at this year's GIS Day seminar included '*Howard Hanson Dam & Green River Valley Flood Impact Assessment*', '*Light Detection and Ranging (LiDAR) and its application on the SR 410 landslide*', and '*SR view 3, Traffic Planning Trends, and other Transportation Data Office Initiatives*'. SRview 3 is a map-enabled computer program that will replace SR view 2 in 2010 that allows users to view digital photographs of the state highway system captured at 1/100th mile increments while the *Traffic Planning Trends* application replaces the 250 page Annual Traffic Report (ATR) that previously was published annually by WSDOT.



WSDOT GIS Day Display

Contact Rich Daniels at danielr1@wsdot.wa.gov



PEOPLE ON THE MOVE!

Linda Gerull, GISP

After a very competitive selection process, **Linda Gerull GISP**, has been selected as the IT Director for Pierce County (Terry Hale retired). She will manage a \$19 million budget and 110 staff providing IT operations, software development and GIS services to county departments and subscribers.

Art Seeley, GISP

Art Seeley GISP, has moved to the acting GIS Manager position for Pierce County. He has 32 years of experience with the County and understands how GIS benefits a business process and can serve the community. He will be managing the 19 GIS staff, 85+ business systems and 40 TB of GIS data.

WSOT GIS Manager Retires

After 30 plus years with WSDOT, **George Spencer** retired on November 1st. **Mark Finch** (TDO) has accepted the position of acting Cartography/GIS Office Manager. **Randy Deer** is acting manager for Air photo, Photogrammetry, and Survey. George was the past chair for WAGIC and was one of the key drivers behind the creation of the Statewide Orthophoto program.

SEEKING GIS EMPLOYMENT IN WASHINGTON

K-Y Su

K-Y Su, recent Everett CC GIS graduate and peer tutor with GIS and environmental permitting/database experience; offering this and more experience to a Puget-area employer who needs to know "where?" Please read my resume at <http://waurisa.org/phpBB3/viewtopic.php?f=2&t=653>

'People on the Move' If you have a new hire or promotion to announce of someone who works with GIS in Washington State, send *The Summit* an announcement limited to no more than two sentences and 50 words with the following sample format:

'Moly Wide as been hired by General Projections Corporation as head of projections research and development. Ms. Wide has seven years experience in projections research and will be located in GPC's Tacoma office.'

'Seeking GIS Employment' If you are looking for GIS employment in Washington State, post your resume to the Washington GIS Community Bulletin Board (see: <http://waurisa.org/phpBB3/>) under the 'Jobs and Resumes' heading. Then send *The Summit* an announcement (one sentence with no more than 35 words) with the following sample format:

'Bill Stopay is a recent GRCC GIS program graduate looking for an entry level position with a GIS consulting firm in the Spokane area. For my resume, see: <http://waurisa.org/phpBB3/viewtopic.php?f=your>.

No links to email addresses, phone numbers, or company, agency, or personal websites will be permitted. Those wishing to be listed in the 'People on the Move' or 'Seeking GIS Employment' sections must be willing to have their email address included in the WAURISA email mailing list. *The Summit* reserves the right to edit or reject submissions at its discretion. Deadline for the Spring 2010 issue is March 26. Send submittals to: SUMMITGISNEWS@WAURISA.ORG.

THE SUMMIT AWARD

The **Summit Award** is given to the Washington State GIS Person of the Year during the Washington GIS Conference. It is given to a person who has contributed to the GIS Community in Washington State.

Criteria:

1. The person should have 5+ years of experience working in a GIS/IT field in the State of Washington and have shown a long-term commitment to the field.
2. The person should be known for their excellent work in the GIS/IT field. They should be known for successful projects that add value to the GIS/IT industry innovative solutions (with emphasis on local and statewide contributions).
3. The person should have given considerable volunteer time for GIS/IT Conferences, Monthly User Group Meetings, Seasonal Workshops, etc. (with emphasis on local and statewide contributions).
4. The person should have made efforts to share the wisdom of their GIS/IT experience to help other GIS/IT users through giving presentations, answering phone and email questions, etc. (with emphasis on local and statewide contributions).

Previous Winners

2009 - Marty Balikov - ESRI
 2008 - Mike Onzay - City of Mercer Island
 2007 - Donna Wendt - City of Tacoma
 2006 - Nancy Hultquist - Central Washington University, Geography Dept.
 2005 - Geoff Almvig - Skagit County
 2004 - Linda Gerull - Pierce County
 2003 - Richard "Dick" Thomas - Sammamish Plateau Water and Sewer District



FOLLOW WAURISA ON FACEBOOK & TWITTER



Please join WAURISA and the Washington GIS Conference on Twitter (<http://twitter.com/WAURISA> or @WAURISA) and on Facebook (<http://www.facebook.com/home.php?#/pages/2010-Washington-GIS-Conference/384819210493?ref=ts> or "2010 Washington GIS Conference").



GISCI EXECUTIVE DIRECTOR HIRED

By Wendy Nelson

(Des Plaines, IL) November 23, 2009 - After a comprehensive national search, the Board of Directors of the GIS Certification Institute (GISCI) is pleased to announce the hiring of its first full-time executive director, Sheila Wilson (GISP), effective December 1, 2009. This selection was made after a careful review of a great number of highly-qualified candidates. GISCI Board President Ed Arabas reflected, "Our organization is now at a critical juncture regarding future direction, and having an Executive Director that will dedicate her full-time energy to the issues surrounding the certification of GIS professionals will support the growth and maturity of members of the GIS industry."

Wilson has an extensive background in GIS and association management. Most recently, she has served as the Executive Director for the PODS (Pipeline Open Data Standard) Association, based in Sand Springs, OK. Her work there over the past three years focused on: the propagation of the pipeline data standard, support for the PODS Board and its committees, and strategic management of PODS resources. Prior to joining PODS, Sheila worked as a GIS Analyst in the petroleum industry. She has a PhD in Geology from the University of Tulsa, and has taught as an adjunct professor there since 2002.

For more information about the GIS Certification Institute, visit www.gisci.org.

URISA GRANTS A ONE YEAR COMPLIMENTARY MEMBERSHIP TO ALL NEW GISPs

Des Plaines, IL - January 11, 2010 - The URISA Board of Directors has voted to award new GIS Professionals (GISP) a complimentary one year membership valued at \$175. The title of GISP is granted by the GIS Certification Institute (GISCI) to those people who have met the educational, professional experience, and professional contribution requirements as set out by the GISCI. Beginning with the December 2009 class, all new GISPs (who are not already URISA members) are eligible for this free membership offer. URISA is granting this award in order to recognize the accomplishments and support the professional contributions of GISPs in the future.

About URISA: The Urban and Regional Information Systems Association (URISA) is a non-profit professional and educational association that promotes the effective and ethical use of spatial information and information technologies for the understanding and management of urban and regional systems. It is a multidisciplinary association where professionals from all parts of the spatial data community can come together and share concerns and ideas. (www.urisa.org)

About GISCI: The GIS Certification Institute (GISCI) is a tax-exempt not-for-profit organization that provides the geographic information systems (GIS) community with a complete professional certification program. Those who complete the certification program are GIS Professionals (GISP). GISCI offers participants from the first early years on the job until retirement a positive method of developing value for professionals and employers in the GIS profession. (www.gisci.org)

URISA JOURNAL MARKS TEN YEARS OF OPEN ACCESS PUBLISHING

December 17, 2009 (Des Plaines, IL) - Ten years after announcing that electronic copies of the URISA Journal would be made freely available to teachers and learners everywhere via the World Wide Web, the Journal's electronic archives have become one of the richest collections of open educational resources in the geospatial field.

As of December 2009 there are 196 peer-reviewed articles in 40 issues of the URISA Journal freely available at http://www.urisa.org/journal_archives.

The Journal is one of only three journals listed by the Directory of Open Access Journals (<http://www.doaj.org>) under the keyword "gis," and it is the only one to be ranked among 46 leading geographic information science (GIScience) journals by Caron and colleagues in 2008.

Caron and colleagues' combined a Delphi study of 40 international experts and a quantitative comparison of journal citation rates to identify and rank leading periodicals in the GIScience field.

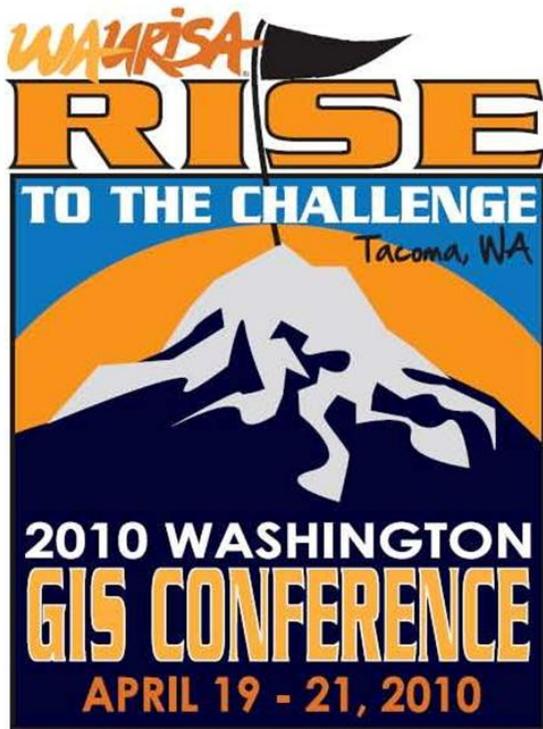
They ranked the URISA Journal 14th in relative importance among 46 periodicals. According to President Kathrine Cargo, "the sustained quality of the URISA Journal confirms the quality of our authors' research, the dedication and skill of our editorial team, and the viability of open access publishing. URISA is proud to contribute these valuable resources to the benefit of the geospatial enterprise worldwide."

In 1998-99 Harlan Onsrud offered to serve as editor on the condition that the URISA Board of Directors agreed to publish open-access version the journal. Onsrud was concerned about escalating costs of academic journal subscriptions, and about scholars' responsibility to "maximize dissemination of our works and our readership." At the time, URISA President Joseph Ferreira stated that "while commercial publishers best make progress through exclusivity and control, the URISA Journal editors believe that science and new knowledge is best advanced through an intellectual environment of openness and freedom" (URISA 1999)

References

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Wendy Nelson
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847-824-6300



GREATER TACOMA CONVENTION & TRADE CENTER

The 2010 Washington State GIS Conference, "Rise to the Challenge" will be held April 19-21 at the Greater Tacoma Convention & Trade Center.

WAURISA - the Washington State Chapter of the Urban & Regional Information Systems Association – is putting together a program that includes a day of educational workshops, access to leading GIS vendors, and two days of informative speakers from all corners of the State. The Conference is designed to help you learn from your colleagues, network with your peers, and build a solid GIS foundation for your career, your company, or your agency.

The pre-conference event begins on Monday with five confirmed half day workshops to choose from. The Workshops provide technical training from leading GIS practitioners. They have become a successful part of the annual Washington GIS Conference.

Latest Conference News at:

www.waurisa.org/conferences

On Tuesday, the conference begins with the keynote address by Ian Von Essen, Spokane County GIS Manager. Following the keynote, the Summit Award will be presented to the Washington State GIS Person of the Year.

Later on Tuesday and Wednesday you can choose from a wide variety of in-depth educational sessions presented by leading GIS practitioners from across Washington.

We will also have the annual poster and map competition to showcase some of the great work being accomplished around the State. Vendors will be on hand to demonstrate their products and answer any questions about services and products that they offer. Your registration also includes lunch and refreshments each day.

Confirmed Vendors

- ESRI
- King County GIS Center
- Latitude Geographics
- The PPI Group

Confirmed Monday Workshops:

- Python Scripting for Map Automation in ArcGIS 10.0
- Developing with the Silverlight API in ArcGIS Server 9.3.1
- Installing, Configuring & Using an SDE SQL Server Express GeoDatabase
- Open Source Tools for Spatial Analysis and Geoprocessing on the Desktop
- Using a Free & Open Source Geospatial Stack

Planned Educational Sessions:

- | | | | |
|-------------------------------------|-----------------------------|-----------------------|------------------------------|
| • GIS Management | • Census 2010 | • Open Source GIS | • CAD/GIS Integration |
| • GIS Best Practices | • The Lone GIS Professional | • Integrating Imagery | • Application Development |
| • Local, Regional, Tribal & Federal | • Natural Resources | • Cartography | • Utilities & Transportation |
| • Modeling & New Technology | • Public Safety | • Mobile GIS | • Planning |



Keynote Speaker: Ian Von Essen

Ian Von Essen manages the Spokane County GIS Program.

Earn GISCI Points!

Attend the 2010 Washington GIS Conference and earn GISCI education points for your GISP application or future renewal!

The GIS Certification Institute will award 0.2 GISCI education points for attending the Monday workshops and 0.1 points for each day you attend the educational sessions on Tuesday and Wednesday (subject to verification). For more information about GIS Certification, see: <http://www.gisci.org/>



Social Event: Join us in the vendor hall on Tuesday after the educational sessions ends for a reception and to meet the sponsors who help bring us the conference. Then stick around for a social event to unwind, meet friends old and new, and have fun. Social event details coming soon....

WAURISA

The Washington State Chapter of The Urban & Regional Information Systems Association

Serving Washington's GIS Community





GREATER TACOMA CONVENTION & TRADE CENTER

2010 Washington GIS Conference

April 19-21, Greater Tacoma Convention & Trade Center

Call for Papers,

WAURISA — The one local conference to choose.

- * Cost-effective Training
- * Top Quality Presentations
- * Affordable
- * Accessible Location
- * Well-attended by the GIS Community

April 19-21, Greater Tacoma Convention & Trade Center

[Call for Papers
www.waurisa.org](http://www.waurisa.org)

Presented by Washington URISA

Deadlines:

Abstract:

Feb. 5, 2010

Speaker Conference

Registration:

March 12, 2010

Email:
abstract@WAURISA.org

Subject:
WAURISA Presentation

WAURISA — the Washington State Chapter of Urban and Regional Information Systems Association — has begun accepting presentation proposals for the 2010 Washington GIS Conference to be held April 19-21 at the Greater Tacoma Convention & Trade Center in Tacoma, Washington. The conference theme for 2010 is **Rise to the Challenge**.

WAURISA is seeking potential speakers to provide fresh, dynamic solutions to today's challenges. Presentations are invited that address the broad subjects of interest to GIS practitioners such as:

- Rise to the Challenges of Today's Economics
- Operational Efficiencies
- Cartography
- Internet/WWW
- Local, Regional, Tribal, and Federal Government
- Natural Resources and Environment
- 3D Visualizations and Viewshed Analysis
- Open Source and Vendor Presentations
- Mobile GIS Solutions
- Modeling and New Technology
- Utilities and Transportation
- Planning
- Imagery and Remote Sensing
- CAD/GIS Integration
- GIS Management Best Practices
- Census 2010
- Many Other GIS Topics

This is an opportunity to share experience, expertise, and knowledge with colleagues and offer solutions for success. Individuals chosen to present will gain recognition by their peers, raise awareness of critical issues and identify current trends in the industry. The Presentations committee will select session presentations to represent a wide range of interests and levels of expertise. Selection will be based on the value of the proposed topic to the audience and the clarity of the abstract.

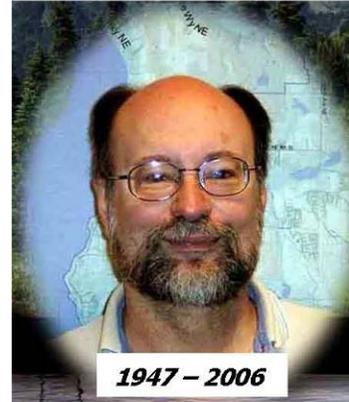
Four types of presentations are available:

- Student presentation, allotted 15 minutes — Enter the [Dick Thomas Competition](#)
- Individual presentation, allotted 25 minutes
- Panel discussion, allotted 90 minutes
- Maps and Posters

Abstracts must be limited to no more than 300 words, and must include: presentation title, type of presentation requested, and author information including complete contact information. A clear concise abstract is your best ticket to a logical track placement and a well-attended session.

Presenters at the 2010 Washington GIS Conference will earn 1 GISCI Contribution Point for Conference Presentation or Conference Poster Display in addition to points earned for attending the conference and being a member of WAURISA. **Speakers: If your paper is chosen for presentation you may attend the Monday workshops for only \$10 with your regularly paid conference registration.** Electronic submissions are preferred - please email to address at the left by February 5, 2010. Following is the format for the abstract.

**The 4th Annual
RICHARD "DICK" THOMAS MEMORIAL STUDENT
PRESENTATION COMPETITION & AWARD
at the
2010 Washington GIS Conference: April 21, 2010
Greater Tacoma Convention & Trade Center**



WAURISA, the **Washington State Chapter of the Urban and Regional Information Systems Association**, announces the 4th annual **Dick Thomas Memorial Student Presentation Competition & Award**. This award was established in 2006 to honor Washington State GIS pioneer and mentor **Richard 'Dick' Thomas**. The intent of this award is to honor Dick by continuing his work of encouraging students to excel in their studies and transition successfully into careers in the field of GIS. **WAURISA's** objective is to inspire students to present their original work related to GIS, geography, or geographic research at the annual **Washington GIS Conference**. For more information about the **Conference**, please visit: www.waurisa.org.

The **WAURISA Student Presentation Competition Committee** will select at least four (4) abstracts to be presented and judged during the Student Presentation Session at the **2010 Conference**. The **Committee** retains the prerogative to choose more than 4 abstracts to be presented. The **Committee** will screen all abstracts, select papers to be presented and judge the presentations during the **Conference**. **Competition** winners will be announced during the ending session of the **Conference**.

The competition is limited to: current students enrolled at least 6 hours in a relevant curriculum at a Washington State secondary school, community college, technical school, or university program; or current students enrolled at least 6 hours in a relevant curriculum of an on-line GIS program.

Entries must be the original work by the student(s); conducted as a school project or under the supervision of a student advisor or professor; while enrolled in a GIS, geography, technology, or related academic program. Papers should relate to geography, GIS, or allied technologies, as applied to a social, natural resource, business, government, or a similar subject.



The First Place winner will receive \$1000 cash; the Second Place winner will receive \$300 cash; and the Third Place winner will receive \$200 cash. All winners will receive additional prizes. **New this year: the student advisor or professor of the first place winner will also be awarded a cash prize of \$500.** In addition, student presenters will earn 1 GISCI Contribution Point for Conference Presentation in addition to points earned for attending the **2010 Conference**.

More information on the **Competition** can be found in the Dick Thomas Award Announcement & Guidelines on the Conference web site here: http://www.waurisa.org/conferences/2010_Conference_Index.html.

Deadline to submit abstracts: Wednesday, March 24, 2010

Presentation of Selected Papers: Wednesday April 21, 2010



2010 WAURISA CONFERENCE

APRIL 19-21, 2010

MAP POSTER CONTEST

Attention GIS Professionals!

This is an exciting opportunity to showcase your work and inspire your peers and colleagues with your interesting projects.

Not to mention the fame and fortune (prizes) you could win!

Here's how to enter:

1. Send a copy of your best poster or map by email to mapcontest@waurisa.org by Wednesday, April 14, 2010.
 - Include your name, organization or school, the title of your project, and your division (Professional or Student)
2. Then print out your entry on paper to submit for the contest. They do not need to be mounted. Please include your information as provided in the email entry along with your entry.
3. Your entry must be dropped off at the exhibit area by Tuesday morning, April 20th. The maps and posters will be on display Tuesday morning until noon on Wednesday, April 21st.
4. The 1st and 2nd place winners of both the professional and student divisions will be determined by the conference attendees' votes.
5. The winners will receive their fame when their names are announced and the fabulous prizes are awarded.

Questions? Please contact mapcontest@waurisa.org.

2010 WASHINGTON GIS CONFERENCE CALL FOR EXHIBITORS AND SPONSORS

Are you a vendor who supplies goods and services to the Washington State community of GIS professionals? The Washington Chapter of URISA invites you to exhibit at the 2010 Washington GIS Conference, to be held at the Greater Tacoma Convention and Trade Center on April 20-21, 2010, with pre-conference workshops on April 19.

The theme of this year's conference is to "Rise to the Challenge". The challenge for GIS professionals is to deliver quality geospatial products to their customers, in an environment of constrained resources – the very challenge that every vendor faces today. Where will you spend your marketing dollars this year to achieve your sales goals? WAURISA believes that the Washington GIS Conference provides the kind of valuable marketing opportunity you are looking for.

The Greater Tacoma Convention Center is a modern facility offering many amenities, including wireless internet access in all of the common areas. WAURISA's Conference Committee, mindful of feedback from vendors after last year's conference in Bellevue, has organized the layout of the vendor booths to maximize exposure to and interaction with the attendees. The vendor booths occupy the common areas, from the ballroom where the plenary sessions are held, to the four breakout session rooms. The mid-morning and mid-afternoon coffee break stations will also be located out amongst the vendor booths. 18 out of the possible 24 available booths come with basic electrical service – a \$75 dollar savings over last year. For 2010 sponsorship levels are offered at the same cost as last year:

	Mt. Olympus	Mt. Baker	Mt. Adams	Mt. Rainier
Cost	\$250	\$600	\$800	\$1000
Number of Booths	0	1	1	2
Conference Attendee Passes	0	1	2	3
1 yr WAURISA Sponsorship	No	No	Yes	Yes
Logo & Listing in Program	Yes	Yes	Yes	Yes
Listing on Conference Webpage†	Yes	Yes	Yes	Yes
Quarter Page Ad in Summit	No	No	Yes	No
Full Page Ad in Summit	No	No	No	Yes

This year two additional sponsorship opportunities are offered. One is for each of the four conference coffee breaks, where your company's logo will be prominently displayed at each of the two coffee stations. The second is for the vendor social, to be held Tuesday evening, which will feature food and a cash bar. Two half-round beverage sponsorships are available, where your company's logo is printed on the ticket provided to the attendees, and again on a prominently displayed sign.

The conference committee is investigating the use of social media to increase interest in the conference and help promote maximum attendance. As in years past, there will be a special vendor track available to those vendors who choose to exhibit at any of the four booth sponsorship levels. We have reserved a set of rooms at the Tacoma Courtyard Marriott, located just across the street from the Tacoma Convention center, for those vendors traveling from afar or who choose to stay close to the convention. We are working hard to provide value to the vendor community to encourage your participation.

If you have any questions you can contact vendorsupport@waurisa.org. We encourage you to visit the conference website, at http://www.waurisa.org/conferences/2010_Conference_Index.html, where you can find information on how to register, or to download a PDF describing sponsor services and logistics in greater detail.



WAURISA - TEN YEARS AGO**Washington State URISA**

Winter 1999 Newsletter of the Washington State Urban & Regional Information Systems Association

**Washington State
URISA Conference
Feb 24, 25 - Fife, Wa.****WELCOME From the President****2000 WaURISA Conference**

Facing the Future with GIS, "Planning Horizons in an Uncertain World"

REGISTRATION NOTICE

Planning for the Washington State Chapter of URISA 2000 conference is in full swing with 6 feature tracks, a Vendor's session and the popular Hot Applications/Cool GUIs. The following package contains a Registration form, a listing of some topics to be presented, a Call for Papers for those of you who might be inclined to present, nomination form for outstanding projects, individuals and programs, and the nomination form for next year's board (for current WaURISA members).

We ask that you register early so that we can get an accurate idea of attendance. The topics will be of interest to all GIS and information professionals and the conference will be an excellent venue for networking and interaction with your peers. There will also be a section set aside in the Vendor's area for you to place Posters and Maps of your work.

Please plan to attend and feel free to share this package with colleagues.

Sincerely,
Greg Cioc, President, WaURISA

Examples of Presentations include (to date):

- Census data and the development of the 2000 geometry
- State clearinghouse and framework efforts
- Congestion Management Systems
- Crime Star Applications
- GIS-T applications at Pierce County
- Wellhead Protection Programs
- Strategic GIS Planning
- Surveying as the basis for cadastral coverages
- Salmon and the ESA
- GPS as a travel time tool for Transit Speed and Reliability

2010 GIS/CAMA CONFERENCE



The program is organized according to these general program topics:

1. Economics and Assessment
2. Professional Development & Management Strategies
3. Property Valuation & Modeling Techniques
4. Technologies & Techniques

www.urisa.org/gis_cama

2009 URISA LEADERSHIP ACADEMY



URISA Leadership Academy
December 7-11, 2009 - Seattle, WA



2009 ULA Graduates.

For future information about ULA 2010, see:
www.urisa.org/ula



URISA's 48th Annual Conference for GIS Professionals

September 28 - October 1, 2010
Hilton Orlando Bonnet Creek
Call for Presentations Coming Soon

<http://www.urisa.org/conferences/aboutgis-pro>

Conference Schedule

- September 28 - Full-day training courses
- September 29 - Keynote Speaker, Exhibits, Educational Sessions, Luncheon, Networking Reception
- September 30 - Awards Breakfast, Educational Sessions, Exhibits, Networking Event
- October 1 Educational Sessions, Plenary Session Speaker, URISA Annual Meeting



August 16-18, 2010
Westin Charlotte - Charlotte, NC

The only conference where GIS professionals, addressing coordinators, 9-1-1 and emergency response specialists come together for education and networking.

Call for Presentations - Abstracts due February 18, 2010

www.urisa.org/conferences/Addressing/Info



The Association For **GIS** Professionals

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Jump To:



Have you seen the new URISA Website? See: www.URISA.ORG

WAURISA SPONSORS

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In addition to the paid sponsors listed on this page, WAURISA acknowledges support from the following agencies that provide chapter board members:

- City of Bellingham
- CH2M Hill
- City of Des Moines
- City of Seattle
- ESRI
- Port Madison GIS
- City of Olympia
- Pierce County
- Douglas County
- Wendt GIS
- King County GIS Center

THE SUMMIT - EDITORIAL

THE GIS PROFESSIONAL

GIS - what is it? Tool, technology, profession, or both? For the public at large it may seem like an 'academic' question. But for those of us who work with GIS every day it is useful to reflect on what it means to us and on our place in the world of GIS.

A major benefit is that many people can use GIS without even realizing it. GPS devices are more and more common, but consumer GPS products are highly dependent on underlying GIS data and applications to deliver locational intelligence.

Within the agencies and companies that many of us work for in Washington State, there are many off-the-shelf GIS products that are used to support the business needs of our organizations. Permitting, crime analysis, asset management, and maintenance management are just a few of the business areas well served by commercial GIS products. Data resources needed to power these applications are also becoming more readily available.

There seems to be a gradual divergence between those who use GIS in their jobs and those for whom GIS is their career. Is there a role for the GIS professional in the future? If there is, what is it and what will it become?

Putting GIS based tools in the hands of end users can only be a good thing. GIS professionals should promote this trend. GIS professionals spend much of their time doing one-off 'GIS projects.' These can be a set of maps, an analysis, or customizing an application. We should always ask ourselves '...is there some way I can help the end-user do this project themselves the next time?' In some cases the answer maybe 'no' – or more likely 'not yet.'

But wait – if we put all the tools in the hands of end users, what will there be left for 'GIS professionals' to do? Not to worry...as GIS tools become more ubiquitous, the demand by end-users for more capability is sure to grow. And as GIS tools become more powerful, skilled GIS professionals will be in ever greater demand to support the underlying technology and data.

GIS professionals also have a critical role to play in identifying new business needs and developing innovative GIS solutions to meet those needs. The 'academic' GIS based approach to a business problem like those that can be found in the URISA Journal will become the GIS product of the future. And there are always emerging business needs. Off the shelf GIS products cannot respond to events like the threat of flooding along the Green River that emerged this winter due to the Howard Hanson Dam issue, or more recently, the earthquake disaster in Haiti.

GISCI now lists more than 4,500 GISPs and rapidly growing. URISA is reinventing itself as the 'Association for GIS Professionals.' The need for GIS Professionals is secure for those who develop and maintain their knowledge, skills, and abilities.



The Summit is published by WAURISA. To encourage the discussion of issues and ideas of importance to the Washington GIS community we welcome letters to the editor or opinion essays. Letters to the editor should be a maximum of 100 words and essays should be limited to 500 words.

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For subscriptions, content, comments, or suggestions, email:

Summit@WAURISA.org

PUBLIC MAPS IN WASHINGTON

Gateway Park in Woodinville is the location of this decorative map set in tiles. It depicts Lake Washington, Woodinville, other surrounding communities, and the Sammamish River and Burke Gilman Trails. Located in a curved pergola that faces the Sammamish River, it is a pleasant place to stop and enjoy the scenery.



Map in Gateway Park, Woodinville

(Thanks to Lisa Castle for finding this map for *The Summit*)

Do you know of a public map display in Washington? Send it to *The Summit* and we'll include it in a future issue.

-Editor

THE SUMMIT – LITERARY CORNER

The BFG

"In the leading machine the Head of the Air Force was sitting beside the pilot. He had a world atlas on his knees and he kept staring first at the atlas, then at the ground below, trying to figure out where they were going. Frantically he turned the pages of the atlas. "Where the devil are we going?" he cried. "I haven't the foggiest idea" the pilot answered. "The Queen's orders were to follow the giant and that's exactly what I'm doing." The pilot was a young Air Force officer with a bushy moustache. He was very proud of his moustache. He was also quite fearless and he loved adventure. He thought this was a super adventure. "It's fun going to new places," he said. "New places!" shouted the Head of the Air Force. "What the blazes d'you mean new places?" "This place we're flying over now isn't in the atlas, is it?" the pilot said, grinning. "You're darn right it isn't in the atlas!" cried the Head of the Air Force. "We've flown clear off the last page!" "I expect that old giant knows where he's going", the young pilot said. "He's leading us to disaster!" cried the Head of the Air Force. He was shaking with fear. In the seat behind him sat the Head of the Army who was even more terrified. "You don't mean to tell me we've gone right out of the atlas?" he cried, leaning forward to look. "That's exactly what I am telling you!" cried the Air Force man. "Look for yourself. Here's the very last map in the whole flaming atlas! We went off that over an hour ago!" He turned the page. As in all atlases, there were two completely blank pages at the very end. "So now we must be somewhere here," he said, putting a finger on one of the blank pages. "Where's here?" cried the Head of the Army. The young pilot was still grinning broadly. He said to them, "That's why they always put two blank pages at the back of the atlas. They're for new countries. You're meant to fill them in yourself."

- Roald Dahl (1982)



GIS USER GROUPS IN WASHINGTON**ACSM – Washington State Section**

<http://www.wss-acsm.org/>

ASPRS Puget Sound Region

<http://www.photogrammetry.com/ASPRS-PSR/>

Cascadia Users of Geospatial Open Source

<http://groups.google.com/group/cugos/>

Contact Karsten Venneman at: karsten@terragis.net

Central Puget Sound GIS User Group

<http://waurisa.org/phpBB2/viewforum.php?f=24>

Contact Nora Gierloff at: ngierloff@ci.tukwila.wa.us

Central Washington GIS User Group

Meets the 2nd Wednesday of each month.

For information contact Amanda Taub at:

ataub@co.douglas.wa.us

King County GIS User Group

<http://www.kingcounty.gov/operations/GIS/UserGroups.aspx>

Meets 1st Wednesday every other month at 11:00am at the KCGIS Center, 201 S. Jackson Street, Seattle WA, Conf Room 7044/7045.

Northwest Washington GIS User Group

http://www.acadweb.wvu.edu/gis/nwgis_mtgs.htm

Southeast Washington/Northwest Oregon GIS User Group

For more information, contact Chris Owen:

cowen@ci.walla-walla.wa.us

Washington Geographic Information Council (WAGIC)

<http://wagic.wa.gov/>

Join Listserv at: <http://listserv.wa.gov/archives/wagic.html>

Washington Hazus Users Group

<http://www.usehazus.com/wahug>

Contact Gathy Walker at: c.walker@mil.wa.gov

To have your GIS related group or event listed in future issues of *The Summit*, notify the editor at:

SummitGISNews@URISA.org.

To be added to *The Summit* mailing list, contact:

Summit@WAURISA.org

Back issues of *The Summit* are available at:

<http://waurisa.org/thesummit/>

Interested in volunteering your time to help WAURISA?

Contact Don Burdick or any Board member listed to the right.

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